

Mythen Tango Cpp Class

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Mythen Class Identification :

Contact : at desy.de - andrea.parenti
 Class Family : Acquisition
 Platform : Unix Like
 Bus : Data Socket
 Manufacturer : PSI
 Manufacturer ref. : Mythen

Mythen Class Inheritance :

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

Mythen Class Description :

Device server for the Mythen detector.

Mythen Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
Hostname		String	none
Port	The detector port.	short	1952
DetectorId	The detector ID.	short	0
SimulationMode	0 real mode, 1 simulation mode.	short	0



Mythen 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.
Refresh	DEV_VOID	DEV_VOID	OPERATOR	Read all values and configurations, and update the values shown to the user.
StartAcquisition	DEV_VOID	DEV_VOID	OPERATOR	Start the acquisition.
StopAcquisition	DEV_VOID	DEV_VOID	OPERATOR	Stop the acquisition.
Reset	DEV_VOID	DEV_VOID	OPERATOR	Restart the mythen host.
GetData	DEV_VOID	DEV_VOID	OPERATOR	Get all data from the detector (if any), process them and write them to file according to the preferences already setup. In principle the method is not needed (when using StartAcquisition the files are written automatically to disk).
GetFrame	DEV_VOID	DEV_VOID	OPERATOR	Get a single frame from the detector (if any), processe it and write it to file according to the preferences already setup. In principle the method is not needed (when using StartAcquisition the files are written automatically to disk).
SetConfig	DEV_VOID	DEV_VOID	OPERATOR	Read the configuration file and set the values.
GetConfig	DEV_VOID	DEV_VOID	OPERATOR	Write the configurations to file.
SetParameters	DEV_VOID	DEV_VOID	OPERATOR	Read the detector parameters from file and set them.
GetParameters	DEV_VOID	DEV_VOID	OPERATOR	Write the main detector parameters to file.
ReadSetupFromFile	DEV_VOID	DEV_VOID	OPERATOR	Read the files specified (and that could be created by get setup) and reset the complete detector configuration including flatfield corrections, badchannels, trimbits etc.
SaveSetupToFile	DEV_VOID	DEV_VOID	OPERATOR	Writes the complete detector setup (including configuration, trimbits, flat field coefficients, Write the complete detector setup (including configuration, trimbits, flat field coefficients, badchannels etc.) in a set of files for which the extension is automatically generated.
ExtSigGet	DEV_SHORT	DEV_STRING	OPERATOR	Get usage of the external digital signal i.
ExtSigSet	DEV_STRING	DEV_STRING	OPERATOR	Set usage of the external digital signal i.
RunDigitalTest	DEV_VOID	DEV_VOID	OPERATOR	Make a digital test of the detector. Return 0 if it succeeds.
RunBusTest	DEV_VOID	DEV_VOID	OPERATOR	Make a test of the detector bus. Return 0 if it succeeds.
WriteTrimFile	DEV_VOID	DEV_VOID	OPERATOR	Trim the detector and write the trimfile.
GetFlatFieldCorrections	DEV_VOID	DEV_VOID	OPERATOR	Write the flat field corrections to file.
GetBadChannels	DEV_VOID	DEV_VOID	OPERATOR	Write the bad channels to file.
GetAngularConversions	DEV_VOID	DEV_VOID	OPERATOR	Write the angular conversion coefficients to file.

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 Refresh :

Read all values and configurations, and update the values shown to the user.

Refresh 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 StartAcquisition :

Start the 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	..

Command StopAcquisition :

Stop the acquisition.

StopAcquisition 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 Reset :

Restart the mythen host.

Reset 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 GetData :

Get all data from the detector (if any), process them and write them to file according to the preferences already setup.
 In principle the method is not needed (when using StartAcquisition the files are written automatically to disk).

GetData 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 GetFrame :

Get a single frame from the detector (if any), processe it and write it to file according to the preferences already setup.
 In principle the method is not needed (when using StartAcquisition the files are written automatically to disk).

GetFrame 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 SetConfig :

Read the configuration file and set the values.

SetConfig 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	..
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Command GetConfig :

Write the configurations to file.

GetConfig 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 SetParameters :

Read the detector parameters from file and set them.

SetParameters 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 GetParameters :

Write the main detector parameters to file.

GetParameters 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 ReadSetupFromFile :

Read the files specified (and that could be created by get setup) and reset the complete detector configuration including flatfield corrections, badchannels, trimbits etc.

ReadSetupFromFile 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 SaveSetupToFile :

Writes the complete detector setup (including configuration, trimbits, flat field coefficients, Write the complete detector setup (including configuration, trimbits, flat field coefficients, badchannels etc.) in a set of files for which the extension is automatically generated.

SaveSetupToFile 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 ExtSigGet :

Get usage of the external digital signal i.

ExtSigGet Definition		
Input Argument	Tango::DEV_SHORT	Index of the external digital signal
Output Argument	Tango::DEV_STRING	Usage of the external digital signal
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command ExtSigSet :

Set usage of the external digital signal i.

ExtSigSet Definition		
Input Argument	Tango::DEV_STRING	Index of the external digital signal and mode (eg: 1 off)
Output Argument	Tango::DEV_STRING	Usage of the external digital signal
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command RunDigitalTest :

Make a digital test of the detector.
Return 0 if it succeeds.

RunDigitalTest 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 RunBusTest :

Make a test of the detector bus.
Return 0 if it succeeds.

RunBusTest 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 WriteTrimFile :

Trim the detector and write the trimfile.

WriteTrimFile 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 GetFlatFieldCorrections :

Write the flat field corrections to file.

GetFlatFieldCorrections 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 GetBadChannels :

Write the bad channels to file.

GetBadChannels 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 GetAngularConversions :

Write the angular conversion coefficients to file.

GetAngularConversions 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	..

Mythen Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
Online	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	Detector is Online (1) or Offline (0).
ConfigFile	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	The name of the configuration file.
ParameterFile	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	File containing the main detector parameters for the measurement.
							This is the root of the filename for the complete detector setup (including

SetupFile	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	configuration, trimbits, flat field\ncoefficients, badchannels etc.). The extension is\nautomatically generated.
CalibrationDir	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	The path of the calibration files.
TrimDir	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	The path of the trim files.
TrimEnergies	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	The number of energies for which trimbit files exist\nand their value.\nString format: nen [e0 e1...en]
OutDir	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	The directory to which the files will be written by default.
OutFileName	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	The filename to which the files will be written by default\n(to which file and position indexes will eventually be\nattached).
OutFileIndex	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	The start index of the output files (automatically\nincremented by the acquisition functions).
EnableMerge	false	false	Scalar	READ_WRITE	Tango::DEV_BOOLEAN	OPERATOR	Set to `true` to enable merging of frames to a single image. Otherwise\nthey will be kept in OutDir.
MinFrames	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	If less than MinFrames frames are acquired, they are not merged in a\nsingle image, but just moved to MergeDir.
MergeDir	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	The directory to which the frames will be merged (or just moved).
MergeOngoing	false	false	Scalar	READ	Tango::DEV_BOOLEAN	OPERATOR	This flag is `true` when a merging is ongoing.
NMaxModules	false	false	Scalar	READ	Tango::DEV_SHORT	OPERATOR	The maximum number of detector modules.
NModules	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	
Settings	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	Detector settings. Can be:\n\nuninitialised\nstandard\nfast\nhighgain
Threshold	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	Detector threshold in eV.\nShould be half of the beam energy.\nIt is precise only if the detector is calibrated.\n
ExposureTime	false	false	Scalar	READ_WRITE	Tango::DEV_FLOAT	OPERATOR	The exposure time per frame (in s).
FramePeriod	false	false	Scalar	READ_WRITE	Tango::DEV_FLOAT	OPERATOR	The frame period (in s).
DelayAfterTrg	false	false	Scalar	READ_WRITE	Tango::DEV_FLOAT	OPERATOR	The delay after trigger (in s).
GatesPerFrame	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	The number of gates per frame.
FramesPerCycle	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	OPERATOR	The number of frames per cycle (e.g. after each trigger).
NCycles	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	The number of cycles (e.g. number of triggers).
NProbes	false	false	Scalar	READ_WRITE	Tango::DEV_SHORT	OPERATOR	The number of probes to

ModuleFirmwareVersion	false	false	Scalar	READ	Tango::DEV_LONG64	OPERATOR	version.
DetectorSerialNumber	false	false	Scalar	READ	Tango::DEV_LONG64	OPERATOR	The detector serial number (MAC address).
DetectorFirmwareVersion	false	false	Scalar	READ	Tango::DEV_LONG64	OPERATOR	The detector firmware version.
DetectorSoftwareVersion	false	false	Scalar	READ	Tango::DEV_LONG64	OPERATOR	The detector software version.
MythenSoftwareVersion	false	false	Scalar	READ	Tango::DEV_LONG64	OPERATOR	The mythen software version.
DigitalTestResult	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	Result of the Digital Test(s):\n0 test passed
BusTestResult	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	Result of the Bus Test:\n0 test passed\n
ExtSigResult	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	Result of the ExtSig Command.\n
Data	false	false	Spectrum	READ	Tango::DEV_ULONG	OPERATOR	Last image data.

There is no dynamic attribute defined.

Attribute Online :

Detector is Online (1) or Offline (0).

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
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	Online
unit	
standard unit	
display unit	
format	%1d
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	Not set

Attribute ConfigFile :

The name of the configuration file.

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

Attribute Properties	
label	Configuration File
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 ParameterFile :

File containing the main detector parameters for the measurement.

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

Attribute Properties	
label	Parameter File
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 SetupFile :

This is the root of the filename for the complete detector\setup (including configuration, trimbits, flat field\coefficients, badchannels etc.).
The extension is\nautomatically generated.

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

Attribute Properties	
label	Setup Root Name
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 CalibrationDir :

The path of the calibration 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	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Path of Calibration Files
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 TrimDir :

The path of the trim 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	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Path of Trim Files
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 TrimEnergies :

The number of energies for which trimbit files exist and their value. \nString format: nen [e0 e1...en]

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

Attribute Properties	
label	Trim Energies
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_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

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 OutDir :

The directory to which the files will be written by default.

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

Attribute Properties	
label	Output Directory
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 OutFileName :

The filename to which the files will be written by default (to which file and position indexes will eventually be attached).

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

Attribute Properties	
label	Output File Name
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

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

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 OutFileIndex :

The start index of the output files (automatically incremented by the acquisition functions).

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	Output File Index
unit	
standard unit	
display unit	
format	%6d
max_value	
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	Not set

Attribute EnableMerge :

Set to `true` to enable merging of frames to a single image. Otherwise they will be kept in OutDir.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE

Attribute Properties	
label	Enable Merge
unit	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set

Data Type	Tango::DEV_BOOLEAN
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
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	Not set

Attribute MinFrames :

If less than MinFrames frames are acquired, they are not merged in a single image, but just moved to MergeDir.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
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	Min. Frames
unit	
standard unit	
display unit	
format	%6d
max_value	
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	Not set

Attribute MergeDir :

The directory to which the frames will be merged (or just moved).

Attribute Definition	

Attribute Properties	

Attribute Event Criteria	
	Not

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

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

Periodic	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 MergeOngoing :

This flag is `true` when a merging is ongoing.

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	Merge Ongoing
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 NMaxModules :

The maximum number of detector modules.

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

Attribute Properties	
label	Max N. of Modules
unit	
standard unit	
display unit	
format	%6d
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 NModules :

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
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	N. of Modules
unit	
standard unit	
display unit	
format	%6d
max_value	
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	Not set

Attribute Settings :

Detector settings. Can be:\n uninitialised\n standard\n fast\n highgain

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

Attribute Properties	
label	Detector Settings
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 Threshold :

Detector threshold in eV.\nShould be half of the beam energy.\nIt is precise only if the detector is calibrated.\n

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
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	Detector Threshold
unit	eV
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 ExposureTime :

The exposure time per frame (in s).

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	Exposure Time
unit	s
standard unit	
display unit	
format	%6.2f
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 FramePeriod :

The frame period (in s).

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	Frame Period
unit	s
standard unit	
display unit	
format	%6.2f
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_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
Push DataReady event by user code	Not set

delta_time	
delta_val	

Attribute DelayAfterTrg :

The delay after trigger (in s).

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	Delay After Trigger
unit	s
standard unit	
display unit	
format	%.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 GatesPerFrame :

The number of gates per frame.

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

Attribute Properties	
label	Gates Per Frame
unit	
standard unit	
display unit	
format	%6d
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

Read allowed for	All states
Write allowed for	All states

min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

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 FramesPerCycle :

The number of frames per cycle (e.g. after each trigger).

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	Frames per Cycle
unit	
standard unit	
display unit	
format	%6d
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 NCycles :

The number of cycles (e.g. number of triggers).

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR

Attribute Properties	
label	N. of Cycles
unit	
standard unit	
display unit	

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

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

format	%6d
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 NProbes :

The number of probes to accumulate (max 3).

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
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	N. of Probes
unit	
standard unit	
display unit	
format	%1d
max_value	3
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	Not set

Attribute DynamicRange :

The dynamic range - can be 1, 4, 8,16 or 24 bits.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_SHORT
Display Level	OPERATOR

Attribute Properties	
label	Dynamic Range
unit	bits
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
Write 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	Not set

Attribute Flags :

Readout flags - can be none or storeinram.

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

Attribute Properties	
label	Flags
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 Threaded :

This tells whether the postprocessing and file writing of the data is done in a separate thread (0 sequential, 1 threaded). Check that it is set to 1 if you acquire real time measurements and/or use the storeinram option otherwise you risk to lose your data.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE

Attribute Properties	
label	Sequential or Threaded
unit	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set

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

standard unit	
display unit	
format	%1d
max_value	1
min_value	0
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 TrimMode :

Trims the detector and writes the trimfile.\nMode can be:noise, beam, improve, fix, offline.\nCheck that the start conditions are OK!!!

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

Attribute Properties	
label	Trim Mode
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 TrimFile :

Name of trimfile (without extension .snxx).\nCheck that the start conditions are OK!!!

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE

Attribute Properties	
label	Trim File
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	Not set
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	Not set

Attribute FlatFieldEnabled :

True when the flat field corrections are enabled.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_BOOLEAN
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	Enable Flatfield Corrections
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 FlatFieldFileName :

File containing the flat field corrections.

Attribute	
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Attribute	
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Attribute Event Criteria	
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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	Not set
Read allowed for	All states
Write allowed for	All states

Properties	
label	Flat Field File Name
unit	
standard unit	
display unit	
format	%s
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 RateCorrEnabled :

True when the rate corrections are enabled.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_BOOLEAN
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	Enable Rate Corrections
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 RateCorrDefault :

True when using default rate corrections.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_BOOLEAN
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	Use Default Rate Corrections
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 RateCorrDeadTime :

The dead time used for rate corrections.

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	Dead Time
unit	ns
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 BadChannelsEnabled :

True when the the bad channels corrections are enabled.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_BOOLEAN
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	Enable Bad Channels Corrections
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 BadChannelsFileName :

File containing the definition of the bad channels.

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

Attribute Properties	
label	Bad Channels File Name
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	

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

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

Attribute AngConvEnabled :

True when the the angular conversion is enabled.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_BOOLEAN
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	Angular Conversion
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 AngConvFileName :

File containing the definition of the angular conversion\ncoefficients.

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

Attribute Properties	
label	Angular Conversion File Name
unit	
standard unit	
display unit	
format	
max_value	
min_value	

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

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 GlobalOffset :

The fixed angular offset of your encoder should be almost constant!

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	Fixed angular Offset
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 FineOffset :

A possible angular offset of your setup should be small but can be senseful to modify.

Attribute Definition	
Attribute Type	Scalar

Attribute Properties	
	Angular

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set

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

label	Offset
unit	
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	Not set

Attribute BinSize :

The binning size of the angular conversion.

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	Binning of Angular Conversion
unit	
standard unit	
display unit	
format	
max_value	
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	Not set

Attribute Positions :

The number of positions at which the detector is moved during the acquisition and their values.
String format: np [pos0 pos1...posnp]

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

Attribute Properties	
label	Detector Positions
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 ModuleSerialNumber :

The module serial number(s).

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	Module Serial Number(s)
unit	
standard unit	
display unit	
format	%x
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 ModuleFirmwareVersion :

The module firmware version.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG64
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Module Firmware Version
unit	
standard unit	
display unit	
format	%x
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 DetectorSerialNumber :

The detector serial number (MAC address).

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG64
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Detector Serial Number
unit	
standard unit	
display unit	
format	%x
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	

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

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

Attribute DetectorFirmwareVersion :

The detector firmware version.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG64
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Detector Firmware Version
unit	
standard unit	
display unit	
format	%x
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 DetectorSoftwareVersion :

The detector software version.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG64
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled

Attribute Properties	
label	Detector Software Version
unit	
standard unit	
display unit	
format	%x
max_value	
min_value	

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

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 MythenSoftwareVersion :

The mythen software version.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG64
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Mythen Software Version
unit	
standard unit	
display unit	
format	%x
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 DigitalTestResult :

Result of the Digital Test(s):\n0 test passed

Attribute	

Attribute	

Attribute Event Criteria	

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

Properties	
label	Result of the Digital Test(s)
unit	
standard unit	
display unit	
format	%s
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 BusTestResult :

Result of the Bus Test:\n0 test passed\n

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	Result of the Bus Test
unit	
standard unit	
display unit	
format	%s
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 ExtSigResult :

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	Result of the ExtSig Get/Set Command
unit	
standard unit	
display unit	
format	%s
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 Data :

Last image data.

Attribute Definition	
Attribute Type	Spectrum (30720)
R/W Type	READ
Data Type	Tango::DEV_ULONG
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Last Image Data
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

Mythen Class States	
Name	Description
ON	Corresponds to the following detector states: transmitting, finished, waiting or idle.
OFF	Detector is offline.
MOVING	Corresponds to the following detector states: transmitting.
FAULT	Corresponds to the detector state: error.
UNKNOWN	None of the know detector states.