



TANGO
Device
Server

PerkinElmerDetector User's Guide

PerkinElmerDetector Class

Revision: - Author: tere29
Implemented in C++

Introduction:

Class for controlling the Perkin Elmer Detector.

Class Inheritance:

- Tango::Device_4Impl
 - PerkinElmerDetector

Properties:

Device Properties		
Property name	Property type	Description
ControllerDevice	Tango::DEV_STRING	Name of the PerkinElmerCtrl device to connect to.

Device Properties Default Values:

Property Name	Default Values
ControllerDevice	No default value

There is no Class properties.

States:

States	
Names	Descriptions
ON	
FAULT	
MOVING	

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
BinningMode: 0 no binnig, 1 2x2 binning	DEV_LONG	READ_WRITE	No
FileIndex	DEV_LONG	READ_WRITE	No
ExposureTime	DEV_FLOAT	READ_WRITE	No
SkippedAtStart: Number of exposures to skip before each acquisition sequence	DEV_LONG	READ_WRITE	No
SummedSaveImages: Number of exposures to sum for each saved image	DEV_LONG	READ_WRITE	No
SkippedBetweenSaved: Number of exposures to skip between each saved image	DEV_LONG	READ_WRITE	No
FilesAfterTrigger: Total number of files to take after trigger	DEV_LONG	READ_WRITE	No
FilesBeforeTrigger: Total number of files to take before trigger	DEV_LONG	READ_WRITE	No
SummedDarkImages: Number of exposures to sum for dark image	DEV_LONG	READ_WRITE	No
OutputDirectory: Directory where the files will be saved (belonging to the windows pc)	DEV_STRING	READ_WRITE	No
FilePattern: Base file name pattern. Files: -.tif, Dark: -.dark.tif, Raw:=-.raw.tif	DEV_STRING	READ_WRITE	No
FileName: Current file name.	DEV_STRING	READ	No
LogFile: Complete name (with path) of the log file.	DEV_STRING	READ_WRITE	No
UserComment1	DEV_STRING	READ_WRITE	No
CameraGain: Only the following values are possible: 0.25, 0.5, 1, 2, 4, 8 pF. Any other value will be set to the closest smaller one.	DEV_FLOAT	READ_WRITE	No

Commands:

More Details on commands....

Device Commands for Operator Level		
Command name	Argument In	Argument Out
Init	DEV_VOID	DEV_VOID
State	DEV_VOID	DEV_STATE
Status	DEV_VOID	CONST_DEV_STRING
UpdateReadoutSettings	DEV_VOID	DEV_VOID
AcquireRawImages	DEV_VOID	DEV_VOID
AcquireRawImagesAndSave	DEV_VOID	DEV_VOID
AcquireDarkImages	DEV_VOID	DEV_VOID
AcquireDarkImagesAndSave	DEV_VOID	DEV_VOID
AcquireSubtractedImages	DEV_VOID	DEV_VOID
AcquireSubtractedImagesAndSave	DEV_VOID	DEV_VOID

1 - Init

- **Description:** This commands re-initialise a device keeping the same network connection.
After an Init command executed on a device, it is not necessary for client to re-connect to the device.
This command first calls the device *delete_device()* method and then execute its *init_device()* method.
For C++ device server, all the memory allocated in the *nit_device()* method must be freed in the *delete_device()* method.
The language device desctructor automatically calls the *delete_device()* method.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_VOID : none.
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::MOVING

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.

- **Argout:**
DEV_STATE : State Code

- **Command allowed for:**

- Tango::ON
- Tango::FAULT
- Tango::MOVING

3 - Status

- **Description:** This command gets the device status (stored in its *device_status* data member) and returns it to the caller.

- **Argin:**
DEV_VOID : none.

- **Argout:**
CONST_DEV_STRING : Status description

- **Command allowed for:**

- Tango::ON
- Tango::FAULT
- Tango::MOVING

4 - UpdateReadoutSettings

- **Description:** Readout all detector parameters.

- **Argin:**
DEV_VOID :

- **Argout:**
DEV_VOID :

- **Command allowed for:**

- Tango::ON
- Tango::FAULT
- Tango::MOVING

5 - AcquireRawImages

- **Description:**

- **Argin:**

DEV_VOID :

- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::MOVING

6 - AcquireRawImagesAndSave

- **Description:**
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::MOVING

7 - AcquireDarkImages

- **Description:**
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::MOVING

8 - AcquireDarkImagesAndSave

- **Description:**
- **Argin:**

DEV_VOID :

- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::MOVING

9 - AcquireSubtractedImages

- **Description:**
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::MOVING

10 - AcquireSubtractedImagesAndSave

- **Description:**
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::ON
 - Tango::FAULT
 - Tango::MOVING

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