

## Pilatus detector

One should flush the detector with dry N<sub>2</sub>, about 15l/h.

- Login:

Turn on PC  
User: det  
PW: Pilatus2

- Switch on power supply detector:

Switch on power supply, switch on detector.

- Via Ethernet:

ssh -l det has.....

- Shell-Konsole:

>cd p2\_det  
>runtvx

*runtvx* starts camserver and TVX in separate windows and initialize the detector.

- First you have to select the energy! (see next page)

**The tvx server is by default disconnected so that the detector can be controlled by the tango server!**

If you want to use *tvx server*

\* connect

**Single shot in tvx**

\* expose xxx                      xxx = time in second

**Display image in tvx**

\* disp /home/det/p2\_det/images/image\_xxxxx.tif                      xxxxxx = image number

**Using Graphical Tango client (on the beamline PC):**

**In a shell**

>atkpanel device\_name

where device\_name = "Beamline name"/pilatus/100K (300K or 1M)

First you have to select the energy!

'half of the working energy in eV' in the atkpanel

In Camserver has.....

- First you have to select the energy!

setthreshold \_\_\_\_\_ ‘half of the working energy in eV’

|  
highg for (2000-9000)eV  
midg for (4000-11000)eV  
lowg for (6000-17000)eV

- Frames:

* ni xxx	xxx= number of images to record.	} exp - expt must be ≥ 0.003 seconds.
* expt xxx	xxx= exposure time in seconds.	
* expp xxx	xxx= exposure period in seconds.	
* expo test.tif	test = name of image.	

- External Control:

The Lemo – connector “*EXT IN*” on the back side of the detector module has to be connected. The level must swing to 3V.

In Camserver

**For external enable:**

* NImages xxx	xxx= number of images to record.
* ExtEnable test.tif	test = name of image.

The counter is enabled whenever the external pulse is high .

**For external multi trigger:**

* NImages xxx	xxx= number of images to record
* ExpTime tt	tt = exposure time
* ExtMTrigger filename.tif	filename = name of image

Each external pulse (rising edge) starts the internal timer.

**For external trigger:**

* NImages xxx	xxx= number of images to record
* ExpTime tt	tt = exposure time
* ExpPeriod tt	tt = exposure period
* ExtTrigger filename.tif	filename = name of image

The external pulse (rising edge) starts the internal sequence.

**Each of the above modes can be used with:**

* NexppFrame tt	tt = number of exposures per frame
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This parameter controls summation of exposures within the pixel (useful when triggering on a fast, repeating event).