

## Software Releases: EIGER Detector HDF5 NeXus Format

Date: 29. May 2015

### Version 1.0.0

- Comments: Initial version
- Known issues:
  - o Attribute “unit” instead of “units”
  - o Non NeXus standard attributes are used e.g. “unit”, “min”, ...

### Version 1.1.0

- Known issues:
  - o software\_version contains the following string “Jaun 0.6 / API 0.1” instead of “1.1.0”
  - o Attribute “unit” instead of “units”
  - o Non NeXus standard attributes are used e.g. “unit”, “min”, ...

### Version 1.2.0 (18.2.2015)

- Changes:
  - o Data sets are no longer stored directly under /entry/ but now in the h5 group /entry/data, which has the attribute NX\_class = NXdata. Full path to datasets /entry/data/data\_000001, ...
  - o Detector position is now at /entry/instrument/detector/geometry/translation/distances (before at /entry/instrument/detector/geometry/orientation)
  - o Detector rotation is now at /entry/instrument/detector/geometry/orientation/value (before at /entry/instrument/detector/geometry/translation)
  - o Wavelength is now /entry/instrument/beam/incident\_wavelength (before at /entry/instrument/beam/incident\_wavelength)
  - o NeXus conform attributes: only “units”

### Version 1.3.0 (29.5.2015)

- Changes:
  - o No changes compared to version 1.2.0

**DECTRIS EIGER NeXus information (header, data) : software\_version before 1.2.0**

Path	Name	Type	Unit	Description
/entry/instrument/beam/wavelength	wavelength	NX_FLOAT	A	Wavelength of the beam in the case of monochromatic beam
/entry/instrument/detector/beam_center_x	beam_center_x	NX_FLOAT		Beam center in x in pixels. This is necessary for efficiency correction. Default value: beam_center_x = 0.5* x_pixels_in_detector
/entry/instrument/detector/beam_center_y	beam_center_y	NX_FLOAT		Beam center in y in pixels. This is necessary for efficiency correction. Default value: beam_center_y = 0.5* y_pixels_in_detector
/entry/instrument/detector/bit_depth_readout	bit_depth_readout	NX_INT		Bit depth of the readout file
/entry/instrument/detector/count_time	count_time	NX_FLOAT	s	Exposure time per image, time during which detector counts X-rays
/entry/instrument/detector/countrate_correction_applied	countrate_correction_applied	NX_INT		Application of rate correction
/entry/instrument/detector/description	description	NX_CHAR		Information on detector type, model
/entry/instrument/detector/detectorSpecific/auto_summation	auto_summation	NX_INT		Auto-summation was used, i.e. images are composed of summed frames
/entry/instrument/detector/detectorSpecific/calibration_type	calibration_type	NX_CHAR		Dectris specific
/entry/instrument/detector/detectorSpecific/countrate_correction_bunch_mode	countrate_correction_bunch_mode	NX_CHAR		Bunch mode of the count rate correction. Default value: continuous
/entry/instrument/detector/detectorSpecific/data_collection_date	data_collection_date	NX_CHAR		Date and time of data collection in ISO 8601
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_count_cutoff	countrate_correction_count_cutoff	NX_UINT		Maximum number of counts possible due to count rate limitation after count rate correction
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_cutoff	countrate_correction_cutoff	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_lookup_table	countrate_correction_lookup_table	NX_UINT		Lookup table used for count rate correction
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_table	countrate_correction_table	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_origin	data_origin	NX_UINT		Position of module in image coordinates
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_rotation	data_rotation	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_size	data_size	NX_UINT		Size of module in number of pixels
/entry/instrument/detector/detectorSpecific/detectorModule_000/flatfield	flatfield	NX_FLOAT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/hv	hv	NX_FLOAT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/pixel_mask	pixel_mask	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_0	rxbias_0	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_1	rxbias_1	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_2	rxbias_2	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_3	rxbias_3	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/starven	starven	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/starvep	starvep	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/tgstv	tgstv	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/trimbit	trimbit	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcal	vcal	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vccn	vccn	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vccp	vccp	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_0	vcmp_0	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_1	vcmp_1	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_2	vcmp_2	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_3	vcmp_3	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vdda	vdda	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vddc	vddc	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vddd	vddd	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vdddio	vdddio	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vish	vish	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vrfp	vrfp	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vrfs	vrfs	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vtrm	vtrm	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detector_readout_period	detector_readout_period	NX_FLOAT	s	To be described by Dectris

/entry/instrument/detector/detectorSpecific/element	element	NX_CHAR	To be described by Dectris
/entry/instrument/detector/detectorSpecific/flatfield	flatfield	NX_FLOAT	Flatfield correction data
/entry/instrument/detector/detectorSpecific/frame_count_time	frame_count_time	NX_FLOAT s	To be described by Dectris
/entry/instrument/detector/detectorSpecific/frame_period	frame_period	NX_FLOAT s	To be described by Dectris
/entry/instrument/detector/detectorSpecific/nframes_sum	nframes_sum	NX_UINT	To be described by Dectris
/entry/instrument/detector/detectorSpecific/nimages	nimages	NX_UINT	Number of images
/entry/instrument/detector/detectorSpecific/nsequences	nsequences	NX_UINT	To be described by Dectris
/entry/instrument/detector/detectorSpecific/ntrigger	ntrigger	NX_UINT	To be described by Dectris
/entry/instrument/detector/detectorSpecific/number_of_excluded_pixels	number_of_excluded_pixels	NX_UINT	Number of excluded (unreliable) pixels
/entry/instrument/detector/detectorSpecific/photon_energy	photon_energy	NX_FLOAT eV	Photon energy, default value: photon_energy = 2* threshold_energy
/entry/instrument/detector/detectorSpecific/pixel_mask	pixel_mask	NX_UINT	Contains a bit field for each pixel to signal dead, blind or high or otherwise unwanted or undesirable pixels.
/entry/instrument/detector/detectorSpecific/software_version	software_version	NX_CHAR	Software version used for data acquisition
/entry/instrument/detector/detectorSpecific/summation_nimages	summation_nimages	NX_UINT	To be described by Dectris
/entry/instrument/detector/detectorSpecific/trigger_mode	trigger_mode	NX_CHAR	Trigger mode, e.g. externally_triggered, software control
/entry/instrument/detector/detectorSpecific/x_pixels_in_detector	x_pixels_in_detector	NX_UINT	Number of pixels in detector in x direction
/entry/instrument/detector/detectorSpecific/y_pixels_in_detector	y_pixels_in_detector	NX_UINT	Number of pixels in detector in y direction
/entry/instrument/detector/detector_distance	detector_distance	NX_FLOAT m	Distance to detector
/entry/instrument/detector/detector_number	detector_number	NX_CHAR	Detector serial number
/entry/instrument/detector/detector_readout_time	detector_readout_time	NX_FLOAT s	Readout time of the detector for non-continuous readout (PILATUS) or dead time of continuous readout (EIGER). This defines the minimum time after which the detector can count again and acquire the next frame.
/entry/instrument/detector/efficiency_correction_applied	efficiency_correction_applied	NX_INT	Application of sensor efficiency correction
/entry/instrument/detector/flatfield_correction_applied	flatfield_correction_applied	NX_INT	Application of flatfield correction
/entry/instrument/detector/frame_time	frame_time	NX_FLOAT s	Time interval between start of image acquisitions. This defines the speed of data collection and is inversely proportional to frame rate, the frequency of image acquisition. This parameter is recorded as "exposure_period" for PILATUS.
/entry/instrument/detector/geometry/orientation	orientation	NX_FLOAT	To be described by Dectris
/entry/instrument/detector/geometry/translation	translation	NX_FLOAT	To be described by Dectris
/entry/instrument/detector/pixel_mask_applied	pixel_mask_applied	NX_INT	Application of pixel mask to data
/entry/instrument/detector/sensor_material	sensor_material	NX_CHAR	Sensor material, e.g. Si
/entry/instrument/detector/sensor_thickness	sensor_thickness	NX_FLOAT m	Thickness of the sensor
/entry/instrument/detector/threshold_energy	threshold_energy	NX_FLOAT eV	Threshold energy of the detector
/entry/instrument/detector/virtual_pixel_correction_applied	virtual_pixel_correction_applied	NX_INT	Application of virtual pixel correction
/entry/instrument/detector/x_pixel_size	x_pixel_size	NX_FLOAT m	Pixel size in x
/entry/instrument/detector/y_pixel_size	y_pixel_size	NX_FLOAT m	Pixel size in y

**DECTRIS EIGER NeXus information (header, data) : software\_version 1.2.0 and later**

Path	Name	Type	Unit	Description
/entry/instrument/beam/incident_wavelength	incident_wavelength	NX_FLOAT	A	Wavelength of the beam in the case of monochromatic beam
/entry/instrument/detector/beam_center_x	beam_center_x	NX_FLOAT		Beam center in x in pixels. This is necessary for efficiency correction. Default value: beam_center_x = 0.5* x_pixels_in_detector
/entry/instrument/detector/beam_center_y	beam_center_y	NX_FLOAT		Beam center in y in pixels. This is necessary for efficiency correction. Default value: beam_center_y = 0.5* y_pixels_in_detector
/entry/instrument/detector/bit_depth_readout	bit_depth_readout	NX_INT		Bit depth of the readout file
/entry/instrument/detector/count_time	count_time	NX_FLOAT	s	Exposure time per image, time during which detector counts X-rays
/entry/instrument/detector/countrate_correction_applied	countrate_correction_applied	NX_INT		Application of rate correction
/entry/instrument/detector/description	description	NX_CHAR		Information on detector type, model
/entry/instrument/detector/detectorSpecific/auto_summation	auto_summation	NX_INT		Auto-summation was used, i.e. images are composed of summed frames
/entry/instrument/detector/detectorSpecific/calibration_type	calibration_type	NX_CHAR		Dectris specific
/entry/instrument/detector/detectorSpecific/countrate_correction_bunch_mode	countrate_correction_bunch_mode	NX_CHAR		Bunch mode of the count rate correction. Default value: continuous
/entry/instrument/detector/detectorSpecific/data_collection_date	data_collection_date	NX_CHAR		Date and time of data collection in ISO 8601
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_count_cutoff	countrate_correction_count_cutoff	NX_UINT		Maximum number of counts possible due to count rate limitation after count rate correction
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_cutoff	countrate_correction_cutoff	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_lookup_table	countrate_correction_lookup_table	NX_UINT		Lookup table used for count rate correction
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_table	countrate_correction_table	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_origin	data_origin	NX_UINT		Position of module in image coordinates
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_rotation	data_rotation	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_size	data_size	NX_UINT		Size of module in number of pixels
/entry/instrument/detector/detectorSpecific/detectorModule_000/flatfield	flatfield	NX_FLOAT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/hv	hv	NX_FLOAT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/pixel_mask	pixel_mask	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_0	rxbias_0	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_1	rxbias_1	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_2	rxbias_2	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_3	rxbias_3	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/starven	starven	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/starvep	starvep	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/stream	stream	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/tgstv	tgstv	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/trimbit	trimbit	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcal	vcal	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vccn	vccn	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vccp	vccp	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_0	vcmp_0	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_1	vcmp_1	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_2	vcmp_2	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_3	vcmp_3	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vdda	vdda	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vddc	vddc	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vddd	vddd	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vdddio	vdddio	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vish	vish	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vrfp	vrfp	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vrfs	vrfs	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vtrm	vtrm	NX_UINT		Dectris specific

/entry/instrument/detector/detectorSpecific/detector_readout_period	detector_readout_period	NX_FLOAT	s	To be described by Dectris
/entry/instrument/detector/detectorSpecific/element	element	NX_CHAR		To be described by Dectris
/entry/instrument/detector/detectorSpecific/flatfield	flatfield	NX_FLOAT		Flatfield correction data
/entry/instrument/detector/detectorSpecific/frame_count_time	frame_count_time	NX_FLOAT	s	To be described by Dectris
/entry/instrument/detector/detectorSpecific/frame_period	frame_period	NX_FLOAT	s	To be described by Dectris
/entry/instrument/detector/detectorSpecific/nframes_sum	nframes_sum	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/nimages	nimages	NX_UINT		Number of images
/entry/instrument/detector/detectorSpecific/nsequences	nsequences	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/ntrigger	ntrigger	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/number_of_excluded_pixels	number_of_excluded_pixels	NX_UINT		Number of excluded (unreliable) pixels
/entry/instrument/detector/detectorSpecific/photon_energy	photon_energy	NX_FLOAT	eV	Photon energy, default value: photon_energy = 2* threshold_energy
/entry/instrument/detector/detectorSpecific/pixel_mask	pixel_mask	NX_UINT		Contains a bit field for each pixel to signal dead, blind or high or otherwise unwanted or undesirable pixels.
/entry/instrument/detector/detectorSpecific/software_version	software_version	NX_CHAR		Software version used for data acquisition
/entry/instrument/detector/detectorSpecific/summation_nimages	summation_nimages	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/trigger_mode	trigger_mode	NX_CHAR		Trigger mode, e.g. externally_triggered, software control
/entry/instrument/detector/detectorSpecific/x_pixels_in_detector	x_pixels_in_detector	NX_UINT		Number of pixels in detector in x direction
/entry/instrument/detector/detectorSpecific/y_pixels_in_detector	y_pixels_in_detector	NX_UINT		Number of pixels in detector in y direction
/entry/instrument/detector/detector_distance	detector_distance	NX_FLOAT	m	Distance to detector
/entry/instrument/detector/detector_number	detector_number	NX_CHAR		Detector serial number
/entry/instrument/detector/detector_readout_time	detector_readout_time	NX_FLOAT	s	Readout time of the detector for non-continuous readout (PILATUS) or dead time of continuous readout (EIGER). This defines the minimum time after which the detector can count again and acquire the next frame.
/entry/instrument/detector/efficiency_correction_applied	efficiency_correction_applied	NX_INT		Application of sensor efficiency correction
/entry/instrument/detector/flatfield_correction_applied	flatfield_correction_applied	NX_INT		Application of flatfield correction
/entry/instrument/detector/frame_time	frame_time	NX_FLOAT	s	Time interval between start of image acquisitions. This defines the speed of data collection and is inversely proportional to frame rate, the frequency of image acquisition. This parameter is recorded as "exposure_period" for PILATUS.
/entry/instrument/detector/geometry/orientation/value	value	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/geometry/translation/distances	distances	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/pixel_mask_applied	pixel_mask_applied	NX_INT		Application of pixel mask to data
/entry/instrument/detector/sensor_material	sensor_material	NX_CHAR		Sensor material, e.g. Si
/entry/instrument/detector/sensor_thickness	sensor_thickness	NX_FLOAT	m	Thickness of the sensor
/entry/instrument/detector/threshold_energy	threshold_energy	NX_FLOAT	eV	Threshold energy of the detector
/entry/instrument/detector/virtual_pixel_correction_applied	virtual_pixel_correction_applied	NX_INT		Application of virtual pixel correction
/entry/instrument/detector/x_pixel_size	x_pixel_size	NX_FLOAT	m	Pixel size in x
/entry/instrument/detector/y_pixel_size	y_pixel_size	NX_FLOAT	m	Pixel size in y

**DECTRIS EIGER NeXus information (header, data) : software\_version 1.3.0 and later**

Path	Name	Type	Unit	Description
/entry/instrument/beam/incident_wavelength	incident_wavelength	NX_FLOAT	A	Wavelength of the beam in the case of monochromatic beam
/entry/instrument/detector/beam_center_x	beam_center_x	NX_FLOAT		Beam center in x in pixels. This is necessary for efficiency correction. Default value: beam_center_x = 0.5* x_pixels_in_detector
/entry/instrument/detector/beam_center_y	beam_center_y	NX_FLOAT		Beam center in y in pixels. This is necessary for efficiency correction. Default value: beam_center_y = 0.5* y_pixels_in_detector
/entry/instrument/detector/bit_depth_readout	bit_depth_readout	NX_INT		Bit depth of the readout file
/entry/instrument/detector/count_time	count_time	NX_FLOAT	s	Exposure time per image, time during which detector counts X-rays
/entry/instrument/detector/countrate_correction_applied	countrate_correction_applied	NX_INT		Application of rate correction
/entry/instrument/detector/description	description	NX_CHAR		Information on detector type, model
/entry/instrument/detector/detectorSpecific/auto_summation	auto_summation	NX_INT		Auto-summation was used, i.e. images are composed of summed frames
/entry/instrument/detector/detectorSpecific/calibration_type	calibration_type	NX_CHAR		Dectris specific
/entry/instrument/detector/detectorSpecific/countrate_correction_bunch_mode	countrate_correction_bunch_mode	NX_CHAR		Bunch mode of the count rate correction. Default value: continuous
/entry/instrument/detector/detectorSpecific/data_collection_date	data_collection_date	NX_CHAR		Date and time of data collection in ISO 8601
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_count_cutoff	countrate_correction_count_cutoff	NX_UINT		Maximum number of counts possible due to count rate limitation after count rate correction
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_cutoff	countrate_correction_cutoff	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_lookup_table	countrate_correction_lookup_table	NX_UINT		Lookup table used for count rate correction
/entry/instrument/detector/detectorSpecific/detectorModule_000/countrate_correction_table	countrate_correction_table	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_origin	data_origin	NX_UINT		Position of module in image coordinates
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_rotation	data_rotation	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/detectorModule_000/data_size	data_size	NX_UINT		Size of module in number of pixels
/entry/instrument/detector/detectorSpecific/detectorModule_000/flatfield	flatfield	NX_FLOAT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/hv	hv	NX_FLOAT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/pixel_mask	pixel_mask	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_0	rxbias_0	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_1	rxbias_1	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_2	rxbias_2	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/rxbias_3	rxbias_3	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/starven	starven	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/starvep	starvep	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/stream	stream	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/tgstv	tgstv	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/trimbit	trimbit	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcal	vcal	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vccn	vccn	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vccp	vccp	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_0	vcmp_0	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_1	vcmp_1	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_2	vcmp_2	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vcmp_3	vcmp_3	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vdda	vdda	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vddc	vddc	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vddd	vddd	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vdddio	vdddio	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vish	vish	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vrfp	vrfp	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vrfs	vrfs	NX_UINT		Dectris specific
/entry/instrument/detector/detectorSpecific/detectorModule_000/vtrm	vtrm	NX_UINT		Dectris specific

/entry/instrument/detector/detectorSpecific/detector_readout_period	detector_readout_period	NX_FLOAT	s	To be described by Dectris
/entry/instrument/detector/detectorSpecific/element	element	NX_CHAR		To be described by Dectris
/entry/instrument/detector/detectorSpecific/flatfield	flatfield	NX_FLOAT		Flatfield correction data
/entry/instrument/detector/detectorSpecific/frame_count_time	frame_count_time	NX_FLOAT	s	To be described by Dectris
/entry/instrument/detector/detectorSpecific/frame_period	frame_period	NX_FLOAT	s	To be described by Dectris
/entry/instrument/detector/detectorSpecific/nframes_sum	nframes_sum	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/nimages	nimages	NX_UINT		Number of images
/entry/instrument/detector/detectorSpecific/nsequences	nsequences	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/ntrigger	ntrigger	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/number_of_excluded_pixels	number_of_excluded_pixels	NX_UINT		Number of excluded (unreliable) pixels
/entry/instrument/detector/detectorSpecific/photon_energy	photon_energy	NX_FLOAT	eV	Photon energy, default value: photon_energy = 2* threshold_energy
/entry/instrument/detector/detectorSpecific/pixel_mask	pixel_mask	NX_UINT		Contains a bit field for each pixel to signal dead, blind or high or otherwise unwanted or undesirable pixels.
/entry/instrument/detector/detectorSpecific/software_version	software_version	NX_CHAR		Software version used for data acquisition
/entry/instrument/detector/detectorSpecific/summation_nimages	summation_nimages	NX_UINT		To be described by Dectris
/entry/instrument/detector/detectorSpecific/trigger_mode	trigger_mode	NX_CHAR		Trigger mode, e.g. externally_triggered, software control
/entry/instrument/detector/detectorSpecific/x_pixels_in_detector	x_pixels_in_detector	NX_UINT		Number of pixels in detector in x direction
/entry/instrument/detector/detectorSpecific/y_pixels_in_detector	y_pixels_in_detector	NX_UINT		Number of pixels in detector in y direction
/entry/instrument/detector/detector_distance	detector_distance	NX_FLOAT	m	Distance to detector
/entry/instrument/detector/detector_number	detector_number	NX_CHAR		Detector serial number
/entry/instrument/detector/detector_readout_time	detector_readout_time	NX_FLOAT	s	Readout time of the detector for non-continuous readout (PILATUS) or dead time of continuous readout (EIGER). This defines the minimum time after which the detector can count again and acquire the next frame.
/entry/instrument/detector/efficiency_correction_applied	efficiency_correction_applied	NX_INT		Application of sensor efficiency correction
/entry/instrument/detector/flatfield_correction_applied	flatfield_correction_applied	NX_INT		Application of flatfield correction
/entry/instrument/detector/frame_time	frame_time	NX_FLOAT	s	Time interval between start of image acquisitions. This defines the speed of data collection and is inversely proportional to frame rate, the frequency of image acquisition. This parameter is recorded as "exposure_period" for PILATUS.
/entry/instrument/detector/geometry/orientation/value	value	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/geometry/translation/distances	distances	NX_FLOAT		To be described by Dectris
/entry/instrument/detector/pixel_mask_applied	pixel_mask_applied	NX_INT		Application of pixel mask to data
/entry/instrument/detector/sensor_material	sensor_material	NX_CHAR		Sensor material, e.g. Si
/entry/instrument/detector/sensor_thickness	sensor_thickness	NX_FLOAT	m	Thickness of the sensor
/entry/instrument/detector/threshold_energy	threshold_energy	NX_FLOAT	eV	Threshold energy of the detector
/entry/instrument/detector/virtual_pixel_correction_applied	virtual_pixel_correction_applied	NX_INT		Application of virtual pixel correction
/entry/instrument/detector/x_pixel_size	x_pixel_size	NX_FLOAT	m	Pixel size in x
/entry/instrument/detector/y_pixel_size	y_pixel_size	NX_FLOAT	m	Pixel size in y