allPXA SWIR

Features Reference

allPIXA SWIR Camera XML Version 4.5.5
allPixaSwirFeatureRef_PCKv1.3.3_XMLv4.5.5.docx
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Table of Contents

1 DeviceControl

1.1 DeviceType

Name	DeviceType
NameSpace	Standard
Interface	Enumeration
ToolTip	Returns the device type.
Description	
DisplayName	Device Type
Visibility	Guru
ImposedAccessMode	RO

1.1.1 EnumEntries DeviceType

Name[1]	DisplayName	ToolTip	Description
Transmitter	Transmitter	Data stream transmitter device.	
Receiver	Receiver	Data stream receiver device.	
Transceiver	Transceiver	Data stream receiver and transmitter device.	
Peripheral	Peripheral	Controllable device (with no data stream handling).	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

1.2 DeviceScanType

Name	DeviceScanType
NameSpace	Standard
Interface	Enumeration
ToolTip	Scan type of the sensor of the device.
Description	
DisplayName	Device Scan Type
Visibility	Expert
ImposedAccessMode	RO

1.2.1 EnumEntries DeviceScanType

Name[1]	DisplayName	ToolTip	Description
Areascan	Areascan	2D sensor outputting an image created from a unique sensor acquisition.	
Linescan	Linescan	1D sensor outputting an image acquired line by line.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

1.3 DeviceVendorName

Name	DeviceVendorName
NameSpace	Standard

Interface	StringReg
ToolTip	Name of the manufacturer of the device.
Description	
DisplayName	Device Vendor Name
Visibility	Beginner
ImposedAccessMode	RO
Length	32
AccessMode	RO

1.4 DeviceModelName

Name	DeviceModelName
NameSpace	Standard
Interface	StringReg
ToolTip	Model of the device.
Description	
DisplayName	Device Model Name
Visibility	Beginner
ImposedAccessMode	RO
Length	32
AccessMode	RO

1.5 DeviceVersion

Name	DeviceVersion
NameSpace	Standard
Interface	StringReg
ToolTip	Version of the device.
Description	
DisplayName	Device Version
Visibility	Expert
ImposedAccessMode	RO
Length	32
AccessMode	RO

1.6 DeviceFirmwareVersion

Name	DeviceFirmwareVersion
NameSpace	Standard
Interface	StringReg
ToolTip	Version of the firmware currently running in the device.
Description	
DisplayName	Device Firmware Version

Visibility	Beginner
ImposedAccessMode	RO
Length	64
AccessMode	RO

1.7 DeviceSerialNumber

Name	DeviceSerialNumber
NameSpace	Standard
Interface	StringReg
ToolTip	Serial number of the device.
Description	
DisplayName	Device Serial Number
Visibility	Expert
Length	16
AccessMode	RO

1.8 DeviceSFNCVersionMajor

Name	DeviceSFNCVersionMajor
NameSpace	Standard
Interface	Integer
ToolTip	Major version of the Standard Features Naming Convention that was used to create the device's GenICam XML.
Description	
DisplayName	Device SFNC Version Major
Visibility	Beginner
ImposedAccessMode	RO
Value	2

1.9 DeviceSFNCVersionMinor

Name	DeviceSFNCVersionMinor
NameSpace	Standard
Interface	Integer
ToolTip	Minor version of the Standard Features Naming Convention that was used to create the device's GenICam XML.
Description	
DisplayName	Device SFNC Version Minor
Visibility	Beginner
ImposedAccessMode	RO
Value	7

1.10 DeviceSFNCVersionSubMinor

Name	DeviceSFNCVersionSubMinor
NameSpace	Standard
Interface	Integer
ToolTip	Sub minor version of Standard Features Naming Convention that was used to create the device's GenICam XML.
Description	
DisplayName	Device SFNC Version Sub Minor
Visibility	Beginner
ImposedAccessMode	RO
Value	0

1.11 DeviceManifestEntrySelector

Name	DeviceManifestEntrySelector
NameSpace	Standard
Interface	Integer
ToolTip	Selects the manifest entry to reference.
Description	
DisplayName	Device Manifest Entry Selector
Visibility	Guru
ImposedAccessMode	RO
Value	0
pSelected	DeviceManifestXMLMajorVersion
pSelected	DeviceManifestXMLMinorVersion
pSelected	DeviceManifestXMLSubMinorVersion

1.12 DeviceManifestXMLMajorVersion

Name	DeviceManifestXMLMajorVersion[DeviceManifestEntrySelector]
NameSpace	Standard
Interface	Integer
ToolTip	Indicates the major version number of the GenICam XML file of the selected manifest entry.
Description	
DisplayName	Device XML Version Major
Visibility	Guru
ImposedAccessMode	RO

1.13 DeviceManifestXMLMinorVersion

Name	DeviceManifestXMLMinorVersion[DeviceManifestEntrySelector]
NameSpace	Standard
Interface	Integer

ToolTip	Indicates the minor version number of the GenICam XML file of the selected manifest entry.
Description	
DisplayName	Device XML Version Minor
Visibility	Guru
ImposedAccessMode	RO

1.14 DeviceManifestXMLSubMinorVersion

Name	DeviceManifestXMLSubMinorVersion[DeviceManifestEntrySelector]
NameSpace	Standard
Interface	Integer
ToolTip	Indicates the Sub minor version number of the GenICam XML file of the selected manifest entry.
Description	
DisplayName	Device XML Version SubMinor
Visibility	Guru
ImposedAccessMode	RO

1.15 DeviceTLType

Name	DeviceTLType
NameSpace	Standard
Interface	Enumeration
ToolTip	Transport Layer type of the device.
Description	
DisplayName	Device TL Type
Visibility	Beginner
ImposedAccessMode	RO

1.15.1 EnumEntries DeviceTLType

Name[1]	DisplayName	ToolTip	Description
GigEVision	GigE Vision	GigE Vision.	
CameraLink	Camera Link	Camera Link.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

1.16 DeviceReset

Name	DeviceReset
NameSpace	Standard
Interface	Command
ToolTip	Resets the device to its power up state.
Description	Resets the device to its power up state. After reset, the device must be rediscovered.
DisplayName	Device Reset
Visibility	Guru

ImposedAccessMode	WO
CommandValue	1

1.17 DeviceProductNumber

Name	DeviceProductNumber
NameSpace	Custom
Interface	StringReg
ToolTip	Device Product Number.
Description	
DisplayName	Device Product Number
Visibility	Beginner
Length	32
AccessMode	RO

1.18 DevicePackageVersion

Name	DevicePackageVersion
NameSpace	Custom
Interface	StringReg
ToolTip	Software package version of the device.
Description	
DisplayName	Device Package Version
Visibility	Beginner
ImposedAccessMode	RO
Length	16
AccessMode	RO
Cachable	NoCache

1.19 DeviceHardwareCode

Name	DeviceHardwareCode
NameSpace	Custom
Interface	StringReg
ToolTip	Device Hardware Code of the device.
Description	Code specifying type and revision of all major camera components.
DisplayName	Device Hardware Code
Visibility	Beginner
ImposedAccessMode	RO
Length	20
AccessMode	RO
Cachable	NoCache

1.20 DeviceConfiguration

Name	DeviceConfiguration
NameSpace	Custom
Interface	Integer
ToolTip	Status of Special Function Register.
Description	
DisplayName	Device Configuration
Visibility	Guru
ImposedAccessMode	RO
Representation	HexNumber

1.21 DeviceErrorCode

Name	DeviceErrorCode
NameSpace	Custom
Interface	Integer
ToolTip	Most recent error status of the device.
Description	
DisplayName	Device Error Code
Visibility	Expert
ImposedAccessMode	RO
Representation	HexNumber

1.22 DeviceErrorMessage

Name	DeviceErrorMessage
NameSpace	Custom
Interface	Enumeration
ToolTip	Device error messages to the corresponding device error codes.
Description	
DisplayName	DeviceErrorMessage
Visibility	Invisible
ImposedAccessMode	RO

1.22.1 EnumEntries DeviceErrorMessage

Name[1]	DisplayName	ToolTip
Success*		
DEV_CTRL_WARNING_BOARD_TEMPERATURE_TOO_HIGH*	Warning! The mainboard temperature is too high!	You need to provide cooling for the camera.
DEV_CTRL_ERROR_BOARD_TEMPERATURE_TOO_HIGH*	Error! The mainboard temperature is too high!	You need to shut down and cool the camera!
DEV_CTRL_WARNING_SENSOR_TEMPERATURE_TOO_HIGH*	Warning! The image sensor temperature is too high!	You need to provide cooling for the camera.
DEV_CTRL_ERROR_SENSOR_TEMPERATURE_TOO_HIGH*	Error! The image sensor temperature is too high!	You need to shut down and cool the camera! The sensor clock is turned off. Please reboot the camera to recover from this error.
DEV_CTRL_ERROR_COULD_NOT_GET_SENSOR_TEMPERATURE*	Error! An internal error occurred.	Error while getting the sensor temperature.

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

1.23 DeviceTemperatureSelector

Name	DeviceTemperatureSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the location within the device, where the temperature will be measured.
Description	
DisplayName	Device Temperature Selector
Visibility	Expert
ImposedAccessMode	RW
pSelected	DeviceTemperature

1.23.1 EnumEntries DeviceTemperatureSelector

Name[1]	DisplayName	ToolTip	Description
Sensor	Sensor	Temperature of the image sensor of the camera.	
Mainboard	Mainboard	Temperature of the device's mainboard.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

1.24 DeviceTemperature

Name	DeviceTemperature[DeviceTemperatureSelector]
NameSpace	Standard
Interface	Float
ToolTip	Device temperature in degrees Celsius (C).
Description	Device temperature in degrees Celsius (C). It is measured at the location selected by DeviceTemperatureSelector.
DisplayName	Device Temperature
Visibility	Expert
ImposedAccessMode	RO
Unit	C
Representation	PureNumber
DisplayNotation	Fixed
DisplayPrecision	3

2 ImageFormatControl

2.1 SensorWidth

Name	SensorWidth
NameSpace	Standard
Interface	Integer
ToolTip	Effective width of the sensor in pixels.
Description	
DisplayName	Sensor Width
Visibility	Expert
ImposedAccessMode	RO

2.2 SensorHeight

Name	SensorHeight
NameSpace	Standard
Interface	Integer
ToolTip	Effective height of the sensor in pixels.
Description	
DisplayName	Sensor Height
Visibility	Expert
ImposedAccessMode	RO

2.3 WidthMax

Name	WidthMax
NameSpace	Standard
Interface	Integer
ToolTip	Maximum width of the image (in pixels).
Description	Maximum width of the image (in pixels). The dimension is calculated after horizontal binning, decimation or any other function changing the horizontal dimension of the image.
DisplayName	Width Max
Visibility	Expert
ImposedAccessMode	RO
Min	1
Max	8192
Representation	Linear

2.4 RegionSelector

Name	RegionSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the Region of interest to control.
Description	Selects the Region of interest to control. The RegionSelector feature allows devices that are able to extract multiple regions out of an image, to configure the features of those individual regions independently.
DisplayName	Region Selector
Visibility	Beginner
ImposedAccessMode	RO
Value	8
pSelected	Width
pSelected	Height
pSelected	OffsetX

2.4.1 EnumEntries RegionSelector

Name[1]	DisplayName	ToolTip	Description
All	All	Selected features will control all the regions at the same time.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

2.5 Width

Name	Width[RegionSelector]
NameSpace	Standard
Interface	Integer

ToolTip	Width of the image provided by the device (in pixels).
Description	
DisplayName	Width
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW
Min	8
Max	WidthMaxReg
Inc	8
Representation	Linear

2.6 Height

Name	Height[RegionSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Height of the image provided by the device (in pixels).
Description	
DisplayName	Height
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW
Min	MinHeightReg
Max	MaxHeightReg
pInc	IncHeightReg
Representation	Linear

2.7 OffsetX

Name	OffsetX[RegionSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Horizontal offset from the origin to the region of interest (in pixels).
Description	
DisplayName	Offset X
Visibility	Beginner
pIsLocked	CenterX_onOff
ImposedAccessMode	RW
Min	0
Max	MaxOffsetXReg
Inc	16
Representation	Linear

2.8 CenterX

Name	CenterX
NameSpace	Custom
Interface	Boolean
ToolTip	Align the ROI centered to the sensor.
Description	Align the ROI centered to the sensor. Disables OffsetX.
DisplayName	Center X
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW
OnValue	1
OffValue	0

2.9 BinningSelector

Name	BinningSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects which binning engine is controlled by the BinningHorizontal and BinningVertical features.
Description	
DisplayName	Binning Selector
Visibility	Expert
ImposedAccessMode	RO
Value	0
pSelected	BinningHorizontalMode
pSelected	BinningHorizontal

2.9.1 EnumEntries BinningSelector

Name[1]	DisplayName	ToolTip	Description
Sensor	Sensor	Selected features will control the sensor binning.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

2.10 BinningHorizontalMode

Name	BinningHorizontalMode[BinningSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Sets the mode to use to combine horizontal photo-sensitive cells together when BinningHorizontal is used.
Description	
DisplayName	Binning Horizontal Mode
Visibility	Expert

ImposedAccessMode	RO
Value	0

2.10.1 EnumEntries BinningHorizontalMode

Name[1]	DisplayName	ToolTip	Description
Sum	Sum	The response from the combined cells will be added, resulting in increased sensitivity.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

2.11 BinningHorizontal

Name	BinningHorizontal[BinningSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Number of horizontal photo-sensitive cells to combine together.
Description	Number of horizontal photo-sensitive cells to combine together. This reduces the horizontal resolution (width) of the image.
DisplayName	Binning Horizontal
Visibility	Expert
pIsLocked	BinningHorizontalIsLocked
ImposedAccessMode	RW
Min	1
Max	4
Inc	1

2.12 ReverseX

Name	ReverseX
NameSpace	Standard
Interface	Boolean
ToolTip	Flip horizontally the image sent by the device.
Description	Flip horizontally the image sent by the device. The Region of interest is applied after the flipping.
DisplayName	Reverse X
Visibility	Expert
ImposedAccessMode	RW

2.13 ComponentSelector

Name	ComponentSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects a component to activate/deactivate its data streaming.
Description	

DisplayName	Component Selector
Visibility	Beginner
ImposedAccessMode	RO
Value	1
pSelected	ComponentEnable
pSelected	PixelFormat
pSelected	PixelSize
pSelected	PixelDynamicRangeMin
pSelected	PixelDynamicRangeMax

2.13.1 EnumEntries ComponentSelector

Name[1]	DisplayName	ToolTip	Description
Infrared	Infrared	The acquisition of non-visible infrared light is controlled.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

2.14 ComponentEnable

Name	ComponentEnable[ComponentSelector]
NameSpace	Standard
Interface	Boolean
ToolTip	Controls if the selected component streaming is active.
Description	
DisplayName	Component Enable
Visibility	Beginner
ImposedAccessMode	RO
Value	1

2.15 PixelFormat

Name	PixelFormat[ComponentSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Format of the pixels provided by the device.
Description	Format of the pixels provided by the device. It represents all the information provided by PixelSize, PixelColorFilter combined in a single feature.
DisplayName	Pixel Format
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

2.15.1 EnumEntries PixelFormat

Name[1]	DisplayName	ToolTip	Description
Mono8	Mono8	Monochrome 8-bit.	
Mono10	Mono10	Monochrome 10-bit unpacked.	
Mono12	Mono12	Monochrome 12-bit unpacked.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

2.16 PixelSize

Name	PixelSize[ComponentSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Total size in bits of a pixel of the image.
Description	
DisplayName	Pixel Size
Visibility	Expert
ImposedAccessMode	RO

2.16.1 EnumEntries PixelSize

Name[1]	DisplayName	ToolTip	Description
Bpp8	Bpp8	8 bits per pixel.	
Bpp10	Bpp10	10 bits per pixel.	
Bpp12	Bpp12	12 bits per pixel.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

2.17 PixelDynamicRangeMin

Name	PixelDynamicRangeMin[ComponentSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Minimum value that can be returned during the digitization process.
Description	Minimum value that can be returned during the digitization process. This corresponds to the darkest value of the camera. For color camera, this returns the smallest value that each color component can take.
DisplayName	Pixel Dynamic Range Min
Visibility	Expert
ImposedAccessMode	RO

2.18 PixelDynamicRangeMax

Name	PixelDynamicRangeMax[ComponentSelector]
NameSpace	Standard

Interface	Integer
ToolTip	Maximum value that will be returned during the digitization process.
Description	Maximum value that will be returned during the digitization process. This corresponds to the brightest value of the camera. For color camera, this returns the biggest value that each color component can take.
DisplayName	Pixel Dynamic Range Max
Visibility	Expert
ImposedAccessMode	RO

2.19 TestPatternGeneratorSelector

Name	TestPatternGeneratorSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects which test pattern generator is controlled by the TestPattern feature.
Description	
DisplayName	Test Pattern Generator Selector
Visibility	Beginner
ImposedAccessMode	RO
Value	0
pSelected	TestPattern
pSelected	TestPatternValue

2.19.1 EnumEntries TestPatternGeneratorSelector

Name[1]	DisplayName	ToolTip	Description
ImageProcessing*	Image Processing	TestPattern feature will control the Image Processing test pattern generator.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

2.20 TestPattern

Name	TestPattern[TestPatternGeneratorSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the type of test pattern that is generated by the device as image source.
Description	
DisplayName	Test Pattern
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

2.20.1 EnumEntries TestPattern

Name[1]	DisplayName	ToolTip	Description
Off	Off	Image is coming from the sensor.	
GreyHorizontalRamp	Grey Horizontal Ramp	Image is filled horizontally with an image that goes from the darkest possible value to the brightest.	
GreyVerticalRamp	Grey Vertical Ramp	Image is filled vertically with an image that goes from the darkest possible value to the brightest.	
GreyHorizontalRampMoving	Grey Horizontal Ramp Moving	Image is filled horizontally with an image that goes from the darkest possible value to the brightest and that moves horizontally from left to right at each frame.	
GreyHorizontalRampMovingLineByLine*	Grey Horizontal Ramp Moving Line by Line	Image is filled horizontally with an image that goes from the darkest possible value to the brightest and that moves horizontally from left to right at each line.	
PinStripes*	Pin Stripes	Fixed pin stripe pattern with configurable background. The background is configurable with the test pattern value feature.	
VidWithInfoBlock*	Video with Info Block	Each line info block is superimposed on the image coming from sensor. Pixel 0: 12bit Line count, Pixel 1: 12bit Frame count, Pixel 2: 12bit external line trigger speed status. Information is easy to decode when pixel format is 12bit.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

2.21 TestPatternValue

Name	TestPatternValue[TestPatternGeneratorSelector]
NameSpace	Custom
Interface	Integer
ToolTip	Value of pixels between stripes.
Description	Value of pixels between stripes (used only in PinStripes mode).
DisplayName	Test Pattern Value
Visibility	Beginner
pIsAvailable	TestPatternValueRegIsAvailable
ImposedAccessMode	RW
Min	512
Max	4095
Representation	Linear

3 AcquisitionControl

3.1 AcquisitionMode

Name	AcquisitionMode
NameSpace	Standard
Interface	Enumeration
ToolTip	Sets the acquisition mode of the device.
Description	Sets the acquisition mode of the device. It defines mainly the number of frames to capture during an acquisition and the way the acquisition stops.
DisplayName	Acquisition Mode
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

3.1.1 EnumEntries AcquisitionMode

Name[1]	DisplayName	ToolTip	Description
SingleFrame	Single Frame	One frame is captured.	
MultiFrame	Multi Frame	The number of frames specified by AcquisitionFrameCount is captured.	
Continuous	Continuous	Frames are captured continuously until stopped with the AcquisitionStop command.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

3.2 AcquisitionStart

Name	AcquisitionStart
NameSpace	Standard
Interface	Command
ToolTip	Starts the Acquisition of the device.
Description	Starts the Acquisition of the device. The number of frames captured is specified by AcquisitionMode.
DisplayName	Acquisition Start
Visibility	Beginner
ImposedAccessMode	RW
CommandValue	1

3.3 AcquisitionStop

Name	AcquisitionStop
NameSpace	Standard
Interface	Command
ToolTip	Stops the Acquisition of the device at the end of the current Frame.

Description	Stops the Acquisition of the device at the end of the current Frame. It is mainly used when AcquisitionMode is Continuous but can be used in any acquisition mode.
DisplayName	Acquisition Stop
Visibility	Beginner
ImposedAccessMode	RW
CommandValue	0

3.4 AcquisitionAbort

Name	AcquisitionAbort
NameSpace	Standard
Interface	Command
ToolTip	Aborts the Acquisition immediately.
Description	Aborts the Acquisition immediately. This will end the capture without completing the current Frame or waiting on a trigger. If no Acquisition is in progress, the command is ignored.
DisplayName	Acquisition Abort
Visibility	Expert
ImposedAccessMode	RW
CommandValue	0

3.5 TriggerSelector

Name	TriggerSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the trigger type to configure. Once a trigger type has been selected, all changes to the trigger settings will be applied to the selected trigger.
Description	This enumeration selects the trigger type to configure. Once a trigger type has been selected, all changes to the trigger settings will be applied to the selected trigger.
DisplayName	Trigger Selector
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW
pSelected	TriggerMode
pSelected	TriggerSoftware
pSelected	TriggerSource
pSelected	TriggerActivation
pSelected	TriggerDelay
pSelected	LineTriggerStatus
pSelected	select_FC_Source

3.5.1 EnumEntries TriggerSelector

Name[1]	DisplayName	ToolTip	Description
AcquisitionStart	Acquisition Start	Selects the acquisition start trigger for configuration.	This enumeration value selects the acquisition start trigger for configuration.
FrameStart	Frame Start	Selects the frame start trigger for configuration.	This enumeration value selects the frame start trigger for configuration.
LineStart	Line Start	Selects the line start trigger for configuration.	This enumeration value selects the line start trigger for configuration.

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

3.6 TriggerMode

Name	TriggerMode[TriggerSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Sets the mode for the selected trigger.
Description	This enumeration sets the trigger mode for the selected trigger.
DisplayName	Trigger Mode
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

3.6.1 EnumEntries TriggerMode

Name[1]	DisplayName	ToolTip	Description
Off	Off	Disables the selected trigger.	
On	On	Enable the selected trigger.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

3.7 TriggerSoftware

Name	TriggerSoftware[TriggerSelector]
NameSpace	Standard
Interface	Command
ToolTip	Generates a software trigger signal that is used when the trigger source is set to Software.
Description	This command generates a software trigger signal. The software trigger signal will be used if the trigger source is set to Software.
DisplayName	Generate Software Trigger
Visibility	Beginner
pIsAvailable	SoftwareTriggerIsAvailable
ImposedAccessMode	RW
CommandValue	1

3.8 TriggerSource

Name	TriggerSource[TriggerSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Specifies the internal signal or physical input Line to use as the trigger source.
Description	Specifies the internal signal or physical input Line to use as the trigger source. The selected trigger must have its TriggerMode set to On.
DisplayName	Trigger Source
Visibility	Beginner
pIsAvailable	TriggerSourceIsAvailable
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

3.8.1 EnumEntries TriggerSource

Name[1]	DisplayName	ToolTip	Description
Software	Software	Specifies that the trigger source will be generated by software using the TriggerSoftware command.	
Line1	Line 1	Specifies which physical line (or pin) and associated I/O control block to use as external source for the trigger signal.	
Line2	Line 2	Specifies which physical line (or pin) and associated I/O control block to use as external source for the trigger signal.	
Line3	Line 3	Specifies which physical line (or pin) and associated I/O control block to use as external source for the trigger signal.	
Encoder	Encoder	Specifies which Encoder signal to use as internal source for the trigger.	
fromFrequencyConverter*	Frequency converter	Specifies which FrequencyConverter signal to use as internal source for the trigger.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

3.9 TriggerActivation

Name	TriggerActivation[TriggerSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Specifies the activation mode of the trigger.
Description	
DisplayName	Trigger Activation
Visibility	Beginner
pIsLocked	TriggerActivationIsLocked
ImposedAccessMode	RW

3.9.1 EnumEntries TriggerActivation

Name[1]	DisplayName	ToolTip	Description
RisingEdge	Rising Edge	Specifies that the trigger is considered valid on the rising edge of the source signal.	
FallingEdge	Falling Edge	Specifies that the trigger is considered valid on the falling edge of the source signal.	
LevelHigh	Level High	Specifies that the trigger is considered valid as long as the level of the source signal is high.	
LevelLow	Level Low	Specifies that the trigger is considered valid as long as the level of the source signal is low.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

3.10 LineTriggerStatus

Name	LineTriggerStatus[TriggerSelector]
NameSpace	Custom
Interface	Enumeration
ToolTip	Display the line trigger status.
Description	
DisplayName	Line Trigger Status
Visibility	Beginner
pIsAvailable	LineTriggerStatusIsAvailable
ImposedAccessMode	RO

3.10.1 EnumEntries LineTriggerStatus

Name[1]	DisplayName	ToolTip	Description
OK*	OK		
SpeedTooHigh*	Speed Too High	External line trigger rate is higher than maximum camera line rate.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

3.11 select_FC_Source

Name	select_FC_Source[TriggerSelector]
NameSpace	Custom
Interface	Enumeration
ToolTip	Select frequency converter source.
Description	
DisplayName	Frequency Converter Source
Visibility	Beginner
IsDeprecated	Yes
pIsAvailable	FCSourceIsAvailable
ImposedAccessMode	RW
pSelected	FC_setPreDivider
pSelected	FC_setMultiplier
pSelected	FC_setPostDivider

3.11.1 EnumEntries select_FC_Source

Name[1]	DisplayName	ToolTip	Description
Off*	Off		
Line1*	Line 1	Specifies which physical line (or pin) and associated I/O control block to use as external source for the trigger signal of FrequencyConverter.	
Line2*	Line 2	Specifies which physical line (or pin) and associated I/O control block to use as external source for the trigger signal of FrequencyConverter.	
Line3*	Line 3	Specifies which physical line (or pin) and associated I/O control block to use as external source for the trigger signal of FrequencyConverter.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

3.12 FC_setPreDivider

Name	FC_setPreDivider[select_FC_Source]
NameSpace	Custom
Interface	Integer
ToolTip	Set the pre divider coefficient.
Description	
DisplayName	Pre-Divider
Visibility	Beginner
IsDeprecated	Yes
pIsAvailable	FCSourceIsAvailable
ImposedAccessMode	RW
Min	1
Max	128
Representation	Linear

3.13 FC_setMultiplier

Name	FC_setMultiplier[select_FC_Source]
NameSpace	Custom
Interface	Integer
ToolTip	Set the multiplier coefficient.
Description	
DisplayName	Multiplier
Visibility	Beginner
IsDeprecated	Yes
pIsAvailable	FCSourceIsAvailable
ImposedAccessMode	RW
Min	1
Max	32
Representation	Linear

3.14 FC_setPostDivider

Name	FC_setPostDivider[select_FC_Source]
NameSpace	Custom
Interface	Integer
ToolTip	Set the post divider coefficient.
Description	
DisplayName	Post-Divider
Visibility	Beginner
IsDeprecated	Yes
pIsAvailable	FCSourceIsAvailable
ImposedAccessMode	RW
Min	1
Max	128
Representation	Linear

3.15 AcquisitionFrameCount

Name	AcquisitionFrameCount
NameSpace	Standard
Interface	Integer
ToolTip	Number of frames to acquire in Acquisition Start Trigger mode.
Description	
DisplayName	Acquisition Frame Count
Visibility	Beginner
pIsAvailable	AcquisitionFrameCountIsAvailable
pIsLocked	AcquisitionFrameCountIsLocked

ImposedAccessMode	RW
Min	1
Max	65535

3.16 TriggerDelay

Name	TriggerDelay[TriggerSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Specifies the delay in number of Lines to apply after the trigger reception.
Description	
DisplayName	Trigger Delay [Lines]
Visibility	Expert
pIsLocked	TriggerDelayValueIsLocked
ImposedAccessMode	RW
Min	0
Max	4095
Representation	Linear

3.17 AcquisitionLineRate

Name	AcquisitionLineRate
NameSpace	Standard
Interface	Integer
ToolTip	Controls the rate (in Hertz) at which the Lines in a Frame are captured.
Description	
DisplayName	Acquisition Line Rate [Hz]
Visibility	Beginner
pIsLocked	LineRateIsLocked
ImposedAccessMode	RW
Min	1
Max	40000

3.18 ResultingLineRate

Name	ResultingLineRate
NameSpace	Custom
Interface	Integer
ToolTip	Indicates the rate (in Hertz) at which the Lines in a Frame are captured with the current settings.
Description	
DisplayName	Resulting Line Rate [Hz]
Visibility	Beginner
ImposedAccessMode	RO

3.19 ExposureMode

Name	ExposureMode
NameSpace	Standard
Interface	Enumeration
ToolTip	Sets the operation mode of the Exposure.
Description	
DisplayName	Exposure Mode
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

3.19.1 EnumEntries ExposureMode

Name[1]	DisplayName	ToolTip	Description
Timed	Timed	Timed exposure.	Timed exposure. The exposure duration time is set using the ExposureTime or ExposureAuto features and the exposure starts with the FrameStart or LineStart.
TriggerWidth	Trigger Width	Uses the width of the current Frame or Line trigger signal(s) pulse to control the exposure duration.	Uses the width of the current Frame or Line trigger signal(s) pulse to control the exposure duration. Note that if the Frame or Line TriggerActivation is RisingEdge or LevelHigh, the exposure duration will be the time the trigger stays High. If TriggerActivation is FallingEdge or LevelLow, the exposure time will last as long as the trigger stays Low.

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

3.20 ExposureTime

Name	ExposureTime
NameSpace	Standard
Interface	Float
ToolTip	Sets the Exposure time when ExposureMode is Timed.
Description	Sets the Exposure time when ExposureMode is Timed. This controls the duration where the photosensitive cells are exposed to light.
DisplayName	Exposure Time
Visibility	Beginner
pIsLocked	ExposureTimeIsLocked
ImposedAccessMode	RW
Min	20.600
Max	10000.000
Unit	us
Representation	PureNumber
DisplayNotation	Fixed
DisplayPrecision	3

4 AnalogControl

4.1 GainSelector

Name	GainSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects which Gain is controlled by the various Gain features.
Description	
DisplayName	Gain Selector
Visibility	Beginner
ImposedAccessMode	RW
pSelected	DigitalGainInt
pSelected	SensorGain

4.1.1 EnumEntries GainSelector

Name[1]	DisplayName	ToolTip	Description
DigitalAll	Digital All	Gain will be applied to all digital channels or taps.	
SensorGainAll	Sensor Gain	Conversion efficiency of the image sensor can be changed.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

4.2 DigitalGainInt

Name	DigitalGainInt[GainSelector]
NameSpace	Custom
Interface	Integer
ToolTip	Gain will be applied to all digital channels or taps. Gain Factor = (Digital Gain Int)/256.
Description	Gain will be applied to all digital channels or taps.
DisplayName	Digital Gain Int
Visibility	Beginner
pIsAvailable	DigitalGainIsAvailable
ImposedAccessMode	RW
Min	256
Max	65535
Inc	1
Representation	Linear

4.3 SensorGain

Name	SensorGain[GainSelector]
NameSpace	Custom
Interface	Enumeration
ToolTip	Controls the conversion efficiency of the image sensor.

Description	
DisplayName	Sensor Gain
Visibility	Beginner
pIsAvailable	SensorGainIsAvailable
ImposedAccessMode	RW
pAlias	SensorGain

4.3.1 EnumEntries SensorGain

Name[1]	DisplayName	ToolTip	Description
SensorGain1X*	1X	Conversion Efficiency: 0.128 uV/e-.	
SensorGain9X*	9X	Conversion Efficiency: 1.23 uV/e-.	
SensorGain31X*	31X	Conversion Efficiency: 4.0 uV/e-.	
SensorGain62X*	62X	Conversion Efficiency: 8.0 uV/e-.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

4.4 BlackLevelSelector

Name	BlackLevelSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects which Black Level is controlled by the various Black Level features.
Description	
DisplayName	Black Level Selector
Visibility	Expert
ImposedAccessMode	RO
pSelected	BlackLevelInt

4.4.1 EnumEntries BlackLevelSelector

Name[1]	DisplayName	ToolTip	Description
All	All	Black Level will be applied to all channels or taps.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

4.5 BlackLevelInt

Name	BlackLevelInt[BlackLevelSelector]
NameSpace	Custom
Interface	Integer
ToolTip	Controls the black level by applying 12bit offset to the digital video signal.
Description	
DisplayName	Black Level Int
Visibility	Expert
ImposedAccessMode	RW

Min	-2048
Max	2047
Inc	1
Representation	Linear

4.6 Gamma

Name	Gamma
NameSpace	Standard
Interface	Float
ToolTip	Controls the gamma correction of pixel intensity. Gamma correction can only be used if TRC LUTs under category LUT control are deactivated.
Description	Controls the gamma correction of pixel intensity. This is typically used to compensate for non-linearity of the display system (such as CRT). Gamma correction can only be used if TRC LUTs under category LUT control are deactivated.
DisplayName	Gamma
Visibility	Beginner
pIsLocked	GammaIsLocked
ImposedAccessMode	RW
Min	0.1
Max	2.5
DisplayNotation	Fixed
DisplayPrecision	2

5 ImageCalibration

5.1 FlatfieldCorrection

Name	FlatfieldCorrection
NameSpace	Custom
Interface	Enumeration
ToolTip	Selects which Flatfield Correction to use or calibrate.
Description	
DisplayName	Flatfield Correction
Visibility	Expert
ImposedAccessMode	RW
pSelected	FFCorrectionSets
pSelected	FFCorrectionCreate

5.1.1 EnumEntries FlatfieldCorrection

Name[1]	DisplayName	ToolTip	Description
PRNU*	PRNU	Photo response non-uniformity correction.	
DSNU*	DSNU	Dark signal non-uniformity correction.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

5.2 FFCorrectionSets

Name	FFCorrectionSets[FlatfieldCorrection]
NameSpace	Custom
Interface	Enumeration
ToolTip	Selects the coefficient set for DSNU or PRNU calibration. Off means unity gain for PRNU or zero offset for DSNU.
Description	Selects the coefficient set for DSNU or PRNU calibration. Off means unity gain for PRNU or zero offset for DSNU. For best performance, SensorGain and ExposureTime used for calibration should match the parameters currently in use.
DisplayName	Dataset
Visibility	Expert
ImposedAccessMode	RW

5.2.1 EnumEntries FFCorrectionSets

Name[1]	DisplayName	ToolTip	Description
FactorySetting*	Factory Setting	Load factory configured coefficient set for DSNU or PRNU.	
User*	User	Load user configured coefficient set for DSNU or PRNU.	
Off*	Off	Load zero offset for DSNU or unity gain for PRNU.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

5.3 FFCorrectionCreate

Name	FFCorrectionCreate[FlatfieldCorrection]
NameSpace	Custom
Interface	Command
ToolTip	Calculate User Coefficients.
Description	
DisplayName	Calculate User Coefficients
Visibility	Expert
ImposedAccessMode	WO
CommandValue	1

6 LUTControl

6.1 LUTSelector

Name	LUTSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects which Tone Response Curve Lookup Table (TRC LUT) to activate/deactivate. Activating a TRC LUT will disable gamma correction in category Analog Control.
Description	
DisplayName	LUT Selector
Visibility	Expert
ImposedAccessMode	RO
pSelected	LUTEnable

6.1.1 EnumEntries LUTSelector

Name[1]	DisplayName	ToolTip	Description
LutUser1*	User TRC LUT 1	Selects User TRC LUT 1.	Selects User TRC LUT 1.

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

6.2 LUTEnable

Name	LUTEnable[LUTSelector]
NameSpace	Standard
Interface	Boolean
ToolTip	Activates/Deactivates the selected LUT. Activating a TRC LUT will disable gamma correction in category Analog Control.
Description	
DisplayName	LUT Enable
Visibility	Expert
pIsLocked	TLParamsLocked
ImposedAccessMode	RW
OnValue	1
OffValue	0

7 DigitalIOControl

7.1 LineSelector

Name	LineSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the physical line (or pin) of the external device connector or the virtual line of the Transport Layer to configure.
Description	
DisplayName	Line Selector

Visibility	Expert
ImposedAccessMode	RW
pSelected	LineMode
pSelected	LineInverter
pSelected	LineStatus
pSelected	LineSource
pSelected	LineTermination
pSelected	LineFormat
pSelected	LineDebouncerTime
pSelected	MinimumOutputPulseWidth

7.1.1 EnumEntries LineSelector

Name[1]	DisplayName	ToolTip	Description
Line1	Line 1	Index of the physical line and associated I/O control block to use.	
Line2	Line 2	Index of the physical line and associated I/O control block to use.	
Line3	Line 3	Index of the physical line and associated I/O control block to use.	
LineA*	Line A	Index of the physical line and associated I/O control block to use.	
LineB*	Line B	Index of the physical line and associated I/O control block to use.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

7.2 LineMode

Name	LineMode[LineSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Controls if the physical Line is used to Input or Output a signal.
Description	
DisplayName	Line Mode
Visibility	Expert
ImposedAccessMode	RW

7.2.1 EnumEntries LineMode

Name[1]	DisplayName	ToolTip	Description
Input	Input	The selected physical line is used to Input an electrical signal.	
Output	Output	The selected physical line is used to Output an electrical signal.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

7.3 LineInverter

Name	LineInverter[LineSelector]
NameSpace	Standard
Interface	Boolean

ToolTip	Controls the inversion of the signal of the selected input or output Line.
Description	
DisplayName	Line Inverter
Visibility	Expert
ImposedAccessMode	RW
OnValue	1
OffValue	0

7.4 LineStatus

Name	LineStatus[LineSelector]
NameSpace	Standard
Interface	Boolean
ToolTip	Returns the current status of the selected input or output Line.
Description	
DisplayName	Line Status
Visibility	Expert
ImposedAccessMode	RO

7.5 LineStatusAll

Name	LineStatusAll
NameSpace	Standard
Interface	Integer
ToolTip	Returns the current status of all available Line signals at time of polling in a single bitfield.
Description	
DisplayName	Line Status All
Visibility	Expert
ImposedAccessMode	RO
Representation	HexNumber

7.6 LineSource

Name	LineSource[LineSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects which internal acquisition or I/O source signal to output on the selected Line.
Description	Selects which internal acquisition or I/O source signal to output on the selected Line. LineMode must be Output.
DisplayName	Line Source
Visibility	Expert
pIsAvailable	LineSourceIsAvailable
ImposedAccessMode	RW

7.6.1 EnumEntries LineSource

Name[1]	DisplayName	ToolTip	Description
AcquisitionTrigger	Acquisition Trigger	Device is currently doing an acquisition of one or many Frames.	
FrameTrigger	Frame Trigger	Device is receiving a Frame start trigger.	
LineTrigger	Line Trigger	Device is receiving a Line start trigger.	
AcquisitionTriggerWait	Acquisition Trigger Wait	Device is currently waiting for a trigger for the capture of one or many Frames.	
FrameTriggerWait	Frame Trigger Wait	Device is currently waiting for a Frame start trigger.	
LineTriggerWait	Line Trigger Wait	Device is currently waiting for a Line start trigger.	
ExposureActive	Exposure Active	Device is doing the exposure of a Frame (or Line).	
Encoder0	Encoder 0	The chosen Encoder Output state.	
UserOutput0	User Output 0	The chosen User Output Bit state as defined by its current UserOutputValue.	
UserOutput1	User Output 1	The chosen User Output Bit state as defined by its current UserOutputValue.	
SpeedTooHigh*	Speed too high	Line trigger rate is higher than maximum supported Line Rate of camera.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

7.7 LineFormat

Name	LineFormat[LineSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Controls the current electrical format of the selected physical input or output Line.
Description	
DisplayName	Line Format
Visibility	Expert
pIsAvailable	LineFormatIsAvailable
ImposedAccessMode	RW

7.7.1 EnumEntries LineFormat

Name[1]	DisplayName	ToolTip	Description
NoConnect	No Connect	The Line is not connected.	
TriState	Tri State	The Line is currently in Tri-State mode (Not driven).	
TTL	TTL	The Line is currently accepting or sending TTL level signals.	
LVDS	LVDS	The Line is currently accepting or sending LVDS level signals.	
RS422	RS 422	The Line is currently accepting or sending RS422 level signals.	
OptoCoupled	Opto Coupled	The Line is opto-coupled.	
OpenDrain	Open Drain	The Line is Open Drain (or Open Collector).	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

7.8 UserOutputSelector

Name	UserOutputSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects which bit of the User Output register will be set by UserOutputValue.
Description	
DisplayName	User Output Selector
Visibility	Expert
ImposedAccessMode	RW
pSelected	UserOutputValue

7.8.1 EnumEntries UserOutputSelector

Name[1]	DisplayName	ToolTip	Description
UserOutput0	User Output 0	Selects the bit 0 of the User Output register.	
UserOutput1	User Output 1	Selects the bit 1 of the User Output register.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

7.9 pUserOutputSelector

Name	pUserOutputSelector
NameSpace	Standard
Interface	Integer
Value	0

7.10 UserOutputValue

Name	UserOutputValue[UserOutputSelector]
NameSpace	Standard
Interface	Boolean
ToolTip	Sets the value of the bit selected by UserOutputSelector.
Description	
DisplayName	User Output Value
Visibility	Expert
ImposedAccessMode	RW

7.11 LineDebouncerTime

Name	LineDebouncerTime[LineSelector]
NameSpace	Custom
Interface	Integer
ToolTip	Input pin debounce filter [us].

Description	
DisplayName	Input Pin Debounce Filter [us]
Visibility	Expert
pIsAvailable	LineDebouncerTimeIsAvailable
ImposedAccessMode	RW
Min	0
Max	5000
Representation	Linear

7.12 MinimumOutputPulseWidth

Name	MinimumOutputPulseWidth[LineSelector]
NameSpace	Custom
Interface	Integer
ToolTip	Minimum output pulse width for the selected output line [us].
Description	
DisplayName	Minimum Output Pulse Width [us]
Visibility	Expert
pIsAvailable	MinOutPulseWidthIsAvailable
ImposedAccessMode	RW
Min	0
Max	50000000
Representation	Linear

7.13 LineTermination

Name	LineTermination[LineSelector]
NameSpace	Custom
Interface	Boolean
ToolTip	Enable Input RS422 termination (120 Ohm).
Description	
DisplayName	Line Termination
Visibility	Expert
pIsAvailable	LineTerminationIsAvailable
ImposedAccessMode	RW
OnValue	1
OffValue	0

7.14 LineRisingEdgeCounterLine1

Name	LineRisingEdgeCounterLine1
NameSpace	Custom
Interface	Integer

ToolTip	Shows the number of rising edges counted at input Line 1.
Description	
DisplayName	Line 1 Rising Edge Counter
Visibility	Expert
ImposedAccessMode	RW
Min	0

7.15 LineRisingEdgeCounterLine2

Name	LineRisingEdgeCounterLine2
NameSpace	Custom
Interface	Integer
ToolTip	Shows the number of rising edges counted at input Line 2.
Description	
DisplayName	Line 2 Rising Edge Counter
Visibility	Expert
ImposedAccessMode	RW
Min	0

7.16 LineRisingEdgeCounterLine3

Name	LineRisingEdgeCounterLine3
NameSpace	Custom
Interface	Integer
ToolTip	Shows the number of rising edges counted at input Line 3.
Description	
DisplayName	Line 3 Rising Edge Counter
Visibility	Expert
ImposedAccessMode	RW
Min	0

7.17 ReadLineCounters

Name	ReadLineCounters
NameSpace	Custom
Interface	Command
ToolTip	Update all Rising Edge Counters.
Description	
DisplayName	Read Line Counters
Visibility	Expert
ImposedAccessMode	WO
CommandValue	1

7.18 ClearLineCounters

Name	ClearLineCounters
NameSpace	Custom
Interface	Command
ToolTip	Clear all Rising Edge Counters.
Description	
DisplayName	Clear Line Counters
Visibility	Expert
ImposedAccessMode	WO
CommandValue	1

8 EncoderControl

8.1 EncoderSelector

Name	EncoderSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects which Encoder to configure.
Description	
DisplayName	Encoder Selector
Visibility	Expert
ImposedAccessMode	RO
pSelected	EncoderSourceA
pSelected	EncoderSourceB
pSelected	EncoderMode
pSelected	EncoderOutputMode
pSelected	EncoderDividerFloat
pSelected	EncoderAverage

8.1.1 EnumEntries EncoderSelector

Name[1]	DisplayName	ToolTip	Description
Encoder0	Encoder 0	Selects the first Encoder.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

8.2 EncoderSourceA

Name	EncoderSourceA[EncoderSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the signal which will be the source of the A input of the encoder.
Description	

DisplayName	Encoder Source A
Visibility	Expert
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

8.2.1 EnumEntries EncoderSourceA

Name[1]	DisplayName	ToolTip	Description
Off	Off	Counter is stopped.	
Line1	Line 1	Encoder Forward input is taken from the chosen I/O Line.	
Line2	Line 2	Encoder Forward input is taken from the chosen I/O Line.	
Line3	Line 3	Encoder Forward input is taken from the chosen I/O Line.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

8.3 EncoderSourceB

Name	EncoderSourceB[EncoderSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the signal which will be the source of the B input of the encoder.
Description	
DisplayName	Encoder Source B
Visibility	Expert
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

8.3.1 EnumEntries EncoderSourceB

Name[1]	DisplayName	ToolTip	Description
Off	Off	Counter is stopped.	
Line1	Line 1	Encoder Forward input is taken from the chosen I/O Line.	
Line2	Line 2	Encoder Forward input is taken from the chosen I/O Line.	
Line3	Line 3	Encoder Forward input is taken from the chosen I/O Line.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

8.4 EncoderMode

Name	EncoderMode[EncoderSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects if the count of encoder uses FourPhase mode with jitter filtering or the HighResolution mode without jitter filtering.
Description	
DisplayName	Encoder Mode
Visibility	Expert

pIsLocked	TLParamsLocked
ImposedAccessMode	RW

8.4.1 EnumEntries EncoderMode

Name[1]	DisplayName	ToolTip	Description
FourPhase	Four Phase	The counter increments or decrements 1 for every full quadrature cycle with jitter filtering.	
HighResolution	High Resolution	The counter increments or decrements every quadrature phase for high resolution counting, but without jitter filtering.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

8.5 EncoderOutputMode

Name	EncoderOutputMode[EncoderSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the conditions for the encoder interface to generate a valid encoder output signal.
Description	
DisplayName	Encoder Output Mode
Visibility	Expert
ImposedAccessMode	RW

8.5.1 EnumEntries EncoderOutputMode

Name[1]	DisplayName	ToolTip	Description
DirectionUp	Direction Up	Output pulses are generated at all position increments in the positive direction while ignoring negative direction motion.	
Motion	Motion	Output pulses are generated at all motion increments in both directions.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

8.6 EncoderDividerFloat

Name	EncoderDividerFloat[EncoderSelector]
NameSpace	Custom
Interface	Float
ToolTip	Specifies the number of encoder steps needed to generate an encoder output pulse.
Description	
DisplayName	Encoder Divider Float
Visibility	Expert
ImposedAccessMode	RW
Min	0.020
Max	255.999
DisplayNotation	Fixed
DisplayPrecision	3

8.7 EncoderAverage

Name	EncoderAverage[EncoderSelector]
NameSpace	Custom
Interface	Enumeration
ToolTip	Specifies the number of averaged encoder input pulses.
Description	
DisplayName	Encoder Average
Visibility	Expert
ImposedAccessMode	RW

8.7.1 EnumEntries EncoderAverage

Name[1]	DisplayName	ToolTip	Description
Average1*	1	Encoder input pulse avaraged by 1.	
Average2*	2	Encoder input pulse avaraged by 2.	
Average4*	4	Encoder input pulse avaraged by 4.	
Average8*	8	Encoder input pulse avaraged by 8.	
Average16*	16	Encoder input pulse avaraged by 16.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

9 UserSetControl

9.1 UserSetSelector

Name	UserSetSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the feature User Set to load, save or configure.

Description	
DisplayName	User Set Selector
Visibility	Beginner
ImposedAccessMode	RW
pSelected	UserSetLoad
pSelected	UserSetSave

9.1.1 EnumEntries UserSetSelector

Name[1]	DisplayName	ToolTip	Description
Default	Default	Selects the factory setting user set.	
UserSet1	User Set 1	Selects user set 1.	Selects the user set 1.

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

9.2 UserSetLoad

Name	UserSetLoad[UserSetSelector]
NameSpace	Standard
Interface	Command
ToolTip	Loads the User Set specified by UserSetSelector to the device and makes it active.
Description	
DisplayName	User Set Load
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	WO
CommandValue	1

9.3 UserSetSave

Name	UserSetSave[UserSetSelector]
NameSpace	Standard
Interface	Command
ToolTip	Save the User Set specified by UserSetSelector to the non-volatile memory of the device.
Description	
DisplayName	User Set Save
Visibility	Beginner
pIsAvailable	UserSetSaveIsAvailable
pIsLocked	TLParamsLocked
ImposedAccessMode	WO
CommandValue	1

9.4 UserSetDefault

Name	UserSetDefault
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the feature User Set to load and make active by default when the device is reset.
Description	
DisplayName	User Set Default
Visibility	Beginner
pIsLocked	TLParamsLocked
ImposedAccessMode	RW

9.4.1 EnumEntries UserSetDefault

Name[1]	DisplayName	ToolTip	Description
Default	Default Set	Selects the default user set as the default startup set.	This enumeration value sets the default user set as the default startup set.
UserSet1	User Set 1	Selects user set 1 as the default startup set.	This enumeration value sets user set 1 as the default startup set.

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

10 FileAccessControl

10.1 FileSelector

Name	FileSelector
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the target file in the device.
Description	
DisplayName	File Selector
Visibility	Guru
pSelected	FileOperationSelector
pSelected	FileOpenMode
pSelected	FileSize
pSelected	FileChecksum

10.1.1 EnumEntries FileSelector

Name[1]	DisplayName	ToolTip	Description
Firmware*	Firmware (.bin file)	Enables Firmware Update access.	
SpecialTRC_GammaUserLUT1*	Special TRC/Gamma User LUT 1	Load Special TRC/Gamma User LUT 1.	Enables Gamma LUT access.
UserDSNUCorrection1*	User DSNU Correction 1	Enables DSNU USER DATASET 1 access.	
FactoryDSNUCorrection1*	Factory DSNU Correction 1	Enables DSNU FACTORY DATASET 1 access.	
UserPRNUCorrection1*	User PRNU Correction 1	Enables PRNU USER DATASET 1 access.	
FactoryPRNUCorrection1*	Factory PRNU Correction 1	Enables PRNU FACTORY DATASET 1 access.	
FactoryPRNUCorrection2*	Factory PRNU Correction 2	Enables PRNU FACTORY DATASET 2 access.	
FactoryPRNUCorrection3*	Factory PRNU Correction 3	Enables PRNU FACTORY DATASET 3 access.	
FactoryPRNUCorrection4*	Factory PRNU Correction 4	Enables PRNU FACTORY DATASET 4 access.	
UserSettingSet1*	User Setting Set 1	Enables User Set 1 access.	
FactoryDACCoefficients*	Factory DAC Coefficients	Enables Factory Black Calibration Data set access.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

10.2 FileOperationSelector

Name	FileOperationSelector[FileSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the target operation for the selected file in the device.
Description	Selects the target operation for the selected file in the device. This Operation is executed when the FileOperationExecute feature is called.
DisplayName	File Operation Selector
Visibility	Guru
ImposedAccessMode	RW
pSelected	FileOperationExecute
pSelected	FileAccessOffset
pSelected	FileAccessLength
pSelected	FileOperationStatus
pSelected	FileOperationResult

10.2.1 EnumEntries FileOperationSelector

Name[1]	DisplayName	ToolTip	Description
Open	Open	Opens the file selected by FileSelector in the device.	Opens the file selected by FileSelector in the device. The access mode in which the file is opened is selected by FileOpenMode.
Close	Close	Closes the file selected by FileSelector in the device.	
Read	Read	Reads FileAccessLength bytes from the device storage at the file relative offset FileAccessOffset into FileAccessBuffer.	
Write	Write	Writes FileAccessLength bytes taken from the FileAccessBuffer into the device storage at the file relative offset FileAccessOffset.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

10.3 FileOperationExecute

Name	FileOperationExecute[FileOperationSelector]
NameSpace	Standard
Interface	Command
ToolTip	Executes the operation selected by FileOperationSelector on the selected file.
Description	
DisplayName	File Operation Execute
Visibility	Guru
ImposedAccessMode	RW
CommandValue	1

10.4 FileOpenMode

Name	FileOpenMode[FileSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Selects the access mode in which a file is opened in the device.
Description	
DisplayName	File Open Mode
Visibility	Guru

10.4.1 EnumEntries FileOpenMode

Name[1]	DisplayName	ToolTip	Description
Read	Read	This mode selects read-only open mode.	
Write	Write	This mode selects write-only open mode.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

10.5 FileAccessOffset

Name	FileAccessOffset[FileOperationSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Controls the Offset of the mapping between the device file storage and the FileAccessBuffer.
Description	
DisplayName	File Access Offset
Visibility	Guru
ImposedAccessMode	RW

10.6 FileAccessLength

Name	FileAccessLength[FileOperationSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Controls the length of the mapping between the device file storage and the FileAccessBuffer.
Description	
DisplayName	File Access Length
Visibility	Guru
ImposedAccessMode	RW

10.7 FileOperationStatus

Name	FileOperationStatus[FileOperationSelector]
NameSpace	Standard
Interface	Enumeration
ToolTip	Represents the file operation execution status.
Description	
DisplayName	File Operation Status
Visibility	Guru

10.7.1 EnumEntries FileOperationStatus

Name[1]	DisplayName	ToolTip	Description
Success	Success	File Operation was successful.	
Failure	Failure	File Operation failed.	

[1] Asterisk after name means NameSpace = Custom, otherwise: NameSpace = Standard

10.8 FileOperationResult

Name	FileOperationResult[FileOperationSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Represents the file operation result.
Description	Represents the file operation result. For Read or Write operations, the number of successfully read/written bytes is returned.
DisplayName	File Operation Result
Visibility	Guru
ImposedAccessMode	RO

10.9 FileSize

Name	FileSize[FileSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Represents the size of the selected file in bytes.
Description	
DisplayName	File Size
Visibility	Guru
pIsAvailable	IsFileSelected
ImposedAccessMode	RO
Representation	HexNumber

10.10 FileChecksum

Name	FileChecksum[FileSelector]
NameSpace	Custom
Interface	Integer
ToolTip	Represents the checksum of the selected file.
Description	
DisplayName	File Checksum
Visibility	Guru
pIsAvailable	IsFileSelected
ImposedAccessMode	RW
Representation	HexNumber

11 TransportLayerControl

11.1 PayloadSize

Name	PayloadSize
NameSpace	Standard
Interface	Integer
ToolTip	Provides the number of bytes transferred for each data buffer or chunk on the stream channel.
Description	Provides the number of bytes transferred for each data buffer or chunk on the stream channel. This includes any end-of-line, end-of-frame statistics or other stamp data. This is the total size of data payload for a data block.
DisplayName	Payload Size
Visibility	Expert
ImposedAccessMode	RO

11.2 GevSCPSPacketSize

Name	GevSCPSPacketSize
NameSpace	Standard
Interface	Integer
ToolTip	This GigE Vision specific feature corresponds to DeviceStreamChannelPacketSize and should be kept in sync with it.
Description	This GigE Vision specific feature corresponds to DeviceStreamChannelPacketSize and should be kept in sync with it. It specifies the stream packet size, in bytes, to send on the selected channel for a GVSP transmitter or specifies the maximum packet size supported by a GVSP receiver.
DisplayName	Gev SCPS Packet Size
Visibility	Expert
pIsLocked	TLParamsLocked
ImposedAccessMode	RW
Streamable	Yes
Min	576
Max	1476
Inc	4
Unit	B
Representation	Linear

11.3 GevInterfaceSelector

Name	GevInterfaceSelector
NameSpace	Standard
Interface	Integer
ToolTip	Selects which logical link to control.

Description	
DisplayName	Gev Interface Selector
Visibility	Beginner
ImposedAccessMode	RO
Value	0
Min	0
Max	0
Inc	1
pSelected	GevMACAddress
pSelected	GevSCPSPacketSize
pSelected	GevCurrentIPConfigurationLLA
pSelected	GevCurrentIPConfigurationDHCP
pSelected	GevCurrentIPConfigurationPersistentIP
pSelected	GevCurrentIPAddress
pSelected	GevCurrentSubnetMask
pSelected	GevCurrentDefaultGateway
pSelected	GevPersistentIPAddress
pSelected	GevPersistentSubnetMask
pSelected	GevPersistentDefaultGateway

11.4 GevMACAddress

Name	GevMACAddress[GevInterfaceSelector]
NameSpace	Standard
Interface	Integer
ToolTip	MAC address of the logical link.
Description	
DisplayName	Gev MAC Address
Visibility	Beginner
ImposedAccessMode	RO
Representation	MACAddress

11.5 GevCurrentIPConfigurationLLA

Name	GevCurrentIPConfigurationLLA[GevInterfaceSelector]
NameSpace	Standard
Interface	Boolean
ToolTip	Controls whether the Link Local Address IP configuration scheme is activated on the given logical link. Note: LLA cannot be disabled.
Description	Controls whether the Link Local Address IP configuration scheme is activated on the given logical link.
DisplayName	Gev Current IP Configuration LLA
Visibility	Beginner
ImposedAccessMode	RO

11.6 GevCurrentIPConfigurationDHCP

Name	GevCurrentIPConfigurationDHCP[GevInterfaceSelector]
NameSpace	Standard
Interface	Boolean
ToolTip	Controls whether the DHCP IP configuration scheme is activated on the given logical link.
Description	
DisplayName	Gev Current IP Configuration DHCP
Visibility	Beginner
ImposedAccessMode	RW

11.7 GevCurrentIPConfigurationPersistentIP

Name	GevCurrentIPConfigurationPersistentIP[GevInterfaceSelector]
NameSpace	Standard
Interface	Boolean
ToolTip	Controls whether the PersistentIP configuration scheme is activated on the given logical link.
Description	
DisplayName	Gev Current IP Configuration Persistent IP
Visibility	Beginner
ImposedAccessMode	RW

11.8 GevCurrentIPAddress

Name	GevCurrentIPAddress[GevInterfaceSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Reports the IP address for the given logical link.
Description	
DisplayName	Gev Current IP Address
Visibility	Beginner
ImposedAccessMode	RO
Representation	IPV4Address

11.9 GevCurrentSubnetMask

Name	GevCurrentSubnetMask[GevInterfaceSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Reports the subnet mask of the given logical link.
Description	
DisplayName	Gev Current Subnet Mask
Visibility	Beginner
ImposedAccessMode	RO
Representation	IPV4Address

11.10 GevCurrentDefaultGateway

Name	GevCurrentDefaultGateway[GevInterfaceSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Reports the default gateway IP address of the given logical link.
Description	
DisplayName	Gev Current Default Gateway
Visibility	Beginner
ImposedAccessMode	RO
Representation	IPV4Address

11.11 GevPersistentIPAddress

Name	GevPersistentIPAddress[GevInterfaceSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Controls the Persistent IP address for this logical link.
Description	Controls the Persistent IP address for this logical link. It is only used when the device boots with the Persistent IP configuration scheme.
DisplayName	Gev Persistent IP Address
Visibility	Beginner
pIsAvailable	PersistentIPModeIsEnabled
ImposedAccessMode	RW
Representation	IPV4Address

11.12 GevPersistentSubnetMask

Name	GevPersistentSubnetMask[GevInterfaceSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Controls the Persistent subnet mask associated with the Persistent IP address on this logical link.
Description	Controls the Persistent subnet mask associated with the Persistent IP address on this logical link. It is only used when the device boots with the Persistent IP configuration scheme.
DisplayName	Gev Persistent Subnet Mask
Visibility	Beginner
pIsAvailable	PersistentIPModeIsEnabled
ImposedAccessMode	RW
Representation	IPV4Address

11.13 GevPersistentDefaultGateway

Name	GevPersistentDefaultGateway[GevInterfaceSelector]
NameSpace	Standard
Interface	Integer
ToolTip	Controls the persistent default gateway for this logical link.
Description	Controls the persistent default gateway for this logical link. It is only used when the device boots with the Persistent IP configuration scheme.
DisplayName	Gev Persistent Default Gateway
Visibility	Beginner
pIsAvailable	PersistentIPModeIsEnabled
ImposedAccessMode	RW
Representation	IPV4Address