FlyCapture2 C

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Chapter 1

Deprecated List

Global fc2Disonnect (fc2GuiContext context) __attribute__((deprecated))

This method is deprecated and will be removed in a future FlyCapture2 release. Please use fc2GUIDisconnect instead.

Chapter 2

Data Structure Index

2.1 Data Structures

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3.1 File List

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Chapter 4

Data Structure Documentation

4.1 fc2AVIOption Struct Reference

Data Fields

- float frameRate
- unsigned int reserved [256]

4.1.1 Field Documentation

4.1.1.1 float frameRate

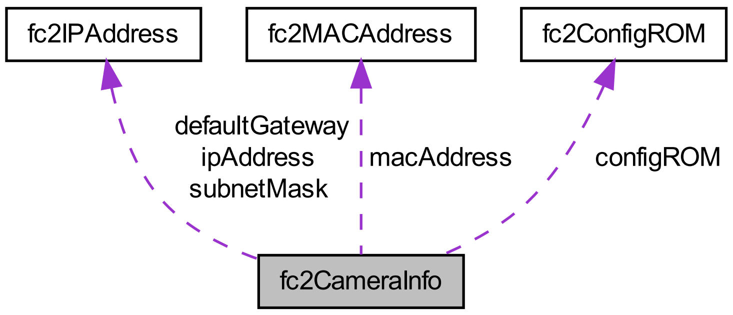
4.1.1.2 unsigned int reserved[256]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.2 fc2CameraInfo Struct Reference

Collaboration diagram for fc2CameraInfo:



Data Fields

- unsigned int serialNumber
- fc2InterfaceType interfaceType
- fc2DriverType driverType
- BOOL isColorCamera
- char modelName [MAX_STRING_LENGTH]
- char vendorName [MAX_STRING_LENGTH]
- char sensorInfo [MAX_STRING_LENGTH]
- char sensorResolution [MAX_STRING_LENGTH]
- char driverName [MAX_STRING_LENGTH]
- char firmwareVersion [MAX_STRING_LENGTH]
- char firmwareBuildTime [MAX_STRING_LENGTH]
- fc2BusSpeed maximumBusSpeed
- fc2PCIeBusSpeed pcieBusSpeed
- fc2BayerTileFormat bayerTileFormat
- unsigned short busNumber
- unsigned short nodeNumber
- unsigned int iidcVer
- fc2ConfigROM configROM
- unsigned int gigEMajorVersion
- unsigned int gigEMinorVersion
- char userDefinedName [MAX_STRING_LENGTH]
- char xmlURL1 [MAX_STRING_LENGTH]
- char xmlURL2 [MAX_STRING_LENGTH]

- fc2MACAddress macAddress
- fc2IPAddress ipAddress
- fc2IPAddress subnetMask
- fc2IPAddress defaultGateway
- unsigned int ccpStatus

  Status/Content of CCP register.
- unsigned int applicationIPAddress

  Local Application IP Address.
- unsigned int applicationPort

  Local Application port.
- unsigned int reserved [16]

4.2.1 Field Documentation

4.2.1.1 unsigned int **applicationIPAddress**

Local Application IP Address.

4.2.1.2 unsigned int **applicationPort**

Local Application port.

4.2.1.3 fc2BayerTileFormat bayerTileFormat

4.2.1.4 unsigned short **busNumber**

4.2.1.5 unsigned int **ccpStatus**

Status/Content of CCP register.

4.2.1.6 fc2ConfigROM configROM

4.2.1.7 fc2IPAddress defaultGateway

4.2.1.8 char **driverName**[MAX_STRING_LENGTH]

4.2.1.9 fc2DriverType driverType

4.2.1.10 char **firmwareBuildTime**[MAX_STRING_LENGTH]

4.2.1.11 char **firmwareVersion**[MAX_STRING_LENGTH]

4.2.1.12 unsigned int **gigEMajorVersion**

4.2.1.13 unsigned int **gigEMinorVersion**

4.2.1.14 unsigned int **iidcVer**

4.2.1.15 **fc2InterfaceType interfaceType**

4.2.1.16 **fc2IPAddress ipAddress**

4.2.1.17 **BOOL isColorCamera**

4.2.1.18 **fc2MACAddress macAddress**

4.2.1.19 **fc2BusSpeed maximumBusSpeed**

4.2.1.20 char **modelName**[MAX_STRING_LENGTH]

4.2.1.21 unsigned short **nodeNumber**

4.2.1.22 **fc2PCIeBusSpeed pcieBusSpeed**

4.2.1.23 unsigned int **reserved**[16]

4.2.1.24 char **sensorInfo**[MAX_STRING_LENGTH]

4.2.1.25 char **sensorResolution**[MAX_STRING_LENGTH]

4.2.1.26 unsigned int **serialNumber**

4.2.1.27 **fc2IPAddress subnetMask**

4.2.1.28 char **userDefinedName**[MAX_STRING_LENGTH]

4.2.1.29 char **vendorName**[MAX_STRING_LENGTH]

4.2.1.30 char **xmlURL1**[MAX_STRING_LENGTH]

4.2.1.31 char **xmlURL2**[MAX_STRING_LENGTH]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.3 fc2Config Struct Reference

Data Fields

- unsigned int numBuffers

- unsigned int numImageNotifications
- unsigned int minNumImageNotifications
- int grabTimeout
- fc2GrabMode grabMode
- fc2BusSpeed isochBusSpeed
- fc2BusSpeed asyncBusSpeed
- fc2BandwidthAllocation bandwidthAllocation
- unsigned int registerTimeoutRetries
- unsigned int registerTimeout
- unsigned int reserved [16]

4.3.1 Field Documentation

4.3.1.1 fc2BusSpeed asyncBusSpeed

4.3.1.2 fc2BandwidthAllocation bandwidthAllocation

4.3.1.3 fc2GrabMode grabMode

4.3.1.4 int grabTimeout

4.3.1.5 fc2BusSpeed isochBusSpeed

4.3.1.6 unsigned int minNumImageNotifications

4.3.1.7 unsigned int numBuffers

4.3.1.8 unsigned int numImageNotifications

4.3.1.9 unsigned int registerTimeout

4.3.1.10 unsigned int registerTimeoutRetries

4.3.1.11 unsigned int reserved[16]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.4 fc2ConfigROM Struct Reference

Data Fields

- unsigned int nodeVendorId
- unsigned int chipIdHi

- unsigned int chipIdLo
- unsigned int unitSpecId
- unsigned int unitSWVer
- unsigned int unitSubSWVer
- unsigned int vendorUniqueInfo_0
- unsigned int vendorUniqueInfo_1
- unsigned int vendorUniqueInfo_2
- unsigned int vendorUniqueInfo_3
- char pszKeyword [MAX_STRING_LENGTH]
- unsigned int reserved [16]

4.4.1 Field Documentation

4.4.1.1 unsigned int **chipIdHi**

4.4.1.2 unsigned int **chipIdLo**

4.4.1.3 unsigned int **nodeVendorId**

4.4.1.4 char **pszKeyword**[MAX_STRING_LENGTH]

4.4.1.5 unsigned int **reserved**[16]

4.4.1.6 unsigned int **unitSpecId**

4.4.1.7 unsigned int **unitSubSWVer**

4.4.1.8 unsigned int **unitSWVer**

4.4.1.9 unsigned int **vendorUniqueInfo_0**

4.4.1.10 unsigned int **vendorUniqueInfo_1**

4.4.1.11 unsigned int **vendorUniqueInfo_2**

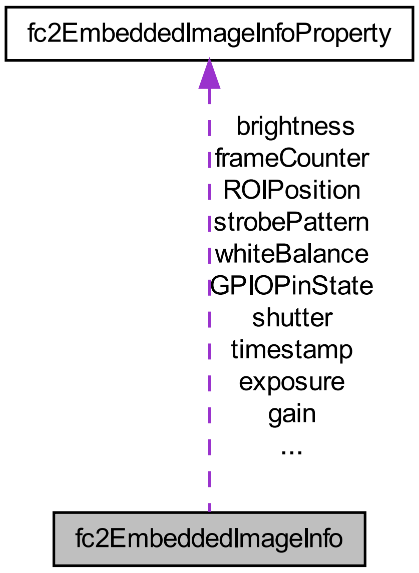
4.4.1.12 unsigned int **vendorUniqueInfo_3**

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.5 fc2EmbeddedImageInfo Struct Reference

Collaboration diagram for fc2EmbeddedImageInfo:



Data Fields

- fc2EmbeddedImageInfoProperty timestamp
- fc2EmbeddedImageInfoProperty gain
- fc2EmbeddedImageInfoProperty shutter
- fc2EmbeddedImageInfoProperty brightness
- fc2EmbeddedImageInfoProperty exposure
- fc2EmbeddedImageInfoProperty whiteBalance
- fc2EmbeddedImageInfoProperty frameCounter
- fc2EmbeddedImageInfoProperty strobePattern
- fc2EmbeddedImageInfoProperty GPIOPinState
- fc2EmbeddedImageInfoProperty ROIPosition

4.5.1 Field Documentation

4.5.1.1 fc2EmbeddedImageInfoProperty brightness

4.5.1.2 fc2EmbeddedImageInfoProperty exposure

4.5.1.3 fc2EmbeddedImageInfoProperty frameCounter

4.5.1.4 fc2EmbeddedImageInfoProperty gain

4.5.1.5 fc2EmbeddedImageInfoProperty GPIOPinState

4.5.1.6 fc2EmbeddedImageInfoProperty ROIPosition

4.5.1.7 fc2EmbeddedImageInfoProperty shutter

4.5.1.8 fc2EmbeddedImageInfoProperty strobePattern

4.5.1.9 fc2EmbeddedImageInfoProperty timestamp

4.5.1.10 fc2EmbeddedImageInfoProperty whiteBalance

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.6 fc2EmbeddedImageInfoProperty Struct Reference

Data Fields

- BOOL available
- BOOL onOff

4.6.1 Field Documentation

4.6.1.1 BOOL available

4.6.1.2 BOOL onOff

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.7 fc2Format7ImageSettings Struct Reference

Data Fields

- fc2Mode mode

- unsigned int offsetX
- unsigned int offsetY
- unsigned int width
- unsigned int height
- fc2PixelFormat pixelFormat
- unsigned int reserved [8]

4.7.1 Field Documentation

4.7.1.1 unsigned int height

4.7.1.2 fc2Mode mode

4.7.1.3 unsigned int offsetX

4.7.1.4 unsigned int offsetY

4.7.1.5 fc2PixelFormat pixelFormat

4.7.1.6 unsigned int reserved[8]

4.7.1.7 unsigned int width

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.8 fc2Format7Info Struct Reference

Data Fields

- fc2Mode mode
- unsigned int maxWidth
- unsigned int maxHeight
- unsigned int offsetHStepSize
- unsigned int offsetVStepSize
- unsigned int imageHStepSize
- unsigned int imageVStepSize
- unsigned int pixelFormatBitField
- unsigned int vendorPixelFormatBitField
- unsigned int packetSize
- unsigned int minPacketSize
- unsigned int maxPacketSize
- float percentage
- unsigned int reserved [16]

4.8.1 Field Documentation

4.8.1.1 unsigned int **imageHStepSize**

4.8.1.2 unsigned int **imageVStepSize**

4.8.1.3 unsigned int **maxHeight**

4.8.1.4 unsigned int **maxPacketSize**

4.8.1.5 unsigned int **maxWidth**

4.8.1.6 unsigned int **minPacketSize**

4.8.1.7 **fc2Mode mode**

4.8.1.8 unsigned int **offsetHStepSize**

4.8.1.9 unsigned int **offsetVStepSize**

4.8.1.10 unsigned int **packetSize**

4.8.1.11 float **percentage**

4.8.1.12 unsigned int **pixelFormatBitField**

4.8.1.13 unsigned int **reserved**[16]

4.8.1.14 unsigned int **vendorPixelFormatBitField**

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.9 fc2Format7PacketInfo Struct Reference

Data Fields

- unsigned int recommendedBytesPerPacket
- unsigned int maxBytesPerPacket
- unsigned int unitBytesPerPacket
- unsigned int reserved [8]

4.9.1 Field Documentation

4.9.1.1 unsigned int **maxBytesPerPacket**

4.9.1.2 unsigned int **recommendedBytesPerPacket**

4.9.1.3 unsigned int **reserved**[8]

4.9.1.4 unsigned int **unitBytesPerPacket**

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.10 fc2GigEConfig Struct Reference

Data Fields

- BOOL enablePacketResend

  Turn on/off packet resend functionality.
- unsigned int timeoutForPacketResend

  The number of miliseconds to wait for each requested packet.
- unsigned int maxPacketsToResend

  The max number of packets that can be requested to be resend.
- unsigned int reserved [8]

4.10.1 Field Documentation

4.10.1.1 BOOL **enablePacketResend**

Turn on/off packet resend functionality.

4.10.1.2 unsigned int **maxPacketsToResend**

The max number of packets that can be requested to be resend.

4.10.1.3 unsigned int **reserved**[8]

4.10.1.4 unsigned int **timeoutForPacketResend**

The number of miliseconds to wait for each requested packet.

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.11 fc2GigEImageSettings Struct Reference

Data Fields

- unsigned int offsetX
- unsigned int offsetY
- unsigned int width
- unsigned int height
- fc2PixelFormat pixelFormat
- unsigned int reserved [8]

4.11.1 Field Documentation

4.11.1.1 unsigned int **height**

4.11.1.2 unsigned int **offsetX**

4.11.1.3 unsigned int **offsetY**

4.11.1.4 fc2PixelFormat **pixelFormat**

4.11.1.5 unsigned int **reserved**[8]

4.11.1.6 unsigned int **width**

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.12 fc2GigEImageSettingsInfo Struct Reference

Data Fields

- unsigned int maxWidth
- unsigned int maxHeight
- unsigned int offsetHStepSize
- unsigned int offsetVStepSize
- unsigned int imageHStepSize
- unsigned int imageVStepSize
- unsigned int pixelFormatBitField
- unsigned int vendorPixelFormatBitField
- unsigned int reserved [16]

4.12.1 Field Documentation

4.12.1.1 unsigned int imageHStepSize

4.12.1.2 unsigned int imageVStepSize

4.12.1.3 unsigned int maxHeight

4.12.1.4 unsigned int maxWidth

4.12.1.5 unsigned int offsetHStepSize

4.12.1.6 unsigned int offsetVStepSize

4.12.1.7 unsigned int pixelFormatBitField

4.12.1.8 unsigned int reserved[16]

4.12.1.9 unsigned int vendorPixelFormatBitField

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.13 fc2GigEProperty Struct Reference

Data Fields

- fc2GigEPropertyType propType
- BOOL isReadable
- BOOL isWritable
- unsigned int min
- unsigned int max
- unsigned int value
- unsigned int reserved [8]

4.13.1 Field Documentation

4.13.1.1 BOOL isReadable

4.13.1.2 BOOL isWritable

4.13.1.3 unsigned int max

4.13.1.4 unsigned int min

4.13.1.5 fc2GigEPropertyType propType

4.13.1.6 unsigned int reserved[8]

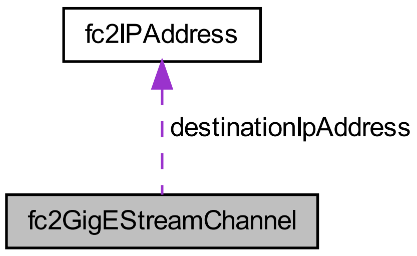
4.13.1.7 unsigned int value

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.14 fc2GigEStreamChannel Struct Reference

Collaboration diagram for fc2GigEStreamChannel:



Data Fields

- unsigned int networkInterfaceIndex
- unsigned int hostPost
- BOOL doNotFragment
- unsigned int packetSize
- unsigned int interPacketDelay
- fc2IPAddress destinationIpAddress
- unsigned int sourcePort
- unsigned int reserved [8]

4.14.1 Field Documentation

4.14.1.1 fc2IPAddress destinationIpAddress

4.14.1.2 BOOL doNotFragment

4.14.1.3 unsigned int hostPost

4.14.1.4 unsigned int interPacketDelay

4.14.1.5 unsigned int networkInterfaceIndex

4.14.1.6 unsigned int packetSize

4.14.1.7 unsigned int reserved[8]

4.14.1.8 unsigned int sourcePort

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.15 fc2H264Option Struct Reference

Data Fields

- float frameRate
- unsigned int width
- unsigned int height
- unsigned int bitrate
- unsigned int reserved [256]

4.15.1 Field Documentation

4.15.1.1 unsigned int bitrate

4.15.1.2 float frameRate

4.15.1.3 unsigned int height

4.15.1.4 unsigned int reserved[256]

4.15.1.5 unsigned int width

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.16 fc2Image Struct Reference

Data Fields

- unsigned int rows
- unsigned int cols
- unsigned int stride
- unsigned char * pData
- unsigned int dataSize
- unsigned int receivedDataSize
- fc2PixelFormat format
- fc2BayerTileFormat bayerFormat
- fc2ImageImpl imageImpl

4.16.1 Field Documentation

4.16.1.1 fc2BayerTileFormat bayerFormat

4.16.1.2 unsigned int cols

4.16.1.3 unsigned int dataSize

4.16.1.4 fc2PixelFormat format

4.16.1.5 fc2ImageImpl imageImpl

4.16.1.6 unsigned char* pData

4.16.1.7 unsigned int receivedDataSize

4.16.1.8 unsigned int rows

4.16.1.9 unsigned int stride

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.17 fc2ImageMetadata Struct Reference

Data Fields

- unsigned int embeddedTimeStamp
- unsigned int embeddedGain
- unsigned int embeddedShutter

- unsigned int embeddedBrightness
- unsigned int embeddedExposure
- unsigned int embeddedWhiteBalance
- unsigned int embeddedFrameCounter
- unsigned int embeddedStrobePattern
- unsigned int embeddedGPIOPinState
- unsigned int embeddedROIPosition
- unsigned int reserved [31]

4.17.1 Field Documentation

4.17.1.1 unsigned int **embeddedBrightness**

4.17.1.2 unsigned int **embeddedExposure**

4.17.1.3 unsigned int **embeddedFrameCounter**

4.17.1.4 unsigned int **embeddedGain**

4.17.1.5 unsigned int **embeddedGPIOPinState**

4.17.1.6 unsigned int **embeddedROIPosition**

4.17.1.7 unsigned int **embeddedShutter**

4.17.1.8 unsigned int **embeddedStrobePattern**

4.17.1.9 unsigned int **embeddedTimeStamp**

4.17.1.10 unsigned int **embeddedWhiteBalance**

4.17.1.11 unsigned int **reserved**[31]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.18 fc2InternalContext Struct Reference

Data Fields

- FlyCapture2::BusManager ∗ pBusMgr
- FlyCapture2::CameraBase ∗ pCamera

4.18.1 Field Documentation

4.18.1.1 FlyCapture2::BusManager∗ pBusMgr

4.18.1.2 FlyCapture2::CameraBase∗ pCamera

The documentation for this struct was generated from the following file:

- FlyCapture2Internal_C.h

4.19 fc2InternalGuiContext Struct Reference

Data Fields

- FlyCapture2::CameraSelectionDlg ∗ pCameraSelectionDlg
- FlyCapture2::CameraControlDlg ∗ pCameraControlDlg

4.19.1 Field Documentation

4.19.1.1 FlyCapture2::CameraControlDlg∗ pCameraControlDlg

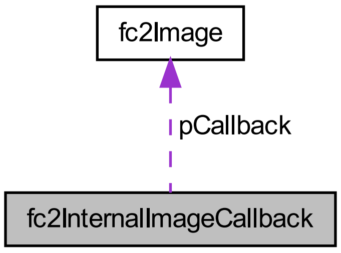
4.19.1.2 FlyCapture2::CameraSelectionDlg∗ pCameraSelectionDlg

The documentation for this struct was generated from the following file:

- FlyCapture2Internal_C.h

4.20 fc2InternalImageCallback Struct Reference

Collaboration diagram for fc2InternalImageCallback:



Data Fields

- fc2ImageEventCallback pCallback
- void ∗ pCallbackData

4.20.1 Field Documentation

4.20.1.1 fc2ImageEventCallback pCallback

4.20.1.2 void∗ pCallbackData

The documentation for this struct was generated from the following file:

- FlyCapture2Internal_C.h

4.21 fc2IPAddress Struct Reference

Data Fields

- unsigned char octets [4]

4.21.1 Field Documentation

4.21.1.1 unsigned char **octets**[4]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.22 fc2JPEGOption Struct Reference

Data Fields

- BOOL progressive
- unsigned int quality
- unsigned int reserved [16]

4.22.1 Field Documentation

4.22.1.1 **BOOL progressive**

4.22.1.2 unsigned int **quality**

4.22.1.3 unsigned int **reserved**[16]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.23 fc2JPG2Option Struct Reference

Data Fields

- unsigned int quality
- unsigned int reserved [16]

4.23.1 Field Documentation

4.23.1.1 unsigned int **quality**

4.23.1.2 unsigned int **reserved**[16]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.24 fc2LUTData Struct Reference

Data Fields

- BOOL supported
- BOOL enabled
- unsigned int numBanks
- unsigned int numChannels
- unsigned int inputBitDepth
- unsigned int outputBitDepth
- unsigned int numEntries
- unsigned int reserved [8]

4.24.1 Field Documentation

4.24.1.1 BOOL enabled

4.24.1.2 unsigned int inputBitDepth

4.24.1.3 unsigned int numBanks

4.24.1.4 unsigned int numChannels

4.24.1.5 unsigned int numEntries

4.24.1.6 unsigned int outputBitDepth

4.24.1.7 unsigned int reserved[8]

4.24.1.8 BOOL supported

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.25 fc2MACAddress Struct Reference

Data Fields

- unsigned char octets [6]

4.25.1 Field Documentation

4.25.1.1 unsigned char **octets**[6]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.26 fc2MJPGOption Struct Reference

Data Fields

- float frameRate
- unsigned int quality
- unsigned int reserved [256]

4.26.1 Field Documentation

4.26.1.1 float **frameRate**

4.26.1.2 unsigned int **quality**

4.26.1.3 unsigned int **reserved**[256]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.27 fc2PGMOption Struct Reference

Data Fields

- BOOL binaryFile
- unsigned int reserved [16]

4.27.1 Field Documentation

4.27.1.1 **BOOL binaryFile**

4.27.1.2 unsigned int **reserved**[16]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.28 fc2PGRGuid Struct Reference

A GUID to the camera.

Data Fields

- unsigned int value [4]

4.28.1 Detailed Description

A GUID to the camera.

It is used to uniquely identify a camera.

4.28.2 Field Documentation

4.28.2.1 unsigned int **value**[4]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.29 fc2PNGOption Struct Reference

Data Fields

- BOOL interlaced
- unsigned int compressionLevel
- unsigned int reserved [16]

4.29.1 Field Documentation

4.29.1.1 unsigned int **compressionLevel**

4.29.1.2 **BOOL interlaced**

4.29.1.3 unsigned int **reserved**[16]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.30 fc2PPMOption Struct Reference

Data Fields

- BOOL binaryFile
- unsigned int reserved [16]

4.30.1 Field Documentation

4.30.1.1 BOOL binaryFile

4.30.1.2 unsigned int reserved[16]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.31 fc2StrobeControl Struct Reference

Data Fields

- unsigned int source
- BOOL onOff
- unsigned int polarity
- float delay
- float duration
- unsigned int reserved [8]

4.31.1 Field Documentation

4.31.1.1 float delay

4.31.1.2 float duration

4.31.1.3 BOOL onOff

4.31.1.4 unsigned int polarity

4.31.1.5 unsigned int reserved[8]

4.31.1.6 unsigned int source

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.32 fc2StrobeInfo Struct Reference

Data Fields

- unsigned int source
- BOOL present
- BOOL readOutSupported
- BOOL onOffSupported
- BOOL polaritySupported
- float minValue
- float maxValue
- unsigned int reserved [8]

4.32.1 Field Documentation

4.32.1.1 float maxValue

4.32.1.2 float minValue

4.32.1.3 BOOL onOffSupported

4.32.1.4 BOOL polaritySupported

4.32.1.5 BOOL present

4.32.1.6 BOOL readOutSupported

4.32.1.7 unsigned int reserved[8]

4.32.1.8 unsigned int source

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.33 fc2SystemInfo Struct Reference

Data Fields

- fc2OSType osType
- char osDescription [MAX_STRING_LENGTH]
- fc2ByteOrder byteOrder
- size_t sysMemSize
- char cpuDescription [MAX_STRING_LENGTH]
- size_t numCpuCores

- char driverList [MAX_STRING_LENGTH]
- char libraryList [MAX_STRING_LENGTH]
- char gpuDescription [MAX_STRING_LENGTH]
- size_t screenWidth
- size_t screenHeight
- unsigned int reserved [16]

4.33.1 Field Documentation

4.33.1.1 fc2ByteOrder byteOrder

4.33.1.2 char cpuDescription[MAX_STRING_LENGTH]

4.33.1.3 char driverList[MAX_STRING_LENGTH]

4.33.1.4 char gpuDescription[MAX_STRING_LENGTH]

4.33.1.5 char libraryList[MAX_STRING_LENGTH]

4.33.1.6 size_t numCpuCores

4.33.1.7 char osDescription[MAX_STRING_LENGTH]

4.33.1.8 fc2OSType osType

4.33.1.9 unsigned int reserved[16]

4.33.1.10 size_t screenHeight

4.33.1.11 size_t screenWidth

4.33.1.12 size_t sysMemSize

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.34 fc2TIFFOption Struct Reference

Data Fields

- fc2TIFFCompressionMethod compression
- unsigned int reserved [16]

4.34.1 Field Documentation

4.34.1.1 fc2TIFFCompressionMethod compression

4.34.1.2 unsigned int reserved[16]

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.35 fc2TimeStamp Struct Reference

Data Fields

- long long seconds
- unsigned int microSeconds
- unsigned int cycleSeconds
- unsigned int cycleCount
- unsigned int cycleOffset
- unsigned int reserved [8]

4.35.1 Field Documentation

4.35.1.1 unsigned int cycleCount

4.35.1.2 unsigned int cycleOffset

4.35.1.3 unsigned int cycleSeconds

4.35.1.4 unsigned int microSeconds

4.35.1.5 unsigned int reserved[8]

4.35.1.6 long long seconds

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.36 fc2TriggerDelay Struct Reference

Data Fields

- fc2PropertyType type

- BOOL present
- BOOL absControl
- BOOL onePush
- BOOL onOff
- BOOL autoManualMode
- unsigned int valueA
- unsigned int valueB
- float absValue
- unsigned int reserved [8]

4.36.1 Field Documentation

4.36.1.1 BOOL absControl

4.36.1.2 float absValue

4.36.1.3 BOOL autoManualMode

4.36.1.4 BOOL onePush

4.36.1.5 BOOL onOff

4.36.1.6 BOOL present

4.36.1.7 unsigned int reserved[8]

4.36.1.8 fc2PropertyType type

4.36.1.9 unsigned int valueA

4.36.1.10 unsigned int valueB

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.37 fc2TriggerDelayInfo Struct Reference

Data Fields

- fc2PropertyType type
- BOOL present
- BOOL autoSupported
- BOOL manualSupported
- BOOL onOffSupported

- BOOL onePushSupported
- BOOL absValSupported
- BOOL readOutSupported
- unsigned int min
- unsigned int max
- float absMin
- float absMax
- char pUnits [MAX_STRING_LENGTH]
- char pUnitAbbr [MAX_STRING_LENGTH]
- unsigned int reserved [8]

4.37.1 Field Documentation

4.37.1.1 float absMax

4.37.1.2 float absMin

4.37.1.3 BOOL absValSupported

4.37.1.4 BOOL autoSupported

4.37.1.5 BOOL manualSupported

4.37.1.6 unsigned int max

4.37.1.7 unsigned int min

4.37.1.8 BOOL onePushSupported

4.37.1.9 BOOL onOffSupported

4.37.1.10 BOOL present

4.37.1.11 char pUnitAbbr[MAX_STRING_LENGTH]

4.37.1.12 char pUnits[MAX_STRING_LENGTH]

4.37.1.13 BOOL readOutSupported

4.37.1.14 unsigned int reserved[8]

4.37.1.15 fc2PropertyType type

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.38 fc2TriggerMode Struct Reference

Data Fields

- BOOL onOff
- unsigned int polarity
- unsigned int source
- unsigned int mode
- unsigned int parameter
- unsigned int reserved [8]

4.38.1 Field Documentation

4.38.1.1 unsigned int **mode**

4.38.1.2 BOOL onOff

4.38.1.3 unsigned int **parameter**

4.38.1.4 unsigned int **polarity**

4.38.1.5 unsigned int **reserved**[8]

4.38.1.6 unsigned int **source**

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.39 fc2TriggerModeInfo Struct Reference

Data Fields

- BOOL present
- BOOL readOutSupported
- BOOL onOffSupported
- BOOL polaritySupported
- BOOL valueReadable
- unsigned int sourceMask
- BOOL softwareTriggerSupported
- unsigned int modeMask
- unsigned int reserved [8]

4.39.1 Field Documentation

4.39.1.1 unsigned int **modeMask**

4.39.1.2 BOOL **onOffSupported**

4.39.1.3 BOOL **polaritySupported**

4.39.1.4 BOOL **present**

4.39.1.5 BOOL **readOutSupported**

4.39.1.6 unsigned int **reserved**[8]

4.39.1.7 BOOL **softwareTriggerSupported**

4.39.1.8 unsigned int **sourceMask**

4.39.1.9 BOOL **valueReadable**

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

4.40 fc2Version Struct Reference

Data Fields

- unsigned int major
- unsigned int minor
- unsigned int type
- unsigned int build

4.40.1 Field Documentation

4.40.1.1 unsigned int **build**

4.40.1.2 unsigned int **major**

4.40.1.3 unsigned int **minor**

4.40.1.4 unsigned int **type**

The documentation for this struct was generated from the following file:

- FlyCapture2Defs_C.h

Chapter 5

File Documentation

5.1 FlyCapture2_C.h File Reference

Functions

- FLYCAPTURE2_C_API fc2Error fc2CreateContext (fc2Context ∗pContext)

    Create a FC2 context for IIDC camaera.
- FLYCAPTURE2_C_API fc2Error fc2CreateGigEContext (fc2Context ∗pContext)

    Create a FC2 context for a GigE Vision camera.
- FLYCAPTURE2_C_API fc2Error fc2DestroyContext (fc2Context context)

    Destroy the FC2 context.
- FLYCAPTURE2_C_API fc2Error fc2FireBusReset (fc2Context context, fc2PGRGuid ∗pGuid)

    Fire a bus reset.
- FLYCAPTURE2_C_API fc2Error fc2GetNumOfCameras (fc2Context context, unsigned int ∗pNumCameras)

    Gets the number of cameras attached to the PC.
- FLYCAPTURE2_C_API fc2Error fc2IsCameraControlable (fc2Context context, fc2PGRGuid ∗pGuid, BOOL ∗pControlable)

    Query whether a GigE camera is controlable.
- FLYCAPTURE2_C_API fc2Error fc2GetCameraFromIndex (fc2Context context, unsigned int index, fc2PGRGuid ∗pGuid)

    Gets the PGRGuid for a camera on the PC.
- FLYCAPTURE2_C_API fc2Error fc2GetCameraFromIPAddress (fc2Context context, fc2IPAddress ipAddress, fc2PGRGuid ∗pGuid)

    Gets the PGRGuid for a camera with the specified IPv4 address.
- FLYCAPTURE2_C_API fc2Error fc2GetCameraFromSerialNumber (fc2Context context, unsigned int serialNumber, fc2PGRGuid ∗pGuid)

    Gets the PGRGuid for a camera on the PC.

- FLYCAPTURE2_C_API fc2Error fc2GetCameraSerialNumberFromIndex (fc2Context context, unsigned int index, unsigned int ∗pSerialNumber)

  Gets the serial number of the camera with the specified index.
- FLYCAPTURE2_C_API fc2Error fc2GetInterfaceTypeFromGuid (fc2Context context, fc2PGRGuid ∗pGuid, fc2InterfaceType ∗pInterfaceType)

  Gets the interface type associated with a PGRGuid.
- FLYCAPTURE2_C_API fc2Error fc2GetNumOfDevices (fc2Context context, unsigned int ∗pNumDevices)

  Gets the number of devices.
- FLYCAPTURE2_C_API fc2Error fc2GetDeviceFromIndex (fc2Context context, unsigned int index, fc2PGRGuid ∗pGuid)

  Gets the PGRGuid for a device.
- FLYCAPTURE2_C_API fc2Error fc2RegisterCallback (fc2Context context, fc2BusEventCallback enumCallback, fc2BusCallbackType callbackType, void ∗pParameter, fc2CallbackHandle ∗pCallbackHandle)

  Register a callback function that will be called when the specified callback event occurs.
- FLYCAPTURE2_C_API fc2Error fc2UnregisterCallback (fc2Context context, fc2CallbackHandle callbackHandle)

  Unregister a callback function.
- FLYCAPTURE2_C_API fc2Error fc2RescanBus (fc2Context context)

  Force a rescan of the buses.
- FLYCAPTURE2_C_API fc2Error fc2ForceIPAddressToCamera (fc2Context context, fc2MACAddress macAddress, fc2IPAddress ipAddress, fc2IPAddress subnetMask, fc2IPAddress defaultGateway)

  Force the camera with the specific MAC address to the specified IP address, subnet mask and default gateway.
- FLYCAPTURE2_C_API fc2Error fc2ForceAllIPAddressesAutomatically ()

  Force all cameras on the network to be assigned sequential IP addresses on the same subnet as the netowrk adapters that they are connected to.
- FLYCAPTURE2_C_API fc2Error fc2ForceIPAddressAutomatically (unsigned int serialNumber)

  Force a cameras on the network to be assigned sequential IP addresses on the same subnet as the netowrk adapters that it is connected to.
- FLYCAPTURE2_C_API fc2Error fc2DiscoverGigECameras (fc2Context context, fc2CameraInfo ∗gigECameras, unsigned int ∗arraySize)

  Discover all cameras connected to the network even if they reside on a different subnet.
- FLYCAPTURE2_C_API fc2Error fc2WriteRegister (fc2Context context, unsigned int address, unsigned int value)

  Write to the specified register on the camera.
- FLYCAPTURE2_C_API fc2Error fc2WriteRegisterBroadcast (fc2Context context, unsigned int address, unsigned int value)

  Write to the specified register on the camera with broadcast.
- FLYCAPTURE2_C_API fc2Error fc2ReadRegister (fc2Context context, unsigned int address, unsigned int ∗pValue)

  Read the specified register from the camera.

- FLYCAPTURE2_C_API fc2Error fc2WriteRegisterBlock (fc2Context context, unsigned short addressHigh, unsigned int addressLow, const unsigned int ∗pBuffer, unsigned int length)

  Write to the specified register block on the camera.
- FLYCAPTURE2_C_API fc2Error fc2ReadRegisterBlock (fc2Context context, unsigned short addressHigh, unsigned int addressLow, unsigned int ∗pBuffer, unsigned int length)

  Write to the specified register block on the camera.
- FLYCAPTURE2_C_API fc2Error fc2Connect (fc2Context context, fc2PGRGuid ∗guid)

  Connects the camera object to the camera specified by the GUID.
- FLYCAPTURE2_C_API fc2Error fc2Disconnect (fc2Context context)

  Disconnects the fc2Context from the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetCallback (fc2Context context, fc2ImageEventCallback pCallbackFn, void ∗pCallbackData)

  Sets the callback data to be used on completion of image transfer.
- FLYCAPTURE2_C_API fc2Error fc2StartCapture (fc2Context context)

  Starts isochronous image capture.
- FLYCAPTURE2_C_API fc2Error fc2StartCaptureCallback (fc2Context context, fc2ImageEventCallback pCallbackFn, void ∗pCallbackData)

  Starts isochronous image capture.
- FLYCAPTURE2_C_API fc2Error fc2StartSyncCapture (unsigned int numCameras, fc2Context ∗pContexts)

  Starts synchronized isochronous image capture on multiple cameras.
- FLYCAPTURE2_C_API fc2Error fc2StartSyncCaptureCallback (unsigned int numCameras, fc2Context ∗pContexts, fc2ImageEventCallback ∗pCallbackFns, void ∗∗pCallbackDataArray)

  Starts synchronized isochronous image capture on multiple cameras.
- FLYCAPTURE2_C_API fc2Error fc2RetrieveBuffer (fc2Context context, fc2Image ∗pImage)

  Retrieves the the next image object containing the next image.
- FLYCAPTURE2_C_API fc2Error fc2StopCapture (fc2Context context)

  Stops isochronous image transfer and cleans up all associated resources.
- FLYCAPTURE2_C_API fc2Error fc2SetUserBuffers (fc2Context context, unsigned char ∗const ppMemBuffers, int size, int nNumBuffers)

  Specify user allocated buffers to use as image data buffers.
- FLYCAPTURE2_C_API fc2Error fc2GetConfiguration (fc2Context context, fc2Config ∗config)

  Get the configuration associated with the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetConfiguration (fc2Context context, fc2Config ∗config)

  Set the configuration associated with the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetCameraInfo (fc2Context context, fc2CameraInfo ∗pCameraInfo)

Retrieves information from the camera such as serial number, model name and other camera information.

- FLYCAPTURE2_C_API fc2Error fc2GetPropertyInfo (fc2Context context, fc2-PropertyInfo ∗propInfo)

  Retrieves information about the specified camera property.
- FLYCAPTURE2_C_API fc2Error fc2GetProperty (fc2Context context, fc2-Property ∗prop)

  Reads the settings for the specified property from the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetProperty (fc2Context context, fc2-Property ∗prop)

  Writes the settings for the specified property to the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetPropertyBroadcast (fc2Context context, fc2Property ∗prop)

  Writes the settings for the specified property to the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetGPIOPinDirection (fc2Context context, unsigned int pin, unsigned int ∗pDirection)

  Get the GPIO pin direction for the specified pin.
- FLYCAPTURE2_C_API fc2Error fc2SetGPIOPinDirection (fc2Context context, unsigned int pin, unsigned int direction)

  Set the GPIO pin direction for the specified pin.
- FLYCAPTURE2_C_API fc2Error fc2SetGPIOPinDirectionBroadcast (fc2Context context, unsigned int pin, unsigned int direction)

  Set the GPIO pin direction for the specified pin.
- FLYCAPTURE2_C_API fc2Error fc2GetTriggerModeInfo (fc2Context context, fc2TriggerModeInfo ∗triggerModeInfo)

  Retrieve trigger information from the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetTriggerMode (fc2Context context, fc2-TriggerMode ∗triggerMode)

  Retrieve current trigger settings from the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetTriggerMode (fc2Context context, fc2-TriggerMode ∗triggerMode)

  Set the specified trigger settings to the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetTriggerModeBroadcast (fc2Context context, fc2TriggerMode ∗triggerMode)

  Set the specified trigger settings to the camera.
- FLYCAPTURE2_C_API fc2Error fc2FireSoftwareTrigger (fc2Context context)
- FLYCAPTURE2_C_API fc2Error fc2FireSoftwareTriggerBroadcast (fc2Context context)

  Fire the software trigger according to the DCAM specifications.
- FLYCAPTURE2_C_API fc2Error fc2GetTriggerDelayInfo (fc2Context context, fc2TriggerDelayInfo ∗triggerDelayInfo)

  Retrieve trigger delay information from the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetTriggerDelay (fc2Context context, fc2-TriggerDelay ∗triggerDelay)

  Retrieve current trigger delay settings from the camera.

- FLYCAPTURE2_C_API fc2Error fc2SetTriggerDelay (fc2Context context, fc2-TriggerDelay ∗triggerDelay)

  Set the specified trigger delay settings to the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetTriggerDelayBroadcast (fc2Context context, fc2TriggerDelay ∗triggerDelay)

  Set the specified trigger delay settings to the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetStrobeInfo (fc2Context context, fc2-StrobeInfo ∗strobeInfo)

  Retrieve strobe information from the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetStrobe (fc2Context context, fc2Strobe-Control ∗strobeControl)

  Retrieve current strobe settings from the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetStrobe (fc2Context context, fc2Strobe-Control ∗strobeControl)

  Set current strobe settings to the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetStrobeBroadcast (fc2Context context, fc2StrobeControl ∗strobeControl)

  Set current strobe settings to the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetVideoModeAndFrameRateInfo (fc2-Context context, fc2VideoMode videoMode, fc2FrameRate frameRate, BOOL ∗pSupported)

  Query the camera to determine if the specified video mode and frame rate is supported.
- FLYCAPTURE2_C_API fc2Error fc2GetVideoModeAndFrameRate (fc2Context context, fc2VideoMode ∗videoMode, fc2FrameRate ∗frameRate)

  Get the current video mode and frame rate from the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetVideoModeAndFrameRate (fc2Context context, fc2VideoMode videoMode, fc2FrameRate frameRate)

  Set the specified video mode and frame rate to the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetFormat7Info (fc2Context context, fc2-Format7Info ∗info, BOOL ∗pSupported)

  Retrieve the availability of Format7 custom image mode and the camera capabilities for the specified Format7 mode.
- FLYCAPTURE2_C_API fc2Error fc2ValidateFormat7Settings (fc2Context context, fc2Format7ImageSettings ∗imageSettings, BOOL ∗settingsAreValid, fc2-Format7PacketInfo ∗packetInfo)

  Validates Format7ImageSettings structure and returns valid packet size information if the image settings are valid.
- FLYCAPTURE2_C_API fc2Error fc2GetFormat7Configuration (fc2Context context, fc2Format7ImageSettings ∗imageSettings, unsigned int ∗packetSize, float ∗percentage)

  Get the current Format7 configuration from the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetFormat7ConfigurationPacket (fc2Context context, fc2Format7ImageSettings ∗imageSettings, unsigned int packetSize)

  Set the current Format7 configuration to the camera.

- FLYCAPTURE2_C_API fc2Error fc2SetFormat7Configuration (fc2Context context, fc2Format7ImageSettings ∗imageSettings, float percentSpeed)

  Set the current Format7 configuration to the camera.
- FLYCAPTURE2_C_API fc2Error fc2WriteGVCPRegister (fc2Context context, unsigned int address, unsigned int value)

  Write a GVCP register.
- FLYCAPTURE2_C_API fc2Error fc2WriteGVCPRegisterBroadcast (fc2Context context, unsigned int address, unsigned int value)

  Write a GVCP register with broadcast.
- FLYCAPTURE2_C_API fc2Error fc2ReadGVCPRegister (fc2Context context, unsigned int address, unsigned int ∗pValue)

  Read a GVCP register.
- FLYCAPTURE2_C_API fc2Error fc2WriteGVCPRegisterBlock (fc2Context context, unsigned int address, const unsigned int ∗pBuffer, unsigned int length)

  Write a GVCP register block.
- FLYCAPTURE2_C_API fc2Error fc2ReadGVCPRegisterBlock (fc2Context context, unsigned int address, unsigned int ∗pBuffer, unsigned int length)

  Read a GVCP register block.
- FLYCAPTURE2_C_API fc2Error fc2WriteGVCPMemory (fc2Context context, unsigned int address, const unsigned char ∗pBuffer, unsigned int length)

  Write a GVCP memory block.
- FLYCAPTURE2_C_API fc2Error fc2ReadGVCPMemory (fc2Context context, unsigned int address, unsigned char ∗pBuffer, unsigned int length)

  Read a GVCP memory block.
- FLYCAPTURE2_C_API fc2Error fc2GetGigEProperty (fc2Context context, fc2GigEProperty ∗pGigEProp)

  Get the specified GigEProperty.
- FLYCAPTURE2_C_API fc2Error fc2SetGigEProperty (fc2Context context, const fc2GigEProperty ∗pGigEProp)

  Set the specified GigEProperty.
- FLYCAPTURE2_C_API fc2Error fc2QueryGigEImagingMode (fc2Context context, fc2Mode mode, BOOL ∗isSupported)
- FLYCAPTURE2_C_API fc2Error fc2GetGigEImagingMode (fc2Context context, fc2Mode ∗mode)
- FLYCAPTURE2_C_API fc2Error fc2SetGigEImagingMode (fc2Context context, fc2Mode mode)
- FLYCAPTURE2_C_API fc2Error fc2GetGigEImageSettingsInfo (fc2Context context, fc2GigEImageSettingsInfo ∗pInfo)
- FLYCAPTURE2_C_API fc2Error fc2GetGigEImageSettings (fc2Context context, fc2GigEImageSettings ∗pImageSettings)
- FLYCAPTURE2_C_API fc2Error fc2SetGigEImageSettings (fc2Context context, const fc2GigEImageSettings ∗pImageSettings)
- FLYCAPTURE2_C_API fc2Error fc2GetGigEConfig (fc2Context context, fc2GigEConfig ∗pConfig)
- FLYCAPTURE2_C_API fc2Error fc2SetGigEConfig (fc2Context context, const fc2GigEConfig ∗pConfig)

- FLYCAPTURE2_C_API fc2Error fc2GetGigEImageBinningSettings (fc2Context context, unsigned int ∗horzBinnningValue, unsigned int ∗vertBinnningValue)
- FLYCAPTURE2_C_API fc2Error fc2SetGigEImageBinningSettings (fc2Context context, unsigned int horzBinnningValue, unsigned int vertBinnningValue)
- FLYCAPTURE2_C_API fc2Error fc2GetNumStreamChannels (fc2Context context, unsigned int ∗numChannels)
- FLYCAPTURE2_C_API fc2Error fc2GetGigEStreamChannelInfo (fc2Context context, unsigned int channel, fc2GigEStreamChannel ∗pChannel)
- FLYCAPTURE2_C_API fc2Error fc2SetGigEStreamChannelInfo (fc2Context context, unsigned int channel, fc2GigEStreamChannel ∗pChannel)
- FLYCAPTURE2_C_API fc2Error fc2GetLUTInfo (fc2Context context, fc2LUTData ∗pData)

  Query if LUT support is available on the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetLUTBankInfo (fc2Context context, unsigned int bank, BOOL ∗pReadSupported, BOOL ∗pWriteSupported)

  Query the read/write status of a single LUT bank.
- FLYCAPTURE2_C_API fc2Error fc2GetActiveLUTBank (fc2Context context, unsigned int ∗pActiveBank)

  Get the LUT bank that is currently being used.
- FLYCAPTURE2_C_API fc2Error fc2SetActiveLUTBank (fc2Context context, unsigned int activeBank)

  Set the LUT bank that will be used.
- FLYCAPTURE2_C_API fc2Error fc2EnableLUT (fc2Context context, BOOL on)

  Enable or disable LUT functionality on the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetLUTChannel (fc2Context context, unsigned int bank, unsigned int channel, unsigned int sizeEntries, unsigned int ∗pEntries)

  Get the LUT channel settings from the camera.
- FLYCAPTURE2_C_API fc2Error fc2SetLUTChannel (fc2Context context, unsigned int bank, unsigned int channel, unsigned int sizeEntries, unsigned int ∗pEntries)

  Set the LUT channel settings to the camera.
- FLYCAPTURE2_C_API fc2Error fc2GetMemoryChannel (fc2Context context, unsigned int ∗pCurrentChannel)

  Retrieve the current memory channel from the camera.
- FLYCAPTURE2_C_API fc2Error fc2SaveToMemoryChannel (fc2Context context, unsigned int channel)

  Save the current settings to the specfied current memory channel.
- FLYCAPTURE2_C_API fc2Error fc2RestoreFromMemoryChannel (fc2Context context, unsigned int channel)

  Restore the specfied current memory channel.
- FLYCAPTURE2_C_API fc2Error fc2GetMemoryChannelInfo (fc2Context context, unsigned int ∗pNumChannels)

  Query the camera for memory channel support.
- FLYCAPTURE2_C_API fc2Error fc2GetEmbeddedImageInfo (fc2Context context, fc2EmbeddedImageInfo ∗pInfo)

Get the current status of the embedded image information register, as well as the availability of each embedded property.

- FLYCAPTURE2_C_API fc2Error fc2SetEmbeddedImageInfo (fc2Context context, fc2EmbeddedImageInfo ∗pInfo)

  Sets the on/off values of the embedded image information structure to the camera.
- FLYCAPTURE2_C_API const char ∗ fc2GetRegisterString (unsigned int registerVal)

  Returns a text representation of the register value.
- FLYCAPTURE2_C_API fc2Error fc2CreateImage (fc2Image ∗pImage)

  Create a fc2Image.
- FLYCAPTURE2_C_API fc2Error fc2DestroyImage (fc2Image ∗image)

  Destroy the fc2Image.
- FLYCAPTURE2_C_API fc2Error fc2SetDefaultColorProcessing (fc2ColorProcessingAlgorithm defaultMethod)

  Set the default color processing algorithm.
- FLYCAPTURE2_C_API fc2Error fc2GetDefaultColorProcessing (fc2ColorProcessingAlgorithm ∗pDefaultMethod)

  Get the default color processing algorithm.
- FLYCAPTURE2_C_API fc2Error fc2SetDefaultOutputFormat (fc2PixelFormat format)

  Set the default output pixel format.
- FLYCAPTURE2_C_API fc2Error fc2GetDefaultOutputFormat (fc2PixelFormat ∗pFormat)

  Get the default output pixel format.
- FLYCAPTURE2_C_API fc2Error fc2DetermineBitsPerPixel (fc2PixelFormat format, unsigned int ∗pBitsPerPixel)

  Calculate the bits per pixel for the specified pixel format.
- FLYCAPTURE2_C_API fc2Error fc2SaveImage (fc2Image ∗pImage, const char ∗pFilename, fc2ImageFileFormat format)

  Save the image to the specified file name with the file format specified.
- FLYCAPTURE2_C_API fc2Error fc2SaveImageWithOption (fc2Image ∗pImage, const char ∗pFilename, fc2ImageFileFormat format, void ∗pOption)

  Save the image to the specified file name with the file format specified.
- FLYCAPTURE2_C_API fc2Error fc2ConvertImage (fc2Image ∗pImageIn, fc2Image ∗pImageOut)
- FLYCAPTURE2_C_API fc2Error fc2ConvertImageTo (fc2PixelFormat format, fc2Image ∗pImageIn, fc2Image ∗pImageOut)

  Converts the current image buffer to the specified output format and stores the result in the specified image.
- FLYCAPTURE2_C_API fc2Error fc2GetImageData (fc2Image ∗pImage, unsigned char ∗∗ppData)

  Get a pointer to the data associated with the image.
- FLYCAPTURE2_C_API fc2Error fc2SetImageData (fc2Image ∗pImage, const unsigned char ∗pData, unsigned int dataSize)

  Set the data of the Image object.

- FLYCAPTURE2_C_API fc2Error fc2SetImageDimensions (fc2Image ∗pImage, unsigned int rows, unsigned int cols, unsigned int stride, fc2PixelFormat pixelFormat, fc2BayerTileFormat bayerFormat)

  Sets the dimensions of the image object.
- FLYCAPTURE2_C_API fc2TimeStamp fc2GetImageTimeStamp (fc2Image ∗pImage)

  Get the timestamp data associated with the image.
- FLYCAPTURE2_C_API fc2Error fc2CalculateImageStatistics (fc2Image ∗pImage, fc2ImageStatisticsContext ∗pImageStatisticsContext)

  Calculate statistics associated with the image.
- FLYCAPTURE2_C_API fc2Error fc2CreateImageStatistics (fc2ImageStatisticsContext ∗pImageStatisticsContext)

  Create a statistics context.
- FLYCAPTURE2_C_API fc2Error fc2DestroyImageStatistics (fc2ImageStatisticsContext imageStatisticsContext)

  Destroy a statistics context.
- FLYCAPTURE2_C_API const fc2Error fc2GetChannelStatus (fc2ImageStatisticsContext imageStatisticsContext, fc2StatisticsChannel channel, BOOL ∗pEnabled)

  Get the status of a statistics channel.
- FLYCAPTURE2_C_API fc2Error fc2SetChannelStatus (fc2ImageStatisticsContext imageStatisticsContext, fc2StatisticsChannel channel, BOOL enabled)

  Set the status of a statistics channel.
- FLYCAPTURE2_C_API fc2Error fc2GetImageStatistics (fc2ImageStatisticsContext imageStatisticsContext, fc2StatisticsChannel channel, unsigned int ∗pRangeMin, unsigned int ∗pRangeMax, unsigned int ∗pPixelValueMin, unsigned int ∗pPixelValueMax, unsigned int ∗pNumPixelValues, float ∗pPixelValueMean, int ∗∗ppHistogram)

  Get all statistics for the image.
- FLYCAPTURE2_C_API fc2Error fc2CreateAVI (fc2AVIContext ∗pAVIContext)

  Create a AVI context.
- FLYCAPTURE2_C_API fc2Error fc2AVIOpen (fc2AVIContext AVIContext, const char ∗pFileName, fc2AVIOption ∗pOption)

  Open an AVI file in preparation for writing Images to disk.
- FLYCAPTURE2_C_API fc2Error fc2MJPGOpen (fc2AVIContext AVIContext, const char ∗pFileName, fc2MJPGOption ∗pOption)

  Open an MJPEG file in preparation for writing Images to disk.
- FLYCAPTURE2_C_API fc2Error fc2H264Open (fc2AVIContext AVIContext, const char ∗pFileName, fc2H264Option ∗pOption)

  Open an H.264 file in preparation for writing Images to disk.
- FLYCAPTURE2_C_API fc2Error fc2AVIAppend (fc2AVIContext AVIContext, fc2Image ∗pImage)

  Append an image to the AVI file.
- FLYCAPTURE2_C_API fc2Error fc2AVIClose (fc2AVIContext AVIContext)

  Close the AVI file.

- FLYCAPTURE2_C_API fc2Error fc2DestroyAVI (fc2AVIContext AVIContext)

    Destroy a AVI context.
- FLYCAPTURE2_C_API fc2Error fc2GetSystemInfo (fc2SystemInfo ∗pSystemInfo)

    Get system information.
- FLYCAPTURE2_C_API fc2Error fc2GetLibraryVersion (fc2Version ∗pVersion)

    Get library version.
- FLYCAPTURE2_C_API fc2Error fc2LaunchBrowser (const char ∗pAddress)

    Launch a URL in the system default browser.
- FLYCAPTURE2_C_API fc2Error fc2LaunchHelp (const char ∗pFileName)

    Open a CHM file in the system default CHM viewer.
- FLYCAPTURE2_C_API fc2Error fc2LaunchCommand (const char ∗pCommand)

    Execute a command in the terminal.
- FLYCAPTURE2_C_API fc2Error fc2LaunchCommandAsync (const char ∗pCommand, fc2AsyncCommandCallback pCallback, void ∗pUserData)

    Execute a command in the terminal.
- FLYCAPTURE2_C_API const char ∗ fc2ErrorToDescription (fc2Error error)

    Get a string representation of an error.
- FLYCAPTURE2_C_API fc2Error fc2GetCycleTime (fc2Context context, fc2TimeStamp ∗pTimeStamp)

    Get cycle time from camera.

5.1.1 Function Documentation

5.1.1.1 FLYCAPTURE2_C_API fc2Error fc2AVIAppend (fc2AVIContext *AVIContext*, fc2Image ∗ *pImage*)

Append an image to the AVI file.

Parameters

AVIContext	The AVI context to use.
pImage	The image to append.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.2 FLYCAPTURE2_C_API fc2Error fc2AVIClose (fc2AVIContext *AVIContext*)

Close the AVI file.

Parameters

AVIContext	The AVI context to use.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.3 FLYCAPTURE2_C_API fc2Error fc2AVIOpen (fc2AVIContext *AVIContext*, const char ∗ *pFileName*, fc2AVIOption ∗ *pOption*)

Open an AVI file in preparation for writing Images to disk.

The size of AVI files is limited to 2GB. The filenames are automatically generated using the filename specified.

Parameters

AVIContext	The AVI context to use.
pFileName	The filename of the AVI file.
pOption	Options to apply to the AVI file.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.4 FLYCAPTURE2_C_API fc2Error fc2CalculateImageStatistics (fc2Image ∗ *pImage*, fc2ImageStatisticsContext ∗ *pImageStatisticsContext*)

Calculate statistics associated with the image.

In order to collect statistics for a particular channel, the enabled flag for the channel must be set to true. Statistics can only be collected for images in Mono8, Mono16, RGB, RGBU, BGR and BGRU.

Parameters

pImage	The fc2Image to be used.
pImage-Statistics-Context	The fc2ImageStatisticsContext to hold the statistics.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.5 FLYCAPTURE2_C_API **fc2Error** fc2Connect (**fc2Context** *context,* **fc2PGRGuid** ∗ *guid*)

Connects the camera object to the camera specified by the GUID.

Parameters

context	The fc2Context to be used.
guid	The unique identifier for a specific camera on the PC.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.6 FLYCAPTURE2_C_API **fc2Error** fc2ConvertImage (**fc2Image** ∗ *pImageIn,* **fc2Image** ∗ *pImageOut*)

Parameters

pImageIn	
pImageOut	

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.7 FLYCAPTURE2_C_API **fc2Error** fc2ConvertImageTo (**fc2PixelFormat** *format,* **fc2Image** ∗ *pImageIn,* **fc2Image** ∗ *pImageOut*)

Converts the current image buffer to the specified output format and stores the result in the specified image.

The destination image does not need to be configured in any way before the call is made.

Parameters

format	Output format of the converted image.
pImageIn	Input image.
pImageOut	Output image.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.8 FLYCAPTURE2_C_API fc2Error fc2CreateAVI (fc2AVIContext * *pAVIContext*)

Create a AVI context.

Parameters

pAVIContext	A AVI context.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.9 FLYCAPTURE2_C_API fc2Error fc2CreateContext (fc2Context * *pContext*)

Create a FC2 context for IIDC camaera.

This call must be made before any other calls that use a context will succeed.

Parameters

pContext	A pointer to the fc2Context to be created.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.10 FLYCAPTURE2_C_API fc2Error fc2CreateGigEContext (fc2Context * *pContext*)

Create a FC2 context for a GigE Vision camera.

This call must be made before any other calls that use a context will succeed.

Parameters

pContext	A pointer to the fc2Context to be created.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.11 FLYCAPTURE2_C_API fc2Error fc2CreateImage (fc2Image * *pImage*)

Create a fc2Image.

If externally allocated memory is to be used for the converted image, simply assigning the pData member of the fc2Image structure is insufficient. fc2SetImageData() should be called in order to populate the fc2Image structure correctly.

Parameters

pImage	Pointer to image to be created.

See also

fc2SetImageData()

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.12 FLYCAPTURE2_C_API fc2Error fc2CreateImageStatistics (fc2ImageStatisticsContext * *pImageStatisticsContext*)

Create a statistics context.

Parameters

pImage-Statistics-Context	A statistics context.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.13 FLYCAPTURE2_C_API fc2Error fc2DestroyAVI (fc2AVIContext *AVIContext*)

Destroy a AVI context.

Parameters

AVIContext	A AVI context.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.14 FLYCAPTURE2_C_API fc2Error fc2DestroyContext (fc2Context *context*)

Destroy the FC2 context.

This must be called when the user is finished with the context in order to prevent memory leaks.

Parameters

context	The context to be destroyed.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.15 FLYCAPTURE2_C_API fc2Error fc2DestroyImage (fc2Image ∗ *image*)

Destroy the fc2Image.

Parameters

image	Pointer to image to be destroyed.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.16 FLYCAPTURE2_C_API fc2Error fc2DestroyImageStatistics (fc2ImageStatisticsContext *imageStatisticsContext*)

Destroy a statistics context.

Parameters

image-Statistics-Context	A statistics context.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.17 FLYCAPTURE2_C_API fc2Error fc2DetermineBitsPerPixel (fc2PixelFormat *format*, unsigned int ∗ *pBitsPerPixel*)

Calculate the bits per pixel for the specified pixel format.

Parameters

format	The pixel format.
pBitsPer-Pixel	The bits per pixel.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.18 FLYCAPTURE2_C_API fc2Error fc2Disconnect (fc2Context *context*)

Disconnects the fc2Context from the camera.

Parameters

context	The fc2Context to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.19 FLYCAPTURE2_C_API fc2Error fc2DiscoverGigECameras (fc2Context *context,* fc2CameraInfo ∗ *gigECameras,* unsigned int ∗ *arraySize*)

Discover all cameras connected to the network even if they reside on a different subnet.

This is useful in situations where a GigE camera is using Persistent IP and the application's subnet is different from the device subnet. After discovering the camera, it is easy to use ForceIPAddressToCamera() to set a different IP configuration.

Parameters

context	The fc2Context to be used.
gigE-Cameras	Pointer to an array of CameraInfo structures.
arraySize	Size of the array. Number of discovered cameras is returned in the same value.

Returns

An Error indicating the success or failure of the function. If the error is PGRERR-OR_BUFFER_TOO_SMALL then arraySize will contain the minimum size needed for gigECameras array.

5.1.1.20 FLYCAPTURE2_C_API fc2Error fc2EnableLUT (fc2Context *context,* BOOL *on*)

Enable or disable LUT functionality on the camera.

Parameters

context	The fc2Context to be used.
on	Whether to enable or disable LUT.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.21 FLYCAPTURE2_C_API const char∗ fc2ErrorToDescription (fc2Error *error*)

Get a string representation of an error.

Parameters

error	Error to be parsed.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.22 FLYCAPTURE2_C_API fc2Error fc2FireBusReset (fc2Context *context*, fc2PGRGuid ∗ *pGuid*)

Fire a bus reset.

The actual bus reset is only fired for the specified 1394 bus, but it will effectively cause a global bus reset for the library.

Parameters

context	The fc2Context to be used.
pGuid	PGRGuid of the camera or the device to cause bus reset.

Returns

An Error indicating the success or failure of the function.

5.1.1.23 FLYCAPTURE2_C_API fc2Error fc2FireSoftwareTrigger (fc2Context *context*)

Parameters

context	The fc2Context to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.24 FLYCAPTURE2_C_API fc2Error fc2FireSoftwareTriggerBroadcast (fc2Context *context*)

Fire the software trigger according to the DCAM specifications.

Parameters

context	The fc2Context to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.25 FLYCAPTURE2_C_API fc2Error fc2ForceAllIPAddressesAutomatically ( )

Force all cameras on the network to be assigned sequential IP addresses on the same subnet as the netowrk adapters that they are connected to.

This is useful in situations where a GigE Vision cameras are using Persistent IP addresses and the application's subnet is different from the devices.

Returns

An Error indicating the success or failure of the function.

5.1.1.26 FLYCAPTURE2_C_API fc2Error fc2ForceIPAddressAutomatically (unsigned int *serialNumber*)

Force a cameras on the network to be assigned sequential IP addresses on the same subnet as the netowrk adapters that it is connected to.

This is useful in situations where a GigE Vision cameras is using Persistent IP addresses and the application's subnet is different from the device.

Returns

An Error indicating the success or failure of the function.

5.1.1.27 FLYCAPTURE2_C_API fc2Error fc2ForceIPAddressToCamera (fc2Context *context*, fc2MACAddress *macAddress*, fc2IPAddress *ipAddress*, fc2IPAddress *subnetMask*, fc2IPAddress *defaultGateway*)

Force the camera with the specific MAC address to the specified IP address, subnet mask and default gateway.

This is useful in situations where a GigE Vision camera is using Persistent IP and the application's subnet is different from the device subnet.

Parameters

context	The fc2Context to be used.
macAddress	MAC address of the camera.
ipAddress	IP address to set on the camera.
subnetMask	Subnet mask to set on the camera.
default-Gateway	Default gateway to set on the camera.

Returns

An Error indicating the success or failure of the function.

5.1.1.28 FLYCAPTURE2_C_API fc2Error fc2GetActiveLUTBank (fc2Context *context*, unsigned int ∗ *pActiveBank*)

Get the LUT bank that is currently being used.

For cameras with PGR LUT, the active bank is always 0.

Parameters

context	The fc2Context to be used.
pActiveBank	The currently active bank.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.29 FLYCAPTURE2_C_API fc2Error fc2GetCameraFromIndex (fc2Context *context*, unsigned int *index*, fc2PGRGuid ∗ *pGuid*)

Gets the PGRGuid for a camera on the PC.

It uniquely identifies the camera specified by the index and is used to identify the camera during a fc2Connect() call.

Parameters

context	The fc2Context to be used.
index	Zero based index of camera.
pGuid	Unique PGRGuid for the camera.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.30 FLYCAPTURE2_C_API fc2Error fc2GetCameraFromIPAddress (fc2Context *context,* fc2IPAddress *ipAddress,* fc2PGRGuid ∗ *pGuid*)

Gets the PGRGuid for a camera with the specified IPv4 address.

Parameters

context	The fc2Context to be used.
ipAddress	IP address to get GUID for.
pGuid	Unique PGRGuid for the camera.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.31 FLYCAPTURE2_C_API fc2Error fc2GetCameraFromSerialNumber (fc2Context *context,* unsigned int *serialNumber,* fc2PGRGuid ∗ *pGuid*)

Gets the PGRGuid for a camera on the PC.

It uniquely identifies the camera specified by the serial number and is used to identify the camera during a fc2Connect() call.

Parameters

context	The fc2Context to be used.
serial-Number	Serial number of camera.
pGuid	Unique PGRGuid for the camera.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.32 FLYCAPTURE2_C_API fc2Error fc2GetCameraInfo (fc2Context *context,* fc2CameraInfo ∗ *pCameraInfo*)

Retrieves information from the camera such as serial number, model name and other camera information.

Parameters

context	The fc2Context to be used.
pCameraInfo	Pointer to the camera information structure to be filled.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.33 FLYCAPTURE2_C_API fc2Error fc2GetCameraSerialNumberFromIndex (fc2Context *context,* unsigned int *index,* unsigned int * *pSerialNumber*)

Gets the serial number of the camera with the specified index.

Parameters

context	The fc2Context to be used.
index	Zero based index of desired camera.
pSerial-Number	Serial number of camera.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.34 FLYCAPTURE2_C_API const fc2Error fc2GetChannelStatus (fc2ImageStatisticsContext *imageStatisticsContext,* fc2StatisticsChannel *channel,* BOOL * *pEnabled*)

Get the status of a statistics channel.

Parameters

image-Statistics-Context	A statistics context.
channel	The statistics channel.
pEnabled	Whether the channel is enabled.

See also

SetChannelStatus()

Returns

An Error indicating the success or failure of the function.

5.1.1.35 FLYCAPTURE2_C_API fc2Error fc2GetConfiguration (fc2Context *context,* fc2Config * *config*)

Get the configuration associated with the camera.

Parameters

context	The fc2Context to be used.
config	Pointer to the configuration structure to be filled.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.36 FLYCAPTURE2_C_API fc2Error fc2GetCycleTime (fc2Context *context*, fc2TimeStamp ∗ *pTimeStamp*)

Get cycle time from camera.

Parameters

Timestamp	struct.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.37 FLYCAPTURE2_C_API fc2Error fc2GetDefaultColorProcessing (fc2ColorProcessingAlgorithm ∗ *pDefaultMethod*)

Get the default color processing algorithm.

Parameters

pDefault-Method	The default color processing algorithm.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.38 FLYCAPTURE2_C_API fc2Error fc2GetDefaultOutputFormat (fc2PixelFormat ∗ *pFormat*)

Get the default output pixel format.

Parameters

pFormat	The default pixel format.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.39 FLYCAPTURE2_C_API fc2Error fc2GetDeviceFromIndex (fc2Context *context*, unsigned int *index*, fc2PGRGuid ∗ *pGuid*)

Gets the PGRGuid for a device.

It uniquely identifies the device specified by the index.

Parameters

context	The fc2Context to be used.
index	Zero based index of device.
pGuid	Unique PGRGuid for the device.

See also

fc2GetNumOfDevices()

Returns

An Error indicating the success or failure of the function.

5.1.1.40 FLYCAPTURE2_C_API fc2Error fc2GetEmbeddedImageInfo (fc2Context *context*, fc2EmbeddedImageInfo ∗ *pInfo*)

Get the current status of the embedded image information register, as well as the availability of each embedded property.

Parameters

context	The fc2Context to be used.
pInfo	Structure to be filled.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.41 FLYCAPTURE2_C_API fc2Error fc2GetFormat7Configuration (fc2Context *context*, fc2Format7ImageSettings ∗ *imageSettings*, unsigned int ∗ *packetSize*, float ∗ *percentage*)

Get the current Format7 configuration from the camera.

This call will only succeed if the camera is already in Format7.

Parameters

context	The fc2Context to be used.
image-Settings	Current image settings.
packetSize	Current packet size.
percentage	Current packet size as a percentage.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.42 FLYCAPTURE2_C_API fc2Error fc2GetFormat7Info (fc2Context *context,* fc2Format7Info ∗ *info,* BOOL ∗ *pSupported*)

Retrieve the availability of Format7 custom image mode and the camera capabilities for the specified Format7 mode.

The mode must be specified in the Format7Info structure in order for the function to succeed.

Parameters

context	The fc2Context to be used.
info	Structure to be filled with the capabilities of the specified mode and the current state in the specified mode.
pSupported	Whether the specified mode is supported.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.43 FLYCAPTURE2_C_API fc2Error fc2GetGigEConfig (fc2Context *context,* fc2GigEConfig ∗ *pConfig*)

5.1.1.44 FLYCAPTURE2_C_API fc2Error fc2GetGigEImageBinningSettings (fc2Context *context,* unsigned int ∗ *horzBinnningValue,* unsigned int ∗ *vertBinnningValue*)

5.1.1.45 FLYCAPTURE2_C_API fc2Error fc2GetGigEImageSettings (fc2Context *context,* fc2GigEImageSettings ∗ *pImageSettings*)

5.1.1.46 FLYCAPTURE2_C_API fc2Error fc2GetGigEImageSettingsInfo (fc2Context *context,* fc2GigEImageSettingsInfo ∗ *pInfo*)

5.1.1.47 FLYCAPTURE2_C_API fc2Error fc2GetGigEImagingMode (fc2Context *context,* fc2Mode ∗ *mode*)

5.1.1.48 FLYCAPTURE2_C_API fc2Error fc2GetGigEProperty (fc2Context *context,* fc2GigEProperty ∗ *pGigEProp*)

Get the specified GigEProperty.

The GigEPropertyType field must be set in order for this function to succeed.

Parameters

context	The fc2Context to be used.
pGigEProp	The GigE property to get.

Returns

An Error indicating the success or failure of the function.

5.1.1.49 FLYCAPTURE2_C_API fc2Error fc2GetGigEStreamChannelInfo (fc2Context *context,* unsigned int *channel,* fc2GigEStreamChannel ∗ *pChannel*)

5.1.1.50 FLYCAPTURE2_C_API fc2Error fc2GetGPIOPinDirection (fc2Context *context,* unsigned int *pin,* unsigned int ∗ *pDirection*)

Get the GPIO pin direction for the specified pin.

This is not a required call when using the trigger or strobe functions as the pin direction is set automatically internally.

Parameters

context	The fc2Context to be used.
pin	Pin to get the direction for.
pDirection	Direction of the pin. 0 for input, 1 for output.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.51 FLYCAPTURE2_C_API fc2Error fc2GetImageData (fc2Image ∗ *pImage,* unsigned char ∗∗ *ppData*)

Get a pointer to the data associated with the image.

This function is considered unsafe. The pointer returned could be invalidated if the buffer is resized or released. The pointer may also be invalidated if the Image object is passed to fc2RetrieveBuffer().

Parameters

pImage	The fc2Image to be used.
ppData	A pointer to the image data.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.52 FLYCAPTURE2_C_API **fc2Error** fc2GetImageStatistics (**fc2ImageStatisticsContext** *imageStatisticsContext*, **fc2StatisticsChannel** *channel*, unsigned int * *pRangeMin*, unsigned int * *pRangeMax*, unsigned int * *pPixelValueMin*, unsigned int * *pPixelValueMax*, unsigned int * *pNumPixelValues*, float * *pPixelValueMean*, int ** *ppHistogram*)

Get all statistics for the image.

Parameters

imageStatisticsContext	The statistics context.
channel	The statistics channel.
pRangeMin	The minimum possible value.
pRangeMax	The maximum possible value.
pPixelValueMin	The minimum pixel value.
pPixelValueMax	The maximum pixel value.
pNumPixelValues	The number of unique pixel values.
pPixelValueMean	The mean of the image.
ppHistogram	Pointer to an array containing the histogram.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.53 FLYCAPTURE2_C_API **fc2TimeStamp** fc2GetImageTimeStamp (**fc2Image** * *pImage*)

Get the timestamp data associated with the image.

Parameters

pImage	The fc2Image to be used.

Returns

Timestamp data associated with the image.

5.1.1.54 FLYCAPTURE2_C_API fc2Error fc2GetInterfaceTypeFromGuid (fc2Context *context*, fc2PGRGuid ∗ *pGuid*, fc2InterfaceType ∗ *pInterfaceType*)

Gets the interface type associated with a PGRGuid.

This is useful in situations where there is a need to enumerate all cameras for a particular interface.

Parameters

context	The fc2Context to be used.
pGuid	The PGRGuid to get the interface for.
pInterface-Type	The interface type of the PGRGuid.

Returns

5.1.1.55 FLYCAPTURE2_C_API fc2Error fc2GetLibraryVersion (fc2Version ∗ *pVersion*)

Get library version.

Parameters

pVersion	Structure to receive the library version.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.56 FLYCAPTURE2_C_API fc2Error fc2GetLUTBankInfo (fc2Context *context*, unsigned int *bank*, BOOL ∗ *pReadSupported*, BOOL ∗ *pWriteSupported*)

Query the read/write status of a single LUT bank.

Parameters

context	The fc2Context to be used.
bank	The bank to query.
pRead-Supported	Whether reading from the bank is supported.
pWrite-Supported	Whether writing to the bank is supported.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.57 FLYCAPTURE2_C_API fc2Error fc2GetLUTChannel (fc2Context *context,* unsigned int *bank,* unsigned int *channel,* unsigned int *sizeEntries,* unsigned int ∗ *pEntries*)

Get the LUT channel settings from the camera.

Parameters

context	The fc2Context to be used.
bank	Bank to retrieve.
channel	Channel to retrieve.
sizeEntries	Number of entries in LUT table to read.
pEntries	Array to store LUT entries.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.58 FLYCAPTURE2_C_API fc2Error fc2GetLUTInfo (fc2Context *context,* fc2LUTData ∗ *pData*)

Query if LUT support is available on the camera.

Note that some cameras may report support for the LUT and return an inputBitDepth of 0. In these cases use log2(numEntries) for the inputBitDepth.

Parameters

context	The fc2Context to be used.
pData	The LUT structure to be filled.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.59 FLYCAPTURE2_C_API fc2Error fc2GetMemoryChannel (fc2Context *context,* unsigned int ∗ *pCurrentChannel*)

Retrieve the current memory channel from the camera.

Parameters

context	The fc2Context to be used.
pCurrent-Channel	Current memory channel.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.60 FLYCAPTURE2_C_API fc2Error fc2GetMemoryChannelInfo (fc2Context *context*, unsigned int ∗ *pNumChannels*)

Query the camera for memory channel support.

If the number of channels is 0, then memory channel support is not available.

Parameters

context	The fc2Context to be used.
pNum-Channels	Number of memory channels supported.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.61 FLYCAPTURE2_C_API fc2Error fc2GetNumOfCameras (fc2Context *context*, unsigned int ∗ *pNumCameras*)

Gets the number of cameras attached to the PC.

Parameters

context	The fc2Context to be used.
pNum-Cameras	Number of cameras detected.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.62 FLYCAPTURE2_C_API fc2Error fc2GetNumOfDevices (fc2Context *context*, unsigned int ∗ *pNumDevices*)

Gets the number of devices.

This may include hubs, host controllers and other hardware devices (including cameras).

Parameters

context	The fc2Context to be used.
pNum-Devices	The number of devices found.

Returns

An Error indicating the success or failure of the function.

5.1.1.63 FLYCAPTURE2_C_API fc2Error fc2GetNumStreamChannels (fc2Context *context*, unsigned int ∗ *numChannels*)

5.1.1.64 FLYCAPTURE2_C_API fc2Error fc2GetProperty (fc2Context *context*, fc2Property ∗ *prop*)

Reads the settings for the specified property from the camera.

The property type must be specified in the fc2Property structure passed into the function in order for the function to succeed. If auto is on, the integer and abs values returned may not be consistent with each other.

Parameters

context	The fc2Context to be used.
prop	Pointer to the Property structure to be filled.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.65 FLYCAPTURE2_C_API fc2Error fc2GetPropertyInfo (fc2Context *context*, fc2PropertyInfo ∗ *propInfo*)

Retrieves information about the specified camera property.

The property type must be specified in the fc2PropertyInfo structure passed into the function in order for the function to succeed.

Parameters

context	The fc2Context to be used.
propInfo	Pointer to the PropertyInfo structure to be filled.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.66 FLYCAPTURE2_C_API const char∗ fc2GetRegisterString (unsigned int *registerVal*)

Returns a text representation of the register value.

Parameters

registerVal	The register value to query.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.67 FLYCAPTURE2_C_API fc2Error fc2GetStrobe (fc2Context *context,* fc2StrobeControl ∗ *strobeControl*)

Retrieve current strobe settings from the camera.

The strobe pin must be specified in the structure before being passed in to the function.

Parameters

context	The fc2Context to be used.
strobe-Control	Structure to receive strobe settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.68 FLYCAPTURE2_C_API fc2Error fc2GetStrobeInfo (fc2Context *context,* fc2StrobeInfo ∗ *strobeInfo*)

Retrieve strobe information from the camera.

Parameters

context	The fc2Context to be used.
strobeInfo	Structure to receive strobe information.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.69 FLYCAPTURE2_C_API fc2Error fc2GetSystemInfo (fc2SystemInfo ∗ *pSystemInfo*)

Get system information.

Parameters

pSystemInfo	Structure to receive system information.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.70 FLYCAPTURE2_C_API fc2Error fc2GetTriggerDelay (fc2Context *context*, fc2TriggerDelay ∗ *triggerDelay*)

Retrieve current trigger delay settings from the camera.

Parameters

context	The fc2Context to be used.
triggerDelay	Structure to receive trigger delay settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.71 FLYCAPTURE2_C_API fc2Error fc2GetTriggerDelayInfo (fc2Context *context*, fc2TriggerDelayInfo ∗ *triggerDelayInfo*)

Retrieve trigger delay information from the camera.

Parameters

context	The fc2Context to be used.
triggerDelay-Info	Structure to receive trigger delay information.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.72 FLYCAPTURE2_C_API fc2Error fc2GetTriggerMode (fc2Context *context*, fc2TriggerMode ∗ *triggerMode*)

Retrieve current trigger settings from the camera.

Parameters

context	The fc2Context to be used.
triggerMode	Structure to receive trigger mode settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.73 FLYCAPTURE2_C_API fc2Error fc2GetTriggerModeInfo (fc2Context *context,* fc2TriggerModeInfo ∗ *triggerModeInfo*)

Retrieve trigger information from the camera.

Parameters

context	The fc2Context to be used.
triggerMode-Info	Structure to receive trigger information.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.74 FLYCAPTURE2_C_API fc2Error fc2GetVideoModeAndFrameRate (fc2Context *context,* fc2VideoMode ∗ *videoMode,* fc2FrameRate ∗ *frameRate*)

Get the current video mode and frame rate from the camera.

If the camera is in Format7, the video mode will be VIDEOMODE_FORMAT7 and the frame rate will be FRAMERATE_FORMAT7.

Parameters

context	The fc2Context to be used.
videoMode	Current video mode.
frameRate	Current frame rate.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.75 FLYCAPTURE2_C_API fc2Error fc2GetVideoModeAndFrameRateInfo (fc2Context *context,* fc2VideoMode *videoMode,* fc2FrameRate *frameRate,* BOOL ∗ *pSupported*)

Query the camera to determine if the specified video mode and frame rate is supported.

Parameters

context	The fc2Context to be used.
videoMode	Video mode to check.
frameRate	Frame rate to check.
pSupported	Whether the video mode and frame rate is supported.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.76 FLYCAPTURE2_C_API fc2Error fc2H264Open (fc2AVIContext *AVIContext,* const char ∗ *pFileName,* fc2H264Option ∗ *pOption*)

Open an H.264 file in preparation for writing Images to disk.

The size of AVI files is limited to 2GB. The filenames are automatically generated using the filename specified.

Parameters

AVIContext	The AVI context to use.
pFileName	The filename of the AVI file.
pOption	Options to apply to the AVI file.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.77 FLYCAPTURE2_C_API fc2Error fc2IsCameraControlable (fc2Context *context,* fc2PGRGuid ∗ *pGuid,* BOOL ∗ *pControlable*)

Query whether a GigE camera is controlable.

Parameters

context	The fc2Context to be used.
pGuid	Unique PGRGuid for the camera.
pControlable	True indicates camera is controllable

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.78 FLYCAPTURE2_C_API fc2Error fc2LaunchBrowser (const char ∗ *pAddress*)

Launch a URL in the system default browser.

Parameters

pAddress	URL to open in browser.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.79 FLYCAPTURE2_C_API fc2Error fc2LaunchCommand (const char ∗ *pCommand*)

Execute a command in the terminal.

This is a blocking call that will return when the command completes.

Parameters

pCommand	Command to execute.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.80 FLYCAPTURE2_C_API fc2Error fc2LaunchCommandAsync (const char ∗ *pCommand,* fc2AsyncCommandCallback *pCallback,* void ∗ *pUserData*)

Execute a command in the terminal.

This is a non-blocking call that will return immediately. The return value of the command can be retrieved in the callback.

Parameters

pCommand	Command to execute.
pCallback	Callback to fire when command is complete.
pUserData	Data pointer to pass to callback.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.81 FLYCAPTURE2_C_API fc2Error fc2LaunchHelp (const char ∗ *pFileName*)

Open a CHM file in the system default CHM viewer.

Parameters

pFileName	Filename of CHM file to open.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.82 FLYCAPTURE2_C_API fc2Error fc2MJPGOpen (fc2AVIContext *AVIContext*, const char ∗ *pFileName*, fc2MJPGOption ∗ *pOption*)

Open an MJPEG file in preparation for writing Images to disk.

The size of AVI files is limited to 2GB. The filenames are automatically generated using the filename specified.

Parameters

AVIContext	The AVI context to use.
pFileName	The filename of the AVI file.
pOption	Options to apply to the AVI file.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.83 FLYCAPTURE2_C_API fc2Error fc2QueryGigEImagingMode (fc2Context *context*, fc2Mode *mode*, BOOL ∗ *isSupported*)

5.1.1.84 FLYCAPTURE2_C_API fc2Error fc2ReadGVCPMemory (fc2Context *context*, unsigned int *address*, unsigned char ∗ *pBuffer*, unsigned int *length*)

Read a GVCP memory block.

Parameters

context	The fc2Context to be used.
address	GVCP address to be read from.
pBuffer	Array containing data to be written.
length	Size of array, in quadlets.

Returns

An Error indicating the success or failure of the function.

5.1.1.85 FLYCAPTURE2_C_API fc2Error fc2ReadGVCPRegister (fc2Context *context*, unsigned int *address*, unsigned int ∗ *pValue*)

Read a GVCP register.

Parameters

context	The fc2Context to be used.
address	GVCP address to be read from.
pValue	The value that is read.

Returns

An Error indicating the success or failure of the function.

5.1.1.86 FLYCAPTURE2_C_API fc2Error fc2ReadGVCPRegisterBlock (fc2Context *context*, unsigned int *address*, unsigned int * *pBuffer*, unsigned int *length*)

Read a GVCP register block.

Parameters

context	The fc2Context to be used.
address	GVCP address to be read from.
pBuffer	Array containing data to be written.
length	Size of array, in quadlets.

Returns

An Error indicating the success or failure of the function.

5.1.1.87 FLYCAPTURE2_C_API fc2Error fc2ReadRegister (fc2Context *context*, unsigned int *address*, unsigned int * *pValue*)

Read the specified register from the camera.

Parameters

context	The fc2Context to be used.
address	DCAM address to be read from.
pValue	The value that is read.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.88 FLYCAPTURE2_C_API fc2Error fc2ReadRegisterBlock (fc2Context *context*, unsigned short *addressHigh*, unsigned int *addressLow*, unsigned int * *pBuffer*, unsigned int *length*)

Write to the specified register block on the camera.

Parameters

context	The fc2Context to be used.
addressHigh	Top 16 bits of the 48 bit absolute address to read from.
addressLow	Bottom 32 bits of the 48 bits absolute address to read from.
pBuffer	Array to store read data.
length	Size of array, in quadlets.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.89 FLYCAPTURE2_C_API fc2Error fc2RegisterCallback (fc2Context *context,* fc2BusEventCallback *enumCallback,* fc2BusCallbackType *callbackType,* void ∗ *pParameter,* fc2CallbackHandle ∗ *pCallbackHandle*)

Register a callback function that will be called when the specified callback event occurs.

Parameters

context	The fc2Context to be used.
enum-Callback	Pointer to function that will receive the callback.
callbackType	Type of callback to register for.
pParameter	Callback parameter to be passed to callback.
pCallback-Handle	Unique callback handle used for unregistering callback.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.90 FLYCAPTURE2_C_API fc2Error fc2RescanBus (fc2Context *context*)

Force a rescan of the buses.

This does not trigger a bus reset. However, any current connections to a Camera object will be invalidated.

Returns

An Error indicating the success or failure of the function.

5.1.1.91 FLYCAPTURE2_C_API fc2Error fc2RestoreFromMemoryChannel (fc2Context *context,* unsigned int *channel*)

Restore the specfied current memory channel.

Parameters

context	The fc2Context to be used.
channel	Memory channel to restore from.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.92 FLYCAPTURE2_C_API fc2Error fc2RetrieveBuffer (fc2Context *context,* fc2Image ∗ *pImage*)

Retrieves the the next image object containing the next image.

Parameters

context	The fc2Context to be used.
pImage	Pointer to fc2Image to store image data.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.93 FLYCAPTURE2_C_API fc2Error fc2SaveImage (fc2Image ∗ *pImage,* const char ∗ *pFilename,* fc2ImageFileFormat *format*)

Save the image to the specified file name with the file format specified.

Parameters

pImage	The fc2Image to be used.
pFilename	Filename to save image with.
format	File format to save in.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.94 FLYCAPTURE2_C_API fc2Error fc2SaveImageWithOption (fc2Image ∗ *pImage,* const char ∗ *pFilename,* fc2ImageFileFormat *format,* void ∗ *pOption*)

Save the image to the specified file name with the file format specified.

Parameters

pImage	The fc2Image to be used.
pFilename	Filename to save image with.
format	File format to save in.
pOption	Options for saving image.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.95 FLYCAPTURE2_C_API fc2Error fc2SaveToMemoryChannel (fc2Context *context*, unsigned int *channel*)

Save the current settings to the specfied current memory channel.

Parameters

context	The fc2Context to be used.
channel	Memory channel to save to.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.96 FLYCAPTURE2_C_API fc2Error fc2SetActiveLUTBank (fc2Context *context*, unsigned int *activeBank*)

Set the LUT bank that will be used.

Parameters

context	The fc2Context to be used.
activeBank	The bank to be set as active.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.97 FLYCAPTURE2_C_API fc2Error fc2SetCallback (fc2Context *context*, fc2ImageEventCallback *pCallbackFn*, void * *pCallbackData*)

Sets the callback data to be used on completion of image transfer.

To clear the current stored callback data, pass in NULL for both callback arguments.

Parameters

context	The fc2Context to be used.
pCallbackFn	A function to be called when a new image is received.
pCallback-Data	A pointer to data that can be passed to the callback function.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.98 FLYCAPTURE2_C_API fc2Error fc2SetChannelStatus (fc2ImageStatisticsContext *imageStatisticsContext,* fc2StatisticsChannel *channel,* BOOL *enabled*)

Set the status of a statistics channel.

Parameters

imageStatisticsContext	A statistics context.
channel	The statistics channel.
enabled	Whether the channel should be enabled.

See also

GetChannelStatus()

Returns

An Error indicating the success or failure of the function.

5.1.1.99 FLYCAPTURE2_C_API fc2Error fc2SetConfiguration (fc2Context *context,* fc2Config ∗ *config*)

Set the configuration associated with the camera.

Parameters

context	The fc2Context to be used.
config	Pointer to the configuration structure to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.100 FLYCAPTURE2_C_API fc2Error fc2SetDefaultColorProcessing (fc2ColorProcessingAlgorithm *defaultMethod*)

Set the default color processing algorithm.

This method will be used for any image with the DEFAULT algorithm set. The method used is determined at the time of the Convert() call, therefore the most recent execution of this function will take precedence. The default setting is shared within the current process.

Parameters

default-Method	The color processing algorithm to set.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.101 FLYCAPTURE2_C_API fc2Error fc2SetDefaultOutputFormat (fc2PixelFormat *format*)

Set the default output pixel format.

This format will be used for any call to Convert() that does not specify an output format. The format used will be determined at the time of the Convert() call, therefore the most recent execution of this function will take precedence. The default is shared within the current process.

Parameters

format	The output pixel format to set.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.102 FLYCAPTURE2_C_API fc2Error fc2SetEmbeddedImageInfo (fc2Context *context,* fc2EmbeddedImageInfo ∗ *pInfo*)

Sets the on/off values of the embedded image information structure to the camera.

Parameters

context	The fc2Context to be used.
pInfo	Structure to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.103 FLYCAPTURE2_C_API fc2Error fc2SetFormat7Configuration (fc2Context *context*, fc2Format7ImageSettings ∗ *imageSettings*, float *percentSpeed*)

Set the current Format7 configuration to the camera.

Parameters

context	The fc2Context to be used.
image-Settings	Image settings to be written to the camera.
percent-Speed	Packet size as a percentage to be written to the camera.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.104 FLYCAPTURE2_C_API fc2Error fc2SetFormat7ConfigurationPacket (fc2Context *context*, fc2Format7ImageSettings ∗ *imageSettings*, unsigned int *packetSize*)

Set the current Format7 configuration to the camera.

Parameters

context	The fc2Context to be used.
image-Settings	Image settings to be written to the camera.
packetSize	Packet size to be written to the camera.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.105 FLYCAPTURE2_C_API fc2Error fc2SetGigEConfig (fc2Context *context*, const fc2GigEConfig ∗ *pConfig*)

5.1.1.106 FLYCAPTURE2_C_API fc2Error fc2SetGigEImageBinningSettings (fc2Context *context*, unsigned int *horzBinnningValue*, unsigned int *vertBinnningValue*)

5.1.1.107 FLYCAPTURE2_C_API fc2Error fc2SetGigEImageSettings (fc2Context *context*, const fc2GigEImageSettings ∗ *pImageSettings*)

5.1.1.108 FLYCAPTURE2_C_API **fc2Error** fc2SetGigEImagingMode (**fc2Context** *context,* **fc2Mode** *mode*)

5.1.1.109 FLYCAPTURE2_C_API **fc2Error** fc2SetGigEProperty (**fc2Context** *context,* const **fc2GigEProperty** ∗ *pGigEProp*)

Set the specified GigEProperty.

The GigEPropertyType field must be set in order for this function to succeed.

Parameters

context	The fc2Context to be used.
pGigEProp	The GigE property to set.

Returns

An Error indicating the success or failure of the function.

5.1.1.110 FLYCAPTURE2_C_API **fc2Error** fc2SetGigEStreamChannelInfo (**fc2Context** *context,* unsigned int *channel,* **fc2GigEStreamChannel** ∗ *pChannel*)

5.1.1.111 FLYCAPTURE2_C_API **fc2Error** fc2SetGPIOPinDirection (**fc2Context** *context,* unsigned int *pin,* unsigned int *direction*)

Set the GPIO pin direction for the specified pin.

This is useful if there is a need to set the pin into an input pin (i.e. to read the voltage) off the pin without setting it as a trigger source. This is not a required call when using the trigger or strobe functions as the pin direction is set automatically internally.

Parameters

context	The fc2Context to be used.
pin	Pin to get the direction for.
direction	Direction of the pin. 0 for input, 1 for output.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.112 FLYCAPTURE2_C_API **fc2Error** fc2SetGPIOPinDirectionBroadcast (**fc2Context** *context,* unsigned int *pin,* unsigned int *direction*)

Set the GPIO pin direction for the specified pin.

This is useful if there is a need to set the pin into an input pin (i.e. to read the voltage) off the pin without setting it as a trigger source. This is not a required call when using the trigger or strobe functions as the pin direction is set automatically internally.

Parameters

context	The fc2Context to be used.
pin	Pin to get the direction for.
direction	Direction of the pin. 0 for input, 1 for output.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.113 FLYCAPTURE2_C_API fc2Error fc2SetImageData (fc2Image ∗ *pImage,* const unsigned char ∗ *pData,* unsigned int *dataSize*)

Set the data of the Image object.

Ownership of the image buffer is not transferred to the Image object. It is the user's responsibility to delete the buffer when it is no longer in use.

Parameters

pImage	The fc2Image to be used.
pData	Pointer to the image buffer.
dataSize	Size of the image buffer.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.114 FLYCAPTURE2_C_API fc2Error fc2SetImageDimensions (fc2Image ∗ *pImage,* unsigned int *rows,* unsigned int *cols,* unsigned int *stride,* fc2PixelFormat *pixelFormat,* fc2BayerTileFormat *bayerFormat*)

Sets the dimensions of the image object.

Parameters

pImage	The fc2Image to be used.
rows	Number of rows to set.
cols	Number of cols to set.
stride	Stride to set.
pixelFormat	Pixel format to set.
bayerFormat	Bayer tile format to set.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.115 FLYCAPTURE2_C_API fc2Error fc2SetLUTChannel (fc2Context *context,* unsigned int *bank,* unsigned int *channel,* unsigned int *sizeEntries,* unsigned int ∗ *pEntries*)

Set the LUT channel settings to the camera.

Parameters

context	The fc2Context to be used.
bank	Bank to set.
channel	Channel to set.
sizeEntries	Number of entries in LUT table to write. This must be the same size as numEntries returned by GetLutInfo().
pEntries	Array containing LUT entries to write.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.116 FLYCAPTURE2_C_API fc2Error fc2SetProperty (fc2Context *context,* fc2Property ∗ *prop*)

Writes the settings for the specified property to the camera.

The property type must be specified in the Property structure passed into the function in order for the function to succeed. The absControl flag controls whether the absolute or integer value is written to the camera.

Parameters

context	The fc2Context to be used.
prop	Pointer to the Property structure to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.117 FLYCAPTURE2_C_API fc2Error fc2SetPropertyBroadcast (fc2Context *context,* fc2Property ∗ *prop*)

Writes the settings for the specified property to the camera.

The property type must be specified in the Property structure passed into the function in order for the function to succeed. The absControl flag controls whether the absolute or integer value is written to the camera.

Parameters

context	The fc2Context to be used.
prop	Pointer to the Property structure to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.118 FLYCAPTURE2_C_API fc2Error fc2SetStrobe (fc2Context *context*, fc2StrobeControl ∗ *strobeControl*)

Set current strobe settings to the camera.

The strobe pin must be specified in the structure before being passed in to the function.

Parameters

context	The fc2Context to be used.
strobe-Control	Structure providing strobe settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.119 FLYCAPTURE2_C_API fc2Error fc2SetStrobeBroadcast (fc2Context *context*, fc2StrobeControl ∗ *strobeControl*)

Set current strobe settings to the camera.

The strobe pin must be specified in the structure before being passed in to the function.

Parameters

context	The fc2Context to be used.
strobe-Control	Structure providing strobe settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.120 FLYCAPTURE2_C_API fc2Error fc2SetTriggerDelay (fc2Context *context*, fc2TriggerDelay ∗ *triggerDelay*)

Set the specified trigger delay settings to the camera.

Parameters

context	The fc2Context to be used.
triggerDelay	Structure providing trigger delay settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.121 FLYCAPTURE2_C_API fc2Error fc2SetTriggerDelayBroadcast (fc2Context *context*, fc2TriggerDelay ∗ *triggerDelay*)

Set the specified trigger delay settings to the camera.

Parameters

context	The fc2Context to be used.
triggerDelay	Structure providing trigger delay settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.122 FLYCAPTURE2_C_API fc2Error fc2SetTriggerMode (fc2Context *context*, fc2TriggerMode ∗ *triggerMode*)

Set the specified trigger settings to the camera.

Parameters

context	The fc2Context to be used.
triggerMode	Structure providing trigger mode settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.123 FLYCAPTURE2_C_API fc2Error fc2SetTriggerModeBroadcast (fc2Context *context*, fc2TriggerMode ∗ *triggerMode*)

Set the specified trigger settings to the camera.

Parameters

context	The fc2Context to be used.
triggerMode	Structure providing trigger mode settings.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.124 FLYCAPTURE2_C_API fc2Error fc2SetUserBuffers (fc2Context *context*, unsigned char ∗const *ppMemBuffers*, int *size*, int *nNumBuffers*)

Specify user allocated buffers to use as image data buffers.

Parameters

context	The fc2Context to be used.
ppMem-Buffers	Pointer to memory buffers to be written to. The size of the data should be equal to (size ∗ numBuffers) or larger.
size	The size of each buffer (in bytes).
nNum-Buffers	Number of buffers in the array.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.125 FLYCAPTURE2_C_API fc2Error fc2SetVideoModeAndFrameRate (fc2Context *context*, fc2VideoMode *videoMode*, fc2FrameRate *frameRate*)

Set the specified video mode and frame rate to the camera.

It is not possible to set the camera to VIDEOMODE_FORMAT7 or FRAMERATE_FO-RMAT7. Use the Format7 functions to set the camera into Format7.

Parameters

context	The fc2Context to be used.
videoMode	Video mode to set to camera.
frameRate	Frame rate to set to camera.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.126 FLYCAPTURE2_C_API fc2Error fc2StartCapture (fc2Context *context*)

Starts isochronous image capture.

It will use either the current video mode or the most recently set video mode of the camera.

Parameters

context	The fc2Context to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.127 FLYCAPTURE2_C_API fc2Error fc2StartCaptureCallback (fc2Context *context,* fc2ImageEventCallback *pCallbackFn,* void ∗ *pCallbackData*)

Starts isochronous image capture.

It will use either the current video mode or the most recently set video mode of the camera. The callback function is called when a new image is received from the camera.

Parameters

context	The fc2Context to be used.
pCallbackFn	A function to be called when a new image is received.
pCallback-Data	A pointer to data that can be passed to the callback function. A NULL pointer is acceptable.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.128 FLYCAPTURE2_C_API fc2Error fc2StartSyncCapture (unsigned int *numCameras,* fc2Context ∗ *pContexts*)

Starts synchronized isochronous image capture on multiple cameras.

Parameters

num-Cameras	Number of fc2Contexts in the ppCameras array.
pContexts	Array of fc2Contexts.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.129 FLYCAPTURE2_C_API fc2Error fc2StartSyncCaptureCallback (unsigned int *numCameras,* fc2Context ∗ *pContexts,* fc2ImageEventCallback ∗ *pCallbackFns,* void ∗∗ *pCallbackDataArray*)

Starts synchronized isochronous image capture on multiple cameras.

Parameters

numCameras	Number of fc2Contexts in the ppCameras array.
pContexts	Array of fc2Contexts.
pCallbackFns	Array of callback functions for each camera.
pCallbackDataArray	Array of callback data pointers.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.130 FLYCAPTURE2_C_API fc2Error fc2StopCapture (fc2Context *context*)

Stops isochronous image transfer and cleans up all associated resources.

Parameters

context	The fc2Context to be used.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.131 FLYCAPTURE2_C_API fc2Error fc2UnregisterCallback (fc2Context *context*, fc2CallbackHandle *callbackHandle*)

Unregister a callback function.

Parameters

context	The fc2Context to be used.
callbackHandle	Unique callback handle.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.132 FLYCAPTURE2_C_API fc2Error fc2ValidateFormat7Settings (fc2Context *context*, fc2Format7ImageSettings ∗ *imageSettings*, BOOL ∗ *settingsAreValid*, fc2Format7PacketInfo ∗ *packetInfo*)

Validates Format7ImageSettings structure and returns valid packet size information if the image settings are valid.

The current image settings are cached while validation is taking place. The cached settings are restored when validation is complete.

Parameters

context	The fc2Context to be used.
image-Settings	Structure containing the image settings.
settingsAre-Valid	Whether the settings are valid.
packetInfo	Packet size information that can be used to determine a valid packet size.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.133 FLYCAPTURE2_C_API fc2Error fc2WriteGVCPMemory (fc2Context *context,* unsigned int *address,* const unsigned char ∗ *pBuffer,* unsigned int *length*)

Write a GVCP memory block.

Parameters

context	The fc2Context to be used.
address	GVCP address to be write to.
pBuffer	Array containing data to be written.
length	Size of array, in quadlets.

Returns

An Error indicating the success or failure of the function.

5.1.1.134 FLYCAPTURE2_C_API fc2Error fc2WriteGVCPRegister (fc2Context *context,* unsigned int *address,* unsigned int *value*)

Write a GVCP register.

Parameters

context	The fc2Context to be used.
address	GVCP address to be written to.
value	The value to be written.

Returns

An Error indicating the success or failure of the function.

5.1.1.135 FLYCAPTURE2_C_API fc2Error fc2WriteGVCPRegisterBlock (fc2Context *context,* unsigned int *address,* const unsigned int ∗ *pBuffer,* unsigned int *length*)

Write a GVCP register block.

Parameters

context	The fc2Context to be used.
address	GVCP address to be write to.
pBuffer	Array containing data to be written.
length	Size of array, in quadlets.

Returns

An Error indicating the success or failure of the function.

5.1.1.136 FLYCAPTURE2_C_API fc2Error fc2WriteGVCPRegisterBroadcast (fc2Context *context,* unsigned int *address,* unsigned int *value*)

Write a GVCP register with broadcast.

Parameters

context	The fc2Context to be used.
address	GVCP address to be written to.
value	The value to be written.

Returns

An Error indicating the success or failure of the function.

5.1.1.137 FLYCAPTURE2_C_API fc2Error fc2WriteRegister (fc2Context *context,* unsigned int *address,* unsigned int *value*)

Write to the specified register on the camera.

Parameters

context	The fc2Context to be used.
address	DCAM address to be written to.
value	The value to be written.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.138 FLYCAPTURE2_C_API fc2Error fc2WriteRegisterBlock (fc2Context *context*, unsigned short *addressHigh*, unsigned int *addressLow*, const unsigned int ∗ *pBuffer*, unsigned int *length*)

Write to the specified register block on the camera.

Parameters

context	The fc2Context to be used.
addressHigh	Top 16 bits of the 48 bit absolute address to write to.
addressLow	Bottom 32 bits of the 48 bits absolute address to write to.
pBuffer	Array containing data to be written.
length	Size of array, in quadlets.

Returns

A fc2Error indicating the success or failure of the function.

5.1.1.139 FLYCAPTURE2_C_API fc2Error fc2WriteRegisterBroadcast (fc2Context *context*, unsigned int *address*, unsigned int *value*)

Write to the specified register on the camera with broadcast.

Parameters

context	The fc2Context to be used.
address	DCAM address to be written to.
value	The value to be written.

Returns

A fc2Error indicating the success or failure of the function.

5.2 FlyCapture2Defs_C.h File Reference

Data Structures

- struct fc2PGRGuid

  A GUID to the camera.
- struct fc2Image
- struct fc2SystemInfo

- struct fc2Version
- struct fc2Config
- struct fc2TriggerDelayInfo
- struct fc2TriggerDelay
- struct fc2TriggerModeInfo
- struct fc2TriggerMode
- struct fc2StrobeInfo
- struct fc2StrobeControl
- struct fc2Format7ImageSettings
- struct fc2Format7Info
- struct fc2Format7PacketInfo
- struct fc2IPAddress
- struct fc2MACAddress
- struct fc2GigEProperty
- struct fc2GigEStreamChannel
- struct fc2GigEConfig
- struct fc2GigEImageSettingsInfo
- struct fc2GigEImageSettings
- struct fc2TimeStamp
- struct fc2ConfigROM
- struct fc2CameraInfo
- struct fc2EmbeddedImageInfoProperty
- struct fc2EmbeddedImageInfo
- struct fc2ImageMetadata
- struct fc2LUTData
- struct fc2PNGOption
- struct fc2PPMOption
- struct fc2PGMOption
- struct fc2TIFFOption
- struct fc2JPEGOption
- struct fc2JPG2Option
- struct fc2AVIOption
- struct fc2MJPGOption
- struct fc2H264Option

Defines

- #define FALSE 0
- #define TRUE 1
- #define FULL_32BIT_VALUE 0x7FFFFFFF
- #define MAX_STRING_LENGTH 512

Typedefs

- typedef int BOOL
- typedef void ∗ fc2Context

  A context to the FlyCapture2 C library.
- typedef void ∗ fc2GuiContext

  A context to the FlyCapture2 C GUI library.
- typedef void ∗ fc2ImageImpl

  An internal pointer used in the fc2Image structure.
- typedef void ∗ fc2AVIContext

  A context referring to the AVI recorder object.
- typedef void ∗ fc2ImageStatisticsContext

  A context referring to the ImageStatistics object.
- typedef void ∗ fc2CallbackHandle
- typedef void(∗ fc2BusEventCallback)(void ∗pParameter, unsigned int serial-Number)
- typedef void(∗ fc2ImageEventCallback)(fc2Image ∗image, void ∗pCallbackData)
- typedef void(∗ fc2AsyncCommandCallback)(fc2Error retError, void ∗pUserData)

Enumerations

- enum fc2Error { FC2_ERROR_UNDEFINED = -1, FC2_ERROR_OK, FC2-_ERROR_FAILED, FC2_ERROR_NOT_IMPLEMENTED, FC2_ERROR_FAIL-ED_BUS_MASTER_CONNECTION, FC2_ERROR_NOT_CONNECTED, FC2-_ERROR_INIT_FAILED, FC2_ERROR_NOT_INTITIALIZED, FC2_ERROR_I-NVALID_PARAMETER, FC2_ERROR_INVALID_SETTINGS, FC2_ERROR_-INVALID_BUS_MANAGER, FC2_ERROR_MEMORY_ALLOCATION_FAILED, FC2_ERROR_LOW_LEVEL_FAILURE, FC2_ERROR_NOT_FOUND, FC2_-ERROR_FAILED_GUID, FC2_ERROR_INVALID_PACKET_SIZE, FC2_ERR-OR_INVALID_MODE, FC2_ERROR_NOT_IN_FORMAT7, FC2_ERROR_NO-T_SUPPORTED, FC2_ERROR_TIMEOUT, FC2_ERROR_BUS_MASTER_F-AILED, FC2_ERROR_INVALID_GENERATION, FC2_ERROR_LUT_FAILED, FC2_ERROR_IIDC_FAILED, FC2_ERROR_STROBE_FAILED, FC2_ERRO-R_TRIGGER_FAILED, FC2_ERROR_PROPERTY_FAILED, FC2_ERROR_P-ROPERTY_NOT_PRESENT, FC2_ERROR_REGISTER_FAILED, FC2_ERR-OR_READ_REGISTER_FAILED, FC2_ERROR_WRITE_REGISTER_FAILED, FC2_ERROR_ISOCH_FAILED, FC2_ERROR_ISOCH_ALREADY_STARTED, FC2_ERROR_ISOCH_NOT_STARTED, FC2_ERROR_ISOCH_START_FAIL-ED, FC2_ERROR_ISOCH_RETRIEVE_BUFFER_FAILED, FC2_ERROR_ISO-CH_STOP_FAILED, FC2_ERROR_ISOCH_SYNC_FAILED, FC2_ERROR_IS-OCH_BANDWIDTH_EXCEEDED, FC2_ERROR_IMAGE_CONVERSION_FAI-LED, FC2_ERROR_IMAGE_LIBRARY_FAILURE, FC2_ERROR_BUFFER_T-OO_SMALL, FC2_ERROR_IMAGE_CONSISTENCY_ERROR, FC2_ERROR-_INCOMPATIBLE_DRIVER, FC2_ERROR_FORCE_32BITS = FULL_32BIT_V-ALUE }
- enum fc2BusCallbackType { FC2_BUS_RESET, FC2_ARRIVAL, FC2_REMO-VAL, FC2_CALLBACK_TYPE_FORCE_32BITS = FULL_32BIT_VALUE }

- enum fc2GrabMode { FC2_DROP_FRAMES, FC2_BUFFER_FRAMES, FC2_-UNSPECIFIED_GRAB_MODE, FC2_GRAB_MODE_FORCE_32BITS = FULL-_32BIT_VALUE }
- enum fc2GrabTimeout { FC2_TIMEOUT_NONE = 0, FC2_TIMEOUT_INFINITE = -1, FC2_TIMEOUT_UNSPECIFIED = -2, FC2_GRAB_TIMEOUT_FORCE_-32BITS = FULL_32BIT_VALUE }
- enum fc2BandwidthAllocation { FC2_BANDWIDTH_ALLOCATION_OFF = 0, FC2_BANDWIDTH_ALLOCATION_ON = 1, FC2_BANDWIDTH_ALLOCATIO-N_UNSUPPORTED = 2, FC2_BANDWIDTH_ALLOCATION_UNSPECIFIED = 3, FC2_BANDWIDTH_ALLOCATION_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2InterfaceType { FC2_INTERFACE_IEEE1394, FC2_INTERFACE_US-B_2, FC2_INTERFACE_USB_3, FC2_INTERFACE_GIGE, FC2_INTERFAC-E_UNKNOWN, FC2_INTERFACE_TYPE_FORCE_32BITS = FULL_32BIT_VA-LUE }
- enum fc2DriverType { FC2_DRIVER_1394_CAM, FC2_DRIVER_1394_PRO, FC2_DRIVER_1394_JUJU, FC2_DRIVER_1394_VIDEO1394, FC2_DRIVE-R_1394_RAW1394, FC2_DRIVER_USB_NONE, FC2_DRIVER_USB_CAM, FC2_DRIVER_USB3_PRO, FC2_DRIVER_GIGE_NONE, FC2_DRIVER_GIG-E_FILTER, FC2_DRIVER_GIGE_PRO, FC2_DRIVER_UNKNOWN = -1, FC2-_DRIVER_FORCE_32BITS = FULL_32BIT_VALUE }

  Types of low level drivers that flycapture uses.
- enum fc2PropertyType { FC2_BRIGHTNESS, FC2_AUTO_EXPOSURE, FC2-_SHARPNESS, FC2_WHITE_BALANCE, FC2_HUE, FC2_SATURATION, F-C2_GAMMA, FC2_IRIS, FC2_FOCUS, FC2_ZOOM, FC2_PAN, FC2_TILT, FC2_SHUTTER, FC2_GAIN, FC2_TRIGGER_MODE, FC2_TRIGGER_DELA-Y, FC2_FRAME_RATE, FC2_TEMPERATURE, FC2_UNSPECIFIED_PROPE-RTY_TYPE, FC2_PROPERTY_TYPE_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2FrameRate { FC2_FRAMERATE_1_875, FC2_FRAMERATE_3_75, FC2_FRAMERATE_7_5, FC2_FRAMERATE_15, FC2_FRAMERATE_30, F-C2_FRAMERATE_60, FC2_FRAMERATE_120, FC2_FRAMERATE_240, F-C2_FRAMERATE_FORMAT7, FC2_NUM_FRAMERATES, FC2_FRAMERAT-E_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2VideoMode { FC2_VIDEOMODE_160x120YUV444, FC2_VIDEOMO-DE_320x240YUV422, FC2_VIDEOMODE_640x480YUV411, FC2_VIDEOMO-DE_640x480YUV422, FC2_VIDEOMODE_640x480RGB, FC2_VIDEOMODE-_640x480Y8, FC2_VIDEOMODE_640x480Y16, FC2_VIDEOMODE_800x600-YUV422, FC2_VIDEOMODE_800x600RGB, FC2_VIDEOMODE_800x600Y8, FC2_VIDEOMODE_800x600Y16, FC2_VIDEOMODE_1024x768YUV422, F-C2_VIDEOMODE_1024x768RGB, FC2_VIDEOMODE_1024x768Y8, FC2_VI-DEOMODE_1024x768Y16, FC2_VIDEOMODE_1280x960YUV422, FC2_VID-EOMODE_1280x960RGB, FC2_VIDEOMODE_1280x960Y8, FC2_VIDEOMO-DE_1280x960Y16, FC2_VIDEOMODE_1600x1200YUV422, FC2_VIDEOMO-DE_1600x1200RGB, FC2_VIDEOMODE_1600x1200Y8, FC2_VIDEOMODE-_1600x1200Y16, FC2_VIDEOMODE_FORMAT7, FC2_NUM_VIDEOMODES, FC2_VIDEOMODE_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2Mode { FC2_MODE_0 = 0, FC2_MODE_1, FC2_MODE_2, FC2_-MODE_3, FC2_MODE_4, FC2_MODE_5, FC2_MODE_6, FC2_MODE_7,

FC2_MODE_8, FC2_MODE_9, FC2_MODE_10, FC2_MODE_11, FC2_MODE_12, FC2_MODE_13, FC2_MODE_14, FC2_MODE_15, FC2_MODE_16, FC2_MODE_17, FC2_MODE_18, FC2_MODE_19, FC2_MODE_20, FC2_MODE_21, FC2_MODE_22, FC2_MODE_23, FC2_MODE_24, FC2_MODE_25, FC2_MODE_26, FC2_MODE_27, FC2_MODE_28, FC2_MODE_29, FC2_MODE_30, FC2_MODE_31, FC2_NUM_MODES, FC2_MODE_FORCE_32BITS = FULL_32BIT_VALUE }

- enum fc2PixelFormat { FC2_PIXEL_FORMAT_MONO8 = 0x80000000, FC2_PIXEL_FORMAT_411YUV8 = 0x40000000, FC2_PIXEL_FORMAT_422YUV8 = 0x20000000, FC2_PIXEL_FORMAT_444YUV8 = 0x10000000, FC2_PIXEL_FORMAT_RGB8 = 0x08000000, FC2_PIXEL_FORMAT_MONO16 = 0x04000000, FC2_PIXEL_FORMAT_RGB16 = 0x02000000, FC2_PIXEL_FORMAT_S_MONO16 = 0x01000000, FC2_PIXEL_FORMAT_S_RGB16 = 0x00800000, FC2_PIXEL_FORMAT_RAW8 = 0x00400000, FC2_PIXEL_FORMAT_RAW16 = 0x00200000, FC2_PIXEL_FORMAT_MONO12 = 0x00100000, FC2_PIXEL_FORMAT_RAW12 = 0x00080000, FC2_PIXEL_FORMAT_BGR = 0x80000008, FC2_PIXEL_FORMAT_BGRU = 0x40000008, FC2_PIXEL_FORMAT_RGB = FC2_PIXEL_FORMAT_RGB8, FC2_PIXEL_FORMAT_RGBU = 0x40000002, FC2_PIXEL_FORMAT_BGR16 = 0x02000001, FC2_PIXEL_FORMAT_BGRU16 = 0x02000002, FC2_PIXEL_FORMAT_422YUV8_JPEG = 0x40000001, FC2_NUM_PIXEL_FORMATS = 20, FC2_UNSPECIFIED_PIXEL_FORMAT = 0 }
- enum fc2BusSpeed { FC2_BUSSPEED_S100, FC2_BUSSPEED_S200, FC2_BUSSPEED_S400, FC2_BUSSPEED_S480, FC2_BUSSPEED_S800, FC2_BUSSPEED_S1600, FC2_BUSSPEED_S3200, FC2_BUSSPEED_S5000, ×
FC2_BUSSPEED_10BASE_T, FC2_BUSSPEED_100BASE_T, FC2_BUSSPEED_1000BASE_T, FC2_BUSSPEED_10000BASE_T, FC2_BUSSPEED_S_FASTEST, FC2_BUSSPEED_ANY, FC2_BUSSPEED_SPEED_UNKNOWN = -1, FC2_BUSSPEED_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2PCIeBusSpeed { FC2_PCIE_BUSSPEED_2_5, FC2_PCIE_BUSSPEED_5_0, FC2_PCIE_BUSSPEED_UNKNOWN = -1, FC2_PCIE_BUSSPEED_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2ColorProcessingAlgorithm { FC2_DEFAULT, FC2_NO_COLOR_PROCESSING, FC2_NEAREST_NEIGHBOR_FAST, FC2_EDGE_SENSING, FC2_HQ_LINEAR, FC2_RIGOROUS, FC2_IPP, FC2_DIRECTIONAL, FC2_COLOR_PROCESSING_ALGORITHM_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2BayerTileFormat { FC2_BT_NONE, FC2_BT_RGGB, FC2_BT_GRBG, FC2_BT_GBRG, FC2_BT_BGGR, FC2_BT_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2ImageFileFormat { FC2_FROM_FILE_EXT = -1, FC2_PGM, FC2_PPM, FC2_BMP, FC2_JPEG, FC2_JPEG2000, FC2_TIFF, FC2_PNG, FC2_RAW, FC2_IMAGE_FILE_FORMAT_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2GigEPropertyType { FC2_HEARTBEAT, FC2_HEARTBEAT_TIMEOUT }
- enum fc2StatisticsChannel { FC2_STATISTICS_GREY, FC2_STATISTICS_RED, FC2_STATISTICS_GREEN, FC2_STATISTICS_BLUE, FC2_STATISTICS_HUE, FC2_STATISTICS_SATURATION, FC2_STATISTICS_LIGHTNESS, FC2_STATISTICS_FORCE_32BITS = FULL_32BIT_VALUE }

- enum fc2OSType { FC2_WINDOWS_X86, FC2_WINDOWS_X64, FC2_LINUX_X86, FC2_LINUX_X64, FC2_MAC, FC2_UNKNOWN_OS, FC2_OSTYPE_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2ByteOrder { FC2_BYTE_ORDER_LITTLE_ENDIAN, FC2_BYTE_ORDER_BIG_ENDIAN, FC2_BYTE_ORDER_FORCE_32BITS = FULL_32BIT_VALUE }
- enum fc2TIFFCompressionMethod { FC2_TIFF_NONE = 1, FC2_TIFF_PACKBITS, FC2_TIFF_DEFLATE, FC2_TIFF_ADOBE_DEFLATE, FC2_TIFF_CCITTFAX3, FC2_TIFF_CCITTFAX4, FC2_TIFF_LZW, FC2_TIFF_JPEG }

5.2.1 Define Documentation

5.2.1.1 #define FALSE 0

5.2.1.2 #define FULL_32BIT_VALUE 0x7FFFFFFF

5.2.1.3 #define MAX_STRING_LENGTH 512

5.2.1.4 #define TRUE 1

5.2.2 Typedef Documentation

5.2.2.1 typedef int **BOOL**

5.2.2.2 typedef void(∗ **fc2AsyncCommandCallback**)(**fc2Error** retError, void ∗pUserData)

5.2.2.3 typedef void∗ **fc2AVIContext**

A context referring to the AVI recorder object.

5.2.2.4 typedef void(∗ **fc2BusEventCallback**)(void ∗pParameter, unsigned int serialNumber)

5.2.2.5 typedef void∗ **fc2CallbackHandle**

5.2.2.6 typedef void∗ **fc2Context**

A context to the FlyCapture2 C library.

It must be created before performing any calls to the library.

5.2.2.7 typedef void∗ **fc2GuiContext**

A context to the FlyCapture2 C GUI library.

It must be created before performing any calls to the library.

5.2.2.8 typedef void(∗ fc2ImageEventCallback)(fc2Image ∗image, void ∗pCallbackData)

5.2.2.9 typedef void∗ fc2ImageImpl

An internal pointer used in the fc2Image structure.

5.2.2.10 typedef void∗ fc2ImageStatisticsContext

A context referring to the ImageStatistics object.

5.2.3 Enumeration Type Documentation

5.2.3.1 enum fc2BandwidthAllocation

Enumerator:

FC2_BANDWIDTH_ALLOCATION_OFF

FC2_BANDWIDTH_ALLOCATION_ON

FC2_BANDWIDTH_ALLOCATION_UNSUPPORTED

FC2_BANDWIDTH_ALLOCATION_UNSPECIFIED

FC2_BANDWIDTH_ALLOCATION_FORCE_32BITS

5.2.3.2 enum fc2BayerTileFormat

Enumerator:

FC2_BT_NONE	No bayer tile format.
FC2_BT_RGGB	Red-Green-Green-Blue.
FC2_BT_GRBG	Green-Red-Blue-Green.
FC2_BT_GBRG	Green-Blue-Red-Green.
FC2_BT_BGGR	Blue-Green-Green-Red.
FC2_BT_FORCE_32BITS	

5.2.3.3 enum fc2BusCallbackType

Enumerator:

FC2_BUS_RESET

FC2_ARRIVAL

FC2_REMOVAL

FC2_CALLBACK_TYPE_FORCE_32BITS

5.2.3.4 enum fc2BusSpeed

Enumerator:

FC2_BUSSPEED_S100	100Mbits/sec.
FC2_BUSSPEED_S200	200Mbits/sec.
FC2_BUSSPEED_S400	400Mbits/sec.
FC2_BUSSPEED_S480	480Mbits/sec. Only for USB2 cameras.
FC2_BUSSPEED_S800	800Mbits/sec.
FC2_BUSSPEED_S1600	1600Mbits/sec.
FC2_BUSSPEED_S3200	3200Mbits/sec.
FC2_BUSSPEED_S5000	5000Mbits/sec. Only for USB3 cameras.
FC2_BUSSPEED_10BASE_T	10Base-T. Only for GigE cameras.
FC2_BUSSPEED_100BASE_T	100Base-T. Only for GigE cameras.
FC2_BUSSPEED_1000BASE_T	1000Base-T (Gigabit Ethernet). Only for GigE cameras.
FC2_BUSSPEED_10000BASE_T	10000Base-T. Only for GigE cameras.
FC2_BUSSPEED_S_FASTEST	The fastest speed available.
FC2_BUSSPEED_ANY	Any speed that is available.
FC2_BUSSPEED_SPEED_UNKNOWN	Unknown bus speed.
FC2_BUSSPEED_FORCE_32BITS	

5.2.3.5 enum fc2ByteOrder

Enumerator:

FC2_BYTE_ORDER_LITTLE_ENDIAN

FC2_BYTE_ORDER_BIG_ENDIAN

FC2_BYTE_ORDER_FORCE_32BITS

5.2.3.6 enum fc2ColorProcessingAlgorithm

Enumerator:

FC2_DEFAULT

FC2_NO_COLOR_PROCESSING

FC2_NEAREST_NEIGHBOR_FAST

FC2_EDGE_SENSING

FC2_HQ_LINEAR

FC2_RIGOROUS

FC2_IPP

FC2_DIRECTIONAL

FC2_COLOR_PROCESSING_ALGORITHM_FORCE_32BITS

5.2.3.7 enum fc2DriverType

Types of low level drivers that flycapture uses.

Enumerator:

- ***FC2_DRIVER_1394_CAM*** PGRCam.sys.
- ***FC2_DRIVER_1394_PRO*** PGR1394.sys.
- ***FC2_DRIVER_1394_JUJU*** firewire_core.
- ***FC2_DRIVER_1394_VIDEO1394*** video1394.
- ***FC2_DRIVER_1394_RAW1394*** raw1394.
- ***FC2_DRIVER_USB_NONE*** No usb driver used just BSD stack. (Linux only)
- ***FC2_DRIVER_USB_CAM*** PGRUsbCam.sys.
- ***FC2_DRIVER_USB3_PRO*** PGRXHCI.sys.
- ***FC2_DRIVER_GIGE_NONE*** no gige drivers used,MS/BSD stack.
- ***FC2_DRIVER_GIGE_FILTER*** PGRGigE.sys.
- ***FC2_DRIVER_GIGE_PRO*** PGRGigEPro.sys.
- ***FC2_DRIVER_UNKNOWN*** Unknown driver type.
- ***FC2_DRIVER_FORCE_32BITS***

5.2.3.8 enum fc2Error

Enumerator:

- ***FC2_ERROR_UNDEFINED*** Undefined.
- ***FC2_ERROR_OK*** Function returned with no errors.
- ***FC2_ERROR_FAILED*** General failure.
- ***FC2_ERROR_NOT_IMPLEMENTED*** Function has not been implemented.
- ***FC2_ERROR_FAILED_BUS_MASTER_CONNECTION*** Could not connect to - Bus Master.
- ***FC2_ERROR_NOT_CONNECTED*** Camera has not been connected.
- ***FC2_ERROR_INIT_FAILED*** Initialization failed.
- ***FC2_ERROR_NOT_INTITIALIZED*** Camera has not been initialized.
- ***FC2_ERROR_INVALID_PARAMETER*** Invalid parameter passed to function.
- ***FC2_ERROR_INVALID_SETTINGS*** Setting set to camera is invalid.
- ***FC2_ERROR_INVALID_BUS_MANAGER*** Invalid Bus Manager object.
- ***FC2_ERROR_MEMORY_ALLOCATION_FAILED*** Could not allocate memory.
- ***FC2_ERROR_LOW_LEVEL_FAILURE*** Low level error.
- ***FC2_ERROR_NOT_FOUND*** Device not found.
- ***FC2_ERROR_FAILED_GUID*** GUID failure.
- ***FC2_ERROR_INVALID_PACKET_SIZE*** Packet size set to camera is invalid.

FC2_ERROR_INVALID_MODE Invalid mode has been passed to function.

FC2_ERROR_NOT_IN_FORMAT7 Error due to not being in Format7.

FC2_ERROR_NOT_SUPPORTED This feature is unsupported.

FC2_ERROR_TIMEOUT Timeout error.

FC2_ERROR_BUS_MASTER_FAILED Bus Master Failure.

FC2_ERROR_INVALID_GENERATION Generation Count Mismatch.

FC2_ERROR_LUT_FAILED Look Up Table failure.

FC2_ERROR_IIDC_FAILED IIDC failure.

FC2_ERROR_STROBE_FAILED Strobe failure.

FC2_ERROR_TRIGGER_FAILED Trigger failure.

FC2_ERROR_PROPERTY_FAILED Property failure.

FC2_ERROR_PROPERTY_NOT_PRESENT Property is not present.

FC2_ERROR_REGISTER_FAILED Register access failed.

FC2_ERROR_READ_REGISTER_FAILED Register read failed.

FC2_ERROR_WRITE_REGISTER_FAILED Register write failed.

FC2_ERROR_ISOCH_FAILED Isochronous failure.

FC2_ERROR_ISOCH_ALREADY_STARTED Isochronous transfer has already been started.

FC2_ERROR_ISOCH_NOT_STARTED Isochronous transfer has not been started.

FC2_ERROR_ISOCH_START_FAILED Isochronous start failed.

FC2_ERROR_ISOCH_RETRIEVE_BUFFER_FAILED Isochronous retrieve buffer failed.

FC2_ERROR_ISOCH_STOP_FAILED Isochronous stop failed.

FC2_ERROR_ISOCH_SYNC_FAILED Isochronous image synchronization failed.

FC2_ERROR_ISOCH_BANDWIDTH_EXCEEDED Isochronous bandwidth exceeded.

FC2_ERROR_IMAGE_CONVERSION_FAILED Image conversion failed.

FC2_ERROR_IMAGE_LIBRARY_FAILURE Image library failure.

FC2_ERROR_BUFFER_TOO_SMALL Buffer is too small.

FC2_ERROR_IMAGE_CONSISTENCY_ERROR There is an image consistency error.

FC2_ERROR_INCOMPATIBLE_DRIVER The installed driver is not compatible with the library.

FC2_ERROR_FORCE_32BITS

5.2.3.9 enum fc2FrameRate

Enumerator:

FC2_FRAMERATE_1_875	1.875 fps.
FC2_FRAMERATE_3_75	3.75 fps.
FC2_FRAMERATE_7_5	7.5 fps.
FC2_FRAMERATE_15	15 fps.
FC2_FRAMERATE_30	30 fps.
FC2_FRAMERATE_60	60 fps.
FC2_FRAMERATE_120	120 fps.
FC2_FRAMERATE_240	240 fps.
FC2_FRAMERATE_FORMAT7	Custom frame rate for Format7 functionality.
FC2_NUM_FRAMERATES	Number of possible camera frame rates.
FC2_FRAMERATE_FORCE_32BITS	

5.2.3.10 enum fc2GigEPropertyType

Enumerator:

FC2_HEARTBEAT

FC2_HEARTBEAT_TIMEOUT

5.2.3.11 enum fc2GrabMode

Enumerator:

FC2_DROP_FRAMES

FC2_BUFFER_FRAMES

FC2_UNSPECIFIED_GRAB_MODE

FC2_GRAB_MODE_FORCE_32BITS

5.2.3.12 enum fc2GrabTimeout

Enumerator:

FC2_TIMEOUT_NONE

FC2_TIMEOUT_INFINITE

FC2_TIMEOUT_UNSPECIFIED

FC2_GRAB_TIMEOUT_FORCE_32BITS

5.2.3.13 enum fc2ImageFileFormat

Enumerator:

FC2_FROM_FILE_EXT Determine file format from file extension.

FC2_PGM Portable gray map.

FC2_PPM Portable pixmap.

FC2_BMP Bitmap.

FC2_JPEG JPEG.

FC2_JPEG2000 JPEG 2000.

FC2_TIFF Tagged image file format.

FC2_PNG Portable network graphics.

FC2_RAW Raw data.

FC2_IMAGE_FILE_FORMAT_FORCE_32BITS

5.2.3.14 enum fc2InterfaceType

Enumerator:

FC2_INTERFACE_IEEE1394

FC2_INTERFACE_USB_2

FC2_INTERFACE_USB_3

FC2_INTERFACE_GIGE

FC2_INTERFACE_UNKNOWN

FC2_INTERFACE_TYPE_FORCE_32BITS

5.2.3.15 enum fc2Mode

Enumerator:

FC2_MODE_0

FC2_MODE_1

FC2_MODE_2

FC2_MODE_3

FC2_MODE_4

FC2_MODE_5

FC2_MODE_6

FC2_MODE_7

FC2_MODE_8

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FC2_MODE_10

FC2_MODE_11

FC2_MODE_12

FC2_MODE_13

FC2_MODE_14

FC2_MODE_15

FC2_MODE_16

FC2_MODE_17

FC2_MODE_18

FC2_MODE_19

FC2_MODE_20

FC2_MODE_21

FC2_MODE_22

FC2_MODE_23

FC2_MODE_24

FC2_MODE_25

FC2_MODE_26

FC2_MODE_27

FC2_MODE_28

FC2_MODE_29

FC2_MODE_30

FC2_MODE_31

FC2_NUM_MODES Number of modes.

FC2_MODE_FORCE_32BITS

5.2.3.16 enum fc2OSType

Enumerator:

FC2_WINDOWS_X86

FC2_WINDOWS_X64

FC2_LINUX_X86

FC2_LINUX_X64

FC2_MAC

FC2_UNKNOWN_OS

FC2_OSTYPE_FORCE_32BITS

5.2.3.17 enum fc2PCIeBusSpeed

Enumerator:

FC2_PCIE_BUSSPEED_2_5

FC2_PCIE_BUSSPEED_5_0 2.5 Gb/s

FC2_PCIE_BUSSPEED_UNKNOWN 5.0 Gb/s

FC2_PCIE_BUSSPEED_FORCE_32BITS Speed is unknown.

5.2.3.18 enum fc2PixelFormat

Enumerator:

FC2_PIXEL_FORMAT_MONO8 8 bits of mono information.

FC2_PIXEL_FORMAT_411YUV8 YUV 4:1:1.

FC2_PIXEL_FORMAT_422YUV8 YUV 4:2:2.

FC2_PIXEL_FORMAT_444YUV8 YUV 4:4:4.

FC2_PIXEL_FORMAT_RGB8 R = G = B = 8 bits.

FC2_PIXEL_FORMAT_MONO16 16 bits of mono information.

FC2_PIXEL_FORMAT_RGB16 R = G = B = 16 bits.

FC2_PIXEL_FORMAT_S_MONO16 16 bits of signed mono information.

FC2_PIXEL_FORMAT_S_RGB16 R = G = B = 16 bits signed.

FC2_PIXEL_FORMAT_RAW8 8 bit raw data output of sensor.

FC2_PIXEL_FORMAT_RAW16 16 bit raw data output of sensor.

FC2_PIXEL_FORMAT_MONO12 12 bits of mono information.

FC2_PIXEL_FORMAT_RAW12 12 bit raw data output of sensor.

FC2_PIXEL_FORMAT_BGR 24 bit BGR.

FC2_PIXEL_FORMAT_BGRU 32 bit BGRU.

FC2_PIXEL_FORMAT_RGB 24 bit RGB.

FC2_PIXEL_FORMAT_RGBU 32 bit RGBU.

FC2_PIXEL_FORMAT_BGR16 R = G = B = 16 bits.

FC2_PIXEL_FORMAT_BGRU16 64 bit BGRU.

FC2_PIXEL_FORMAT_422YUV8_JPEG JPEG compressed stream.

FC2_NUM_PIXEL_FORMATS Number of pixel formats.

FC2_UNSPECIFIED_PIXEL_FORMAT Unspecified pixel format.

5.2.3.19 enum fc2PropertyType

Enumerator:

- ***FC2_BRIGHTNESS***
- ***FC2_AUTO_EXPOSURE***
- ***FC2_SHARPNESS***
- ***FC2_WHITE_BALANCE***
- ***FC2_HUE***
- ***FC2_SATURATION***
- ***FC2_GAMMA***
- ***FC2_IRIS***
- ***FC2_FOCUS***
- ***FC2_ZOOM***
- ***FC2_PAN***
- ***FC2_TILT***
- ***FC2_SHUTTER***
- ***FC2_GAIN***
- ***FC2_TRIGGER_MODE***
- ***FC2_TRIGGER_DELAY***
- ***FC2_FRAME_RATE***
- ***FC2_TEMPERATURE***
- ***FC2_UNSPECIFIED_PROPERTY_TYPE***
- ***FC2_PROPERTY_TYPE_FORCE_32BITS***

5.2.3.20 enum fc2StatisticsChannel

Enumerator:

- ***FC2_STATISTICS_GREY***
- ***FC2_STATISTICS_RED***
- ***FC2_STATISTICS_GREEN***
- ***FC2_STATISTICS_BLUE***
- ***FC2_STATISTICS_HUE***
- ***FC2_STATISTICS_SATURATION***
- ***FC2_STATISTICS_LIGHTNESS***
- ***FC2_STATISTICS_FORCE_32BITS***

5.2.3.21 enum fc2TIFFCompressionMethod

Enumerator:

- ***FC2_TIFF_NONE***
- ***FC2_TIFF_PACKBITS***
- ***FC2_TIFF_DEFLATE***
- ***FC2_TIFF_ADOBE_DEFLATE***
- ***FC2_TIFF_CCITTFAX3***
- ***FC2_TIFF_CCITTFAX4***
- ***FC2_TIFF_LZW***
- ***FC2_TIFF_JPEG***

5.2.3.22 enum fc2VideoMode

Enumerator:

FC2_VIDEOMODE_160x120YUV444	160x120 YUV444.
FC2_VIDEOMODE_320x240YUV422	320x240 YUV422.
FC2_VIDEOMODE_640x480YUV411	640x480 YUV411.
FC2_VIDEOMODE_640x480YUV422	640x480 YUV422.
FC2_VIDEOMODE_640x480RGB	640x480 24-bit RGB.
FC2_VIDEOMODE_640x480Y8	640x480 8-bit.
FC2_VIDEOMODE_640x480Y16	640x480 16-bit.
FC2_VIDEOMODE_800x600YUV422	800x600 YUV422.
FC2_VIDEOMODE_800x600RGB	800x600 RGB.
FC2_VIDEOMODE_800x600Y8	800x600 8-bit.
FC2_VIDEOMODE_800x600Y16	800x600 16-bit.
FC2_VIDEOMODE_1024x768YUV422	1024x768 YUV422.
FC2_VIDEOMODE_1024x768RGB	1024x768 RGB.
FC2_VIDEOMODE_1024x768Y8	1024x768 8-bit.
FC2_VIDEOMODE_1024x768Y16	1024x768 16-bit.
FC2_VIDEOMODE_1280x960YUV422	1280x960 YUV422.
FC2_VIDEOMODE_1280x960RGB	1280x960 RGB.
FC2_VIDEOMODE_1280x960Y8	1280x960 8-bit.
FC2_VIDEOMODE_1280x960Y16	1280x960 16-bit.
FC2_VIDEOMODE_1600x1200YUV422	1600x1200 YUV422.
FC2_VIDEOMODE_1600x1200RGB	1600x1200 RGB.
FC2_VIDEOMODE_1600x1200Y8	1600x1200 8-bit.
FC2_VIDEOMODE_1600x1200Y16	1600x1200 16-bit.
FC2_VIDEOMODE_FORMAT7	Custom video mode for Format7 functionality.
FC2_NUM_VIDEOMODES	Number of possible video modes.
FC2_VIDEOMODE_FORCE_32BITS	

5.3 FlyCapture2GUI_C.h File Reference

Functions

- FLYCAPTURE2_C_API fc2Error fc2CreateGUIContext (fc2GuiContext ∗pContext)

  Create a GUI context.
- FLYCAPTURE2_C_API fc2Error fc2DestroyGUIContext (fc2GuiContext context)

  Destroy a GUI context.
- FLYCAPTURE2_C_API void fc2GUIConnect (fc2GuiContext context, fc2Context cameraContext)

  Connect GUI context to a camera context.
- FLYCAPTURE2_C_API void fc2GUIDisconnect (fc2GuiContext context)

  Disconnect GUI context from camera.
- FLYCAPTURE2_C_API void fc2Disonnect (fc2GuiContext context) __attribute__((deprecated))

  Disconnect GUI context from camera.
- FLYCAPTURE2_C_API void fc2Show (fc2GuiContext context)

  Show the GUI.
- FLYCAPTURE2_C_API void fc2Hide (fc2GuiContext context)

  Hide the GUI.
- FLYCAPTURE2_C_API BOOL fc2IsVisible (fc2GuiContext context)

  Check if the GUI is visible.
- FLYCAPTURE2_C_API void fc2ShowModal (fc2GuiContext context, BOOL ∗pOkSelected, fc2PGRGuid ∗guidArray, unsigned int ∗size)

  Show the camera selection dialog.

5.3.1 Function Documentation

5.3.1.1 FLYCAPTURE2_C_API fc2Error fc2CreateGUIContext (fc2GuiContext ∗ *pContext*)

Create a GUI context.

Parameters

pContext	Pointer to context to be created.

Returns

An Error indicating the success or failure of the function.

5.3.1.2 FLYCAPTURE2_C_API fc2Error fc2DestroyGUIContext (fc2GuiContext *context*)

Destroy a GUI context.

Parameters

context	Context to be destroyed.

Returns

An Error indicating the success or failure of the function.

5.3.1.3 FLYCAPTURE2_C_API void fc2Disonnect (fc2GuiContext *context*)

Disconnect GUI context from camera.

Parameters

context	GUI context to disconnect.

Returns

An Error indicating the success or failure of the function.

Deprecated This method is deprecated and will be removed in a future FlyCapture2 release. Please use fc2GUIDisconnect instead.

5.3.1.4 FLYCAPTURE2_C_API void fc2GUIConnect (fc2GuiContext *context,* fc2Context *cameraContext*)

Connect GUI context to a camera context.

Parameters

context	GUI context to connect.
camera-Context	Camera context to connect.

Returns

An Error indicating the success or failure of the function.

5.3.1.5 FLYCAPTURE2_C_API void fc2GUIDisconnect (fc2GuiContext *context*)

Disconnect GUI context from camera.

Parameters

context	GUI context to disconnect.

Returns

An Error indicating the success or failure of the function.

5.3.1.6 FLYCAPTURE2_C_API void fc2Hide (**fc2GuiContext** *context*)

Hide the GUI.

Parameters

context	Pointer to context to hide.

Returns

An Error indicating the success or failure of the function.

5.3.1.7 FLYCAPTURE2_C_API **BOOL** fc2IsVisible (**fc2GuiContext** *context*)

Check if the GUI is visible.

Parameters

context	Pointer to context to show.

Returns

Whether the GUI is visible.

5.3.1.8 FLYCAPTURE2_C_API void fc2Show (**fc2GuiContext** *context*)

Show the GUI.

Parameters

context	Pointer to context to show.

Returns

An Error indicating the success or failure of the function.

5.3.1.9 FLYCAPTURE2_C_API void fc2ShowModal (**fc2GuiContext** *context,* **BOOL** ∗ *pOkSelected,* **fc2PGRGuid** ∗ *guidArray,* unsigned int ∗ *size*)

Show the camera selection dialog.

Parameters

context	Pointer to context to show.
pOkSelected	Whether Ok (true) or Cancel (false) was clicked.
guidArray	Array of PGRGuids containing the selected cameras.
size	Size of PGRGuid array.

5.4 FlyCapture2Internal_C.h File Reference

Data Structures

- struct fc2InternalContext
- struct fc2InternalGuiContext
- struct fc2InternalImageCallback

Functions

- bool IsContextValid (fc2Context context)
- bool IsGuiContextValid (fc2GuiContext context)
- void SyncCppImageToStruct (fc2Image *pImage)

5.4.1 Function Documentation

5.4.1.1 bool IsContextValid (**fc2Context** *context*) `[inline]`

5.4.1.2 bool IsGuiContextValid (**fc2GuiContext** *context*) `[inline]`

5.4.1.3 void SyncCppImageToStruct (**fc2Image** ∗ *pImage*) `[inline]`

5.5 FlyCapture2Platform_C.h File Reference

Defines

- #define FLYCAPTURE2_C_API
- #define FLYCAPTURE2_C_CALL_CONVEN

5.5.1 Define Documentation

5.5.1.1 #define FLYCAPTURE2_C_API

5.5.1.2 #define FLYCAPTURE2_C_CALL_CONVEN

5.6 MultiSyncLibrary_C.h File Reference

Functions

- MULTISYNCLIBRARY_C_API syncError syncCreateContext (syncContext *pContext)

  Create a Sync context for MultiSync Library.
- MULTISYNCLIBRARY_C_API syncError syncDestroyContext (syncContext context)

  Destory the sync context.
- MULTISYNCLIBRARY_C_API syncError syncStart (syncContext context)

  Start the sync progress.
- MULTISYNCLIBRARY_C_API syncError syncStop (syncContext context)

  Stop the sync progress.
- MULTISYNCLIBRARY_C_API syncError syncRescanMasterTimingBus (syncContext context)

  Scan newly connected or removed timing bus (for corss-PC syncing only)
- MULTISYNCLIBRARY_C_API syncMessage syncGetStatus (syncContext context)

  Start the sync progress.
- MULTISYNCLIBRARY_C_API double syncGetTimeSinceSynced (syncContext context)

  Time since sync started.
- MULTISYNCLIBRARY_C_API bool syncIsTimingBusConnected (syncContext context)

  Whether syncing across PCs.
- MULTISYNCLIBRARY_C_API bool syncEnableCrossPCSynchronization (syncContext context)

  Enable across pc synchronization support.
- MULTISYNCLIBRARY_C_API bool syncDisableCrossPCSynchronization (syncContext context)

  Disable across pc synchronization support.
- MULTISYNCLIBRARY_C_API bool syncQueryCrossPCSynchronizationSetting (syncContext context)

  Query cross pc synchronizaion support status.

5.6.1 Function Documentation

5.6.1.1 MULTISYNCLIBRARY_C_API syncError syncCreateContext (syncContext * *pContext*)

Create a Sync context for MultiSync Library.

This call must be made before any other calls that use a context will succeed.

Parameters

pContext	A pointer to the syncContext to be created.

Returns

A syncError indicating the success or failure of the function.

5.6.1.2 MULTISYNCLIBRARY_C_API syncError syncDestroyContext (syncContext *context*)

Destory the sync context.

This must be called when the user is finished with the context in order to prevent memory leaks.

Parameters

context	The syncContext to be destoryed.

Returns

A syncError indicating the success or failure of the function.

5.6.1.3 MULTISYNCLIBRARY_C_API bool syncDisableCrossPCSynchronization (syncContext *context*)

Disable across pc synchronization support.

Parameters

context	The syncContext to be used.

Returns

True if operation was successful

5.6.1.4 MULTISYNCLIBRARY_C_API bool syncEnableCrossPCSynchronization (syncContext *context*)

Enable across pc synchronization support.

Parameters

context	The syncContext to be used.

Returns

True if operation was successful

5.6.1.5 MULTISYNCLIBRARY_C_API **syncMessage** syncGetStatus (**syncContext** *context*)

Start the sync progress.

Parameters

context	The syncContext to be used.

Returns

A syncMessage indicating the sync status.

5.6.1.6 MULTISYNCLIBRARY_C_API double syncGetTimeSinceSynced (**syncContext** *context*)

Time since sync started.

Parameters

context	The syncContext to be used.

Returns

Time sinced synced.

5.6.1.7 MULTISYNCLIBRARY_C_API bool syncIsTimingBusConnected (**syncContext** *context*)

Whether syncing across PCs.

Parameters

context	The syncContext to be used.

Returns

True if its syncing across PC

5.6.1.8 MULTISYNCLIBRARY_C_API bool syncQueryCrossPCSynchronizationSetting (**syncContext** *context*)

Query cross pc synchronizaion support status.

Parameters

context	The syncContext to be used.

Returns

True if cross pc synchronization was supported

5.6.1.9 MULTISYNCLIBRARY_C_API syncError syncRescanMasterTimingBus (syncContext *context*)

Scan newly connected or removed timing bus (for corss-PC syncing only)

Parameters

context	The syncContext to be used.

Returns

A syncError indicating the success or failure of the function.

5.6.1.10 MULTISYNCLIBRARY_C_API syncError syncStart (syncContext *context*)

Start the sync progress.

Parameters

context	The syncContext to be used.

Returns

A syncError indicating the success or failure of the function.

5.6.1.11 MULTISYNCLIBRARY_C_API syncError syncStop (syncContext *context*)

Stop the sync progress.

Parameters

context	The syncContext to be used.

Returns

A syncError indicating the success or failure of the function.

5.7 MultiSyncLibraryDefs_C.h File Reference

Defines

- #define FALSE 0
- #define TRUE 1
- #define FULL_32BIT_VALUE 0x7FFFFFFF
- #define MAX_STRING_LENGTH 512

Typedefs

- typedef int BOOL
- typedef void ∗ syncContext

  A context to the MultiSync C library.

Enumerations

- enum syncError { SYNC_ERROR_OK = 0, SYNC_ERROR_FAILED, SYN-C_ERROR_ALREADY_STARTED, SYNC_ERROR_ALREADY_STOPPED, S-YNC_ERROR_CONTEXT_NOT_INITIALIZED, SYNC_ERROR_UNKNOWN_E-RROR }
- enum syncMessage { SYNC_MESSAGE_OK = 0, SYNC_MESSAGE_FAILED, SYNC_MESSAGE_STARTED, SYNC_MESSAGE_STOPPED, SYNC_MESS-AGE_SYNCING, SYNC_MESSAGE_NOMASTER, SYNC_MESSAGE_THRE-AD_ERROR, SYNC_MESSAGE_DEVICE_ERROR, SYNC_MESSAGE_NOT-_ENOUGH_DEVICES, SYNC_MESSAGE_BUS_RESET, SYNC_MESSAGE_-NOT_INITIALIZED, SYNC_MESSAGE_UNKNOWN_ERROR }

5.7.1 Define Documentation

5.7.1.1 #define FALSE 0

5.7.1.2 #define FULL_32BIT_VALUE 0x7FFFFFFF

5.7.1.3 #define MAX_STRING_LENGTH 512

5.7.1.4 #define TRUE 1

5.7.2 Typedef Documentation

5.7.2.1 typedef int BOOL

5.7.2.2 typedef void∗ syncContext

A context to the MultiSync C library.

It must be created before performing any calls to the library.

5.7.3 Enumeration Type Documentation

5.7.3.1 enum syncError

Enumerator:

- ***SYNC_ERROR_OK***
- ***SYNC_ERROR_FAILED***
- ***SYNC_ERROR_ALREADY_STARTED***
- ***SYNC_ERROR_ALREADY_STOPPED***
- ***SYNC_ERROR_CONTEXT_NOT_INITIALIZED***
- ***SYNC_ERROR_UNKNOWN_ERROR***

5.7.3.2 enum syncMessage

Enumerator:

- ***SYNC_MESSAGE_OK***
- ***SYNC_MESSAGE_FAILED***
- ***SYNC_MESSAGE_STARTED***
- ***SYNC_MESSAGE_STOPPED***
- ***SYNC_MESSAGE_SYNCING***
- ***SYNC_MESSAGE_NOMASTER***
- ***SYNC_MESSAGE_THREAD_ERROR***
- ***SYNC_MESSAGE_DEVICE_ERROR***
- ***SYNC_MESSAGE_NOT_ENOUGH_DEVICES***
- ***SYNC_MESSAGE_BUS_RESET***
- ***SYNC_MESSAGE_NOT_INITIALIZED***
- ***SYNC_MESSAGE_UNKNOWN_ERROR***

5.8 MultiSyncLibraryPlatform_C.h File Reference

Defines

- #define MULTISYNCLIBRARY_C_API
- #define MULTISYNCLIBRARY_C_CALL_CONVEN

5.8.1 Define Documentation

5.8.1.1 #define MULTISYNCLIBRARY_C_API

5.8.1.2 #define MULTISYNCLIBRARY_C_CALL_CONVEN

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