CameraSettingClass

Description

A class used to configure parameters for the camera sensor.

Syntax

class CameraSetting

Members

Public Constructors

CameraSetting::CameraSetting	Constructs a CameraSetting object and set the parameters needed for camera.

VideoSettingClass

Description

A class used to configure parameters for video streams.

Syntax

class VideoSetting

Members

Public Constructors

VideoSetting::VideoSetting	Constructs a VideoSetting object and set the parameters needed for video streams.

VideoSetting::VideoSetting

Description

Constructs a VideoSetting object and sets the parameters needed for video streams, such as resolution, frame rate per second (fps), bit rate per second (bps), encoder type.

Syntax

VideoSetting(uint8_t preset);
VideoSetting(uint8_t resolution, uint8_t fps, uint8_t encoder, uint8_t snapshot);

Parameters

preset: Select one out of 3 preset video stream settings. Default preset: 0.
resolution: Video resolution (Valid value: VIDEO_HD, VIDEO_FHD)
fps: Frame rate in frames per second.
encoder: Video encoder format to use. (Valid value: VIDEO_HEVC, VIDEO_H264, VIDEO_JPEG)
snapshot: Enable or disable snapshot function

Returns

NA

Example Code

Example: StreamRTSPVideoOnly
(https://github.com/ambiot/ambpro2_arduino/blob/dev/Arduino_package/hardware/libraries/Video/examples/StreamRTSPVideoOnly/StreamRTSPVideoOnly.ino)

Notes and Warnings

"Video.h" must be included to use the class function.

Preset configurations:
Preset 0:
resolution: VIDEO_FHD
fps: 30
bps: 2*1024*1024
encoder: VIDEO_H264
snapshot: 0

Preset 1:
resolution: VIDEO_HD
fps: 30
bps: 2*1024*1024
encoder: VIDEO_H264
snapshot: 0

Preset 2:
resolution: VIDEO_FHD
fps: 30
bps: 2*1024*1024
encoder: VIDEO_JPEG
snapshot: 0

VideoClass

Description

A class used to configure and initialize the camera to generate video data streams.

Syntax

class Video

Public Constructors

Video::Video	Construct a Video object.

Public Methods

Video::configVideoChannel	Configure video stream channel.
Video::camInit	Initialization of camera sensor using existing configurations.
Video::camDeinit	Deinitialization of camera sensor
Video::videoInit	Initialization of video streams using existing configurations.
Video::videoDeinit	Deinitialization of video stream module for a specific channel.
Video::channelBegin	Start video streaming on a specific channel.
Video::channelEnd	Stop video streaming on a specific channel.
Video::getStream	Get video data stream to provide as an input for other data stream consumers.
Video::getImage	Enable snapshot function.
Video::setFPS	Set camera video max FPS.

Video::printInfo   Print out current configuration of video channels.

Video::configVideoChannel

Description

Configure video stream channel parameters using VideoSetting class object.

Syntax

void configVideoChannel(int ch, VideoSetting& config);

Parameters

ch: Channel to configure (Valid value: 0,1,2)
config: VideoSetting object

Returns

NA

Example Code

Example: StreamRTSPVideoOnly
(https://github.com/ambiot/ambpro2_arduino/blob/dev/Arduino_package/hardware/libraries/Video/examples/StreamRTSPVideoOnly/StreamRTSPVideoOnly.ino)

Notes and Warnings

"Video.h" must be included to use the class function.

Video::camInit

Description

Initialize camera sensor using configuration from CameraSetting object.

Syntax

void cameraInit(CameraSetting& config);

Parameters

config: CameraSetting object

Returns

NA

Example Code

NA

Notes and Warnings

"Video.h" must be included to use the class function.

Video::camDeinit

Description

Deinitialize camera sensor.

Syntax

void cameraDeinit(void);

Parameters

NA

Returns

NA

Example Code

NA

Notes and Warnings

"Video.h" must be included to use the class function.

Video::videoInit

Description

Initialization of video streams from camera using existing configurations.

Syntax

void videoInit(void);

Parameters

NA

Returns

NA

Example Code

Example: StreamRTSPVideoOnly
(https://github.com/ambiot/ambpro2_arduino/blob/dev/Arduino_package/hardware/libraries/Video/examples/StreamRTSPVideoOnly/StreamRTSPVideoOnly.ino)

Notes and Warnings

"Video.h" must be included to use the class function.

Video::videoDeinit

Description

Deinitialization of all video streams.

Syntax

void videoDeinit(void);

Parameters

NA

Returns

NA

Example Code

NA

Notes and Warnings

"Video.h" must be included to use the class function.

Video::channelBegin

Description

Start video streaming on a specific channel.

Syntax

void channelBegin(int ch);

Parameters

ch: channel to start streaming. Default channel is 0.

Returns

NA

Example Code

Example: StreamRTSPVideoOnly
(https://github.com/ambiot/ambpro2_arduino/blob/dev/Arduino_package/hardware/libraries/Video/examples/StreamRTSPVideoOnly/StreamRTSPVideoOnly.ino)

Notes and Warnings

"Video.h" must be included to use the class function.

Video::channelEnd

Description

Stop video streaming on a specific channel.

Syntax

void channelEnd(int ch);

Parameters

ch: channel to stop streaming. Default channel is 0.

Returns

NA

Example Code

NA

Notes and Warnings

"Video.h" must be included to use the class function.

Video::getStream

Description

Get video data stream to provide as an input for other data stream consumers.

Syntax

MMFModule getStream(int ch);

Parameters

ch: channel to get data stream of. Default channel is 0.

Returns

This function returns the video data stream.

Example Code

Example: StreamRTSPVideoOnly
(https://github.com/ambiot/ambpro2_arduino/blob/dev/Arduino_package/hardware/libraries/Video/examples/StreamRTSPVideoOnly/StreamRTSPVideoOnly.ino)

Notes and Warnings

"Video.h" must be included to use the class function.

Video::getImage

Description

Enable snapshot function and take a snapshot.

Syntax

void getImage(void);

Parameters

NA

Returns

NA

Example Code

NA

Notes and Warnings

"Video.h" must be included to use the class function.

Video::setFPS

Description

Set camera video max FPS.

Syntax

void setFPS(int fps);

Parameters

fps: max frame rate in frames per second for camera.

Returns

NA

Example Code

NA

Notes and Warnings

"Video.h" must be included to use the class function.

Video::printInfo

Description

Print out current configuration of video channels.

Syntax

void printInfo(void);

Parameters

NA

Returns

NA

Example Code

Example: StreamRTSPVideoOnly
(https://github.com/ambiot/ambpro2_arduino/blob/dev/Arduino_package/hardware/libraries/Video/examples/StreamRTSPVideoOnly/StreamRTSPVideoOnly.ino)

Notes and Warnings

"Video.h" must be included to use the class function.