**HWS Capture Card SDK**

Version 2.1

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# 1. Introduce

This SDK Support the next capture card

1. PCI-E(SDI/HDI/AHD)
2. M2(SDI/HDI/AHD)
3. USB3.0(AHD/HDMI/SDI)

# 2.SDK Calling Sequence

## 2.1 Main Call Sequence

HW System Init

Get Device List

Video Capture

Audio Capture

Video Preview

Video Data Callback

Image Capture

Audio data Callback

Audio play

## 2.2 Hardware System Init

### 2.2.1. System Init function

InitVideoSys()

()



### 2.2.2.Video Capture

VideoChannelOpen()// Video Open device

RegisterRAWDirectCallback()// add video data callback

ack

RegisterVideoStatusCallback()//add Video Status update

ack

StartVideoPreview() // start preview

ack

StopVideoCapture() //stop capture

ack

### 2.2.3.Audio Capture

AudioChannelOpen()//open audio device

()// Video Open

RegisterAudioDirectCallback()//set callback function

ack

AudioOutOpen()// Option open play audio

()

ack

AudioOutPlay() // Option play audio

()

ack

StopAudioCapture()// Close Audio Capture

()

ack

# 3.Main function Introduce

## 3.1.Get Video Device information

|  |  |
| --- | --- |
| int GetCurrSystemDevice(); | Update Device List |
| Parameters | None |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int GetVideoTotalChannels(); | Get system video count |
| Parameters | None |
| Return Values | Video device count |

|  |  |
| --- | --- |
| int GetVideoNameByIndex(int videoIndex,char \*strname); | Get device name |
| Parameters: videoIndex:device index, strname:device name |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int GetVideoMaxResIndex(int videoIndex ); | Get support resolution count |
| Parameters: index:device index |  |
| Return Values | support resolution count |

|  |  |
| --- | --- |
| int GetVideoMaxResSizeByIndex(int videoIndex,int resIndex,int \*width,int \*height,int \*fps); | Get device name |
| Parameters: videoIndex:device index, resIndex:resolution index  Width: video width, height:video height, fps:frame rate |  |
| Return Values | 1:Success,Other fail |

## 3.2.Get Audio Device information

|  |  |
| --- | --- |
| int GetAudioTotalChannels(); | Get system audio count |
| Parameters | None |
| Return Values | audio device count |

|  |  |
| --- | --- |
| int GetAudioNameByIndex(int audioIndex,char \*strname); | Get device name |
| Parameters: audioIndex:device index, strname:device name |  |
| Return Values | 1:Success,Other fail |

## 3.3.Video Capture function

|  |  |
| --- | --- |
| Int VideoChannelOpen(int nChannel,int videoIndex,int w,int h,int fps); | Open video |
| Parameters: nChannel:display index, videoIndex:device index,  w:video width,h:video height,fps:frame rate |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int StartVideoPreview(int nChannel,HWND WndHandle, RECT \*rect); | Start preview |
| Parameters: nChannel:display index, WndHandle:display HWND, rect:display size |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int StopVideoCapture(int nChannel); | Stop video capture |
| Parameters: nChannel:display index |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int RegisterRAWDirectCallback(int nChannel,RAWSTREAM\_DIRECT\_CALLBACK RawStreamDirectReadCallback, void\* Context); | Add video call back function |
| Parameters: nChannel:display index, RawStreamDirectReadCallback:callback, Context: display main class |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int RegisterVideoStatusCallback(int nChannel,VIDEOSTATUS\_CALLBACK VideoStatusCallback, void\* Context); | Add Video Status Callback |
| Parameters: nChannel:display index, VideoStatusCallback: Video Status callback,Context: display main class |  |
| Return Values | 1:Success,Other fail |

## 3.4. Audio Capture function

|  |  |
| --- | --- |
| int AudioChannelOpen(int nChannel,int audioIndex,int buffsize); | Open Audio capture |
| Parameters: nChannel:display index, audioIndex:device index, buffsize:audio buffer size |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int StopAudioCapture(int nChannel); | Stop audio capture |
| Parameters: nChannel: display index |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int RegisterAudioDirectCallback(int nChannel,RAWAUDIO\_DIRECT\_CALLBACK RawAudioDirectReadCallback, void\* Context); | Add audio call back funtion |
| Parameters: nChannel:display index, RawAudioDirectReadCallback:callback  Context: main class |  |
| Return Values | 1:Success,Other fail |

## 3.5. Audio Play function(Option)

|  |  |
| --- | --- |
| int AudioOutOpen(int nChannel,HWND WndHandle); | Open Audio play device |
| Parameters: nChannel:display index, WndHandle:display HWND |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int AudioOutPlay(int nChannel); | play Audio |
| Parameters: nChannel:display index |  |
| Return Values | 1:Success,Other fail |

|  |  |
| --- | --- |
| int AudioOutPause(int nChannel); | Pause Audio |
| Parameters: nChannel:display index |  |
| Return Values | 1:Success,Other fail |