

TNIR Additional Function Manual

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ARTRAY
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ArtCam_UpdateMaskData

Definition : **BOOL** ArtCam_UpdateMaskData (HACAM *hACam*, MASKTYPE *Flg*)

Function : Update images obtained mask data.

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
MASKTYPE	<i>Flg</i>	Masktype

Function detail :

Update images obtained mask data that SDK manages internally and overwrite the last captured image. During process of ArtCam_Preview or ArtCam_CallBackPreview, image capturing will be continuing. When either ArtCam_SnapShot or ArtCam_Close is executed, the latest captured image will be updated.

Before capturing images, entire data of 0 will be updated if this function is called.

For masktype, choose either MASKTYPE_LOW or MASKTYPE_HIGH.
Basically, while sensor is shielded, update MASKTYPE_LOW.
And while sensor is exposed, update the MASKTYPE_HIGH.

Return value :

Success : Returned TRUE or 1
Failure : Returned FALSE or 0

ArtCam_SaveMaskFile

Definition : **BOOL** ArtCam_SaveMaskFile (HACAM *hACam*, LPCTSTR *szFileName*)

Function : Save current mask data.

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LPCTSTR	<i>szFileName</i>	Name of Saved file

Function detail :

Mask data managed inside SDK can be save in any file.

Return value :

Success: Returned TRUE or 1

Failure: Returned FALSE or 0

ArtCam_LoadMaskFile

Definition : **BOOL** ArtCam_LoadMaskFile (HACAM *hACam*, LPCTSTR *szFileName*)

Function : Load mask data from file.

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LPCTSTR	<i>szFileName</i>	File name of loading mask data

Function detail :

Load specific mask filter on SDK.

Please use the mask data provided by Artray or data saved by using [ArtCam_SaveMaskFile](#) function.

If you choose incorrect file format, an error will occur.

Return value :

Success: Returned TRUE or 1

Failure: Returned FALSE or 0

ArtCam_SetMaskFilter

Definition : **BOOL** ArtCam_SetMaskFilter (HACAM *hACam*, LONG *Value*)

Function : Set up valid/invalid action on mask filter process

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LONG	<i>Value</i>	Setting of mask filter

Function detail :

Set up valid/invalid action on mask filter process of output images.

By using *Value*, either 0 or 1 can be set.

When it is set 1, it becomes valid; when it is set 0, it becomes invalid.

ArtCam_SetFilterValue is also included in this function, so the same action will be performed when filter type, ARTCAM_FILTERTYPE_MASKFILTER in ArtCam_SetFilterValue, is chosen.

Return value :

Success: Returned TRUE or 1

Failure: Returned FALSE or 0

ArtCam_GetMaskFilter

Definition : **LONG** ArtCam_Get MaskFilter(HACAM *hACam*, LPBOOL *Error*)

Function : Obtain current value of mask filter process

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LPBOOL	<i>Error</i>	Pointer to the Bool variable that will receive error

Function detail :

Obtain current value of mask filter process setting.

ArtCam_GetFilterValue is also included in this function, so the same action will be performed when filter type, ARTCAM_FILTERTYPE_MASKFILTER in ArtCam_GetFilterValue, is chosen.

Return value :

Success: Returned TRUE or 1, and returned current setting of mask filter.

Failure: Returned FALSE or 0, and returned 0.

ArtCam_SetDotFilter

Definition : **BOOL** ArtCam_SetDotFilter (HACAM *hACam*, LONG *Value*)

Function : Set up valid/invalid action on pixel correction filter

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LONG	<i>Value</i>	Setting of pixel correction filter

Function detail :

Set up valid/invalid action on pixel correction filter of output image.

By *Value*, it can be set either 0 or 1.

When it is set as 1, it is valid.

On the other hand, it will be invalid when it is set as 0.

ArtCam_SetFilterValue is also included in this function, so the same action will be performed when filter type, ARTCAM_FILTERTYPE_DOTFILTER in ArtCam_SetFilterValue, is chosen.

Return value :

Success: Returned TRUE or 1

Failure: Returned FALSE or 0

ArtCam_GetDotFilter

Definition : **LONG** ArtCam_GetDotFilter(HACAM *hACam*, LPBOOL *Error*)

Function : Obtain current setting of pixel correction filter process

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LPBOOL	<i>Error</i>	Pointer to the Bool variable that will receive error

Function detail :

Obtain current setting of pixel correction filter process.

ArtCam_GetFilterValue is also included in this function, so the same action will be performed when filter type, ARTCAM_FILTERTYPE_DOTFILTER in ArtCam_GetFilterValue, is chosen.

Return value :

Success: Returned TRUE or 1 and returned current setting of pixel correction filter

Failure: Returned FALSE or 0 and returned 0.

ArtCam_SetPeltier

Definition : **BOOL** ArtCam_SetPeltier (HACAM *hACam*, LONG *Value*)

Function : Control the Peltier.

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LONG	<i>Value</i>	Peltier value

Function detail :

Control the pulse width of voltage caused by Peltier element inside the sensor.

By using *Value*, 0~127 can be set.

When it is set as 0, pulse width becomes 0%; when it is set as 127, the pulse width becomes 100%.

ArtCam_SetFilterValue is also included in this function, so the same action will be performed when filter type, ARTCAM_FILTERTYPE_PELTIER in ArtCam_SetFilterValue , is chosen.

Return value :

Success: Returned TRUE or 1

Failure: Returned FALSE or 0

Notice :

Voltage caused by Peltier element is input by AC adaptor, which is usually supplied 12V.

When the pulse width is 100%, roughly 1.5A current flows. And temperature difference between inside sensor and external package will be around 70C.

If Peltier value is set more than defaulted value 80, please design a system for dispersion of heat from the camera case.

ArtCam_GetPeltier

Definition : **LONG** ArtCam_Get Peltier(HACAM *hACam*, LPBOOL *Error*)

Function : Obtain the current setting of Peltier control

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LPBOOL	<i>Error</i>	Pointer to the Bool variable that will receive error

Function detail :

Obtain the current setting of Peltier control.

ArtCam_GetFilterValue is also included in this function, so the same action will be performed when filter type, ARTCAM_FILTERTYPE_PELTIER in ArtCam_GetFilterValue is chosen.

Return value :

Success: Returned TRUE or 1 in Error and returned Current setting of Peltier control.

Failure: Returned FALSE or 0 in Error and returned 0.

ArtCam_GetTemperature

Definition : **LONG** ArtCam_GetTemperature (HACAM *hACam*, LPBOOL *Error*)

Function : Obtain the sensor's voltage from internal InGaAs sensor

Argument :

HACAM	<i>hACam</i>	Handler of camera identification
LPBOOL	<i>Error</i>	Pointer to the Bool variable that will receive error

Function detail :

Obtain the sensor's voltage from internal InGaAs sensor as mV unit.

When the Peltier controlled pulse is set as 0% or 100%, a difference around 100mV will be occurred.

When it obtains higher voltage, internal temperature of InGaAs sensor will become lower.

ArtCam_GetFilterValue is also included in this function, so the same action will be performed when filter type, ARTCAM_FILTERTYPE_TEMPERATURE in ArtCam_GetFilterValue is chosen.

Return value :

Success: Returned TRUE or 1 in Error and returned status of capturing image.

Failure: Returned FALSE or 0 in Error and returned 0.

Notice :

There is 100mV of difference may occur from using 1 unit of sensor.

Please use voltage obtained from this function as a standard of internal temperature controlled by Peltier.