

USB 3 uEye CP Rev. 2: Internal image memory

This application note describes the changes in the usage of the internal image memory for USB 3 uEye CP Rev. 2 cameras.

1) Driver < 4.80

The internal image memory of the USB 3 uEye CP Rev. 2 was introduced with driver version 4.70. There were no changes in the driver versions 4.71 and 4.72.

The internal image memory was enabled or disabled while camera operation. In uEye Cockpit in the “Advanced features” tab, there was a check box for enabling the internal image memory. If the camera was operated with activated image memory and if the camera get very hot, the internal image memory was automatically disabled.

The status of the camera temperature is signaled and can be queried with `is_DeviceFeature`.

2) Driver ≥ 4.80

From driver version 4.80 on, the behavior of the internal image memory has changed.

The internal image memory can only be enabled or disabled if the camera is closed and no longer while camera operation. In return, the internal image memory must only be configured once and the settings are stored in the non-volatile camera EEPROM.

The internal image memory is now configured in the IDS Camera Manager in the “Additional functions” tab and no longer in uEye Cockpit.

There is no longer an automatic deactivation of the internal image memory but the status of the camera temperature is still signaled and can be queried with `is_DeviceFeature`.

3) Effects of the changes

Because of the changes described above, the `is_DeviceFeature` function for enabling or disabling the internal image memory also has changed. Now you have to use the device ID instead of the camera ID when activating the internal image memory:

Order of function calls from 4.80 on

Enable the internal image memory:

```
is_DeviceFeature (DeviceID,  
IS_MEMORY_MODE_ON)
```

Initialize the camera:

```
is_InitCamera (CameraID)
```

Save/Load parameter file created with 4.80:

```
is_ParameterSet ()
```

Order of function calls before 4.80

Initialize the camera:

```
is_InitCamera (CameraID)
```

Enable the internal image memory:

```
is_DeviceFeature (CameraID,  
IS_MEMORY_MODE_ON)
```

Save/Load parameter file with memory mode:

```
is_ParameterSet ()
```

Note that parameter files (ini) that have been created with a driver version lower than 4.80 must be replaced. If the file uses settings for the internal image memory in the [Memory] section, the `is_ParameterSet` function will now return `IS_INCOMPATIBLE_SETTING`. We recommend saving a new parameter file with driver version 4.80.

While configuring the internal image memory the camera has to be reconnected. For this reason the camera will briefly not be visible in the camera list of the IDS Camera Manager.

The configuration of the internal image memory now has to be done in IDS Camera Manager and no longer in uEye Cockpit:

