

Release Notes for IDS Software Suite 4.95

Introduction

These release notes describe the changes to IDS Software Suite 4.95, which introduces new features in addition to application and feature revisions.

IDS Software Suite 4.95.2

General improvements

Given the current worldwide bottleneck situation regarding various electronic and semiconductor components used in a broad variety of products, IDS Imaging Development Systems also faces constraints in manufacturing some of our cameras. To be able to serve you with the products listed below in the future, we will make small modifications in electronics for these cameras. All functionality of the cameras remains fully unchanged.

The camera drivers of the IDS Software Suite 4.95.2 support these USB 2 cameras.

In general, we recommend upgrading to the most recent IDS Software Suite version, here 4.95.2, to operate with the latest functionality and most stable software.

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IDS Software Suite 4.95.1

General improvements

- With the setup of IDS Software Suite 4.95.1, an update of previous installations is now possible as before. Furthermore, the setup has been extended by an upgrade functionality. It offers the possibility to install subcomponents individually and to reduce the size of the setup file.
- The IDS Camera Manager user interface is now available in additional languages.
- The virtual COM port driver can also be used on Windows 10.
- The description in the manual for the IDS Camera Manager application under Linux has been revised and merged with the description under Windows.
- The description in the manual for the uEye Demo application has been revised and expanded.
- Fixed an error when calling the function `is_InitCamera()` without a camera connected.
- Fixed a bug in the `is_SetHardwareGain()` function that allowed to always set a colour gain even if a monochrome camera was addressed.
- Flash timing has been corrected for the models UI-124x/UI-324x/UI-524x.
- The `is_GetVsyncCount()` function is deprecated and has been moved to the "Deprecated functions" manual.

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IDS Software Suite 4.95.0



Prior to installing IDS Software Suite 4.95, previous versions of IDS Software Suite must be uninstalled.

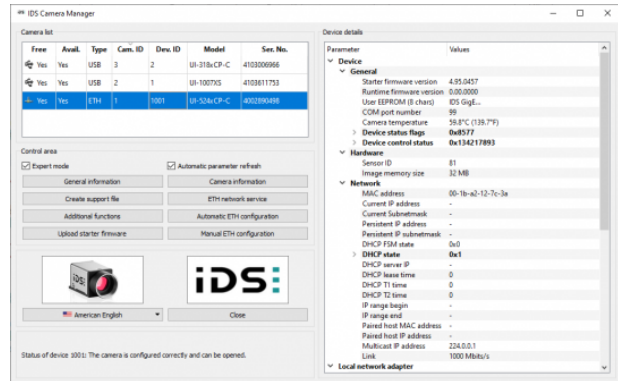
New and changed functions

Revision of IDS Camera Manager

The IDS Camera Manager has been revised completely and is based on the same source code for both Windows and Linux. This means that the same functions can be offered under Windows and Linux, e.g.

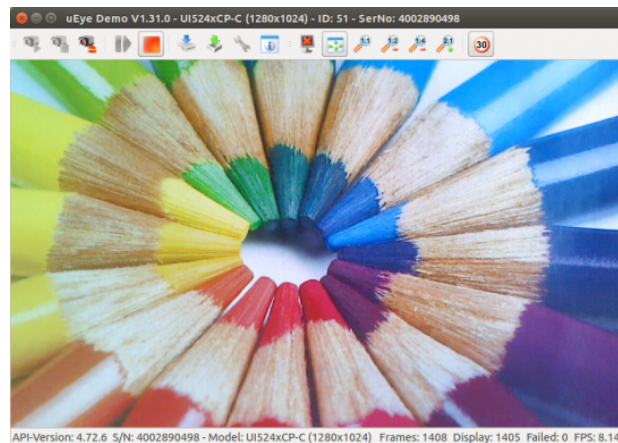
- Camera information
- Additional functions like boot boost, multicast or trusted pairing
- Configuration of the GigE cameras optionally with persistent IP address, automatic IP address or via DHCP

Due to the revision of the user interface, some areas have been restructured. Therefore, the IDS Camera Manager is only available with German and English user interface in this version. Further languages will be added with the upcoming version.

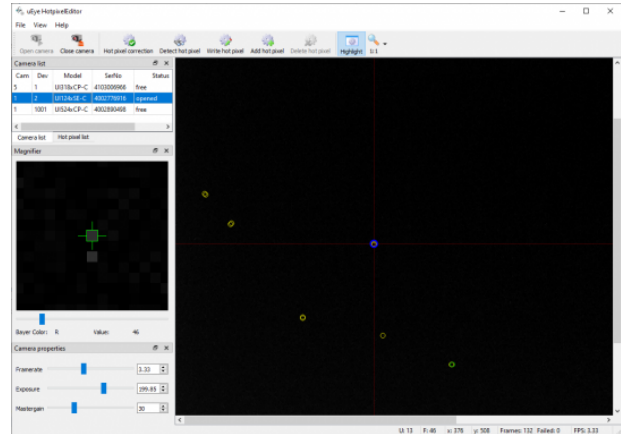


Porting of further applications

The sample application uEye Demo was previously only available on Linux. uEye Demo is now also available on Windows including the source code.



The uEye Hotpixel Editor is now also available under Linux. With the uEye Hotpixel Editor you can edit the list of sensor hot pixels stored in the camera.



DHCP

In addition to a persistent IP address or an IP address from the IP address range for automatic IP configuration, you can also activate to obtain an IP address via a DHCP server. For this purpose, the `is_IpConfig()` function has been extended in addition to the IDS Camera Manager.

In order to use the DHCP functionality, the camera must be operated with firmware version 4.95 or higher. For a camera with a firmware version lower than 4.95, you must first update the camera firmware, e. g. in the IDS Camera Manager using the "Starter Firmware Upload" button.

New function: `is_ImageQueue`

`is_ImageQueue()` enables/disabled the queue mode for existing image memory sequence. New images will be added to the end of the queue on arrival (FIFO: first in, first out).

The new function joins all queue functions that were previously implemented in different functions. The functions `is_ExitImageQueue()`, `is_InitImageQueue()` and `is_WaitForNextImage()` are therefore obsolete and should no longer be used.

New function: `is_CaptureConfiguration`

The `is_CaptureConfiguration()` function is used to define the settings of the internal image memory queue. You can configure the queue size (in MB) and the number of image memories.

uEye .NET interface

With version 4.95 there is a breaking change in the uEye .NET interface. In the previous versions there was only one uEye .NET Library, with version 4.95 the uEye .NET interface is split into two new libraries. This change makes the uEye .NET interface compatible with .NET Standard 2.0. (More information on the .NET Standard can be found here: <https://docs.microsoft.com/en-us/dotnet/standard/net-standard>).

With a few exceptions, all functions were ported to the new uEye .NET Standard 2.0 Library. Not portable functions were moved to a new uEye .NET Framework Library.



Note that the uEye .NET Standard 2.0 Library is compatible to .NET 5.0!
Take care of the changed system requirements for the uEye .NET interface.

General improvements

- The header file `uEye.h` has been renamed to `ueye.h` in the same way under Windows and Linux.
- Extensive improvements under Linux: for example, dynamic loading of the API is also possible or the use of the same Debayering algorithms as under Windows.
- Unification of functions: The different parameter names for `Mem` and `MemId` have been unified to `cMem` and `nMemId`. The name is supplemented with the "p" prefix for the number of pointers. When using the uEye Python interface `PyuEye` in combination with "Named/Keyword arguments", the program code may have to be adjusted here.
 - `is_AddToSequence()`
 - `is_AllocImageMem()`
 - `is_CopyImageMem()`
 - `is_CopyImageMemLines()`
 - `is_FreeImageMem()`
 - `is_GetActiveImageMem()`
 - `is_GetImageHistogram()`
 - `is_GetImageInfo()`
 - `is_InquireImageMem()`
 - `is_LockSeqBuf()`
 - `is_RenderBitmap()`
 - `is_SetAllocatedImageMem()`
 - `is_SetImageMem()`
 - `is_UnlockSeqBuf()`
- A new command has been added to the `is_Configuration()` function. This allows you to update the IP address of the network adapter that has been cached by the driver.
- For `is_Event()` a new event was introduced: `IS_SET_EVENT_FRAME_SKIPPED`. The event is signalled when a frame has been skipped.
- In the `is_CaptureStatus()` function the `IS_CAP_STATUS_TRANSFER_FAILED` status was introduced as replacement of the `IS_CAP_STATUS_USB_TRANSFER_FAILED` status. The `IS_CAP_STATUS_USB_TRANSFER_FAILED` status is obsolete and should no longer be used.
- It is now also possible to set a negative flash delay in the uEye .NET interface. For this purpose, the function calls in the `Flash` class have been revised accordingly.
- The `is_SetStarterFirmware()` function is obsolete and is replaced by the `IS_ALLOW_STARTER_FW_UPLOAD` parameter in the `is_InitCamera()` function.
- UI-359x: When activating subsampling, the sensor-internal anti-blooming function is automatically switched on.
- The number of image memories that the driver preloads in the USB subsystem has been increased. Note especially for embedded systems that this increases the memory requirements.
- The behaviour of the flash pin (pin 8) of the uEye LE USB 3.1 Gen 1 has been revised. After booting, the pin now outputs a HIGH level. This corresponds to the behaviour of the flash pin as in the USB 3 uEye LE camera family.
- The USB 2 firmware files have been moved to the hard disk corresponding to the USB 3 firmware files.

Known issues

- In IDS line scan, the GigE uEye CP Rev. 2 models may lose a line between two images with a pixel clock > 60 MHz.
- UI-313xCP Rev. 2: When using the smallest possible AOI in hardware trigger mode, images may be permanently lost.

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