

khs

instruments

Application Note

***First Steps Using
the
khsdll.dll***

Introduction

The khstdll.dll provides the interface between your software and the khs-instruments cameras. This application note shows the first steps to use the khstdll.dll in your application.

Getting a scan

To get data from a camera sometimes first a lot of complex configuration work is required by the user. And if you take a short view at khstdll.h you may worry how to manage this lot of information.

But don't worry. Khs-instruments hardware and software are carefully designed to make your work as easy as possible. Sure, there is the need to install the hardware drivers to tell the operating system how to manage this device. But there are no camera specific files, there are no switches or jumpers. All information is stored in the camera – and there are a lot of different cameras.

In every case the khstdll.dll reads all of the required information, configures the camera and starts acquisition.

So the only thing for you to do is to provide a buffer and call

```
khstdll_scan_get_long (unsigned int *buf);
```

That's all.

If there is new data the khstdll.dll copies the data into your buffer and returns zero. If there is no data, khstdll_scan_get_long returns nonzero and do nothing.

To get the required buffer size there are two ways. The simplest way is to take a look into the data sheet of the camera and use the number of pixels to set the size of the buffer.

But if you connect two or more cameras to your computer, there may be the need to make your application more flexible. In this case you get the number of all pixels of all cameras by calling

```
pixels = khstdll_set_comm ( CCDDRV_VAR_GET,CCDDRV_VAR_CCD_PIXELS,0);
```

But for a single camera there is no need to do this.

Setting Exposure Time

To set the exposure time, call

```
khstdll_set_comm ( CCDDRV_EXPOSURE_SET , value , exp);
```

value is the exposure time (integer) and *exp* is the exponent. By example set the exposure time to 10 ms set *value* = 10 and *exp* = -3.

In many cases that's all you need to know.

Conclusion

Due to the self configuration of khs-instruments cameras it is very easy to control the camera by your software.