

Choosing a Frame Grabber for Eastman Kodak's Image Sensor Evaluation Boards

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Introduction

Kodak supports frame grabbers from both National Instruments and Bitflow. The right choice for a particular evaluation system depends on several factors. This application note provides the information necessary to make an informed decision.

Bitflow

Bitflow supports operation of their frame grabbers on Windows NT and Windows 2000 operating systems. **Bitflow does not offer Windows 98 drivers for their frame grabbers.**

When purchasing a frame grabber from Bitflow, one must also purchase the SDK (Software Developers Kit) which includes the drivers for the board and software for image capture.

The image capture software provided by Bitflow, R2View, allows the user to capture images and save them as bitmaps. **R2View does not support any file format for saving an image with a bit depth greater than 8 bits.** A 10 or 12 bit image can be written to a bitmap file, but only 8 bits of information per pixel will be saved.

Bitflow offers a selection of cables that connect Kodak's evaluation boards to their frame grabbers.

For information about Bitflow's products or for technical support related to Bitflow's frame grabbers, visit www.bitflow.com.

National Instruments

National Instruments supports operation of their frame grabbers on Windows 98 as well as Windows NT and Windows 2000 operating systems.

When you purchase a frame grabber from National Instruments the drivers and image capture software are included automatically.

The image capture software provided by National Instruments, Measurement and Automation Explorer, allows the user to capture images and save them as PNG files. This file format saves the full bit depth of the image as a compressed file. The PNG compression algorithm is lossless.

National Instruments provides a cable that interfaces to all of Kodak's KAI evaluation boards, and some of the KAF evaluation boards. A cable is offered through Kodak that connects National Instruments frame grabbers to Kodak's CMOS evaluation boards. **For most KAF and all KLI**



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evaluation boards, there is no commercially available cable for connecting to the National Instruments frame grabbers. In this case, Kodak can provide instructions for building a cable.

For information about National Instrument's products or for technical support related to National Instrument's frame grabbers, visit www.ni.com.

Whether you choose to order a frame grabber from Bitflow or National Instruments, work with them to determine which model is best for you. This will depend on

- (1) the speed of the evaluation board being used
- (2) the bit depth of the images from the evaluation board
- (3) whether the evaluation board will run the sensor in single or dual output mode
- (4) whether the output of the evaluation board is LVDS or RS422



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