EPIX ®

PIXCI D2X

PIXCI® D2X Frame Grabber Supports Over 300 Digital Output Cameras

If your digital output camera is manufactured by one of these camera companies . . .

|	
Adimec	Hitachi
Atmel	JAI / Pulnix
Basler	Mitsubishi Payon
Cohu	Perkin Elmer
Dage-MTI	Photon Vision
Dalsa	Redlake MASD
Duncan Technologies	Sensors Unlimited
DVC	Sentech
EG&G Reticon	Takenaka
Gigaphoton	Teli
Hamamatsu	Uniq Vision Technologies
HanVision	Varian PaxScan

. . . then there is an excellent probability that the PIXCI D2X imaging board provides the computer interface. Visit the PIXCI Selection Guide[1] for a listing of all camera models currently supported. Contact EPIX if your camera is not yet listed.

HIGHEST IMAGE QUALITY — The PIXCI D2X is designed for scientific and machine vision applications that require the highest image quality. To insure that precise camera data is always delivered to the computer, the PIXCI D2X board never compresses, processes or modifies pixel values.

MAXIMUM DATA TRANSFER RATE — The PIXCI D2X is a 32 bit PCI bus master imaging board that transfers camera data to the host computer at the camera's data transfer rate. The camera's pixel clock controls the data flow from the camera into the PIXCI D2X; the computer's PCI bus chip set controls the data flow from the PIXCI D2X, through the PCI bus, to the computer's memory (or other PCI bus target).

COMPATIBILITY GUARANTEED — The product designation "PIXCI D2X" refers to a series of 300+ custom-configured imaging boards, each optimized to support one of 300+ specialized digital cameras. Before a camera is added to the PIXCI Selection Guide, EPIX tests the camera and designs a camera-specific interface. Engineers custom program a PIXCI D2X board to exactly support the camera's video timing specifications and electronically tag the board with the camera's identification code. A "Capture & Adjust Dialog," optimized to match the camera's capabilities, is added to the XCAP imaging program.

OPTIMIZED IMAGING SYSTEMS — EPIX, Inc. offers complete imaging systems including cameras, imaging boards, software, cables, computers, lenses, and lighting. All components of an EPIX imaging system are configured and tested together, as a system, so EPIX can guarantee that everything will work properly, the first time, right out of the box.
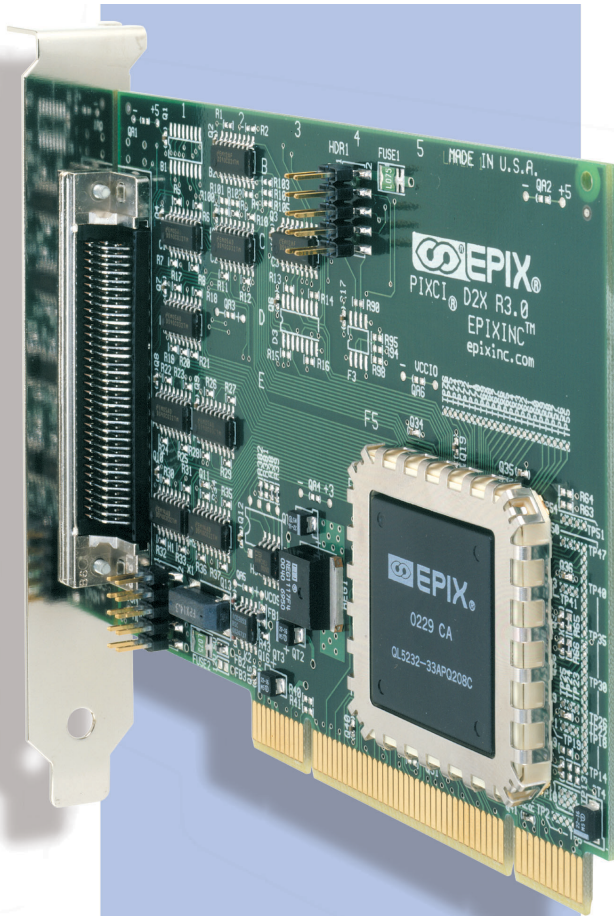
Features:
- Line Scan or Area Scan
- Single or Dual Channel
- 8 to 24 Bit Camera Data
- Asynchronous Capture Control
- Differential Trigger In / Strobe Out
- Camera Integration and Reset Control
- 32 bit PCI Bus Master
- 132 MB/s Burst Transfers
- Compatible with 32-Bit and 64-Bit PCI Buses
- Video Rate Image Sequence Transfer to Motherboard Memory

IMAGE PROCESSING PRODUCTS FOR RESEARCH AND INDUSTRY

PIXCI® D2X For Scientific / Machine Vision Digital Cameras

CAMERA CONTROL FROM SOFTWARE
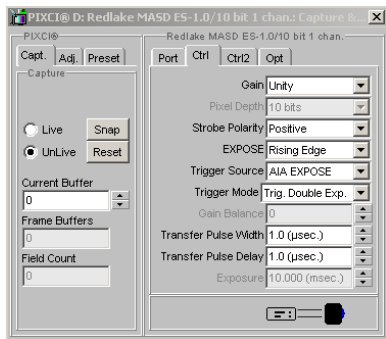
Example of Capture & Adjust Dialog for camera with direct software control (displayed smaller than actual size).
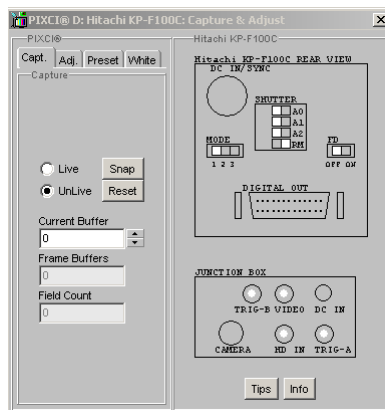
CAPTURE & ADJUST DIALOG:

Most cameras supported by PIXCI D2X imaging boards allow software control of exposure, gain, shutter speed, line rate, and more. The XCAP imaging program provides a dedicated Capture & Adjust Dialog for convenient control.

A camera's Capture & Adjust Dialog is automatically displayed when the PIXCI D2X board is "Opened" from the Lite, Ltd, Std, or Plus versions of the XCAP program. XCAP knows which menu to load by reading the camera identificiation code from the PIXCI D2X board.

The Capture & Adjust Dialog uses camera control names designated by the camera manufacturer. As a result,

the camera's user manual provides all the information required to control the camera from XCAP.

If a camera does not allow software control, then the camera is equiped with physical controls and switches — XCAP's Capture & Adjust Dialog is designed to appear like the camera's control panel using the camera's control labels. Camera control simply requires the operator to set XCAP control parameters to match the actual camera's control positions.

Example of Capture & Adjust Dialog for camera without direct software control (displayed smaller than actual size).

SPECIFICATIONS

SIGNAL INPUT & OUTPUT:

- EIA RS-644 Drivers & Receivers or
- EIA RS-422 Drivers & Receivers

(Camera dependent)

RESOLUTION:

- 8 to 4,096 pixels per line
- 1 to 4,096 lines per image (area scan)
- 1 to 65,534 lines per image (line scan)

MAXIMUM FRAME RATE:

- Camera Dependent

CONNECTIONS:

- 1 68-pin (SCSI II) cable receptacle
- 2 10-pin headers

TRANSFER RATES:

- Requires a burst mode PCI motherboard capable of sustained transfer rates to motherboard DRAM equal to or greater than the peak byte transfer rate of the camera.

DISPLAY - WINDOWS:

- Requires a 24 bit per pixel Windows compatible display system. Display resolution determined by VGA device driver.

BUS REQUIREMENTS:

- 32 bit, 33 MHz PCI bus master,
- 3 or 5 volt PCI slot.
- 1.55 Amps @ +5 Volts

DIMENSIONS:

- 12.48 cm long by 10.67 cm high (4.913" x 4.20") [short slot]

CE / FCC CERTIFICATION:

- PIXCI D2X was tested per EMC directive 89/336/EEC and performed to class B.

PIXCI D2X VERSATILITY

MULTIPLE BOARDS / MULTIPLE CAMERAS:

All versions of the XCAP program (except Demo) recognize all PIXCI PCI imaging boards, regardless of model or order code, and offer dedicated control for as many as 8 PIXCI boards / cameras in one computer.[2] The Multiple Devices menu in XCAP displays each board by the model name of the camera it supports. Check Boxes "☑ " provide quick and convenient camera selection.

Synchronized operation of multiple cameras is available (camera dependent).

SOFTWARE COMPATIBILITY:

The PIXCI D2X requires a 32-bit operating environment. It is compatible with Microsoft Windows XP, 2K, NT, ME, 98, and 95 as well as 32-bit DOS. The XCAP Imaging Program is Windows compatible. XCLIB and PXIPL developer libraries are available for Windows and DOS. IMAGE PRO, TWAIN, and LINUX drivers are available.

EPIX supports development of custom drivers for other 32-bit environments (UNIX, Macintosh etc).

1. PIXCI Selection Guide URL: http://www.epixinc.com/guide/cameras.htm

2. Most motherboards have neither the PCI bandwidth nor the 8 expansion slots needed to take full advantage of this capability: control of 4 cameras is common.

3. Optional "TTL Module" allows TTL Trigger IN and TTL Strobe OUT.

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