DESCRIPTION

Mightex's cameras are provided with a powerful Software Development Kit (SDK), which enables customers to integrate the cameras into their own applications. The SDK contains a very easy-to-use Application Programming Interface (API), allowing customers to have full control of the settings and the behavior of the camera. In addition, the SDK is compatible with Visual C++, Visual Basic and Delphi on Windows 2000 and XP platforms. A VC++ example and a Delphi example, with full source codes, are also provided as references to use the DLL functions. One good application example based on the SDK is Mightex's 'standard' USB Camera Control Software, included in the standard camera kit. A screenshot of this control software is illustrated on Page 2 of this document.

Mightex's camera SDK also comes with several dialogs, which provide a quick and easy way for the user to implement his own application. For instance, the Control Panel dialog contains all the necessary GUI controls, based on which the user can have full control of the camera functions without having to write lengthy codes. For those users who prefer to design their own GUI, a set of function calls are also provided for all the equivalent functions of the Control Panel.

For detailed features of all the function calls, dialogs and the 'standard' USB Camera Control Software, please refer to the Mightex Camera SDK User's Manual.

In summary, Mightex's Camera SDK provides:

— Full, easy control of all camera features
— Complete source codes of application examples
— Still image capturing and saving
— External trigger features
— Hooker mechanism of every frame (with full frame attributes), convenient interface for close loop user applications

SDK API functions include:

— Camera Detection and Auto-Identification
— Camera Module Number and Serial Number reading
— Camera Initialization and Un-initialization
— Camera Frame Grabbing Engine Start/Stop
— Camera Video Start/Stop
— Control Panel Show/Hide
— Video Form Show/Hide
— Still Image Capturing and Saving
— External Trigger mode control
— GPIO features
— Built in PWM-based LED Control

OS REQUIREMENTS
Windows 2000/XP

OS DRIVER
WDM Driver

RECOMMENDED SOFTWARE DEVELOPMENT IDE
Microsoft Visual Studio 6 (VC++, VB)
Borland Delphi 5 (and up)

Mightex
Bright Solutions

Mightex Systems
(In USA) 1032 Serpentine Lane, Suite 113, Pleasanton, California 94566
(In Canada) 2343 Brimley Road, Suite 868, Toronto, Ontario M1S 3L6
Tel: 1-416-840-4991 or 1-925-218-1885, Fax: 1-416-840-6541, Email: sales@mightex.com

- 1 -

CONTROL PANEL DIALOG:
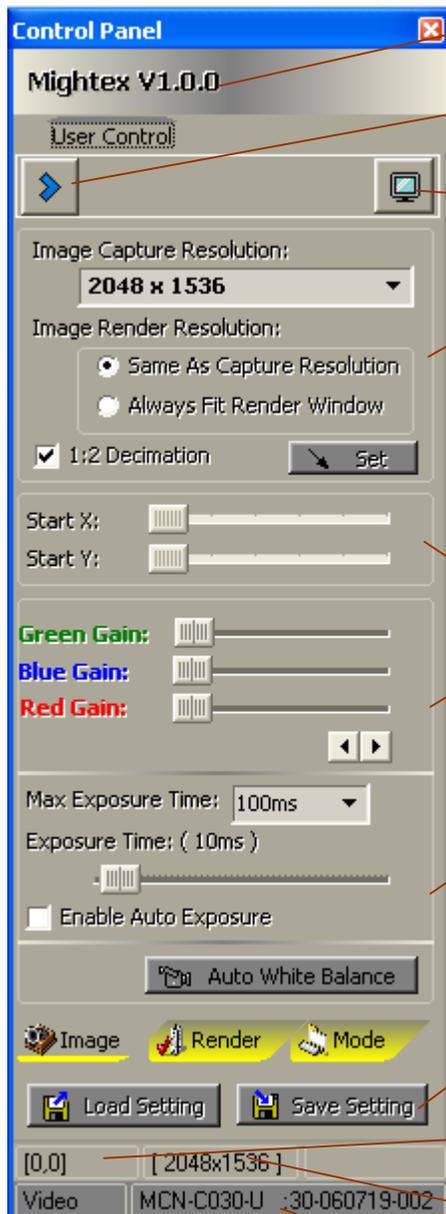
Customizable title. The sample title "Mightex V1.0.0" can be replaced by user.

Start/Stop Frame Grabbing

"Show Video Window" button. Click it to show the Video window.

User may set Image Capture Resolution and Image Render Resolution here. Mightex's 1.3M cameras support the following resolution: 32x32, 64x64, 160x120, 320x240, 640x480, 800x600,1024x768 and 1280x1024. User can also turn on/off "1:2 Decimation" (2x skip) mode. Image Rendering Resolution may be set to fit the video window or kept the same as the captured image. The Set button must be pressed to activate the new setting.

User may use these two sliders to set the start position of ROI within the capture image.

User may use these three sliders to manually adjust the RGB gains (0x – 16x). The is used for adjusting all gains (RGB gains) proportionally.

User may use these controls to select the maximum exposure time range and set exposure time. The button Auto White Balance is used for Automatic White Balance (AWB), user needs to set proper exposure time and put a white paper as the object, click this button will automatically set the RGB gains to get ideal white color. The "Enable Auto Exposure" checkbox allows user to enable auto exposure feature.

These two buttons are used to save/load all the camera settings to/from a user-defined data file.

Start Position of ROI

Current settings of camera resolution and frame rate.

Camera module's Part Number and Serial Number.