

Video Input

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1. Overview and Operation

[Overview]

This demo project will introduce users how to show real-time video in HMI with Video Input function. Users can also capture images 10 seconds before and after current image in video then play them in HMI using Media Player.

2 types of format of real-time video are supported: (1) NTSC (2) PAL.

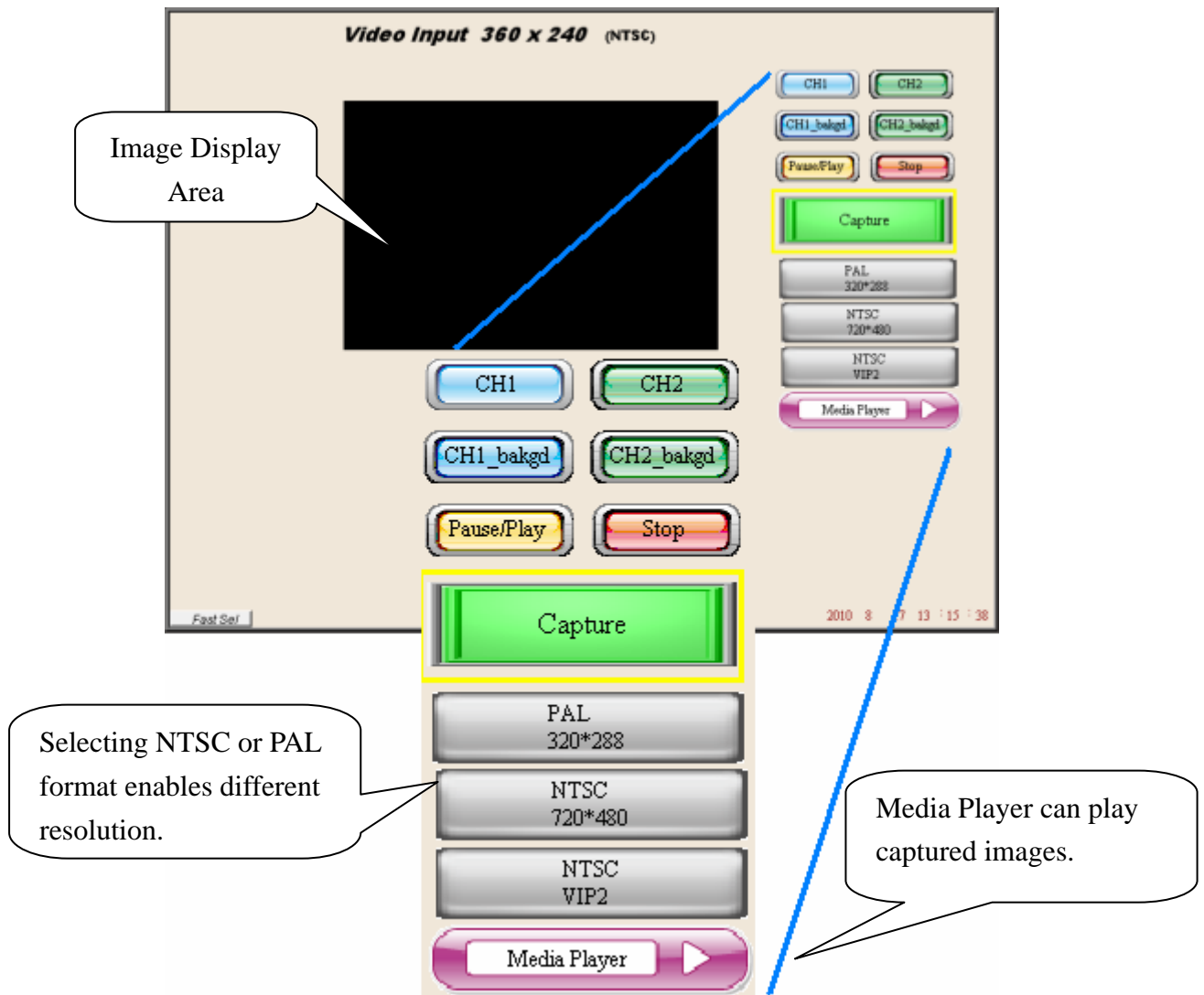
Recommended Format and Resolution:

	1:1	50%
NTSC	720 x 480	360 x 240
PAL	720 x 576	360 x 288



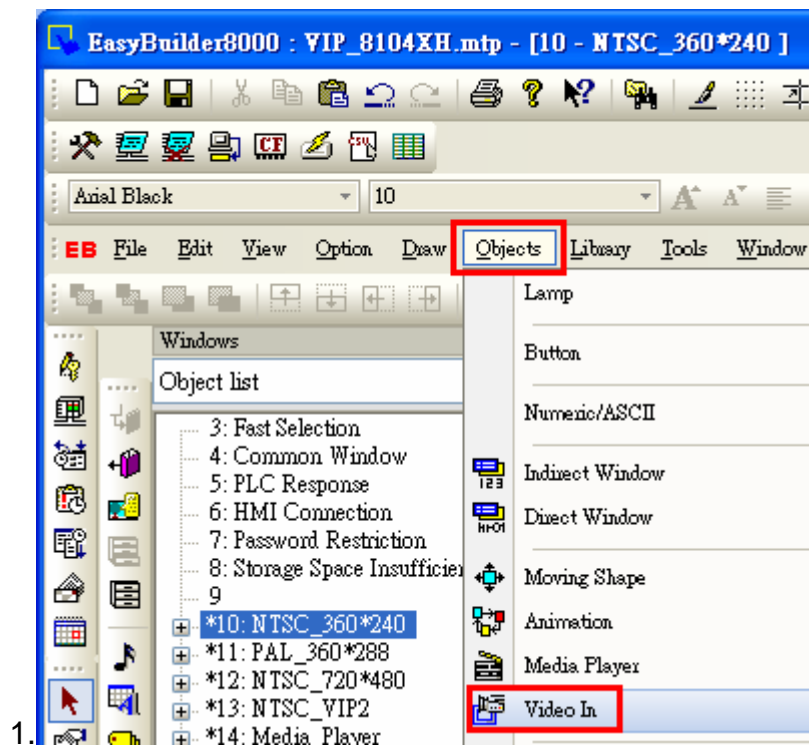
[Operation]

In this demo there are some buttons on the right or at the bottom. With them users can switch format to NTSC or PAL. In Live mode, press [Pause / Play] button, HMI will stop showing image directly. Press [Capture], current image can be captured. Also, press [Media Player] so the captured images can be played directly.



2. Setting up the screen

1. Go to Objects/Video In.



2. Video In object's general properties are as follows:

Video In Object's Properties

General Profile

Description :

1. Encode format : NTSC

Capture address

2. ☒ Use capture function

PLC name : Local HMI

Address : LB 0

Storage medium

3. ☐ SD ☒ USB 1 ☐ USB 2

Record time

4. Before : 10 seconds After : 10 seconds

Control address

5. ☒ Use control function

PLC name : Local HMI

Address : LW 0 16-bit Unsigned

OK Cancel Help

Step1. In Encode Format select NTSC or PAL. NTSC is selected here.

Encode format : NTSC

Step2. Use Capture Function set to LB0.

☒ Use capture function

PLC name : Local HMI

Address : LB 0

Step3. Storage Medium set to USB1.

Storage medium

☐ SD ☒ USB 1 ☐ USB 2

Step4. Record Time set to [Before10 seconds] and [After 10 seconds].

Record time

Before : 10 seconds After : 10 seconds

Step5. Tick Use Control Function, Set LW0 to control.

Control address

☒ Use control function

PLC name : Local HMI Setting...

Address : LW 0 16-bit Unsigned

Window 14 Media Player Settings

Media Player Object's Properties

General Preview Profile

Description :

1. Control address

☒ Enable

PLC name : Local HMI Setting...

Address : LW 100

Command : LW : 100 Status : LW : 100 + 3

Parameter 1 : LW : 100 + 1 File index : LW : 100 + 4

Parameter 2 : LW : 100 + 2 Start time : LW : 100 + 5

End time : LW : 100 + 6

☐ Update video playing time

2. Ext. device

☐ SD ☒ USB1 ☐ USB2 Folder name : VIP1

3. Attribute

☒ Auto. repeat Background :

OK Cancel Help

Step1. Set Control Address to LW100.

Step2. In Ext. Device select USB 1, Folder Name input VIP 1.

Step3. Tick Auto. Repeat.

3. Addresses

The addresses used in this demo are listed below. Users can change addresses or object ID to meet what is needed.

Address		Object ID	Description
Window 10			
Word	LW0	SW_0	Write constant 0, stop Live mode
	LW0	SW_1	Write constant 1, open channel 1
	LW0	SW_2	Write constant 2, open channel 2
	LW1	SW_3	Write constant 1, Pause / Play Live image.
	LW0	SW_4	Write constant 3, channel 1 stops playing, but capturing enabled.
	LW0	SW_5	Write constant 4, channel 2 stops playing, but capturing enabled.
Bit	LB0	SB_0	Capture image
		VI_0	Video In object
		FK_0	Go to window 14
		FK_1	Go to window 11
		FK_2	Go to window 12
		FK_3	Go to window 13
Window 11			
Word	LW0	SW_0	Write constant 0, stop Live mode
	LW0	SW_1	Write constant 1, open channel 1
	LW0	SW_2	Write constant 2, open channel 2
	LW1	SW_3	Write constant 1, Pause / Play Live image.
	LW0	SW_4	Write constant 3, channel 1 stops playing, but capturing enabled.
	LW0	SW_5	Write constant 4, channel 2 stops playing, but capturing enabled.
Bit	LB0	SB_0	Capture image
		VI_0	Video In object
		FK_0	Go to window 10
		FK_1	Go to window 14

		FK_3	Go to window 12
		FK_4	Go to window 13

Address		Object ID	Description
Window 12			
Word	LW0	SW_2	Write constant 0, stop Live mode
	LW0	SW_6	Write constant 1, open channel 1
	LW0	SW_1	Write constant 2, open channel 2
	LW1	SW_5	Write constant 1, Pause / Play Live image.
	LW0	SW_7	Write constant 3, channel 1 stops playing, but capturing enabled.
	LW0	SW_4	Write constant 4, channel 2 stops playing, but capturing enabled.
Bit	LB0	SB_1	Capture image
		VI_0	Video In object
		FK_0	Go to window 10
		FK_3	Go to window 11
		FK_4	Go to window 13
		FK_5	Go to window 14
Window 13			
Word	LW0	SW_4	Write constant 0, stop Live mode
	LW0	SW_0	Write constant 1, open channel 1
	LW0	SW_2	Write constant 2, open channel 2
	LW1	SW_5	Write constant 1, Pause / Play Live image.
	LW0	SW_1	Write constant 3, channel 1 stops playing, but capturing enabled.
	LW0	SW_3	Write constant 4, channel 2 stops playing, but capturing enabled.
Bit	LB0	SB_0	Capture image
		VI_0	Video In object
		FK_0	Go to window 10
		FK_1	Go to window 11
		FK_2	Go to window 12
		FK_4	Go to window 14

Address		Object ID	Description
Window 14			
Word	LW100	SW_0	Write constant 4, pause
	LW100	SW_1	Write constant 1,enable playing
	LW100	SW_2	Write constant 4, play
	LW100	SW_3	Write constant 5, disable playing
		MP_0	Media Player
		FK_0	Return to last window

4. Note

1. Video In Object can only be used in MT8000X which supports VIP function.
2. Only video image in one channel can be input at any moment while running system.
3. Capture function won't be influenced by "pause" playing. The video image that should be played while not paused will still be captured.
4. This function only supports NTSC and PAL format.