NEXTCHIP

NVP1204 PCI Decoder App. Manual

2009.07





Show

1. Main Display

- 1) Video display area
 - : Captured video is displayed at this area.
- 2) Display mode control
 - a) Captured video is changed by display mode buttons(1, 4, 6, 8, 9, 10, 13, 16 buttons)
 - b) CH Up/CH Down: Channel is changed
- 3) Capture control
 - a) Start/Stop : Start/Stop DMA (Video & Audio)
 - b) All Reset: this button re-initializes a decoder
 - c) EXIT: exit from the application
- 4) Capture frame display
 - a) FPS of each channel is displayed
 - b) FPS of each decoder is displayed : R1, R2, R3, R4
 - c) Total FPS of all decoders is displayed
- 5) Video loss display
 - a) Channel number and channel loss information are displayed

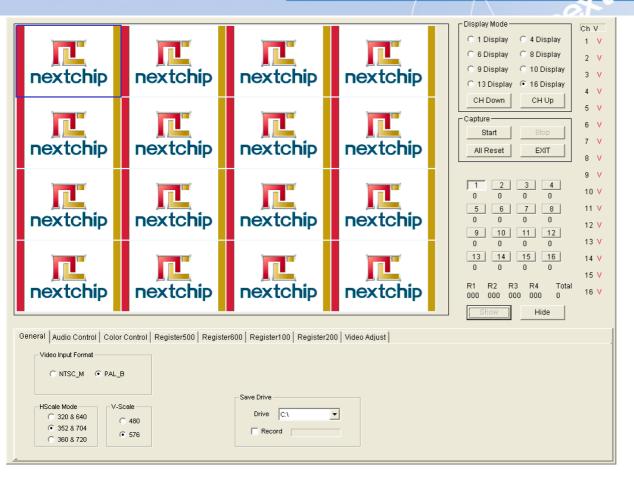
black : video on red : video loss

- 6) Extension menu control
 - a) Show: show the extension-menub) Hide: hide the extension-menu

2. Extension Menu: General



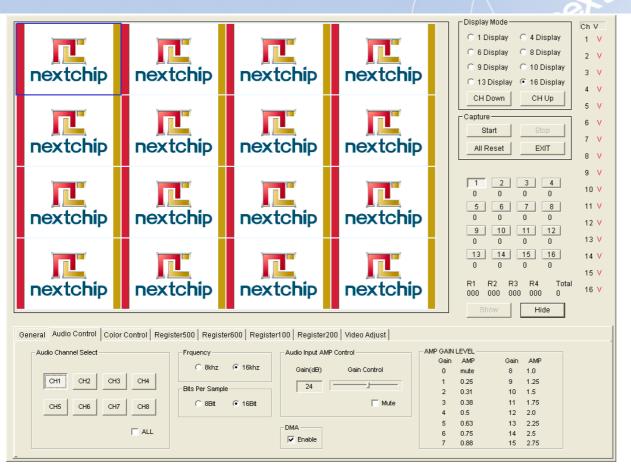
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2. General Control

- 1) Video input format
 - : You have to select between NTSC and PAL
- 2) H-scale Mode
 - : You have to select among 3 kinds of pixel(720 / 704 / 640)
 - : default pixel is 352 & 704
- 3) V-Scale control
 - : If it is NTSC, you only use 480
 - : if it is PAL, you can select 480 or 576
- 4) Save Drive
 - : Save data in HDD
 - : Real data is not recorded at this program

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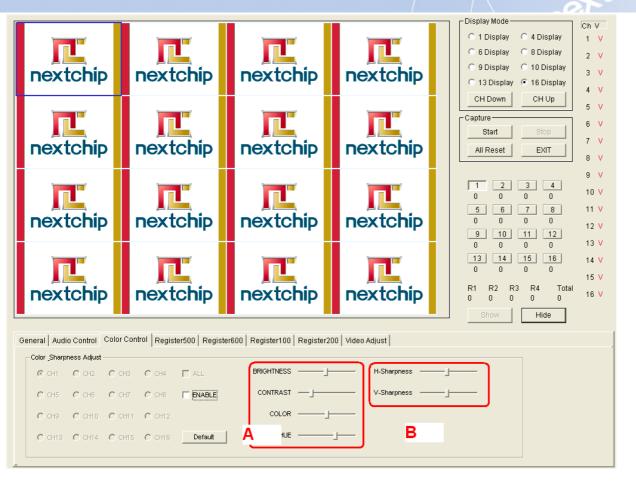


3. Audio Control

- 1) Audio channel select
 - : This selected channel outputs sound to speaker
- 2) Audio frequency control
 - : 8KHz / 16KHz
 - : This is applied to all audio channel
- 3) Audio sampling bits control
 - : 8bits / 16bits
 - : This is applied to all audio channel
- 4) Audio DMA enable control
 - : This is applied to all audio channel
- 5) Audio mute control
- 6) Analog input gain control of each audio channel
 - : 0.25 ~ 2.75
 - : This is applied to all audio channel

4. Extension Menu: Video Color K

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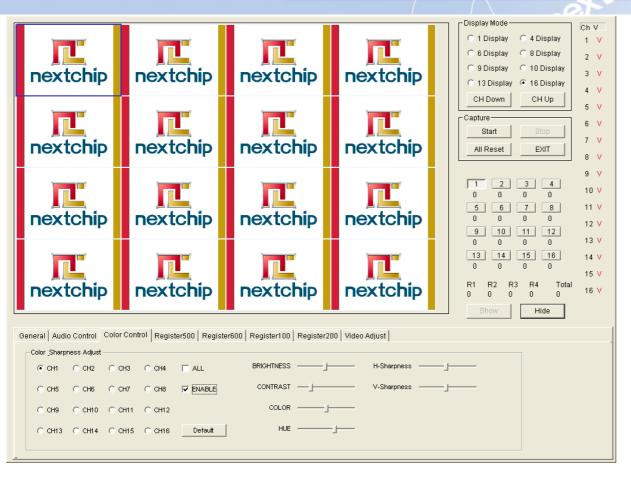


4. Color Control I

- 1) You can control color of each video separately.
 - : Brightness / Contrast / Color / Hue
- 2) You can control color of all video together.
 - : Brightness / Contrast / Color / Hue
- 3) Default button sets all color value to initial color value.
- 4) Area A is horizontal-slide bar to control color.
- 5) If you move any slide bar to left or right, you can see changed result on video of channel that you select among video channels.
- 6) Area B is horizontal-slide bar to control sharpness. This can be controlled without ENABLE button
- 7) Sharpness Control is applied to all video together.
 - : H & V Sharpness range is from 1 to 16
 - : Default value of H & V sharpness is 8

5. Extension Menu: Video Color IX

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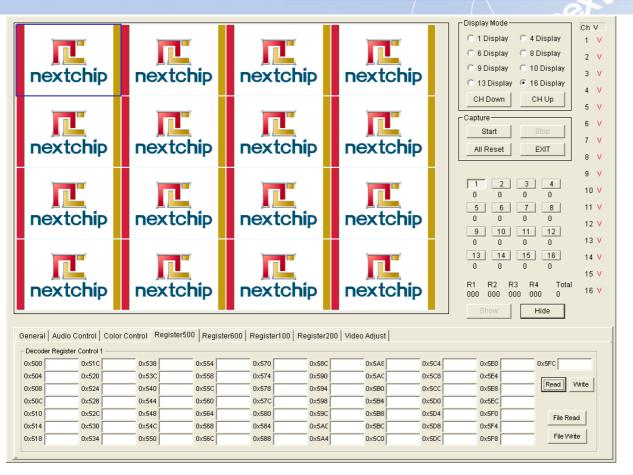
5. Color Control II

If you want to control color, you have to select enable button. Then, each channel number button and ALL button are enabled

6. Extension Menu: Register



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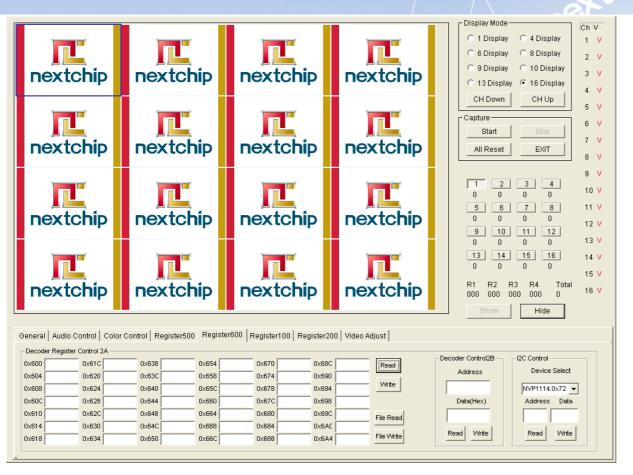
6. Register I

- 1) Read button: You can read a register of the decoder from the decoder(0x500 ~ 0x5FC)
- Write button: You can write a register of the decoder to the decoder(0x500 ~ 0x5FC)
- 3) File Read button: You can read a register of the decoder from the file of HDD(0x500 ~ ox5FC)
- 4) File Write button: You can write register of the decoder to the file of HDD(0x500 ~ 0x5FC)

7. Extension Menu: Register M



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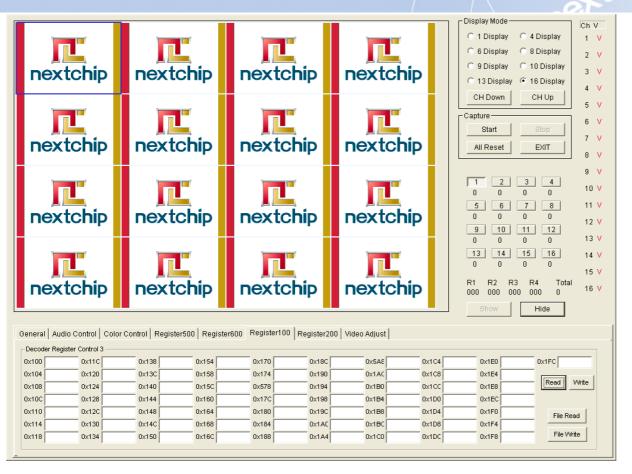
7. Register II

- 1) Read button: You can read a register of the decoder from the decoder(0x600 ~ 0x6A4)
- 2) Write button: You can write a register of the decoder to the decoder(0x600 ~ 0x6A4)
- 3) File Read button: You can read a register of the decoder from file of HDD(0x600 ~ 0x6A4)
- 4) File Write button: You can write a register of the decoder to the file of HDD(0x600 ~ 0x6A4)
- Decoder Control2B: You can read or write any register of the decoder
- 6) I2C Control: You can read or write the other device by using I2C port.

8. Extension Menu: Register M



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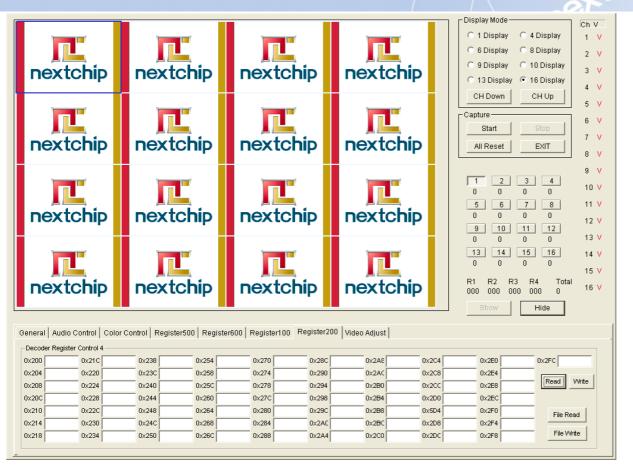
8. Register III

- Read button: You can read a register of the decoder from the decoder(0x100 ~ 0x1FC)
- 2) Write button: You can write a register of the decoder to the decoder(0x100 ~ 0x1FC)
- File Read button: You can read a register of the decoder from the file of HDD(0x100 ~ 0x1FC)
- 4) File Write button: You can write a register of the decoder to the file of HDD(0x100 ~ 0x1FC)

9. Extension Menu: Register W



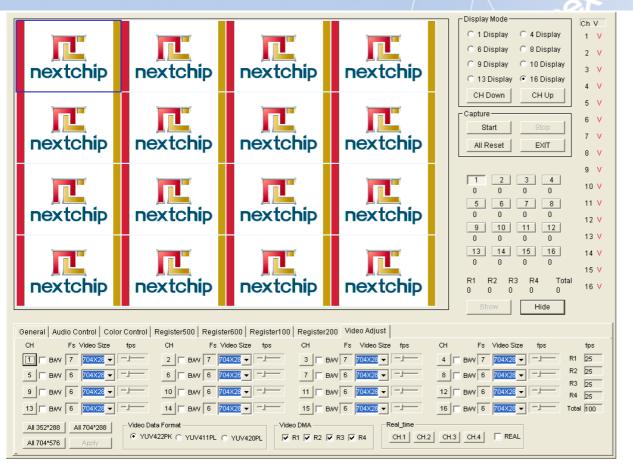
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9. Register IV

- 1) Read button: You can read a register of the decoder from the decoder(0x200 ~ 0x2FC)
- 2) Write button: You can write a register of the decoder to the decoder(0x200 ~ 0x2FC)
- 3) File Read button: You can read a register of the decoder from the file of HDD(0x200 ~ 0x2FC)
- 4) File Write button: You can write a register of the decoder to the file of HDD(0x200 ~ 0x2FC)

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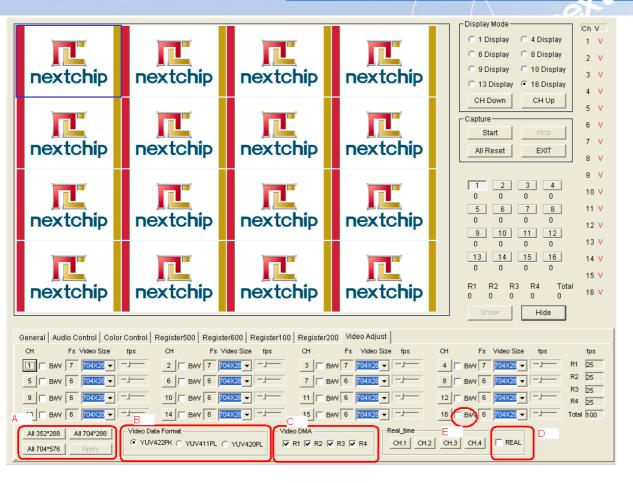


10. Camera Control 1

This menu includes functions as below

- 1) Video channel number
- 2) Select camera status between black & white and color camera
- 3) Display frame rate per second of each camera
- 4) Adjust resolution of each camera
- 5) Adjust frame rate per second of each camera
- 6) Adjust resolution of all camera together
- 7) Select video data format
 - : YUV422PK
 - : YUV411PL
 - : YUV420PL
- Select each decoder whether you start DMA or not.
- 9) Select video status between real-time mode and non-real time mode.

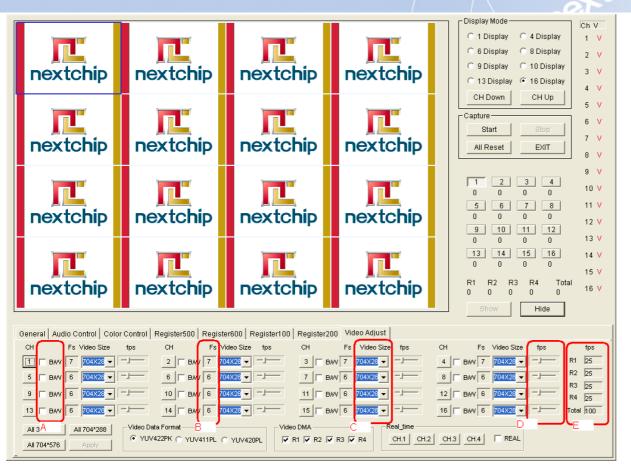
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11. Camera Control 2

- 1) Area A: Adjust resolution of all cameras together
- 2) Area B : Select video data format
- 3) Area C : Select each decoder whether you start DMA or not.
- Area D : Select video status between real-time mode and non-real time mode.
- 5) Area E : Select camera status between black & white and color camera

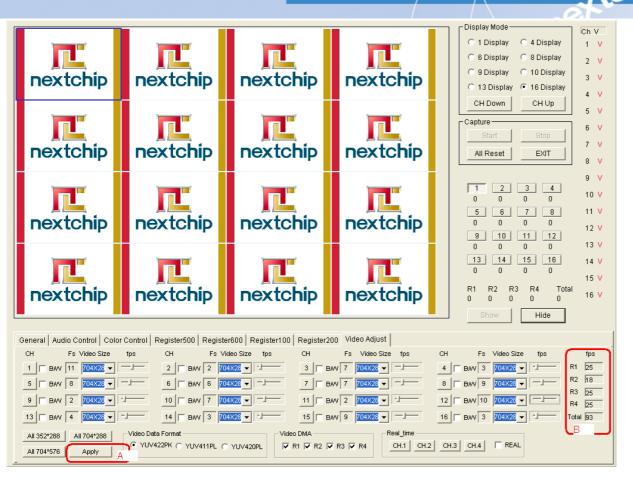
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12. Camera Control 3

- Area A : Select camera status between black & white and color camera
- 2) Area B : Display frame rate per second of each camera
- 3) Area C: Adjust resolution of each camera
- 4) Area D : Adjust frame rate per second of each camera
- 5) Area E: Display FPS per decoder and total FPS

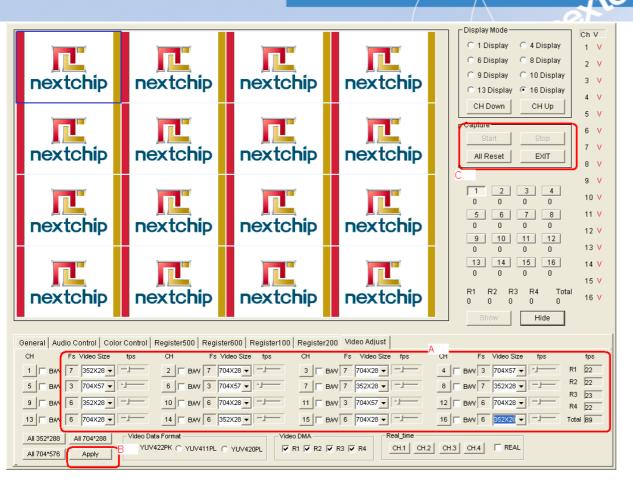
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13. Camera Control 4

If you finish to adjust the condition of each camera, You have to select apply button in area A. After that, capture start button is enabled.

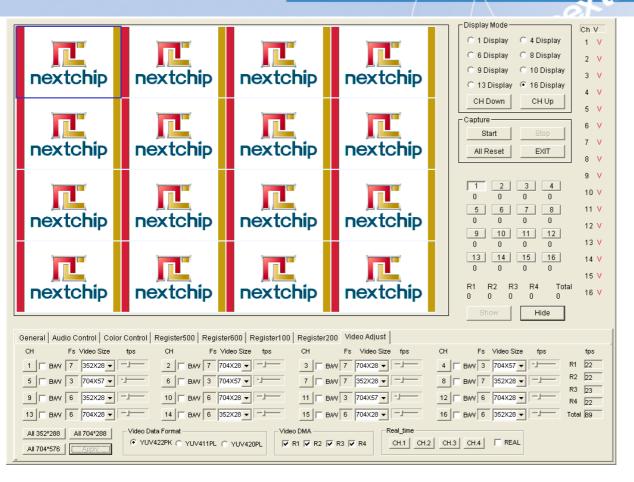
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14. Camera Control 5

- 1. You can adjust resolution and frame rate per video channel separately.
- 2. Area A is an example to adjust resolution and frame rate per each channel separately
- 3. When adjustment is finished, you have to select apply button.

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15. Camera Control 6

When you select apply button, capture start button is enabled. Now, you can start DMA.

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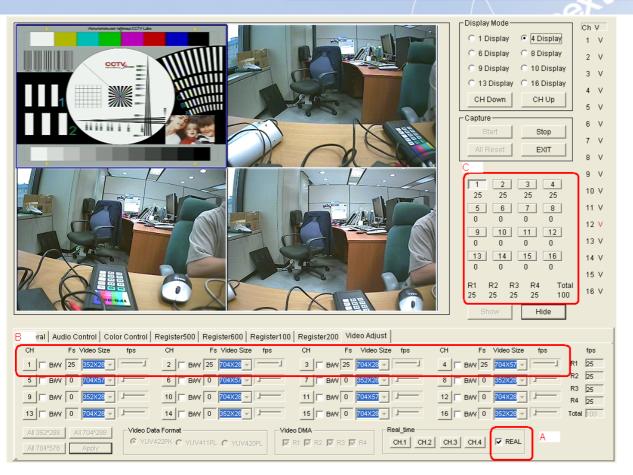
16. Camera Control 7

If you start DMA, video is displayed. Also, you can see frame rate per each channel. If it is occurred video loss, frame rate of loss channel is 0. you can see it by using an example on the left.

- 1) Channel 12 and 13 don't have videos.
- 2) You can see logo of NEXTCHIP at loss channels.
- 3) Loss status is different from other channel.

 Loss channel's color is red.

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17. Camera Control 8

While non-real time mode is running, you can change to Real-time mode.

If you select real button, channel 1 and 2, 3, 4 is changed to real-time mode. You can see it by using an example on the left. See the example, Area B and C are changed status.

1) Decoder 1 : CIF real

2) Decoder 2: H-D1 real

3) Decoder 3: H-D1 real

4) Decoder 4: D1 real



Imagine your future.

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