



Warping and Blending Manual AP

Applicable models

EK-620U,621W,625U

EK-800U,810U,811W,815U,820U

Oct., 2019

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Preparation

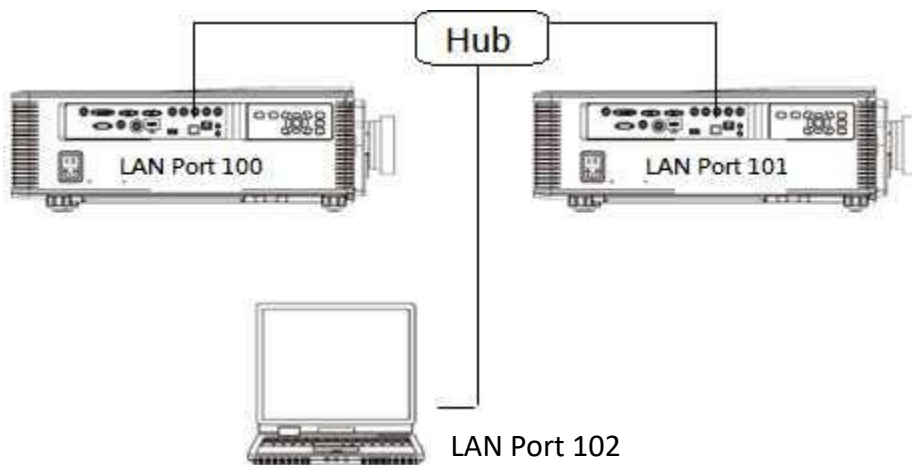
1. Connection

Connect an RJ45 cable to Ethernet port on the projector and the PC (Laptop).

<Direct connection>

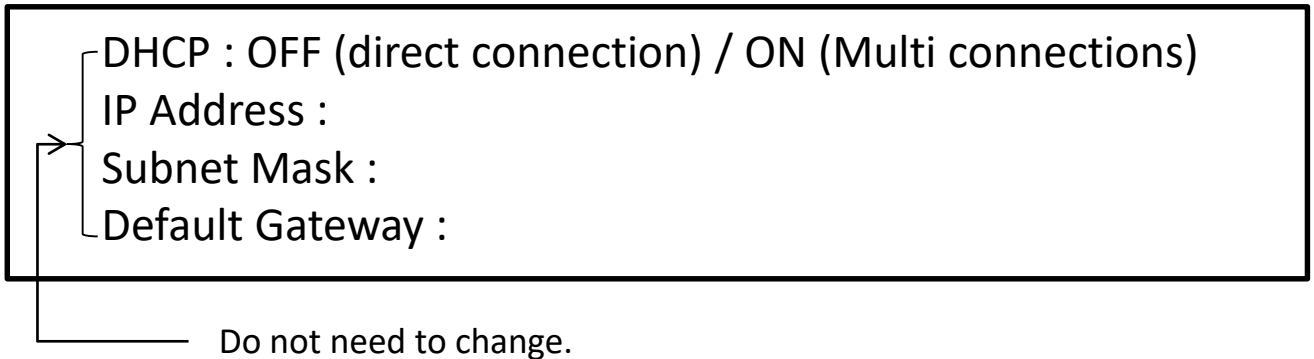


<Multi connections>



2-1. Projector

OSD menu : SETUP >Communications> LAN



<NOTE>

When a DHCP server exists in the connected network, it assigns an IP address to the projector and the computer automatically.

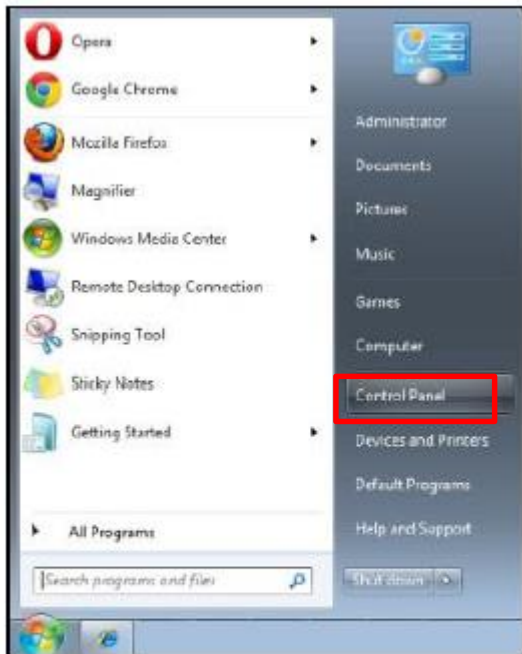
If DHCP server does not exist, set up IP Address, Subnet Mask and Default Gateway manually.

DHCP : Please check with the network administrator.

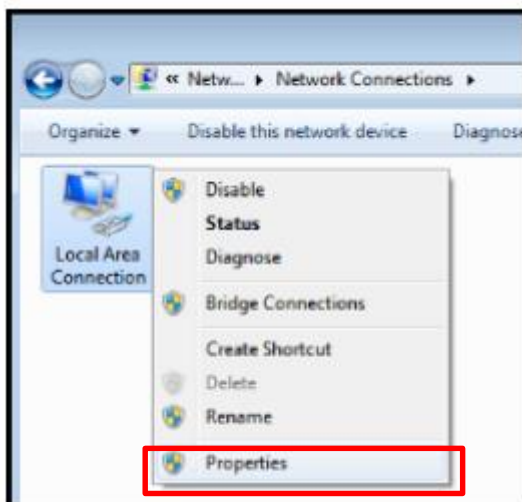
2-2. Select the Apply→YES to confirm the settings, and then wait until finished.

3-1. PC (Laptop)

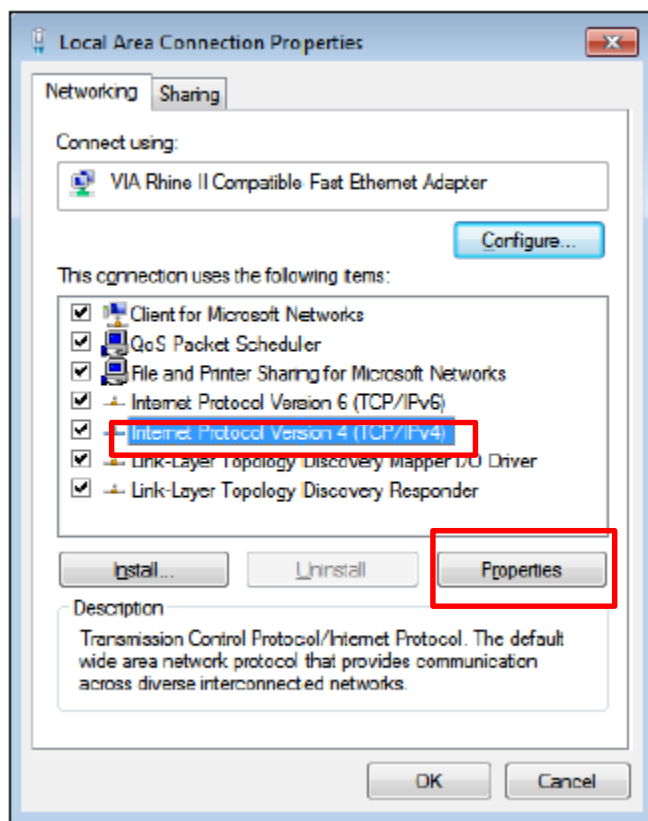
Start > Control Panel > Network and Internet



3-2. Right-click on Local Area Connection, and select **【Properties】**.

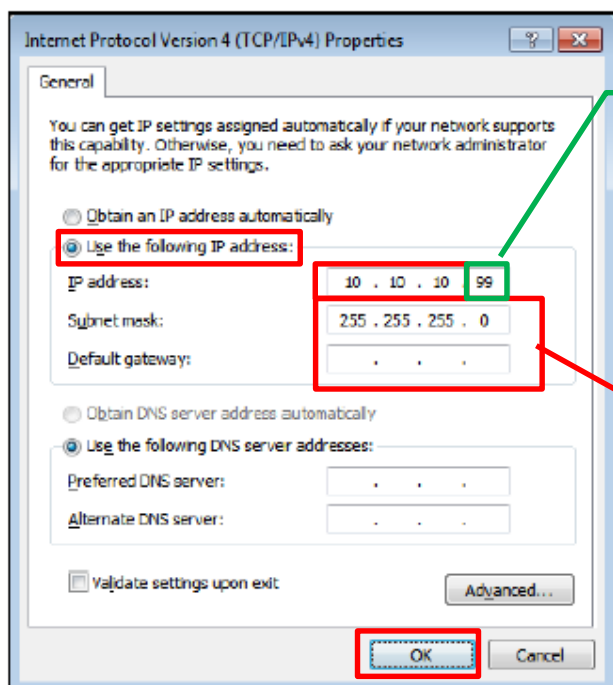


3-3. In the Properties window, select the Networking tab, and select **Internet Protocol Version 4 (TCP/IPv4)**.



3-4. Select **Properties**.

3-5. Select and following the projector IP address.



Change the any numbers from Projector's LAN information.

Same as Projector's LAN information

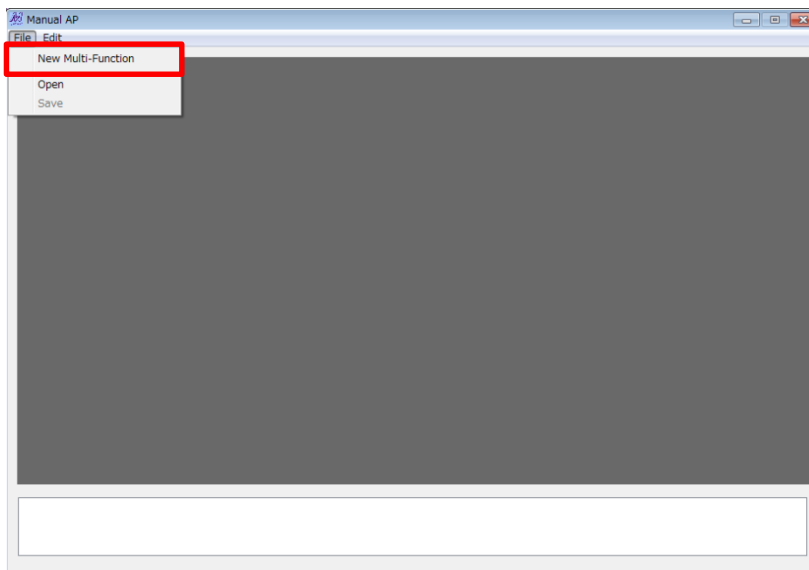
Operation

This AP provides three major functions including 【 Warp 】 【 Edge Blending 】 and 【 Black Level 】.

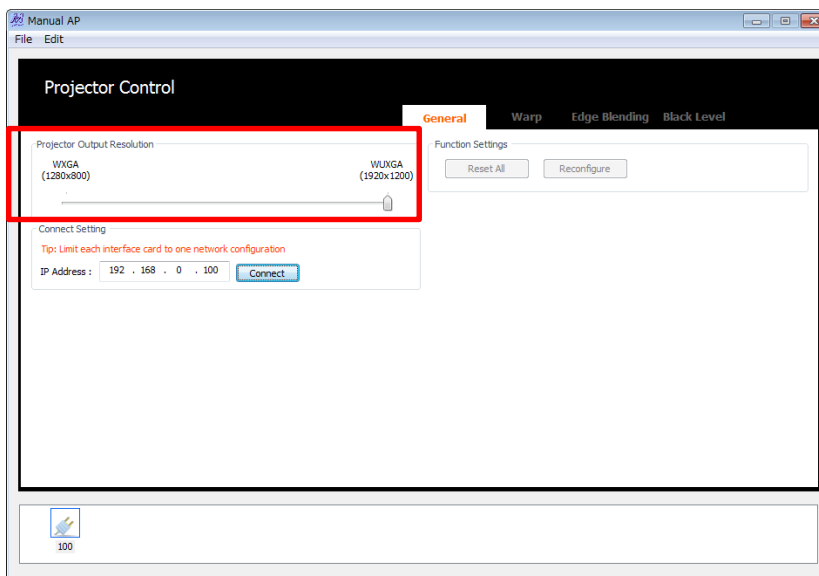
- Old version AP needs to be removed before install the new one.
- This function makes user be able to operate a single projector.

Connecting Setting

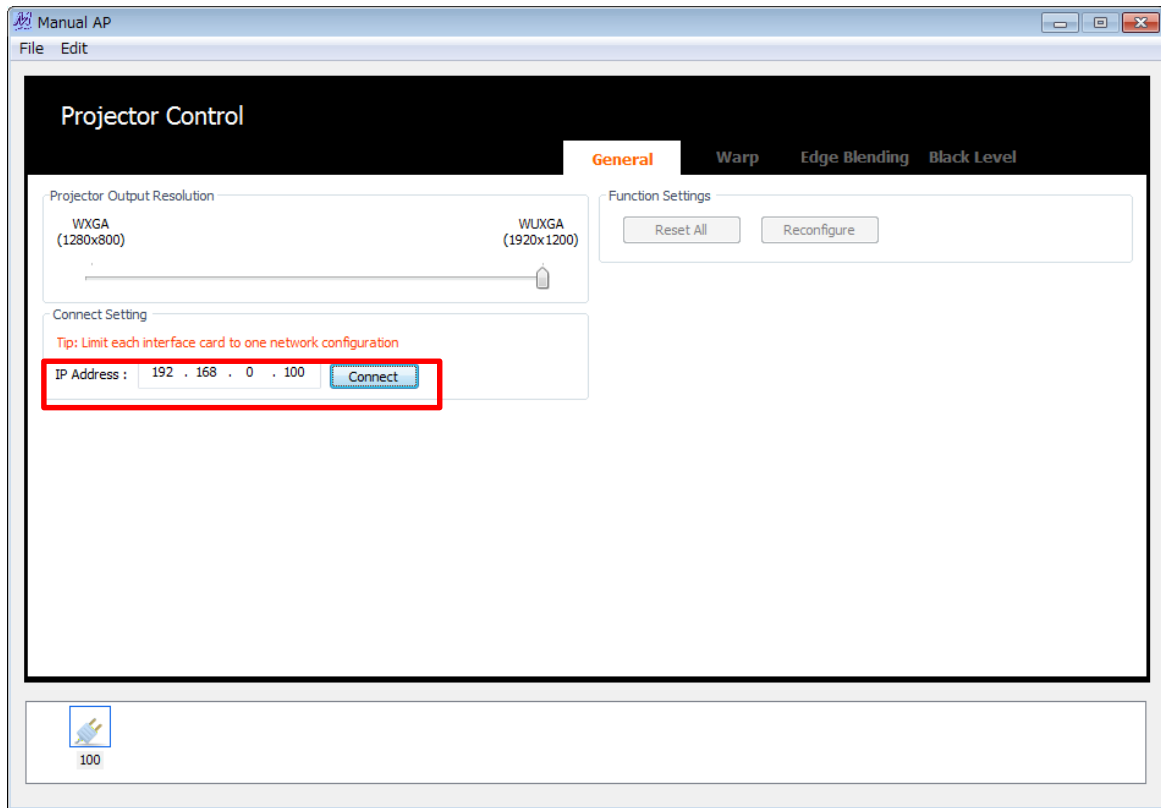
1: Select 【File】→【New Multi-Function】.





2: Select Resolution



3: Input IP Address and press [Connect].

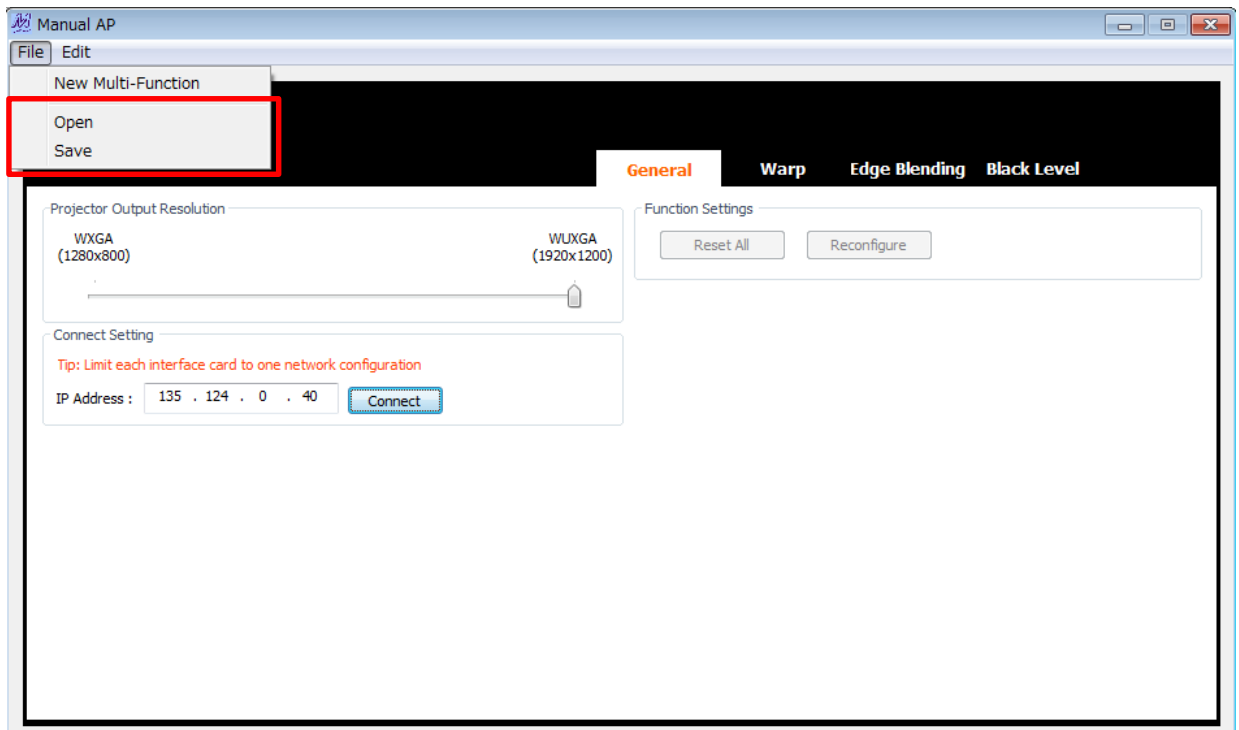


4: Connection is successful, icon will be changed from  to 

Delete Connecting projector

- 1: Select Icon
- 2: [Edit] → [Delete]
- 3: Disappear the selected Icon

Save / Open



Open

- 1: Select [File] → [Open]
- 2: Select directory and file.
- 3: Edit IP address and connect to the projector.
- 4: Click [Reconfigure] to load the settings.

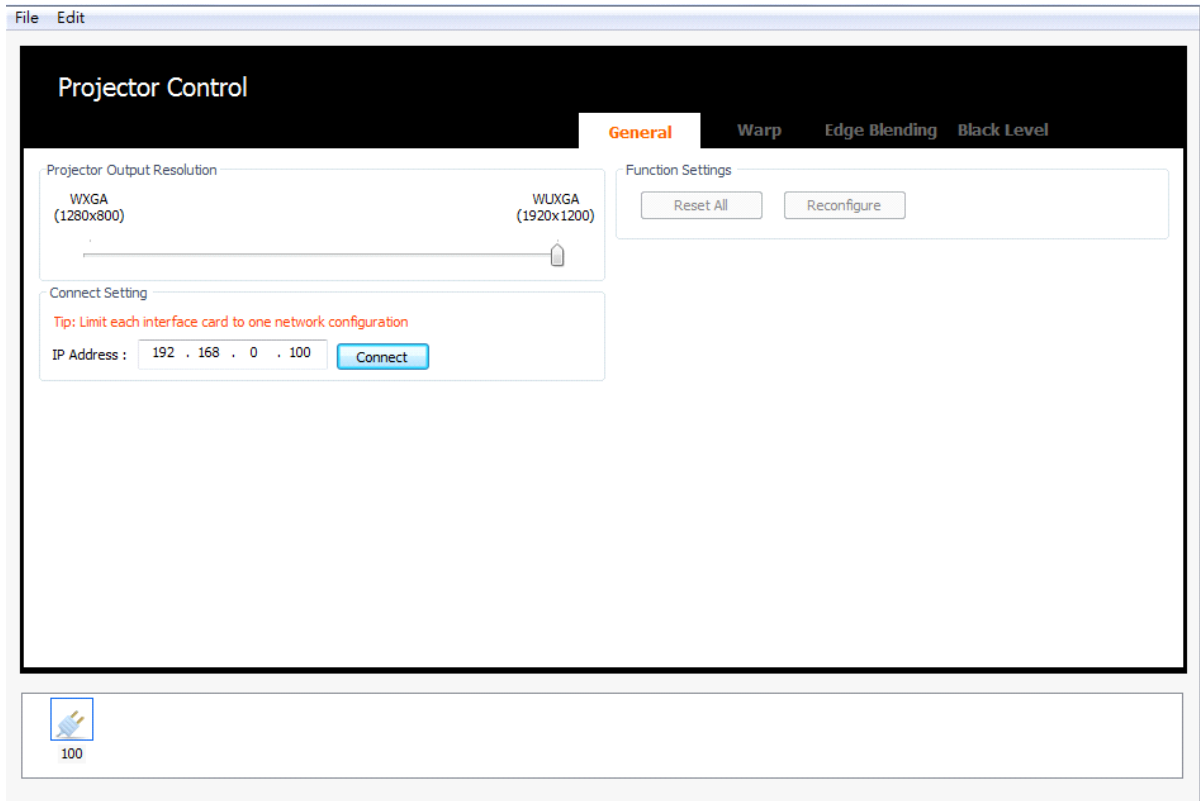
Save

- 1: Select [File] → [Save]
- 2: Select directory and edit the file name.

<NOTE>

[Configure] button is not available after selected【 Warp 】【 Edge Blending 】 or 【 Black Level 】 tabs, need to start over “Open” again.

【 General 】



Projector Output Resolution (Default: WUXGA)

- Select the native resolution of the projector.

Connect Setting (Default: 192.168.0.100)

- Connect to the shown IP address.

Function Settings

- Reset All:

Reset all settings to default value.

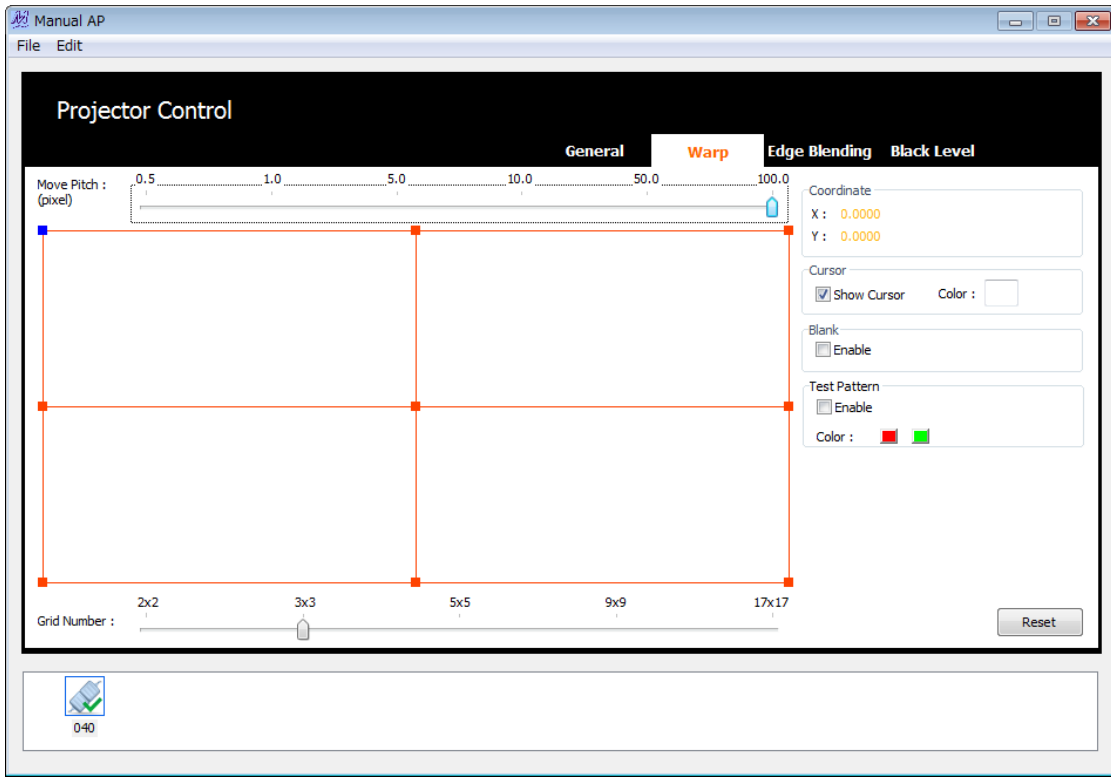
This function is not available after pressed the 【 Warp 】 【 Edge Blending 】 or 【 Black Level 】.

- Reconfigure:

It can apply saved settings from AP to projector.

The button will enable after opening a saved file and connecting to the projector by AP.

【 Warp 】



Move Pitch (Default: 100)

- Set the amount of movement at a time
- Adjust the range of moving pitch by mouse or using **[+]** and **[-]** on the keyboard.

Grid Number (Default: 3x3)

- Set the Warp's grid number
- Adjust the grid number by mouse or using **[Ctrl]** and **[+]**, **[Ctrl]** and **[-]** on the keyboard.

Coordinate

- Show the coordinate of current adjustment point.

Cursor

- Show Cursor: Show the adjustment points on projection screen.
To move cursor, use **[↑, ↓, ←, →]** on the key board.
- Color: Change the all cursor color at once.

Blank

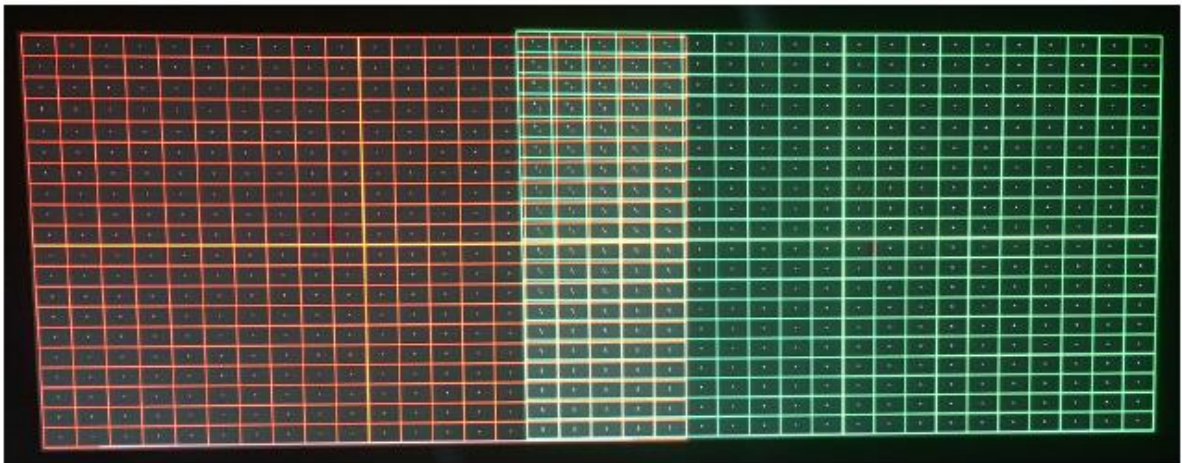
- Project black pattern.

Test Pattern

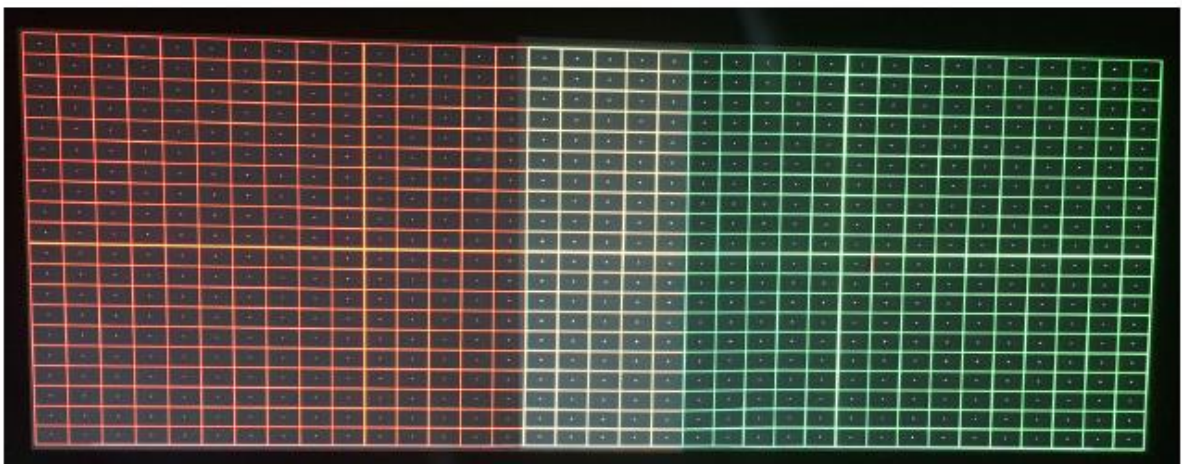
- Show the grid pattern on the projection screen.
- Color: Can be select the color Red or Green.

Example of adjustment with test pattern

- Use test pattern to speed up the warping/blending process as shown below.



Before adjustment



Adjustment finished

Reset

- Reset all the setting value for only warp function.

【 Edge Blending 】



Default setting value on each resolution

【WUXGA (1920 x 1200)】

Default Value	Top	Bottom	Left	Right
Start	0	1100	0	1820
Width	100	100	100	100

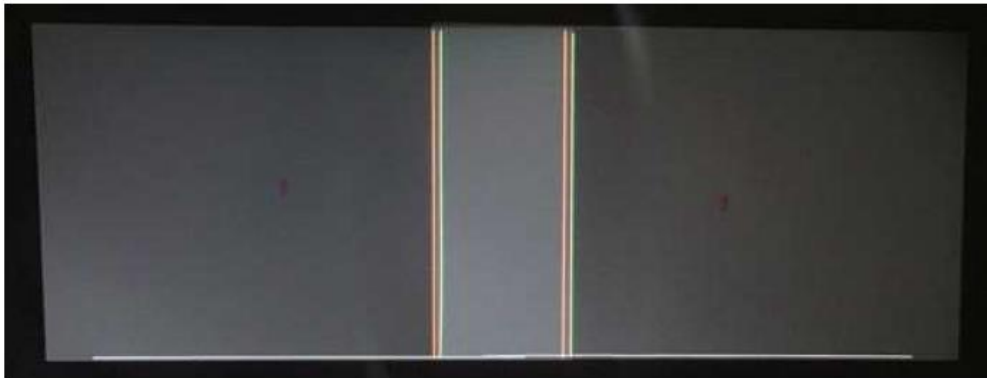
【WXGA (1280 x 800)】

Default Value	Top	Bottom	Left	Right
Start	0	700	0	1180
Width	100	100	100	100

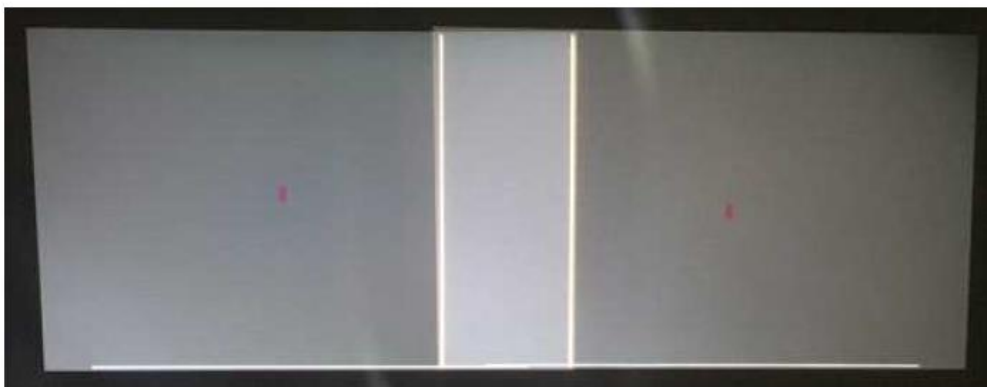
- Check “Enable Marker” and appear the blending line on the screen.
Marker “Start” and “End” default color is Black.
Press the black boxes and both markers colors can be changeable.
- Check “Enable” and the blending area will be executed.

Enable Marker

- Marker can help to align the over-lapped area.
- Set the start position and corresponding width to speed up the blending process as shown below.



Before adjustment



Adjustment finished

Gamma (Operating range : 1.0 – 3.0 Default: 2.2)

- Change the gamma curve of the blending area.
- Set the same value on each projectors by using edge blending function.

Reset

- Reset all the setting value for only Edge Blending function.

【 Black Level 】

This function is only for adjusting non over-lapped area when whole image is dark.

<Example of adjustment black level>



Before Black Level adjustment



After Black Level adjustment

Grab 4 points on black level tab to match the non over-lapped area and start to adjust the brightness of black level.

Click the palette row to edit colors dialog for color settings.

Use R/G/B values to make the brightness on the darker area as close as possible to the over-lapped area.



- Black level function only supports quadrangle shape and there are four points to determine the quadrangle shape.
- Select the control point, use mouse or [W,A,S,D] on the keyboard.
- Selected the control point is changed to hollow.
- Adjust the quadrangle shape by mouse or using [↑, ↓, ←, →] on the keyboard.
- check “Enable” and the black level area will be executed

Palette

- Click the palette number and appeared palette dialogue. Select preset color or customized color.

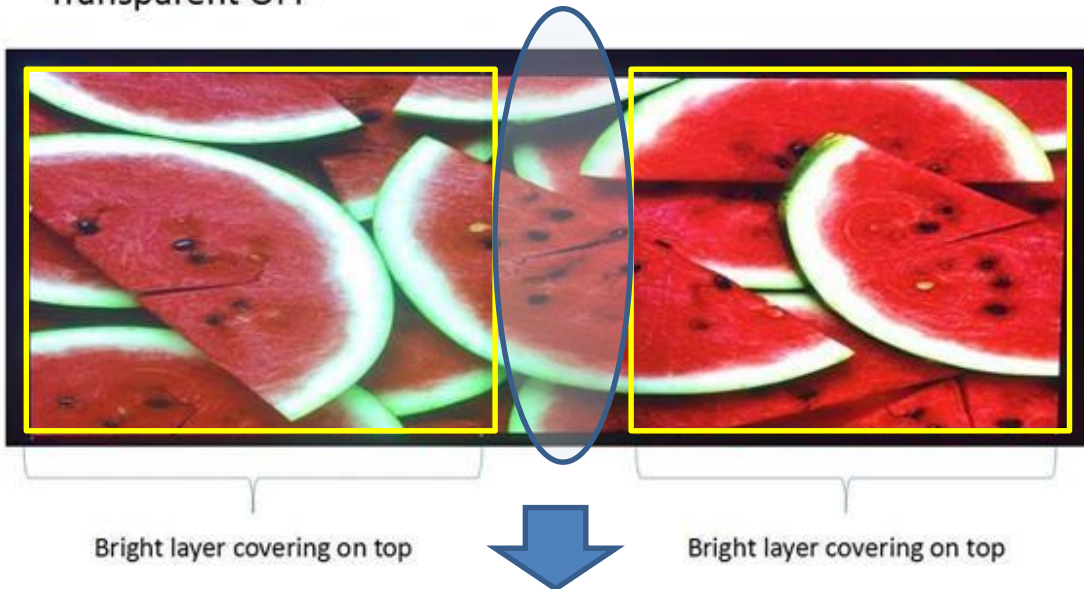


Transparent (Operating range : 1.0 – 3.0 Default: 2.2)

This function only available when projecting color images after black level adjustment. With this “Transparent” function will make the over-lapped area of the image appearing brighter. When the projection image is not black, over-lapped area won't see brighter.

- Set the transparent on the over-lapped area .

Transparent OFF



Transparent ON



Overwrite

- Execute the overwrite which is set the canvas and palette.

Reset

- Reset all the setting value for only black level function.