IMPOSA MAGER

User's Manual Version: 1.0.5

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Content

1 Software Introduction

Imposa Mager is a synchronous control software. It has many functions, supporting multi-angle rotation, full HD output, pixel brightness calibration, color temperature adjustment, and Gamma adjustment. Besides, it also supports port hot-backup, Artnet, Genlock, tile testing, image positioning testing, indicator light brightness calibration, tile joint lines printing, tile program upgrade and cabinet cloning.

1.1 Software Installation

Step 1: open the folder that contains the IMPOSA Mager software.

Step 2: double click **Setup** to start the installation of NET Framework version 4.0 and

IMPOSA Mager. If there is no .NET Framework version 4.0, page in figure below will be shown up, and if it's installed, enter into Step 4.



Step 3: click Accept to continue the installation, and then the.NET Framework version 4.0 will be installed automatically, as shown in figure below.



Step 4: select the installation path, taking the default path here as an example, as shown in figure below. To change the installation path, please click Browse and select the target path.



Step 5: click Next until the installation is finished. Step 6: click Close to finish the installation

1.2 Page elements

	•	E:\Program Files\mager\WorkPath\demo Project\demo Project.czp* - Mager	
Detter Nurv Min Min Biolifies Rivist	DESIGN MONITOR	R MAINTENANCE CALIBRATION ARTNET	Style - 🧭
SCREEN Image: Screen image	Device New Delete Print Setting Screen Screen Layout GUIDE	Min Less 100 More Max Advanced Gamma Color Zoom Fit Zoom Fit Zoom Fit Zoom Tereze Blank Live Test Stop Dashboard More Sent Unes	Ł
LDU Demo[19.254.]113 u u u u u u u u u u u u u u u u u u u	Device Manager 🔍	<u></u>	
	LDU V		
	Press Shift Select Press Ctrl To Me		Ver2.1.2 2014-08-25

There are five quick-access panels and the picture shown above is the interface of Design quick-access panel.

🗯 Screen list

🔶 LDU list

Screen preview area

2 Build new project



Step 1: start IMPOSA Mager, as shown in figure below.

Step 2: Press "New Project", pop up the "new project" page, choose "Empty Project", revise the project name into "demo project", choose the location, as the below fig.

New Project	•	×
Project Type:	Summarise:	
Empty Project	Empty Project	ъ I
Single Screen Project	Empty Project	
Project Name: demo Project	1.	- I
Location: E:\Program Files\imp	posa\WorkPath\ 🧿	
ОК	Cancel	

Press "OK".

Access the Device setting page.

Step 3: Drag the left button of the mouse to choose a DVI grid, choose the DVI Output Size as1920x1080, as the below fig.

/1 -	Guide 1920-							
80	DVI(1,1)	DVI[2,1]	DVI[3,1]	DVI[4,1]	DVI(5,1)	DVI[6,1]	DVI[7,1]	DVI(8,1)
	DVI(1,2)	DVI(2,2)	DVI(3,2)	DVI(4,2)	DVI(5,2)	DVI(6,2)	DVI(7,2)	DVI(8,2)
	DVI(1,3)	DVI(2,3)	DVI(3,3)	DVI(4,3)	DVI(5,3)	DVI(6,3)	DVI(7,3)	DVI(8,3)
	DVI(1,4)	DVI[2,4]	DVI[3,4]	DVI[4,4]	DVI[5,4]	DVI[6,4]	DVI[7,4]	DVI(8,4)
	DVI Output Size 192	, 20 * 1080	•		,	< Prev	Next >	Einish

DVI Output Size: It is usually the same as the PC output resolution, for example, the PC output resolution is 1920 x 1280 pixels, if the DVI Output Size is set as 1024 x 768 pixels, the synchronous display area will only be 1024 x 768 pixels, and the area will be decreased.

After finishing the setting, press "Next".

Step 4: Access DVI Guide. Press the "+"on the right side of the page, set the name and IP address on the popping LDU info setting, set the name as demo, IP as 169.254.18.113 as the below fig. press "OK" to save. X

DVI Guide

1000	LDU Info	
	OK	
-11	< Prev	Next > Finish

The LDU info will be saved in the LDU list on the right side if the page, the list will be save in the local and convenient to use.

If you want to delete the LDU in the list, you can press the "X" on the top right corner of LDU.

Step 5: Drag the LDU in the list into the DVI as the below fig., set the new LDU into the DVI.

Т		Demo X
	Demo [169.254.18.113]	169.254.18.112
108	0 DYI[1.1]	
	< Prev	Next > Finish

When revise the LDU in the DVI, please press the "X" on the top right corner of the LDU first, then drag the new LDU into the DVI.

After completing the setting, press "Finish".

After adding the project, as the below fig., the software page will show the current project location and the name, LDU list will show the LDU we have added.



If you want to revise the Device, press the "Device Setting" on the panel.

The new project should be saved in time, press **1**. The next chapter is for establishing a new window.

3 Add new window

Step 1: click "New Screen". Set the Rows and Cols based on the actual quantity of cabinets. For instance, if 40 cabinets are arranged into 5 rows and 8 columns, please set as Row5 and Cols 8. For the attribute of "Uni" and "channel", usually the default values are applied. Set the channel of Art-net as the needed one when the Art-net function is required. And then please set the Tile Type, such as VFI P8mm and so on. Setting is shown in figure below.

Screen Guide ሪግ Name: SCREEN 5 🛋 Cols: 3 ▼ Cha Setting keys for different shapes $(\mathbf{+})$ [Mage [Mage] 28×128 4× < Prev Next > Finis

Note: If there is no desired cabinet type in the list, please refer to Type 6 in the list:

Row: number of tile rows

Cols: number of tile columns

Rotate: rotation angle. It defaults to no rotation and supports 90°left and right rotation, 180°rotation as well as horizontal and vertical rotation.

Uni: Art-net Uni, supporting 256 Uni.

Channel: Art-net channel, every Uni has 512 channels.

Tile Type: type of tile

In the above figure, there is a column of setting keys of different shapes. They are to set the position arrangement of the cabinets. For instance, if we choose a triangle, then several cabinets will be missing.



Here tiles are fully distributed.

Click "Next".

Step 2: Set the tile joint lines as required. Shown as next picture, port 1 controls two rows of tiles, while port 2 controls the rest tiles.

WI/QS-PM-M0006

	480	960	1 1 1 1		Tip
		→ 1 3 16 ↓ ↓ ↓ ↓ ↓ ↓			Empty Used — Connected
]	Backup Dir.
-					
-					
				-	Tool () ()
				Down	~

Setting the port controlled cabinet. Modify it as the above picture. Firstly select port1 and scale-down the interface into 2 rows of tiles. Choose the lining way in the Dir. And then, select the rest tiles, which will be defaulted to port2. Choose port 2, and select the lining way in the Dir.

3.1 Signal hot backup

After setting signal hot backup, display can keep running in case of accidents, so as to guarantee the consistent display effect.

Screen Guide	×
4 1	
< Bien	Next > Einish

Select the desired port, e.g. Port 2. Right click and drag it to the backup port, e.g. Port 3. The function of hot backup is presented with dotted line, as shown in figure above. To remove connection wire between ports, please click the red cross behind port.

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reen	Guide									
F		480		9	60				Up	Tip
									Demo -	Empty Used
		> + 10 - > -							DVI	Connecte
								2:	Demo2	Backup
								3:	×	Dir.
	2 5 8	11 14	7 20 23							Ш,
	+ + +			-						
è	3 	→+0 1 5> ·	6 24+> -22							
-										
										ΨU
										Ę
										10
										• • •
8										
										Tool
1.										
•							+		Down	Q
						< Pr	rev	Next >	Fin	ish

Select the desired LDU, e.g. LDU 0. Right click and drag it to the backup LDU, e.g. LDU 1. The function of hot backup is presented with dotted line, as shown in figure above. To remove backup, please click the red cross behind LDU.

After this setting is finished, if cabinet position needs to be modified, please click Next to enter the corresponding interface to realize the operation. Otherwise, please click "finish" directly.

4 Shifting the Cabinets

If the cabinets should be arranged with specific requirements, users can achieve the desired effect by shifting the cabinets.

Screen Guide B 96 96 96 96 96 96 e 0,0 1,0 2,0 3,0 4,0 5,0 6,0 192 288 384 480 576 672 192 288 384 480 576 192 192 192 192 192 192 0,1 1,1 2,1 3,1 4,1 5,1 96 192 288 384 480 384 480 576 672 192 192 192 192 192 192 288 288 288 288 288 288 0,2 1,2 2,2 3,2 4,2 5,2 6,2 96 192 288 384 480 384 480 576 0,3 1,3 2,3 3,3 4,3 5,3 96 288 192 384 384 384 288 288 384 480 576 384 Einish < Prev Next >

4.1 Shifting the Cabinets on the Editing Page

Step 1: Choose the cabinets from the graphical interface or from the chart on the right. Step 2: Push CTRL and shift the chosen cabinets, or shift the cabinets by modifying the values on the chart. In the above picture, the cabinets on the right side are shifted towards left and overlap with the cabinets on their left.



4.2 Cabinet Shifting on the Main Page

Step 1: Choose the screen where the target cabinets are on the main page.

- Step 2: Choose the cabinets by pushing SHIFT
- Step 3: Shift the chosen cabinets by pushing CTRL
- Step 4: Repeat Step 2 and Step 3 until cabinet shifting is finished.

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Step 5: Click Send Setting.

In the above picture, the 4 cabinets on the 4 corners are drawn towards outside. Please note that, there is a button Attach in the Setting Menu, which activates the adhesion function. When being shifted, the adjacent cabinets will be joined together when they are put close to each other.



To modify the window, please double click the window to enter the modification page. In case of any urgent events, please save the file by clicking \square on the shortcut interface after modification.

Click on the "Zoom Out" on the shortcut interface to adjust the size of preview area. Choose a window and move the mouse to shift the cabinets, and we can see a progress bar which shows the settings are being sent to the display. In the picture below, the window within the DVI scope is the display area for synchronous control.



Cancel the Online check box in the SETTING of the shortcut interface to preserve the WI/QS-PM-M0006 Copyright © 2013 – 2023

settings while shifting the window. Then click on Send Setting. Users can also use Move To and input the coordinate values to shift windows.

If Lock check box is chosen, the current window will be locked and cannot be moved. If Lines are cancelled, the nonius lines will be hidden.



The information of the screen is shown on top of the screen window. In the above picture, it shows that the coordinate of the left top of the cabinet tile 0 in the screen is (83, 76), GAMMA 1.8, 9300K (color temperature) and 100% brightness. The wiring is for seeing from the front.

5 Custom Tile Setup

5.1 Self-defined Tile

Our software supports custom arrangement of the modules. Users can set the patterns and positions of the modules according to actual situations.

cree	n Guide									
_				_	480			960		Screen Info
									٤7	Name: SCREEN 1
										Rows: 5 🚔 Cols: 8 🚔
										Rotate: No Rotate
										ArtNet Brightness Setting
										Uni: 0-1 • Channel: 0 •
-										Tile Type
										EII
										64 22:[PLUS] E II P10mm
8										90 64×96 2×6
										Litel
									÷,	72 6:[Velo]
										72 6:[Velo] VFl 72 4 P10.67mm
-									9	72×72 2×4 Ma
										2
										20 1000:[Other]
										8 Self Define 1 Type PL
8										
-										144 13:[Other] CZ5820 P5.3
										1 144×36 2×1
11						 				
										Oth
4		-	-	-	-	 -	-		•	
									ſ	
								< Prev		Next > Finish

Step 1:

Choose Self Define Type in the Tile Type list when setting up a screen or modifying the screen properties. Then a Custom Tile window will show as in the above picture, and users can set the sizes and patterns of the tiles.



Step 2:

Modify the sizes of the cabinets and tiles. In the above picture, size of cabinets is modified as 192x96 and tiles 24x48.

Step 3:

Click on N at the front of the list which is at the right bottom and change it into Y. Now all the tiles are shown on the left interface, and the default setting is showing all the tiles on left top.

Step 4: WI/QS-PM-M0006 Shift the tiles either by moving the tiles in the graphical interface, or by modifying the coordinate value in the form on the right.

Step 5:

To change the direction of tiles, choose the target tile and change the rotation angle. In the above picture, the two columns of tiles in the middle are rotated 90° to the left.

Step 6:

Click on OK when the setting is finished, and the effect is shown as below. If users need to change other settings of the tiles, please move to the next steps. Otherwise, please click on Next to enter the wiring window.



Step 7:

In the above picture, users can double click the cabinet to modify the parameters of the cabinet or tiles. Choose the target cabinet on the right of the custom tile window, for example, tile 0, and modify the tile's position. Here, the two horizontal tiles right below are rotated to the right by 90°.

e Property	Tile	0(0,0)		
Width: 192 A Y Height: 96 A Model Size: 24 x 48 V		1(0,1) 2(0,2)		
	Tile	3(0,3)		
		4(0,4) 5(0,5)		
	Tile	6(0,6)		
		7(0,7) 8(1,0)		
		9(1,1)		
	Tile	10(1,2)		
	Tile	11(1,3) 12(1,4)		
	Tile	13(1,5)		
1:(0,0)No Rotate 2:(24,0)No Rotate 3:(48,0)No Rotate 4:(72,0)Let 90 Angle 5:(120,0)No Rotate7:(144,0)No Rotate	Tile	14(1,6) 15(1,7)		
	Tile	16(2,0)		
	Tile	17(2,1)		
5.(72.24)Left 90 Angle	11e	18(2,2)		
p.(r.c,c.4).ten su wrgie	N	x	Y	Rotate
	Y	0	0	No Rotate
00	Y	24	0	No Rotate
96 2(0,48)No Rotate 10 (24,48)No Rota 11 (48,48)No Rota 12 (72,48)Right 90 Angle 14 (120,48)No Rot 15 (144,48)No Rot 16 (168,48)No Rot	Y	48	0	No Rotate
	Y	72	0	Left 90 Angle
	Y	72	24	Left 90 Angle
	Y	120	0	No Rotate
13:(72,72)Right 90 Angle	Y	144	0	No Rotate
	Y	168	0	No Rotate
	Y	0	48	No Rotate
	Y	24	48	No Rotate
	Y	48	48	No Rotate
	Y	72	48	Right 90 Angl
	Y	72	72	Right 90 Angle
	Y	120	48	No Rotate
	Y	144	48	No Rotate
	Y	168	48	No Rotate

Step 8: Click OK after the modification.

5.2 combined cabinet

For combined cabinets, the IMPOSA Mager software can achieve separated control on different types of cabinet in the same display.



Choose COMBI cabinet type

. Set the cabinet quantity, arranging mode as well as cabling mode as with ordinary cabinet.

After setting up the cabling mode, enter into the special setup interface for the combined cabinets. Please refer to the following figure



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Here, you can set displaying content of specific position in a combined cabinet, set the video signal of displaying DVI, as well as set the display content of ArtNet.

6 Displaying setup of cabinet types

The IMPOSA Mager software can set different cabinet types in the list.

Step1: click "menu" and choose preference.

As the figure shows, left side is the type library, with software supportive cabinet types. And the right side shows the current cabinet types.



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Step 2: choose your desired cabinet types in the left-side list.

Step 3: click >> bottom to add your desired cabinet type into the right-side list. Bottom >>> can add all kinds of cabinet types to the type owner list while bottom <<< can add all content in the type owner list to the type library list.

Step 4: click OK to save your setup.

7 Print layout

This software supports layout printing, which makes the display connection convenient for staff. Select the window to be printed, click "Print Layout" on the shortcut panel and then click "OK" on the printing page to print layout, as shown in figure below.



The printed layout diagram shows the layout of the back side of the display, contrary to the layout shown in the software, shown as below:



8 Brightness control

This software supports manual, auto and schedule brightness control. Brightness control toolbar is in the DESIGN page, as shown in figure below.

 Image: Weight of the second second

Min: to minimize the display brightness.

Less: reduce a percentage of brightness in the current brightness level until the minimum brightness is reached.

More: increase a percentage of brightness in the current brightness level until the maximum brightness is reached.

Max: to maximize the display brightness.

Advanced: advanced setting page, as shown in figure below.

 Manual Auto Schedule 	ode		*		ghtness: 5%	•
Brightness So	chedule Start Time	End Time	Driebbrase	3500	CALIBRATE	
	00:00 🜩	23:59 🔶	Brightness	0		
					Brightness	Custom Value 7000
	00:00 🜩	23:59 🔶	Auto 👻	0	100%	
	00:00	23:59 🛓	Auto 👻	0	50%	3500
	00:00	23:59 🔶	Auto 👻	0	Units	cd
	00:00	23:59	Auto 👻	0		
	00:00	23:59 🚖	Auto 👻	0		
	00:00	23:59	Auto 🔻	0		
√ Default	00:00	23:59 🚖	Auto 👻	0		

In the next chapter, function of brightness control will be introduced.

8.1 Set the Maximum and Minimum Brightness

On the Advanced Page, select the value for Min Brightness and Max Brightness in the drop-down list. For example, as shown in figure above, set the Max Brightness as 40% and Min Brightness as 5%. Click on "OK" to save the setting.

8.2 Manual brightness control

Method 1: Input value on the input box in the middle of the Brightness page, and then select the "%" check box, which shows that the brightness can be set by hundred percentage point system. It will be set by values if the "%" check box is not selected.

Method 2: On the Advanced Page, select the "Manual" radio box, and then choose the hundred percentage value in the drop-down list. Click "OK" to save the setting.

8.3 Automatic brightness control

Method 1: Input "0" in the input box in the middle of the Brightness page, and then press "Enter" to do the setting.

Method 2: On the Advanced Page, choose the "Auto" radio button, and then click "OK" to save the setting.

8.4 Schedule brightness control

Step 1: On the Advanced page, select the "Schedule" radio button.

Step 2: Select a check box of a time period.

Step 3: Set the "Start Time" and "End Time", and set the brightness for this time period.

Step 4: Repeat Step 2 and 3 to set up all the time periods needed.

Step 5: Modify the brightness on the "Default" period, which is "automatic adjustment" originally.

Step 6: Click "OK" to save the setting.

As shown in figure below, the brightness will be 1% from 0: 00 to 7: 00 and 3% from 7: 00 to 9:00, and it will be in automatic adjustment in the rest time.

rightness M Manual Auto Schedule	10	0%	*			umit htness: ghtness:	5% 40%	
rightness S	chedule Start Time	End Time	Brightr	ness	3500	CALIBR	ATE	
V	00:00 🚖	07:00 🚖	1%	•	70	Bright	ness	Custom Value
V	07:00 🚖	09:00 🚖	30%	•	2100	10)%	7000
	09:00 🚖	23:59 🔶	Auto	-	0	50)%	3500
	23:59 🔶	23:59 🔶	Auto	-	0	Un	its	cd
	23:59 🜲	23:59	Auto	-	0			
	23:59 🚖	23:59 🛓	Auto	-	0			
	23:59 🚖	23:59 🔺	Auto	-	0			
√ Default	00:00	23:59 🔶	Auto	•	0			

9 Color temperature adjustment

Step 1: Select the window, and click "Color".



Step 2: select "Advanced" to open window of Color Temperature.

0 3500	4000	45	0 500				6500 7000 7500 8000 8500	9000 9500 10
olor Table				Col	or Te	mpe	rature(K)	
or ladie	RED		GREE	N	BLUE		Color ajustment: Red:	100
9300K	52	%	73	%	100	%	Green: ,	100 🚔
6500K	83	%	100	%	100	%	Blue:	100
5500K	92	%	77	%	80	%	Save to custom	Live
4500K	100	%	83	%	54	%		
3300K	100	%	60	%	25	%		
Custor	100	%	100	%	100	%	Load	Ok

Step 3: click "Load", to open window of "Load Color Temperature".

Load Color	Temperature 🔀
Name:	P8 Color Temperature
Version:	1
BuildDate:	2013-10-08 17:30:30
Description	:
P8 col	or temperature, adjust by lhl
	Load

Step 4: Select the correct screen type, choose data of P8 here, click on the "Load".

If color temperature needed to be set, then continue to the next step, otherwise proceed to Step 7

Step 5: Adjust the RGB scroll bar to the proper value, if "Live" option have been checked, live effect will be shown on the display every time after adjustment.

Step 6: click on "save to custom" to set brightness value.

Step 7: click on "OK", color temperature setting will be sent to the screen, and then exit the page

Step 8: click on "Color" on REVISE panel, select the color temperature which needed to be adjusted, and activate it.

10Gamma adjustment

Select the window and click "Gamma".



Select "Advanced" to set the Gamma value, such as setting Gamma 2.2.

Step 1: select "GAMMA2.2" for "Item".

Step 2: select "B, Blue" for "Color".

Step 3: type in digits in "Parameter".

Step 4: click "Calculate" and the Gamma curve will be shown on the coordinate.

Step 5: select "R" and "G" in turn for "Color", and set the Gamma value respectively, following the instruction of Step 3 and Step 4. Setting is shown in figure below.



Step 6: click "OK" and the Gamma value will be sent to the display, as shown in figure below. Click "X" to exit the page.

Address	Description	Precent	Results	
SCREEN 0-LDU0-port0		10		
SCREEN 0-LDU0-port2	Pending	0%		
•	III			•

Step7: select "Gamma2.2" under "Gamma", and activate it. Position of the current window, Gamma color temperature and brightness can be seen in software.

11Freeze window

The function of Freeze window is to freeze the content in the current computer screen. The synchronous output content to the display will be the content under freezing regardless of any change of the content on the computer screen. If the screen is moved, it will run the content in the corresponding positions under the frozen condition.

Step 1: select the window and click "Freeze" in the toolbar to freeze the window. The

LDU will be in frozen condition and it shows "SYSTEN IN FREEZE" on the LCD page. Step 2: to cancel the freeze, please click "Live". LDU will be out of frozen condition and shows normal information.

12Blank screen

The blank screen setting should follow the steps as below:

Step 1: select the window and click "Blank" Blank on the page. LDU will be in frozen condition

and the LCD page will show "SYSTEN IN BLACK";

Step 2: To cancel the blank, please click "Live". LDU will be out of the frozen condition and shows normal information.

13Test and Positioning

13.1 Positioning function

Positioning function can facilitate users to position the cabinet.

Select the window. Click the drop-down of "Test" item on the panel, and choose "Tile 0" as shown below:



Page shown as below will appear on the computer screen and be synchronized to the LED screen, to show position of cabinets and wiring way to users.

		 	 		-
~			 		
, v					
		 	 _	 	
	_		 		
				- ¥	

Click on "stop" or "X" beside on the panel to stop positioning.

13.2 Test function

Positioning function can facilitate users to test cabinets' problems, if any. Select the window, click on drop-down of "Test" item on the panel, choose the corresponding test content as following picture, Choose color gradient here.



The following window will be shown on the same location of computer, and synchronously display the image on the screen, it can be changed via options beside.



If LDU option is chosen, then the test image will be sent via LDU to the screen, in this case, even if the computer commands no output sync signal, the screen can still be tested. Click "Stop" on the panel or "X" at the right-hand side to stop testing. WI/QS-PM-M0006 Copyright © 2013 – 2023

14 Dashboard

The dashboard enables remote check of the content shown on the LDU front panel, so that the operator can control LDU even if they are not in front of the LDU.



The above figure shows the front panel information of an LDU named 135. Its pressing buttons & indicator light status & LDU panel information are exactly the same as that of the real LDU.

When clicking corresponding buttons, you achieve the same effect as you press buttons on the real LDU.

Above all LDU panels, there is a panel named ALL (shown as the following figure). This panel doesn't have displaying function. You can only press the buttons. When you do, you are sending instruction to all LDUs.



For example, if you click "Black", all connected LDU will execute this "Black" command.

15 Modifying LDU Information

M 163 -	E:\Program Files\mager\WorkPath\demo Project\demo Project.czp* - Mager	
DESIGN MONITOR	MAINTENANCE CALIBRATION ARTNET	Style 👻 🌘
Device New Delete Print Setting Screen Screen Layout GUIDE	Image: Contract Contract Image: Contract </th <th>Attach</th>	Attach
evice Manager 🛛 🕮	×	2000 2100 2200 2300 24
SCREEN 😽	Tiko Tiko Tiko Tiko Tiko Tiko Tiko Tiko	
SCREEN 0		
	Tinel Tines Tines Tines Tines Tines Tines Tines	
	TRO TRI TR2 TR0 TR4 TR5 TR6 TR1	
	This C Taki	
	8 Taki6 Taki7 Taki8 Taki9 Taki9 Taki2 Taki2 Taki2	
LDU ¥		
Demo(105.254.10.115)		
ess Shift Select , Press Ctrl To Mo	vel	Ver2.1.2 2014-08-25

Click the LDU whose IP address needs to be modified in the main page. And you will see LDU Config. window as below:

WI/QS-PM-M0006

Communication	IP Address: 169 . 254	. 15 . 18	А		Default Set	tings
				Power	r Schedule	
LDU Name	1518	X Position	0 Y Position 0		On Time	Off Time
Genlock:	Disable B 🔻	Pixel Mode:	Real Pixel C 🔹		22:28 🛓	02:15 🚖
Net Adapter 1		Net Adapter2	:		10:21 🛓	10:24
IP address:	169 . 254 . 15 . 18	IP address:	192 . 168 . 1 . 49		11:19 🛓	11:21
Subnet mask:	255 . 255 . 0 . 0	Subnet mask:	255 . 255 . 255 . 0		11:11 🚖	11:13
Gateway:	169 . 254 . 1 . 1	Gateway:	192 . 168 . 1 . 1		10:39 🛓	10:42 🛓
MAC:	00-1D-6F-01-C8-AD	MAC:	00-1D-6F-01-C0-07 D		10:45 🛓	10:48 🜲
LDU Information					10:51 🛓	10:54 🛓
DVI Input:	1921x1080@59	Firmware	FW:1.01.38		10:57 🚖	11:00 🛓
Hardware	CZ5832	SN:	20140217019 E			
Protect Setting						
1.When 0	% Module Temperature Re	ach 55 C	elsius, Waring On LCD.		Read	
2.When 50) % Module Temperature Re	ach 65 C	elsius, Goto Half Brightness.			

A: Modified LED address

B: Genlock status

C: Visual pixel setting

D: IP address modification

E: LED information

F: high temperature protection setting

G: power Schedule

DVI Input: Resolution of DVI signal input to LDU Firmware: LDU's firmware version Hardware: LDU's hardware model SN: LDU's serial number Default Settings: Set to default value

The following two attributes will affect the display effect. Non-professionals are not advised to modify them: Genlock: to set whether to activate the Genlock function. The default mode is inactivated. Pixel Mode: to set whether to activate the virtual pixel mode. It is defaulted to be inactivated. Note: 'Send' button can only be activated after clicking 'Read' to read back the LDU info.

15.1 IP Address Modification

Net Adapter 1		Net Adapter2:
IP address:	169 . 254 . 10 . 156	IP address: 192 . 168 . 1 . 111
Subnet mask:	255 . 255 . 0 . 0	Subnet mask: 255 . 255 . 255 . 0
Gateway:	169 . 254 . 11 . 171	Gateway: 192 . 168 . 1 . 10
MAC:	00-1D-6F-01-33-44	MAC: 00-03-67-00-55-66

Net Adapter1 shows attributes of the main port while Net Adapter2 shows attributes of the ArtNet port. WI/QS-PM-M0006 Copyright © 2013 – 2023 Step 1: modify the IP address. Change the IP to 169.254.10.156, sub network mask to 255.255.0.0 and gateway to 169.254.11.171.

When doing the modification, please note that the IP address of Net Adapter 1 and Net Adapter 2 should not be on the same IP range.

Step 2: After modification, please click the button 'Send'. Then modification is done.

15.2 Power Schedule

Power Schedule is to set working time for displays, enabling it to work only in the desired period of time and to shut down for the rest of the time.

Step 1: click the checkbox

Step 2: set the On Time and Off Time for power supply;

Step 3: repeat step1 & 2, until finishing the schedule;

Step4: send the settings

Power	Schedule	
	On Time	Off Time
✓	18:00 🌲	01:00 🚖
V	08:00 🚖	13:30 🚔
	00:00	23:59 🚖
	00:00	23:59 🛓
	00:00	23:59
	00:00	23:59 🜲
	00:00	23:59 🛓
	00:00	23:59 🜲

The above schedule means the display is set to work from $8:00 \sim 13:30$ and from $18:00 \sim 1:00$ and shall shut down for the rest of the time.

15.3 High Temperature Protection Setting

When cabinet temperature is higher than preset value, the cabinet will enter into protection status.

Protect Setti	ng			
1.When	10	% Module Temperature Reach	55	Celsius, Waring On LCD.
2.When	20	% Module Temperature Reach	60	Celsius, Goto Half Brightness.
3.When	30	% Module Temperature Reach	75	Celsius, Black Screen.

As the upper figure shows, when 10% modules' temperature reaches 55° C, there will be warning on LCD panel; When 20% modules' temperature reaches 60° C, the LED display will go to half brightness; When 30% modules' temperature reaches 75 Celsius, the LED display will black out.

16Tile status monitoring

Enter into "MONITOR" page, and it shows the tile working status. Click "Refresh" to refresh the status information. The status information can be checked after closing the prompt page, as shown in figure below.

Address	Description	Precent	Results	A
	Read Status Finish	100		
demo-port1-11			[ERR]	
demo-port1-12	Read Status Finish	100	[ERR]	
demo-port1-13	Read Status Finish	100	[ERR]	
demo-port1-14	Read Status Finish	100	[ERR]	
demo-port1-15	Read Status Finish	100	[ERR]	
demo-port3-0	Read Status Finish	100	[OK]	
demo-port3-1	Read Status Finish	100	[OK]	
demo-port3-2	Read Status Finish	100	[OK]	=
demo-port3-3	Read Status Finish	100	[OK]	
demo-port3-4	Read Status Finish	100	[OK]	
demo-port3-5	Read Status Finish	100	[OK]	
demo-port3-6	Read Status Finish	100	[OK]	
demo-port3-7	Reading Status	10		
demo-port3-8	Pending	0%		
demo-port3-9	Pending	0%		
demo-port3-10	Pending	0%		
demo-port3-11	Pending	0%		-
<				•

Green color means tiles are in normal working and blue color means tile status information is not refreshed. Abnormal tile working is marked with red color. For detailed tile information, please check in Report.

_	Ionitor Report		001 5	1001 4001	Monitor Re	port He	althy					
-		1		400	Address	Position	CPU Ver.	FPGA Ver.	FPS	Brightness(R/G/B)	Power1(V)	Power2(V)
7	Til <u>c</u> Tilet		10.156-Port2-0	(0,0)	311A	3119	60	76,76,76	4.8	0.0		
-		Tile1	Tile2	Tile3	10.156-Port2-1	(1,0)	311A	3119	60	76,76,76	4.8	2.5
-					10.156-Port2-2	(2,0)	311A	3119	60	76,76,76	4.9	0.0
-					10.156-Port2-3	(3,0)	311A	3119	60	76,76,76	4.9	2.6
	Tile7 Tile6				10.156-Port2-4	(3,1)	311A	3119	60	76,76,76	4.9	2.6
			Tile5	Tile4	10.156-Port2-5	(2,1)	311A	3119	60	76,76,76	4.8	0.0
		Tile6			10.156-Port2-6	(1,1)	311A	3119	60	76,76,76	4.8	0.0
					10.156-Port2-7	(0,1)	311A	3119	60	76,76,76	4.8	1.0
					10.156-Port2-8	(0,2)	311A	3119	60	76,76,76	4.9	BAD
			Tile10		10.156-Port2-9	(1,2)	311A	3119	60	76,76,76	4.8	0.0
	тисе	Tile9			10.156-Port2-10	(2,2)	310B	3119	60	76,76,76	4.8	0.0
					10.156-Port2-0	(3,2)	0	0	0	0,0,0	0.0	0.0
ſ												
		Мо	nitor							Repor	t	

16.1 Examination of the Cabinet Health

This function can obtain the information of all the cabinets.

Click the *health* button, the software will acquire the CPU, FPGA, GAMMA, Config, Driver Table and Chromaticity information.

ddress	Description	Precent	Results	_
517-port1-0	[CPU:0x311d,PGA:0x3305,GAM:0	100%	[OK]	
517-port1-1	[CPU:0x311d,PGA:0x3305,GAM:0	100%	[OK]	
517-port1-2	Get Feature Code Pending	0%		
1517-port1-3	Get Feature Code Pending	0%		
.517-port1-4	Get Feature Code Pending	0%		
1517-port1-5	Get Feature Code Pending	0%		
517-port1-6	Get Feature Code Pending	0%		
1517-port1-7	Get Feature Code Pending	0%		
1517-port1-8	Get Feature Code Pending	0%		
1517-port1-9	Get Feature Code Pending	0%		
1517-port1-10	Get Feature Code Pending	0%		
517-port1-11	Get Feature Code Pending	0%		
	III			
Cancel			Refresh	

Once the examination is finished, the result of the uniformity will be shown on the software surface.

It means that the information of the cabinets is uniform if the color is the same.

As the following picture shows, the information of the preceding ten cabinets is uniform. But the connection of the twelfth one failed.



16.2 Uniformity of Cabinet Information

After we check the health of the cabinets, we can adjust their information to be the same.

Click the Repair button, and you will be prompted to choose one cabinet as a benchmark.



Copyright © 2013 – 2023 27 After choosing the benchmark, there is a dialog box for you to check the information to adjust.)



All the cabinets will be set to meet the conformity after choosing.

Address	Description	Precent	Results	-
1517-port1-5	Read 1517-port1-tile5 GAMMA File	100%	[OK][retry=0]	
1517-port1-5	Read 1517-port1-tile5 Config File	100%	[OK][retry=0]	=
1517-port1-5	Read 1517-port1-tile5 Drive File	100%	[OK][retry=0]	
1517-port1-5	Read 1517-port1-tile5 Chromaticit	100%	[OK][retry=0]	
1517-port1-5	Read FPGA File Pending	0%		
1517-port1-5	Read CPU File Pending	0%		
1517-port1-0	Cover Gamma File Pending	0%		
1517-port1-1	Cover Gamma File Pending	0%		
1517-port1-2	Cover Gamma File Pending	0%		
1517-port1-3	Cover Gamma File Pending	0%		
1517-port1-4	Cover Gamma File Pending	0%		
1517-port1-5	Cover Gamma File Pending	0%		
1517-port1-6	Cover Gamma File Pending	0%		
1517-port1-7	Cover Gamma File Pending	0%		
1517-port1-8	Cover Gamma File Pending	0%		
1517-port1-9	Cover Gamma File Pending	0%		
1517-port1-10	Cover Gamma File Pending	0%		-
∢ [- F

17Tile test

Enter MAINTENCE and TEST

Step 1: Select the test tile in the left list;

Step 2: Choose the testing item. E.g. choose "Red", the screen will show red color only;

Step 3: Click "stop" to finish the test.

See as follow. Tile list is on the left."0" tile in Port I has been selected. The test result will be shown under "Command" at the bottom right; the progress bar shows the test schedule.



Tile test button list

Red	All red	Green	All green	Blue	All blue	Pattern	Tile information is based on modules
White	All white	Horizontal	Horizontal scanning	Vertical	Vertical scanning	•• Indicator	Indicator light at the back of the cabinet
Gray	Gradient Wipe	💹 Bias	Bias scanning	Auto	Auto change		
Blank	Blank	• RESET	Reboot the tile	Stop	Stop the test		

18 Tile indicators and testing buttons setting

Enter MAINTENANCE and Setting

Step 1: select the screen to be modified.

Step 2: select Enable or Disable in the drop-down list of Test Button.

Step 3: select Close Indicator, Min Brightness, Mid Brightness or Max Brightness in the drop-down list of Indicator Brightness.

Step 4: click Setting to send it to the tile.

As shown in figure below, SCREEN 0 is selected for setting. Test Button is available. Indicators behind tiles are closed. Commands below show the setting result. Progress bar shows the setting progress.

iles Setting		×				
Screen Name:	SCREEN 0	•				
Test Button:	Enable	•				
Indicator Brightness: Close Indicator						
Commands Set demo-Port1 Buttor	ı Enable					
		Ŧ				
Cancel	Setting					

19Update tile program

Enter MAINTENANCE and Update and input the password when the page occurred as below, default is mager.



Click OK to enter the Update page.

Step 1: select the tiles that need program upgrade.

Step 2: select the program to be upgraded.

Step 3: click "Upgrade".

Note: Before upgrading tiles, please refresh tile information first. For further details, please refer to the Tile status monitoring above.

As shown in figure below, Gamma of Tile 11 is selected for upgrade. Commands show the testing result. Progress bar shows the testing progress.

*	Screen	SCREEN 0	
	Пори		[
	FPGA		Upgrade
	Gamma	Ver0001 BuildDate:2013-05-10 12:25	Cancel
	Drive		
	Bright Data		
	Module Info.		
	Commands		
	Updating LDU0+		
		=	
	*	CPU CPU FPGA Config Ø Genme Drive Bright Data Module Info. Commands	CPU

20 Clone tile data

Enter MAINTENANCE and Clone. Input password in the page occurred, which is mager by default.



Enter into the Clone page. Step 1: select the current screen. WI/QS-PM-M0006 Step 2: select the tile that needs data clone.

Step 3: select tiles to be cloned. Multiple tiles can be selected.

Step 4: select data to be cloned.

Step 5: click "Clone" to clone data.

As shown in figure below, data of port1-0 tile is cloned to Tile 13 and 14.

Tile Clone		×
Screen	SCREEN 0	•
From:	demo port1-0	•
To:	demo port1-14, demo port1-13	-
Clone Type		
CPU	FPGA Config	🗸 Gamma
V Drive	V Module Info.	
Information		^
	r	
		Clone

21 Pixel brightness calibration

Enter Calibration page. Select the window to be calibrated in the left side. Click "Adjust". Input password in the page occurred, which is mager2 by default.



Step 1: select the tile to be calibrated.

Step 2: select the zone to be calibrated.

Step 3: set the calibrated brightness. You can set the increase or decrease brightness ratio here (per ten thousands). click "+" or "-" to increase or decrease the brightness.

Step 4: click "apply" to put into use the setting and then set data for other tiles and tiles.

Step 5: click "send" to deliver data of brightness calibration.

Step 6: click "Turn On Correction" to start brightness correction. To close correction, please click "Turn Off Correction".

Brightness Red Green Blue 30 30 40 50 70 80 90 100 120 <th>150 Title: SCREEN 0-Demo-port0-0000</th> <th>1 .</th>	150 Title: SCREEN 0-Demo-port0-0000	1 .
	Adjuestment Kr: # 0	Reset
	1 • X 1 •	Based On Module 5
	1 • X 1 • E	Based On Module 5
	<u>B</u> ead	Send Export6
	Bead Import	Send Export
	Bead Import Turn On Cor	Send Expo 6 recton

Function buttons on the panel can also be used for brightness calibration. Return to the main page CALIBRATION and click "Turn On Correction" to activate brightness calibration. To close correction, please click "Turn Off Correction".

To reset to default brightness, click "Factory Reset".

If Do not save, just show effect is checked, the brightness data will be sent to the panels.

22 ArtNet function

ArtNet can support overlay of the following graphic above the display content. The selected tile by rectangular box on the left top is to emphasis the display content of this tile.

	E:\Program Files\mager\WorkPath\demo Project\demo Project.czp* - Mager
DESIGN MONITOR MAINTENANCE CALIBRATION ARTNET	Style * (
L Select ○ Ellipse Vaglinage × Delete □ Retangle ⓒ Polygon Text × Clear All □ Round Ret ○ Cirde → Clone DBAW	Send StopShow SEND
Device Manager # ×	
root un:10 Channel:0 Rect Shape a	
or or or	
e or or	017 017 017 017
Press Shift Select , Press Ctrl To Move!	"" Ver2.1.2 2014-08-25

Step 1: Select the shape in DRAW list, like rectangle, circle, character, graphic etc.

Step 2: Draw the graphics within the DVI signal;

Step 3: Double-click the Shape Property as follow:WI/QS-PM-M0006Copyright © 2013 - 2023

Step 4: If you want to change the display order of the graphics, select the graphic and click arrange bar button to change.

Step 5: Click "send".

Shape Prop	ierty		×
LineWidth:	2 pixel 🔻	Fill:	NO
X:	0	W:	98
Y:	0	H:	96
Init Color:			
ArtNet Set	ting		
Uni: 1-	0 •	Channel:	0 🔻
			ОК

Line Width: You can choose 1~10 pixels to change the boldness of the line. Fill: Set whether to fill in the graphic or not

X & Y: The start coordinates of the graphics. The value of X can only be even.

W & H: The width and height of the graphics. The value of W can only be the even numbers.

Init Color: Set the color of the graphics. If connected with Art-Net device, then the display color will be the same with the device setting.

Uni: Set the universe. The Default Value is 1-0.

Channel: Set channels. The Default Value is 0. "0" indicates that the R/G/B values are controlled by 1, 2, 3 channels.

If this function is not required, please select the graphic and click "delete" to delete; or directly click "clear all" and then click "send" to delete all the graphics.

Notice: You need to set the text, font and size if you choose "Text"; If you choose "image", you need to set the source of the image. Picture showed on the screen is the shape of the image. The value of the color can be set. If some part of the picture is transparent, the transparent part will keep the same on the display.

You can check the exist universe and channel of the graphics on the left Device Manager list. The graphics will be shown all together in the same channels.

22.1 Graphic clone

Clone function can copy the graphic, and the copied graphics can be arranged in order. Step 1: Select the graphic that needs to be cloned.

Step 2: Click the clone button in draw list;

Step 3: See the clone setting as follow. Set the starting point as (0, 0), Gap as 0, 2 rows and 3 columns;

Step 4: Click "OK" and send.

Clone Setting										
StartX:	0	GapX: 0		X Num:	3					
StartY:	0	GapY: 0		Y Num:	2					
Alt Univer	Alt Universe And Channel: Alt Universe With Z Type									
	Start Univ	erse: 0-0			-					
	Start Channel: 0									
					ок					

StartX & StartY: Set the initial position of the cloned graphic. The default value is the start coordinates of the selected graphic;

GapX & GapY: Gap value. Set the gap between graphics. The default value is 10. X Num & Y Num: Set the value of rows and columns.

Alt Universe And Channel: Set the arrangement of universes. The default value is increasingly based on "Z". Another way is based on "N". Channel value is increase based on "Z". Use the same universe and channel.

Start Universe: Start universe. The default value is 0-0.

Start Channel: Start Channel. The default value is 0.

See as follow. Clone a rectangle to 2 rows 3 columns, the gap is 0.

_	100		0	<u> </u>	400	500		700
		OFF)	OFT	OFF)	OFF	067	OFF	œ
	off	orr		orr	0##)	GPT	049	OFF
	•	orr →	orr	- OFF		- orr		OTF
	cer (OFF	(OFF	(OFF	< OFF	<− OFF	(OFF	COFF
	or	orr	orr	CFF)	(6FF)		077 >>	