



Professional Multimedia Playback Software



User Manual

Copyright © 2023 Pixelhue Technology Ltd. All Rights Reserved.

No part of this document may be copied, reproduced, extracted or transmitted in any form or by any means without the prior written consent of Pixelhue Technology Ltd (hereinafter referred to as PIXELHUE).

Trademarks

PIXELHUE is a trademark of Pixelhue Technology Ltd.

Brand and product names mentioned in this manual may be trademarks, registered trademarks or copyrights of their respective holders.

Statement

Thank you for choosing PIXELHUE products. This document is intended to help you understand and use the products. PIXELHUE may make improvements and/or changes to this document at any time and without notice. If you experience any problems in use or have any suggestions, please contact us via the contact information given in this document. We will do our best to solve any issues, as well as evaluate and implement any suggestions.

This document could contain technical inaccuracies or typographical errors. Changes are periodically made to the information in this document; these changes are incorporated in new editions of this document.

The latest edition of user manuals can be downloaded from the official website of PIXELHUE.

Contents

Contents	ii
1 General	4
1.1 About This Manual	5
1.2 Symbols and Pictures	5
2 Software Installation	6
2.1 Software Installation	7
2.2 Software Licensing	11
3 User Interface Introduction	
3.1 Introduction	14
3.2 Change UI Layout	
3.3 Load Layout	
3.4 Lock User Interface	
4 Project	
4.1 Create New Projects	
4.2 Manage Media	
4.2.1 Add Media	21
4.2.2 Edit Media	
4.2.3 Add Input Sources	
4.3 Manage Layers	
4.3.1 Add Layers	
4.3.2 Layer Mosaic	
4.3.3 Set Layer Properties	
4.4 Build Application Environment	35
4.4.1 Add Screens	
4.4.2 Add Slices	
4.4.3 Set Slice Properties	
4.4.4 Configure Link Backup	
4.5 Produce Programs	
4.5.1 Edit Programs	
4.5.2 Set Media Continuation	
4.5.3 Set Program Properties	
4.5.4 Set Program Jump	57
4.5.5 Manage Program Groups	57
4.6 Playback Control	58

4.7 Save Projects	
5 Settings	61
5.1 System Settings	
5.1.1 General	
5.1.2 Display	
5.1.3 Audio	
5.1.4 Office	
5.2 Authorization	
5.3 Hotkey Binding	
5.4 MIDI Binding	
5.4.1 Connect MIDI Keyboard	
5.4.2 Bind MIDI	
6 Help	
6.1 User Manual	70
6.2 Software Updates	70
6.3 About	70
7 Tools	71
7.1 Transcoding Assistant	72
8 Graphic Card Mosaic	74
8.1 Set Main Display	75
8.2 Change Resolutions	76
8.2.1 Set Standard Resolutions	
8.2.2 Set Custom Resolutions	77
8.3 EDID Management	
8.4 Output Mosaic	



Overview

- About This Manual
- Symbols and Pictures

1.1 About This Manual

This user manual guides you how to use our software. This manual is designed to be a reference for your daily use of our product.

Note

Always check for the latest version of all documents at www.pixelhue.com.

1.2 Symbols and Pictures

Symbol Overview

4	Danger	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.
1	Warning	Indicates a hazard with a medium or low level of risk, which if not avoided, could result in minor or moderate injury.
	Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
	Note	Provides additional information to emphasize or supplement important points of the main text.

Picture Overview

Images and pictures given in this manual are used for illustration purposes only. The actual product may vary due to product enhancement. The content of the images can be slightly different from reality, such as device types, installed modules, form and position of software windows on the screen.



About This Chapter

This chapter is designed to guide you to the installation of the software.

Overview

- Software Installation
- Software Licensing

2.1 Software Installation

Requirements of Software Operating Environment

To better use Pilot MS3, the computer where Pilot MS3 is installed needs to meet the minimum configurations for the operating environment as follows:

- CPU: 9th Generation Intel® Core[™] i7 or later
- RAM: 16GB or greater DDR4 2666
- Graphics card: NVIDIA P2200 (or later) or AMD W5100 (or later) discrete graphics card recommended
- HD space: 512G or larger SSD
- OS: Windows 10 Pro (64-bit)

Installation Procedure

Note The following installation pictures are for illustration purposes only. The actual pictures may vary.

Step 1 Double click the program file (Pilot MS3.exe) to start the installation wizard.

Step 2 Select I accept the agreement.

Figure 2-1 License agreement

Setup - Pilot MS3 —	×
License Agreement Please read the following important information before continuing.	Ŧ
Please read the following License Agreement. You must accept the terms of this agreement before continuing with the installation.	
End User License Agreement	^
Important: Pixelhue Technology Ltd. (hereinafter referred to as "PIXELHUE") strongly suggests you carefully read and fully understand the terms and conditions of this Software Installation License Agreement (hereinafter referred to as "Agreement"), including intellectual property right statement, disclaimer and limitations on user rights. Please read this Agreement attentively and choose to agree or not. If you don't agree to this Agreement, you shall not be able to download and install this software or have no access to the services	~
• I accept the agreement \bigcirc I do not accept the agreement	
<u>N</u> ext > C	Cancel

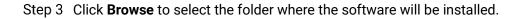


Figure 2-2 Select installation path

🔼 Setup - Pilot MS3	_		×
Select Destination Location Where should Pilot MS3 be installed?			€
Setup will install Pilot MS3 into the following folder.			
To continue, click Next. If you would like to select a differen	t folder, cli	ick Browse.	
C:\Program Files (x86)\PixelHue\Pilot MS3		B <u>r</u> owse.	
At least 764.2 MB of free disk space is required.			
< <u>B</u> ack	<u>N</u> ext >	(Cancel

Step 4 Click Next to enter the Select Start Menu Folder page.

Figure 2-3 Select start menu folder

Setup - Pilot MS3 -	_		×
Select Start Menu Folder Where should Setup place the program's shortcuts?			Ŧ
Setup will create the program's shortcuts in the following S	tart Mei	nu folder	
To continue, click Next. If you would like to select a different folder,	click Br	owse.	
PixelHue	B <u>r</u>	owse	
< <u>B</u> ack <u>N</u> ext	>	Car	ncel

Step 5 Click **Browse** or enter the folder name directly to select a folder for the start menu.Step 6 Click Next to enter the Select Additional Tasks page.

Check the box next to **Create a desktop shortcut** to add the Pilot MS3 shortcut icon on the desktop.

Figure 2-4 Additional tasks

🔼 Setup - Pilot MS3		_		×
Select Additional Tasks Which additional tasks should be performed	1?			€
Select the additional tasks you would like S then click Next.	etup to perform wł	ile installin	g Pilot MS	3,
Additional shortcuts:				
Create a <u>desktop shortcut</u>				
	< <u>B</u> ack	<u>N</u> ext >	Car	ncel

Step 7 Click Next to enter the Ready to Install page.

Figure 2-5 Installation confirmation

Setup - Pilot MS3	_		×
Ready to Install Setup is now ready to begin installing Pilot MS3 on your compute	er.		Ŧ
Click Install to continue with the installation, or click Back if you v change any settings.	vant to	review or	
Destination location: C:\Program Files (x86)\PixelHue\Pilot MS3			^
Start Menu folder: PixelHue			
Additional tasks: Additional shortcuts: Create a desktop shortcut			
<		>	~
< <u>B</u> ack Ir	nstall	Ci	ancel

Step 8 Click Install to enter the automatic installation page.

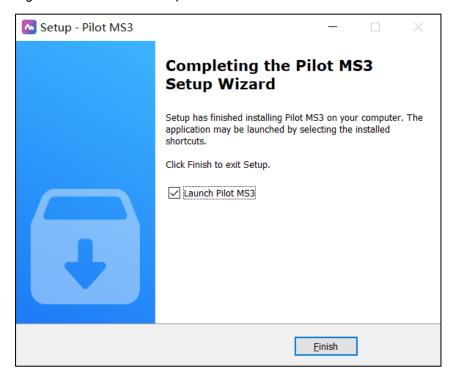
Figure 2-6 Automatic installation

🔼 Setup - Pilot MS3	_		×
Installing Please wait while Setup installs Pilot MS3 on your computer.			Ŧ
Extracting files C:\Program Files (x86)\PixelHue\Pilot MS3\Bin\avfilter-7.dll			
		Ca	ancel

Step 9 After the software installation is finished, click Finish.

The system will exit the software setup page and start the Pilot MS3 software automatically.

Figure 2-7 Installation completed



After the program is successfully installed, two programs (Pilot MS3 and NDI Sender) appear on your desktop.

- Pilot MS3: Video playback program
- NDI Sender: Provides NDI inputs for Pilot MS3

B Notes

- It is recommended you turn off the anti-virus software and firewall in advance.
- If any security alert from anti- or firewall appears during installation, choose to allow the installation.
- If the software prompts you to restart after the installation, it is recommended you restart the software in time.

2.2 Software Licensing

After Pilot MS3 is started, the software automatically detects the presence of an authorization dongle. If a dongle is detected, the Pilot MS3 user interface will be displayed normally; if not, the following window will be displayed and guide you through obtaining the authorization dongle.

Figure 2-8 Dongle detection

No authorization dong	le detected	×
No license found To run this software, you need Pilot MS3 authorization dongle and its ID file. Please insert the authorization dongle and import the ID file.	Pilot MS3	
Import Retry		
1. http://www.pixelhue.com Insert the dongle after		
a successful purchase. 2. Scan the QR code to get registration code.		
	www.pixelhue.com	
→	www.pixeinde.com	

You can license your software via the following two methods.

- Purchase an authorization dongle from your sales.
 - 1. Insert the authorization dongle into the USB connector of the computer, and start the Pilot MS3 software.

- 2. Copy the authorization ID file in the USB drive that comes with the authorization dongle to your computer.
- 3. On the authorization user interface, click **Import** at the upper right corner and select the authorization ID file.
- 4. Click **Open** to complete the importing.
- Take a clear picture of the QR code and send it to your sales to obtain the registration code. Enter the obtained registration code in the text box below the QR code, and click ➡ to complete the authorization.



About This Chapter

This chapter introduces you to the user interface of the software.

Overview

- Introduction
- Change UI Layout
- Load Layout
- Lock User Interface

3.1 Introduction

After the software is started successfully, the main user interface is shown in Figure 3-1. The functions of each area are described in Table 3-1.

Figure 3-1 User interface

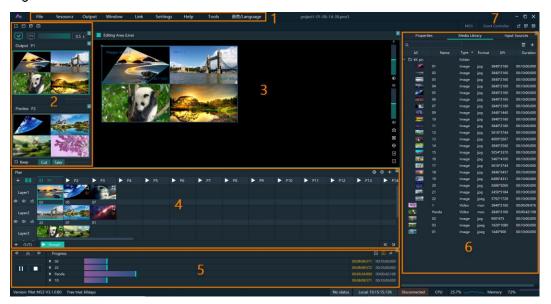


Table 3-1 User interface descriptions

Area	ltem	Description
Menu bar	File	Project file operations include:New: Create a new project.
		• Open: Open a saved project.
		 Save: Save the current project.
		 Save As: Save the current project as a new project.
		 Package Project: Package the current project and the media files in it as an independent project file for easy use in future.
	Resource	Manage the media files and input sources.
		• Add Local Media: Add the local media files.
		 Add Input Source: Add the network media, NDI screens and websites as input sources.
		 Delete All Media: Delete all the imported media files.
		 Delete All Inputs: Delete all the added input sources.
	Output	Configure and manage the linked devices, screens and slices.

Area	ltem	Description	
	Window	Show or hide the desired areas of the Pilot MS3 user interface.	
	Link	• Link Settings: Enter the link settings page and configure the backup device.	
		 Update to Backup: Manually synchronize the data on the primary and backup devices. 	
	Settings	Perform the system, authorization, hotkey and MIDI binding settings.	
	Help	• View the user manual.	
		 View the product-related information. 	
		 Check for the software updates. 	
	Tools	• Open the Transcoding Assistant tool and perform the needed transcoding actions.	
	语 言 /Language	Switch the UI language.	
Preview area	• Output: Vi	ew the content of the current output program.	
	• Preview: F	review the content of the next program.	
		end the currently previewed program to the screen ut transition effect.	
	 Take: Send the currently previewed program to the screen with the fade transition effect. 		
	 If Keep is selected and the program is sent to the screen via Take or Cut, the program will be played from the current playback progress in the preview area. 		
	 If Keep is not selected and the program is sent to the screen via Take or Cut, the program will be played from the beginning. 		

Area	ltem	Description				
Editing area	 Use layers to configure the output according to the on-site screen pattern. 					
	• Preview the output image.					
	 ♥: Adjust the output image brightness. The value ranges from -50 to + 50 and defaults to 0. 					
	• <i™: 0="" 100="" 50.="" <i™="" adjust="" and="" audio.<="" click="" defaults="" from="" off="" output="" ranges="" td="" the="" to="" turn="" value="" volume.=""></i™:>					
	icon to ca	selecting a layer or slice in the editing area, click this pture the current frame of the selected layer or slice ne captured image to the media library.				
	 Make output cor 	the selected layer fill the screen area loaded by the nectors where the layer is located and crosses.				
	• 中: When click this i	the output image is moved out of the visible area, con to restore the screen to the origin.				
	• 🗄: Zoom	in the editing area.				
	• ⊟: Zoom	out the editing area.				
Layer and	Add, control and mosaic the layers.					
program editing area	• Edit, group and play the layers.					
Playback control area	Control the p	playback of the programs or layers in the program.				
Media library	Media	Manage the media files.				
and properties area	Library	 Add the local media files. 				
		Create folders to manage the media files efficiently.				
		• Delete, replace or rename the media file.				
	Input	Manage the input sources.				
	Sources	 Add the network media, NDI screens and websites as input sources. 				
		 Delete the input sources. 				
		 Preview the input sources. 				
		• Enable or disable the preview of acquisition card sources.				
	Properties	Edit the layer or program properties.				
Others	Event Controller	Enable or disable the event controller control.				
	MIDI	Open the MIDI Connection Settings window and connect the MIDI devices.				
	~	The output connection has been established. Click the button to disconnect the output.				

Area	Item	Description
	×	The output has been disconnected. Click the button to regain the connection.
	FTB / FTB	• 💷 : Output normally.
		• 💷 : Fade to black.
		Click 🕮 , the icon turns to 😐 and the output fades to black.
		Click 🛄 , the icon turns to 📱 and the output displays image as usual.
		When the slider block is at the leftmost, the output is black; when the slider block is at the rightmost, the output is normal.
		The default FTB duration is 0.5s and the value ranges from 0 to 5s.

3.2 Change UI Layout

Pilot MS3 allows you to adjust the user interface layout according to your using habits. You can save and load the adjusted layout.

Step 1 Click 📋 at the top right corner of the target area to unlock this area.

The icon descriptions are as follows:

- 🚊 (highlighted): The area is locked and you cannot adjust its size and position.
- (grayed out): The area is unlocked. Move the cursor to the edge of the area and then click and drag the edge to adjust its size.
- Step 2 Move the cursor to any edge of an area. When the cursor turns into a double-sided arrow, click and drag the mouse to change the area size.
- Step 3 Move the cursor to the title bar of an area, and click and drag the mouse to change the area position.
- Step 4 Click \square at the top right of the user interface to save the adjusted layout.

	Sa	ave Layo	ut	×
Name	Layou	ut Name		
			0	
	Cancel		Save	
n Robert Solen	r arr ar			t l'allet

Figure 3-2 Save layout

Step 5 Enter a layout name.

The layout name is unique and it is recommended you set a name that is easy to recognize.

Step 6 Click Save to save the layout.

3.3 Load Layout

When the interface layout has been adjusted by others, you can load your preferred layout simply by using this function, instead of adjusting it area by area.

Step 1 Click 🖾 at the top right of the user interface to open the layout loading window.

Load Layout	×
	2.1.1
Layout 1	Delete
	Restore Default
	Load
	Cancel

Figure 3-3 Load layout

- Step 2 Select the desired layout from the list on the left.
- Step 3 Click Load to load the layout.

You can also perform the following operations:

- Delete: Delete the selected layout from the layout list.
- Restore Default: Restore the current interface layout to the default style.
- Cancel: Cancel the layout loading and exit the layout loading interface.

3.4 Lock User Interface

If you do not want others to operate the software when you are away, just simply use this function to lock the software interface.

Step 1 Click at the top right of the user interface to open the UI locking window.

Figure 3-4 Lock user interface

	Lock User Interface	×
Password	Directly unlock if no password set	
Opacity	100 %	
Background	None Change	
	Lock	

- Step 2 Enter a password.
- Step 3 Set the opacity for the locking interface.

100% is completely opaque. At this time, the editing interface is completely invisible and only the lock screen background can be seen.

- Step 4 [Optional] Click **Change** next to **Background** to select a picture to be displayed on the locking interface.
- Step 5 Click Lock to complete the locking settings and lock the interface.

B Notes

- The locking password and background are for one-time use only. When you want to lock the interface for a second time, please set the password and background again.
- To unlock the user interface, just enter your password click D to show the Pilot MS3 interface.



About This Chapter

This chapter guides you on how to add media files, edit programs, set program playback sequence and media properties, save configuration data as an independent project file for future use and more.

Overview

- Create New Projects
- Manage Media
- Manage Layers
- Build Application Environment
- Produce Programs
- Playback Control
- Save Projects

4.1 Create New Projects

There are three methods provided for you to create a new project.

- After Pilot MS3 is started successfully, click New on the startup interface and select the save path for the new project, and finally click Save. The system will automatically create a project file.
- Go to File > New, select the save path for the new project and click Save to create a new project.
- Click 📫 below the menu bar to create a new project.

4.2 Manage Media

Pilot MS3 supports pictures, videos, audio media files and website inputs.

The supported media formats are as follows:

- Video: avi, asf, wmv, flv, mkv, mov, 3g, mp4, mpg, mpeg, ts, m4v
- Picture: jpg, bmp, gif, mif, miff, png, wmf, jpeg, ico, pic
- Audio: wav, mp3, wma, ape, aac, flac, ogg, dts, amr, alac
- Office files: ppt, pptx

B Notes

Recommended video coding formats:

- 4K < resolutions \leq 8K: H.265 (HEVC) or VP9 recommended
- Resolutions \leq 4K: H.264 (AVC) recommended

For a better image quality experience, the following video bitrates are recommended. Recommended video bitrates for SDR uploads:

Туре	Video Bitrate Standard Frame Rate (24 fps, 25 fps, 30 fps)	Video Bitrate High Frame Rate (48 fps, 50 fps, 60 fps)
4320 (8K)	75 to 90 Mbps	110 to 135 Mbps
2160p (4K)	35 to 45 Mbps	53 to 68 Mbps
1440p (2K)	16 Mbps	24 Mbps
1080p	8 Mbps	12 Mbps

4.2.1 Add Media

Pilot MS3 supports both single media file importing and batch importing.

4.2.1.1 Import Files

- Step 1 Click the Media Library tab on the right pane of the user interface.
- Step 2 Right click the blank area in the **Media Library** area and select **Add Local Media** to open a local folder.
- Step 3 Select the target media files and click **Open**. Pilot MS3 will import the selected files to the media library automatically.
 - Importing a single file: Select the desired file and click **Open** to complete the importing.
 - Importing multiple files: Press the **Shift/Ctrl** key, select the desired files, and click **Open** to complete the importing.

4.2.1.2 Import Folders

There are three methods provided for you to import a folder.

- Import folder
- Step 1 Right click the blank area in the **Media Library** area and select **Add Local Folder** to open a local folder.
- Step 2 Select the desired folder where the media files are stored, and click **Open**.

The system will automatically import the media files in the target folder with their original names to the media library.

- Replace folder
- Step 1 Right click the blank area in the **Media Library** area and select **Add Folder**. The system will automatically create a new folder.
- Step 2 Right click the folder and select **Replace** in the context menu.
- Step 3 Select the desired folder from the displayed dialog box.
- Step 4 Click **Select Folder** and the system will automatically import the media files in the target folder with their original names to the media library.

4.2.2 Edit Media

4.2.2.1 Media Optimization

When the imported media or video resolutions are inconsistent, or the imported media resolution exceeds the processing capability of Pilot MS3, to facilitate future use, you can change the file resolution in advance by using this function.

Note		
		Only the videos and .jpg pictures can be optimized to even resolutions only.
	Step 1	Select the picture or video that needs to be optimized from Media Library.
	Step 2	Right click the file and select Media Optimization in the context menu.
	Step 3	Set the desired parameters for the optimization.

Figure 4-1 Media optimization

ndia main' maini Male male male i	Media Optimization	×		
Coding	Self-Adaptive	•		
Quality	Medium	•		
Code Rate	Self-Adaptive	•		
Frame Rate	Self-Adaptive			
Audio	Keep Audio			
Optimization Re	esolution Native: 3840 * 2160			
W: 3840	рх Н: 2160	рх		
Lock Aspect	t Ratio			
Note: Only the	videos and .jpg pictures can be optimized to even resolutions or	ıly.		
(Picture files on	ly support resolution optimization)			
	Optimize Cancel			

If **Lock Aspect Ratio** is selected, you only need to set either width or height, and the other parameter value will be calculated automatically according to the current aspect ratio of the media.

Step 4 Click **Optimize** and the system will automatically optimize the selected media file.

4.2.2.2 Create Playback Collection

The playback collection allows you to sort and combine multiple videos or pictures into a new collection source. All the videos and pictures in the collection will be played automatically according to the set mode.

Step 1 Right click the blank area in the **Media Library** area and select **Create Collection** to open the **Create Collection** window.

				0	Cre	ate Collection				×
		All	l Media				Coll	ection Media		
				,	All 🔶				All	Delete
🔻 🗈 Vide	os		Folder				Grape	Video	mov	4096*2160
100	1		Video	mov	3840*2160			Video	mov	3840*2160
	Cher				3840*2160	100	Cherry	Video	mov	3840*2160
225	Fami				3840*2160		Family	Video	mov	3840*2160
	Golf		Video	mp4	3840*2160					
	Grap	e	Video	mov	4096*2160					
	Mou	ntain	Video	mov	3840*2160					
80	Pand	a	Video	mov	3840*2160					
	Salac	I	Video	mov	4096*2304					
	Shrin	ιр	Video	mov	3840*2160					
🔻 🗈 Pictu	res		Folder							
**	🕴 🛛 Wate	rmelon	Video	mov	3840*2160					
	01		Image	jpeg	1440*900					
	02		Image	jpg	900*675					
	03		Image	jpeg	1920*1080					
	<u>4 04</u>		Image	ipq	1600*1200					
	Duration	00:00:0	00:000			🗘 Switching	Fade			
	Times	1				🗘 Fade in	0.5s		(
	Playback	Sequent	tial			👻 Fade out	0.5s		(
						Save				

Figure 4-2 Playback collection

- Step 2 Select the desired media files in the **All Media** area on the left side.
- Step 3 Click at the top right in the **All Media** area to add the selected files to the **Collection Media** area on the right side.
- Step 4 Select the newly-added media in the **Collection Media** area.
- Step 5 Change the media properties at the bottom.

Table 4-1	Collection	media	properties
-----------	------------	-------	------------

Property	Description
Duration	Set how long the selected media will be played. After the playback ends, the next media will be played automatically.
	If the duration is not set, the video file will be played according to its original playback duration, and the picture file will be played for 10 minutes by default.
Times	Set how many times the selected media will be played.
Playback	 Set the media playing order in the collection media. Sequential: The media in the collection will be played in sequence. Shuffle: The media in the collection will be played randomly.
Switching	Set the transition effect when the current media starts to play or stops the playing. Currently, only Cut and Fade effects are supported.
Fade in	Set the time length from when the current media starts to play to when the media is fully displayed.
Fade out	Set the time length from when the current media starts to stop to when the media is stopped.

- Step 6 Repeat Step 2 to Step 5 to complete the settings of other media in the collection.
- Step 7 Click **OK** to complete the collection settings.
- Step 8 Double click the collection name, and the name becomes editable. Rename the collection and press **Enter** to confirm the change.

B Note

After a collection is created, the default name is Playback Collection. It is recommended you give it a new name that is easier for you to distinguish.

4.2.2.3 Media File Group Management

You can create folders to classify the added media files.

- Step 1 Right click the blank area in the **Media Library** area and select **Add Folder**. The system will automatically create a new folder.
- Step 2 (Optional) Double click the folder to rename it.
- Step 3 Select the desired media files and drag them to the new folder.

😑 Notes

- Hold down the Shift or Ctrl key, and select the target file or multiple files in Media Library.
- After selecting a media file, right click it and select **Insert Folder** in the context menu to move the selected file to the newly-inserted folder.

4.2.2.4 Media File Context Menu

Right click a media to show the media file context menu.

Figure 4-3 Media file context menu

Add Local Media
Media Optimization
Create Collection
Add Local Folder
Insert Folder
Rename
Replace Media
Access File Location
Delete
Properties

- Add Local Media: Add new media files into the media library.
- Media Optimization: Change the coding, quality, code rate, frame rate, audio and resolution settings of the videos or pictures.

Only the videos and .jpg pictures can be optimized to even resolutions only.

- Create Collection: Create a collection media.
- Change Playback Collection: Change the settings of the collection media.
- Add Local Folder: Import a folder containing media files into the media library.
- Insert Folder: Create a new folder and move the selected media files into the folder.
- Rename: Rename the selected media or collection.
- Replace Media: Replace the currently-selected media. When the media is replaced, the media in the program will also be replaced synchronously.
- Access File Location: Open the storage location of the current media.
- Delete: Delete the current media.
- Properties: View the media properties, such as the name, size, format and more.

4.2.3 Add Input Sources

You can add the network media, website input sources, NDI input sources and input sources from acquisition devices. The system automatically identifies and adds the input sources from acquisition devices. You can also enable or disable the acquisition device.

🖹 Note

When the acquisition card and its driver have been installed into the device successfully, Pilot MS3 will automatically identify and add the acquisition card input source.

4.2.3.1 Add Network Media

Pilot MS3 supports adding the streaming media whose format is rtsp and rtmp as input sources.

- Step 1 Click the Input Sources tab on the right pane of the user interface.
- Step 2 Right click the blank area and go to **Add Input Source > Add Network Media**. The system will automatically open the network media adding window.

	Add Network N	ledia	\times
Please enter a URL			
	OK	Cancel	

Figure 4-4 Add network media

Step 3 Enter the media path in the URL text box.

Make sure the media path begins with rtsp:// or rtmp://.

Step 4 Click **OK** to complete the adding.

4.2.3.2 Add Website Input Sources

- Step 1 Click the Input Sources tab on the right pane of the user interface.
- Step 2 Right click the blank area and go to **Add Input Source** > **Add Webpage**. The website page will appear as shown below.

Figure 4-5 Add website input sources-1

Resource Name: PIXELHUE-HOME								X Webpage (Nutput: 1920*1080	Default Mode *
	PIXELHUE	PRODUCTS	SUPPORT	INSIGHTS	ABOUT US	CONTACT	Q Search			ĺ
<	PIXEL YOUR EVENT New Presentation Switcher New Video Controller Media Server 25 - 28 April Frankfurt am Main prolight+sound	HUE ENGINE	воотн	12.1 D81						

- Step 3 Enter an URL in the address bar.
- Step 4 Press Enter to enter the website and select the content to be played.
- Step 5 Set the output resolution and mode of the webpage.

Change the webpage output resolution form the first drop-down list next to **Webpage Output** at the top right.

Change the webpage output mode form the second drop-down list next to **Webpage Output** at the top right. The supported options include **Default Mode** and **Screenshot Mode**.

- Default Mode: The default webpage output mode
- Screenshot Mode: When the webpage displays the video monitoring images, this mode is recommended.

Step 6 Click x at the top right to close the window and finish adding the website.

Note

When multiple tabs are opened, the input source displays the tab you stay on before closing.

Figure 4-6 Add website input sources-2



• 1: Preview window where you can preview the input source image, input source name, type and resolution

- 2: List all the input sources with their names.
 - IVI : The added network media
 - **Imp**: The added NDI input source
 - : The input sources from the acquisition device
 - : The added webpage input source

4.2.3.3 Add NDI Input Sources

After Pilot MS3 is successfully installed, the NDI configuration tool NDI Sender that comes with Pilot MS3 will be installed. After NDI Sender is enabled, Pilot MS3 will automatically search for all the computers whose NDI sending functions have been enabled in the current network segment.

Prerequisites

- The computer running the NDI Sender and Pilot MS3 must be on the same network segment.
- Make sure the computer running the NDI Sender and Pilot MS3 can communicate normally.

NDI Settings

Step 1 Double click the NDI Sender shortcut on the desktop to open the NDI Sender software.

	,		
	Sender		语言/Language: Engl
Name:	16006842-P		Select ROI
			┌ Sent ROI
Screen:	Screen:0(1920x1080)	-	

Reset

Figure 4-7 NDI Sender

Start

Step 2 Set the image position and size for NDI on the computer screen.

There are two methods to set the NDI image position and size.

• Click **Select ROI** and then click and drag the mouse to select the display area you want to send.

w: 1920

how ROI

🗘 h: 1080

- In the **Sent ROI** area, you can precisely set the position and size of the sent area.
 - x: The horizontal offset from the top left corner of the sent area to the screen's left edge
 - y: The horizontal offset from the top left corner of the sent area to the screen's top edge
 - w: The horizontal width of the sent area
 - h: The vertical height of the sent area

After the settings, you can click **Show ROI** to see the image position and image size you have set.

- Step 3 Enter an NDI name.
- Step 4 Select the screen you want to send if there are multiple computer screens.
- Step 5 Enter the frame rate of the NDI image. The default value is 25.
- Step 6 Click Start to complete the NDI Sender settings.

Add NDI Input Sources

- Step 1 Click the Input Sources tab on the right pane of the user interface.
- Step 2 Right click the blank area and go to **Add Input Source** > **Add NDI Screen**. The system will automatically search the current network segment for all the NDI-enabled devices and then show you the NDI list.

Figure 4-8 NDI list

	Add	NDI Screen	×
NDI Input			C,)
	IP	Name	
172.	18.12.116:5961	16006842-P (16006842-P)	
		Save	

Step 3 Select the NDI sources from the NDI list.

Figure 4-9 Select NDI sources

	Add I	NDI Screen	×
NDI Input	NDI-1		C.)
	IP	Name	
172.	18.12.116:5961	16006842-P (16006842-P)	
		Save	

Step 4 Enter an NDI name.

After the name is changed here, the new name will be displayed under the **Input Sources** tab.

Step 5 Click **OK** to complete adding an NDI source.

Website Input Source Menu

Right click an input source under the **Input Sources** tab to show the website input source menu.

Figure 4-10 Website input source menu

Add Input Source 🕨	
Rename	
Set Loop Interval	
Stop Loop Preview	
Delete	
Properties	

- Add Input Source: Add the network media, NDI screen or webpage.
- Rename: Change the input source name.
- Set Loop Interval: Set how long the input source is previewed in the preview area.
- Stop Loop Preview: Stop loop preview of the current input source in the preview area.
- Restore Loop Preview: Perform loop preview of all the input sources in the preview area.
- Delete: Delete the current input source.
- Properties: View the relevant information of the input source, including the name, type, network address, resolution and frame rate.
- Click at the bottom right of the acquisition card to select whether to add the sources from the acquisition device.

4.3 Manage Layers

4.3.1 Add Layers

The layer is a container where you store the media file of a program. Before you edit the program, please add the layers and add the media files into the layers first.

Step 1 Click + at the top left in the Plan area to add a layer.

The new layer will be added to each program.

Step 2 Change the layer position in the **Editing Area** to arrange the output slices and avoid overlapping perfectly.

Figure 4-11 Slice position

C.5 6 Editing Area (Live)		Properties Media Libra	ry Input Sources
Output P1		Media Propert	tên -
And a second sec		Duration 00:10:00:000	\$
		Start Time 00:00:00:000	0
And		End Time 00:10:00:000	0 ()
		Delay 00:00:000	a (
		50 Play T	
		E Loop E EOF Stop E Loop 1	Times 1 N
		🙂 No Jump 🔲 Next Program	
Preview P.2		Switching Fade 💌 Fade in (0.5 s Fade Out 0.5 s
		Keep 💷	
		Q9 Speed	1.0 🗘
		D Volume	100% 🕅
		10 Image 👻	
		Filing Fil +	Flip □н □v
		Brightness	50 % LJ
Cut Take		Contrast	50 % 🗘
	⊕ ⊚ +	Opacity	100% [1]
	10 P P11 P P12 P P13 P	P 14	50 % 🛱
		Hue	50 % D
Layer 1 do			
@ 01 6 02 05 05 Grape		Crop	
Layer 2		Stretch * Proportional	0 5 0
			0 % 0
Layer 3 Layer 3			0 % 10
• • • • •		Keying 👻	
+ (1/1) D Group 1			5 0 8 0 D
• 22			andersener Inter
Panda Panda		08 🛛 🖉 🔲 #0000000 B 0 0	5 0 B 0 A 100 D
▶ 10 1		00 Percent *	2 %
			here a start of the

Step 3 Select a layer and click the **Properties** tab on the right pane to show the layer properties.

Step 4 Configure the layer-related properties by referring to Table 4-2.

🖹 Notes

- When you click and drag the layer, the purple auxiliary lines appear to help you better align the layers.
- When there are too many media items, you can search for the media item in the search box above.

4.3.2 Layer Mosaic

Applications

When an image needs to be output by multiple connectors and pixel-to-pixel display is required, you can use this function to satisfy your needs.

Figure 4-12 Layer mosaic effect







Operating Procedure

Step 1 Click 📰 at the top left in the **Plan** area to open the layer mosaic window.



				Layer Mosaic			×
Layer List	Laye	r Layout			Properties		
Layer 1	4				Layer 1		
Layer 2					Position		>
Layer 3							•
Layer 4						1080	
			Layer 4				
	Lave	r Mosaic Layout			Properties		
					Name		
					Position		> >
				ф			
				Close Save			

Step 2 Select and drag the layers in the Layer Layout area to the Layer Mosaic Layout area.

Figure 4-14 Layer mosaic-2



Step 3 Arrange the layers in the way you prefer in the **Layer Mosaic Layout** area.

Figure 4-15 Layer mosaic layout

					Layer Mosaic			□×
Layer List	Layer	Layout					Properties	
Layer 1	l +						Layer 2	
Layer 2							Position	X < 1920 >
Layer 3								
Layer 4								1920 x 1080
			Layer 4					
	L L							
	Layer	Mosaic Layout					Properties Name	Layer 2
	+						DPI	1920 x 1080
						1		X < 4799 >
							Position	
		6330*1220						
						\$ +		
				Ck	ose Save			

- Step 4 (Optional) Change the mosaic layer name in the Properties area on the right.
- Step 5 Click Save to complete the layer mosaic.

After the mosaic is completed, a new mosaic layer will be displayed in the **Plan** area.

4.3.3 Set Layer Properties

Layer Menu

Right click a layer in the **Plan** area to show the layer menu as shown below.

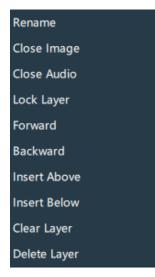


Figure 4-16 Layer menu

- Rename: Change the layer name.
- Close Image: Do not display the image of the current layer in all the programs.
- Close Audio: Do not play the audio of the current layer in all the programs.

- Lock layer: Lock the current layer in all the programs. After the layer is locked, the layer property changes will not take effect.
- Forward/Backward: Adjust the order of the layer.
- Insert Above: Insert a layer above the current layer row.
- Insert Below: Insert a layer below the current layer row.
- Clear Layer: Clear the data in the current layer.
- Delete Layer: Clear the layer data and delete the layer.

Layer Properties

- Step 1 Select a layer in the **Plan** area or **Editing Area**.
- Step 2 Select the **Properties** tab on the right pane of the user interface.

			8
Properti	es Med	ia Library	Input Sources
	Layer l		
Name	Layer 1		
Layer			
Control	Close Image		
Size	W 🔨 1920 🕨	🖒 Н < 1080 🔾	
Volume			50 % Ø
Output Bind	G1(Intel(R) Iris(R) Xe	Graphics) 🔫	
Image			
Flip	□н □∨		
Filling	Fill 👻		
Brightness			50 % 🕻
Contrast			50 % 🕻
Opacity			100 % 🕻 🕽
Saturation			50 % L
Hue			50 % LJ
Insert Abo	ve Insert Below	Delete Layer	Clear Media

Figure 4-17 Layer properties

Function	Description
Name	View and change the layer name.
Control	Close Image: Do not display the image of the current layer, and only the audio is played.
Size	Change the layer size.W: Set the layer size in the horizontal direction.H: Set the layer size in the vertical direction.
Volume	 Adjust the output volume of the current layer. The default value is 100%. Click ⁽¹⁾ to turn off the audio. Click III to reset the volume to default.

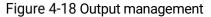
Output Bind	Select the rendering graphics card for the layer image.
Flip	 Set the flipping mode of the output image. If H and V are not selected, the output image is displayed normally, without any flipping effect. H: Flip the image horizontally. V: Flip the image vertically.
Filling	 Set how the image is displayed in the selected layer. Fill: The image fills the whole layer. Proportional: The image is scaled and displayed in the layer according to its original aspect ratio.
Brightness	Set the overall brightness of the layer image. The value range is $0\%-100\%$, and it defaults to 50% .
Contrast	Set the overall contrast of the layer image. The value range is 0%–100%, and it defaults to 50%.
Opacity	Adjust the transparency of the output image. The value range is 0% (totally transparent)-100% (opaque), and it defaults to 100%.
Saturation	Adjust the colorfulness of the output image. The value range is 0%–100%, and it defaults to 50%.
Hue	Set the relative degree of how bright or dark the output image is. The value range is 0%–100%, and it defaults to 50%.
Insert Above	Insert a layer below the current layer row.
Insert Below	Insert a layer below the current layer row.
Delete Layer	Clear the layer data and delete the layer.
Clear Layer	Clear the data in the current layer.

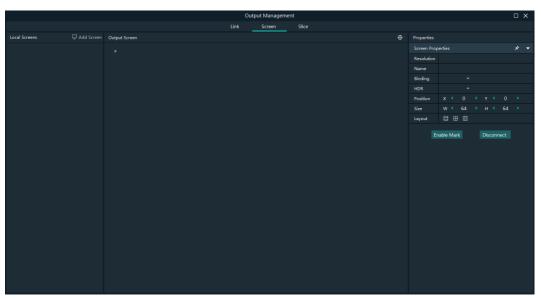
4.4 Build Application Environment

In Pilot MS3, you can use the screens and slices to build an application environment according to your actual on-site needs.

- Screen: Configure the output image displayed on the screen.
- Slice: Configure the image output by the corresponding output connector.

Click **Output** in the menu bar to open the **Output Management** window where you can relate the screens with the output connectors and change the screen position and sequence.





4.4.1 Add Screens

Each output connector on the discrete graphics card of the computer or server where Pilot MS3 is installed corresponds to a screen.

To synchronize output images, please refer to 8 Graphic Card Mosaic to complete relevant configurations.

Add and Bind Screens Automatically

Pilot MS3 will automatically detect the graphics card connectors and then complete the adding and binding of those detected connectors. All the connectors are displayed in the output list on the left.

Add and Bind Screens Manually

When you add the graphics card to the control PC or change the saved project file, you can add the screens manually.

- Step 1 Click Add Screen at the top left to add an output.
- Step 2 Set the screen position and size according to the screen layout in the **Screen Properties** area on the right.

			Output M	inagement				×
				en Slice				
Local Screens		Output Screen			Properties			
Screen 1	1920x1080 <i>ව</i>							-
Screen 2	1920x1080 <i>ළ</i>				Resolution			
Screen 3	- 1920x1080 <i>ව</i>	Screen 1(SDR)			Name			
Screen 4	1920x1080 <i>ළ</i>	1920*1080			Binding	None 👻		
		• • •			Position			
					Size	W < 1920 > н	< 1080 >	
					Layout			
						able Mark Dise		

Figure 4-19 Screen management



Menu	Description
Resolution	The resolution of the screen loaded by the connectors
Name	Change the screen name.
Binding	Set the relationship between the output connector and screen.
HDR	 Set the output dynamic range. The options include SDR and HDR. SDR: The output is in SDR format. HDR: The output is in HDR10 format.
Position	 X: Set the horizontal distance between the top left corner of the screen and the top left corner of the screen editing area. Y: Set the vertical distance between the top left corner of the screen and the top left corner of the screen editing area.
Size	Set the screen size.W: Set the screen size in the horizontal direction.H: Set the screen size in the vertical direction.
Layout	 When there are multiple screens, use this function to arrange the screens quickly. All the screens are arranged in a 1×4 pattern. The screens are arranged in a 2×2 pattern. All the screens are arranged in a 4×1 pattern.
Enable Mark	Display a sequence number on the output connector and screen, which helps you easily identify and adjust the output pattern.
Disable Mark	Do not display the sequence number.
Disconnect	Do not show the output image of the current screen.

	Connect	Show the output image of the current screen.
--	---------	--

Step 3 Configure the necessary parameters in the above table to complete the screen configuration.

4.4.2 Add Slices

Pilot MS3 uses the slices to output the image to the LED screen. Select the desired image area of the layer using the slice, and then map the image to the output connector to complete the image construction.

- Step 1 Click **Output** in the menu bar to open the **Output Management** window.
- Step 2 Select the Slice tab.

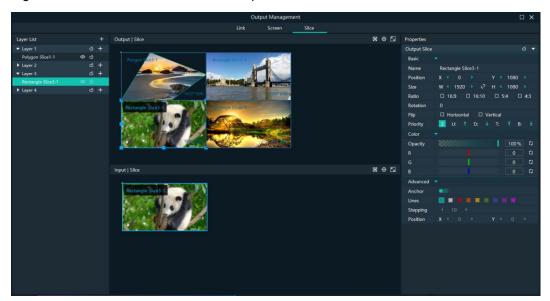


Figure 4-20 Screen slice and area descriptions

- Layer List: Add and delete the rectangle or polygon slices.
- Output | Slice: Adjust the output slice positions on the screen to construct the desired output image.
- Input | Slice: Adjust the sizes and positions of the input slices, and flexibly crop the input image.
- Properties: Set the properties of the output slices and input slices.
- 🖾: Slice filling configurations
 - In the input slice area, click 🔟 to make the selected slice fill the layer.
 - In the output slice area, click 🔟 to make the selected slice fill the screen.
- 🐵: Restore the canvas to the origin.
- 🔄 Maximize the output slice or input slice area.

Add Rectangle Slices

Step 1 In the Layer List area, select the desired layer to add the slices.

- Step 2 Click + next to the layer name, and then select **Rectangle Slice** to add a rectangle slice.
 - In the output slice area, change the position and size of the output slice, as well as view the output image.
 - In the input slice area, change the position and size of the input slice to crop the input image.

Add Polygon Slices

- Step 1 In the Layer List area, select the desired layer to add the slices.
- Step 2 Click + next to the layer name, and then select **Polygon Slice** to add a polygon slice.

To add a polygon slice, you need to draw the polygon manually. During the drawing, please note that the sides of the polygon cannot intersect.

Step 3 Move the cursor to the input slice area, and the cursor turns to a pen head. Click the polygon vertices in sequence according to the polygon style you want to draw to complete the polygon drawing.

Link Screen <u>Sike</u>	
Layer List + Output Slice 🛛 🕅 Properties	
▼ Layer 1 Output Slice	
Rectangle Size1-1 Rectangle Size1-1 Rectangle Si	
Layer 2	
Postion X < 539	Y 🕺 1080 🔰
▶ Layer 4	H < 1000 >
Ratio 16:9 16:10	□ 5:4 □ 4:3
Polygon Sice3-1 Rotation 0	
Flip D Horizontal D V	
Color -	
Opucity Opucity	100%
G G Input Site 図 位 日	
Advanced •	
Polygon Slice3-1	
Stepping (10 > Position X (0 >	

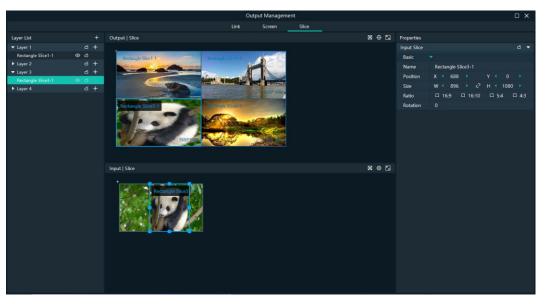
Figure 4-21 Add polygon slices

- Step 4 Configure the properties of the polygon slice as required.
 - 1. Select the polygon slice.
 - 2. In the **Advanced** area on the right pane, enable the anchor editing function.
 - 3. Click the desired anchor and edit the anchor in the following two ways.
 - Click and drag the anchor to change the anchor position.
 - Click the anchor, and then press the arrow keys of the keyboard to change the anchor position. The moving stepping can be adjusted by setting the Stepping value in the Advanced area.

Application Example

If you want to output only the panda in Layer 3, do the followings.

Figure 4-22 Slice application example



- Step 1 Under the Slice tab, select Rectangle Slice 3-1 on the left side.
- Step 2 In the input slice area, move the input slice to cover the panda and adjust the slice size as needed.
- Step 3 In the output slice area, adjust the output slice size as needed and move the slice to the desired screen.

4.4.3 Set Slice Properties

Output Slice

The output slices are used for the construction of the output image. The output slice outputs the image of the corresponding input slice, and then scales the input slice image according to the output slice size you set. Select the desired output slice in the output slice area, and then set the slice properties on the right.

Figure 4-23 Output slice properties



Table 4-4 Function descriptions

Area	Parameter	Description			
Basic properties	Name	Display or change the name of the output slice.			
	Position	View or set the output slice position in the Output Slice area. The origin of the Output Slice area is the adjustment reference point and the adjustment unit is the pixel.			
		 X: View or set the horizontal coordinate of the top left corner of the output slice in the Output Slice area. 			
		• Y: View or set the vertical coordinate of the top left corner of the output slice in the Output Slice area.			
	Size	View or set the output slice size.			
		• W: View or set the output slice size in the horizontal direction.			
		• H: View or set the output slice size in the vertical direction.			
		• Click determined between W and H to lock the slice aspect ratio.			
	Ratio	Set the aspect ratio of the output slice.			
	Rotation	Rotate the output image clockwise based on the center of the output slice.			

Area	Parameter	Description
	Flip	Set the flipping mode of the output image.
		 Horizontal: Flip the output image in the horizontal direction.
		 Vertical: Flip the output image in the vertical direction.
	Priority	View or set the displaying priority of the output slice.
		• Display: Indicate the priority of the output slice by a number. The larger the number, the higher the priority, i.e., the more front the output slice is displayed.
		• Adjustment: Select the desired output slice, and then click , , , or to adjust its priority.
Color properties	Opacity	Adjust the transparent degree of the output slice. The value ranges from 0% (totally transparent) to 100% (nontransparent).
	R/G/B	Adjust the RGB values of the output slice.
Advanced	Anchor	Enable or disable the anchor editing function.
	Lines	After the editing function is enabled, set the color of the anchor lines.
	Stepping	After the editing function is enabled and you use the keyboard arrow keys to move the anchor, this parameter is used to set the anchor moving distance each time you press the arrow key.
	Position	After the editing function is enabled, enter the specific values of X and Y to precisely position the anchor.

Layers

Select the desired layer in the input slice area, and then set the layer properties on the right.

Figure 4-24 Layer properties

Properties							
Layer						đ	•
Basic							
Name	Layer	1					
Position	х <	0		Y	0		
Size	w <	1920	ŝ	Н	1080		

• Name: Display or change the name of the layer.

- Position: View or set the layer position in the input slice area. The origin of the input slice area is the adjustment reference point and the adjustment unit is the pixel.
 - X: View or set the horizontal coordinate of the top left corner of the layer in the input slice area.
 - Y: View or set the vertical coordinate of the top left corner of the layer in the input slice area.
- Size: View or set the layer size.
 - W: View or set the layer size in the horizontal direction.
 - H: View or set the layer size in the vertical direction.
 - Click determine between W and H to lock the slice aspect ratio. If one of the two values is changed, the other value will change automatically according to the aspect ratio.

Input Slices

Select the desired input slice (highlighted when selected) in the input slice area, and then set the input slice properties on the right.

The input slice is used to select a specific image area of the input source image.

		Properties	
		Input Slice	d
		Basic	
		Name	Polygon Slice1-1
		Position	X < 0 > Y < 15 >
Properties		Size	W < 1758 → 🗘 H < 1055 →
Input Slice	ć 🔻	Ratio	□ 16:9 □ 16:10 □ 5:4 □ 4:3
Basic		Rotation	
Name	Rectangle Slice1-1	Advanced	
Position	$X \leftarrow 0 \rightarrow Y \leftarrow 1 \rightarrow$	Anchor	
Size	W < 1920 → <⁄ H < 1079 →	Lines	
Ratio	□ 16:9 □ 16:10 □ 5:4 □ 4:3	Stepping	≺ 10 ≻
Rotation		Position	X ≺ 1101 → Y ≺ 1179 →

Figure 4-25 Input slice properties

Table 4-5 Function descriptions

Parameter	Description
Basic prope	rties
Name	Display or change the name of the input slice.
Position	View or set the input slice position upon the layer. The top left corner of the layer is the adjustment reference point and the adjustment unit is the pixel.
	• X: View or set the horizontal coordinate of the top left corner of the layer slice upon the layer.
	• Y: View or set the vertical coordinate of the top left corner of the layer slice upon the layer.

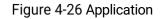
Parameter	Description
Size	 View or set the input slice size. W: View or set the input slice size in the horizontal direction. H: View or set the input slice size in the vertical direction.
Ratio	Set the aspect ratio of the input slice.
Rotation	Set the rotate degree of the input slice. The reference point is the center of the output slice.
Advanced pr	operties
Anchor	Enable or disable the anchor editing function when the input slice is a polygon slice.
Lines	After the editing function is enabled, set the color of the anchor lines.
Stepping	After the editing function is enabled and you use the keyboard arrow keys to move the anchor, this parameter is used to set the anchor moving distance each time you press the arrow key.
Position	After the editing function is enabled, enter the specific values of X and Y to precisely position the anchor.

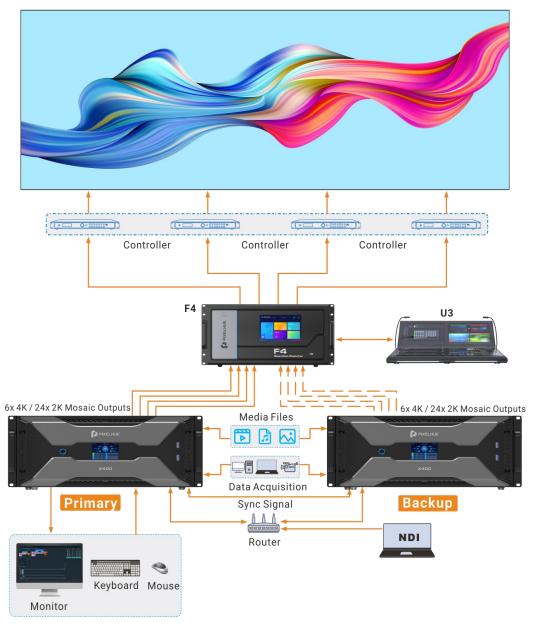
Note

The rectangle slices in the input slice area do not support advanced property settings

4.4.4 Configure Link Backup

Pilot MS3 supports the device backup to set the backup relationship between two devices. You can set one of the devices as the primary device or the backup device. When the primary device has got a problem or the primary device's cable fails, the backup device will take over the responsibilities of the primary device seamlessly, and continue to work well to ensure the LED screen will not go black.





Prerequisites

- The primary and backup devices must be on the same network segment.
- The primary and backup devices must be connected to the same downstream device, such as an F4 shown above.

Operating Procedure

Step 1 On the primary device, go to Link > Link Settings or click Output > Link.

Figure 4-27 Link settings

		Output Management					□ ×
			Link	Screen	Slice		
	Device List	c			Device Edit		
 Name: IP: 	zhangkul-P1 172.18.12.130						
					• Master(Local) Name: 16006842-P IP: 172:18:12:116		Connected
in martin		① Set as slave: Drag a device to the blank area. Set as bac	ckup: Drag a	a device to the	e device on the right side. One device s	upports one backup only.	

In the device list, the system will automatically search for all the online devices on the current network segment.

Device status descriptions:

- Name:
 - The media server name
 - 🔍 The device is online.
 - 🔍 The device is offline.
- IP:
 - The device IP address
 - 🔍 The device is not used as a backup one.
 - The device is used as a backup one.
- Step 2 In the device list, select the device used as a backup one.
- Step 3 Select the desired device and drag it to the target primary device to complete the backup settings.

Figure 4-28 Backup settings

		Output Management	
		Link Screen Slice	
	Device List C	C Device Edit	• • • • • • • • • • • • • • • • • • •
 Name: IP: 	zhangkui-P1 172.18.12.130		
		Master(Local)	
		Name: 16006842-P IP: 172.18.12.116	
		• Backup dP	
		Name: zhangkui-P1	
		IP: 172.18.12.130	
			Connected
			Disconnected
		① Set as slave: Drag a device to the blank area. Set as backup: Drag a device to the device on the right s	side. One device supports one backup only.

Other Operations

On the output management page, right click the backup device to show the context menu.

			Output Management				□ ×
		Lin	k Screen Slice				
	Device List	C		Device Edit			
Name:IP;	zhangkui-P1 172.18.12.130						
			 Master(Local) 				
			Name: 16006842-P				
			IP: 172.18.12.116				
				P			
			Name: zhangkui-P1 IP: 172.18.12.130	Disconnect Remove			
						Connected – Disconnected –	
		① Set as slave: Drag a device to the blank area. Set as backup:	Drag a device to the device of	on the right side. One device	supports one backup only.		

Figure 4-29 Context menu for backup device

- Click **Disconnect** to disconnect the backup device from the primary device. Right click again and select Connect to reconnect them.
- Click **Remove** to delete the backup device and remove the backup relation between the primary and backup devices.

4.5 Produce Programs

The playback unit of Pilot MS3 is the program.

After you have completed the construction of the outputs and added images to the layers, the system will output the image according to your construction (slices).

4.5.1 Edit Programs

The system provides 50 programs by default. Before the playback of a program, you must add the media files or input sources to the layers of the programs.

Select the desired media file or input source in **Media Library** and drag it to the target program layer in the **Plan** area.

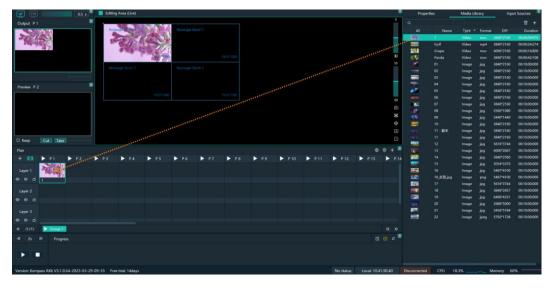


Figure 4-30 Edit programs

The functions of the icons in the **Plan** area are described as follows.

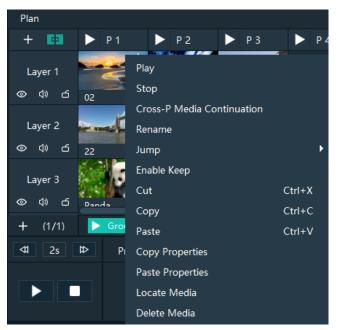
- 👜: Return to the first program column.
- 💿: Locate the program that is being played or edited.
- 🖶: Add a new program.
- 🗠: Turn off the image display of the selected layer.
- 🗠: Turn on the image display of the selected layer.
- 💵: Turn off the audio of the selected layer.
- M: Turn on the audio of the selected layer.

4.5.2 Set Media Continuation

When you want to play media content in the same layer of multiple continuous programs, you may need to add the same media file to each program. The added media will be played from the beginning when a new program starts, which may not be what you want to see. The cross-program media continuation function can perfectly solve this problem. After you have enabled this function for a specified media, the program will be played continuously but not played from the beginning when a new program is started.

Step 1 Right click the desired media in the **Plan** area and select **Cross-P Media Continuation** from the context menu.

Figure 4-31 Set media continuation



Step 2 Click and drag the media to the target program.

Note

Right click the target program media after the cross-program continuation, and then select **Cancel Continuation** to delete the continuation settings.

4.5.3 Set Program Properties

Program Menu

Right click a program to show the context menu as shown in the following, and you can set the program properties as needed.

Figure 4-32 Set program properties

- Plan 申 +Play Stop Layer 1 Map to Preview 0 (1) б 02 Enable Keep Layer 2 Rename (1) 6 б Cut Ctrl+X 22 Ctrl+C Copy Layer 3 Ctrl+V Paste 0 (1)) പ്പ Insert Before (1/1)Insert After <11 2s ₽ Pre **Delete Program**
- Play: Play the current program.
- Pause: Pause the program playback. The program will be played from where it is paused next time when it is played.
- Stop: Stop the program playback. The program will be played from the beginning next time when it is played.
- Map to Preview: Show the program content in the preview area.
- Enable Keep: When the playback switches to the program, it starts to play from the last position.
- Disable Keep: When the playback switches to the program, it starts to play from the beginning.
- Rename: Change the program name.
- Cut: Cut the current program.
- Copy: Copy the current program and its properties.
- Paste: Paste the copied program and its properties to the specified program.
- Insert Before: Add a new program before the current program column.
- Insert After: Add a new program after the current program column.
- Delete Program: Clear all the layer data in the program and delete the program.

Program Properties

- Step 1 Select a layer in the **Plan** area or **Editing Area**.
- Step 2 Select the **Properties** tab on the right pane of the user interface to show the program property settings.

Figure 4-33 Program properties

Properties		Media Library	Input Sources
		Program Properties	
Name	P 1		
Status	Pause		
Кеер	•••		
Switching	Fade 🔻	Fade In 0.5 s	Fade out 0.5 s
Image			
Brightness			50 % L]
Contrast			50 % LJ
Ad	d Before	Add After	Delete Program

- Name: View or change the program name.
- Status: Display the playback status of the current program.
- Keep: After this is enabled, when the playback switches to the program, it starts to play from the last position. After this is disabled, when the playback switches to the program, it starts to play from the beginning.
- Switching: Set the transition effect for program switching. The options include **Fade** and **Cut**.
- Fade In: When Fade is selected, set the duration for the current media to appear.
- Fade Out: When Fade is selected, set the duration for the current media to disappear.
- Brightness: Set the brightness of the images in the program.
- Contrast: Set the contrast of the images in the program.
- Add Before: Add a new program before the current program.
- Add After: Add a new program after the current program.
- Delete Program: Clear all the layer data in the program and delete the program.

Media Context Menu in Program

Right click a media in a program in the **Plan** area to show the context menu.

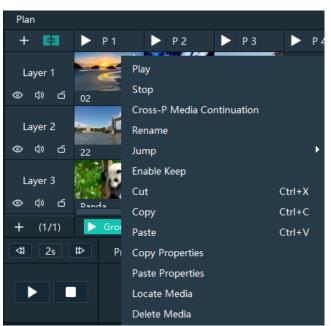


Figure 4-34 Media context menu

- Play: Play the current media.
- Pause: Pause the media playback. The media will be played from where it is paused next time when it is played.
- Stop: Stop the media playback. The media will be played from the beginning next time when it is played.
- Cross-P Media Continuation: When you want to play a media in the same layer of multiple continuous programs, you may need to add the same media file to each program. The added media will be played from the beginning when a new program starts, which may not be what you want to see. The cross-program media continuation function can perfectly solve this problem. After you have enabled this function for a specified media, the program will be played continuously but not played from the beginning when a new program is started.
- Cancel Continuation: After the cross-program media continuation function is enabled, this item is available and you can cancel the cross-program continuation settings.
- Rename: Change the name of the media in the program. The media name in the media library is changed at the same time.
- Jump: Set the jump playback mode of the current media after the media playback ends.
 - Loop: Loop the playback of the selected media in the program, and then will be displayed at the top right of the layer in the Plan area.
 - EOF: The current media will stop the playing and display the last frame after being played once, and will be displayed at the top right of the layer in the **Plan** area.
 - Stop: The playback will stop after being played once, and \square will be displayed at the top right of the layer in the **Plan** area.
 - Next Program: Jump to the next program after the current media playback ends.

- Jump to Specified Program: Specify the desired program and the specified program will be played automatically after the current program is completed.
- Enable Keep: When the playback switches to the media, it starts to play from the last position.
- Disable Keep: When the playback switches to the media, it starts to play from the beginning.
- Cut: Cut the media in the layer of the current program.
- Copy: Copy the media in the layer of the current program.
- Paste: Paste the copied or cut media.
- Copy Properties: Copy the properties of the selected media.
- Paste Properties: Paste the copied media properties to another media.
- Locate Media: Locate the current media file in the media library.
- Delete Media: Delete the selected media.

Program Media Properties

- Step 1 Select the desired media in a program.
- Step 2 Select the **Properties** tab on the right pane of the user interface to show the media property settings.

Figure 4-35 Media properties

Properti	ies Media Library	Input Sources
Name	02	
Time		
Duration	00:10:00:000	
Start Time	00:00:00:00:00	¢ ф
End Time	00:10:00:000	¢ ti
Delay	0 0 :0 0 :0 0 :0 0 0) C
Play		
🗉 Loop 🗆	∃EOF □ Stop □ Loop Times	
No Jump	Next Program	
Switching	Fade ▼ Fade In 0.5 s	Fade Out 0.5 s
Кеер		
Speed		1.0 🗘
Volume		100 % 4 »
Image		
Filling	Fill 🔻	Flip 🗆 H 🗆 V
Brightness		50 % tj
Contrast		50 % tj
Opacity		100 % LJ
Saturation		50 % LJ
Hue		50 % LJ
Y/C Stretch		

Table 4-6 Media property descriptions

Area	Function	Description
Name		View or change the media name.
Time	Duration	View the length of the media playing time.
	Start Time	Set the start time of the media playback. The start time value cannot be later than the media duration.
	End Time	Set the end time of the media playback. The end time value is later than the start time, and cannot be later than the media duration.
	Delay	Set the delay time of the media playback, that is, the duration the program is played before the media starts playing.
Play	Play	Set the playback mode of the current media during the playing time of the program.
		• Loop: Loop the playback of the selected media in the program, and then 🔄 will be displayed at the top right of the layer in the Plan area.
		 EOF: The current media will stop the playing and display the last frame after being played once, and will be displayed at the top right of the layer in the Plan area.
		• Stop: The playback will stop after being played once, and will be displayed at the top right of the layer in the Plan area.
		• Loop Times: Set the loop playback times of the current media, and is displayed at the top right of the layer in the Plan area. ("N" stands for the number of loop times).
	Jump	Set the jump playback mode of the current media after the media playback ends.
		 No Jump: No operation will be performed after the current media playback ends.
		• Next Program: Jump to the next program after the current media playback ends, and will be displayed at the top right of the layer in the Plan area.
		• If you have enabled the program jump, the group name and program name of the next program are displayed and solution will be displayed at the top right of the layer in the Plan area.
	Switching	Set the transition effect for switching the current media in the program layer. The options include Fade and Cut .
	Fade In	When Fade is selected, set the duration for the current media to appear.

[
	Fade Out	When Fade is selected, set the duration for the current media to disappear.
	Кеер	After this is enabled, when the playback switches to the program, it starts to play from the last position. After this is disabled, when the playback switches to the program, it starts to paly from the beginning.
	Speed	Set fast playback speed for the media.
	Volume	Adjust the output volume of the media.
		Click on the right of the volume to turn off the output volume of the layer.
Image	Filling	Set how the image is displayed in the selected layer.
		• Fill: The image fills the layer.
		• Proportional: The image is scaled and displayed in the layer according to its original aspect ratio.
	Flip	Set the display mode of the output image. If H and V are not selected, the output image is displayed normally, without any flipping effect.
		• H: Flip the image horizontally.
		• V: Flip the image vertically.
	Brightness	Set the overall brightness of the layer image. The value range is 0%–100%, and it defaults to 50%.
	Contrast	Set the overall contrast of the layer image. The value range is 0%–100%, and it defaults to 50%.
	Opacity	Set the transparency of the output image. The value range is 0% (totally transparent)-100% (opaque), and it defaults to 100%.
	Saturation	Adjust the colorfulness of the output image. The value range is 0%–100%, and it defaults to 50%.
	Hue	Set the relative degree of how bright or dark the output image is. The value range is 0%-100%, and it defaults to 50%.
	Y/C Stretch	After enabled, the output image is brighter in the bright areas and darker in the dark areas. This function is disabled by default.
Crop	Сгор	 Cropping method: Stretch: Stretch or shrink the output image. Crop: Crop the output image. Proportional: Scale down the output image. Proportional: Enabled: The unit for the cropping is the percentage. Disabled: The unit for the cropping is the pixel.

		T: Set the size of the shrunk/cropped/scaled down area at the top part of the media.
		B: Set the size of the shrunk/cropped/scaled down area at the bottom part of the media.
		L: Set the size of the shrunk/cropped/scaled down area at the left part of the media.
		R: Set the size of the shrunk/cropped/scaled down area at the right part of the media.
Keying	I	Subtract the specified color and remove it from the selected media.
		Check the box next to Key to enable the function.
		Four methods are available:
		• Click the eyedropper 🧷 and select the color to be removed on the screen.
		• Click the color block and select the color in the displayed Select Color window.
		• Next to #, enter the value of the color to be removed.
		• Double click the values next to RGB and enter their values, respectively, to precisely set the color.
Borders		Configure the size and color of the image borders.
		Check the box next to Borders to enable the function.
		• Set the border color. Four methods are available:
		 Click the eyedropper
		 Click the color block and select the color in the displayed Select Color page.
		 Next to #, enter the value of the desired color.
		 Double click the values next to RGB and enter their values, respectively, to precisely set the color.
		 Click the A value and enter a value to set the border opacity. The value range is 0% (totally transparent)-100% (opaque).
		• Set the border size. Two methods are available.
		 Percent: Set the percentage of the border size to the media.
		 Pixels: Set how many pixels the border occupies.

4.5.4 Set Program Jump

After the program editing is completed, set the program jump to realize the automatic continuous playback of the programs.

Before the program jump settings, you need to specify a media in each program as the timing base. After the playback of the selected media ends, the specified program will start to play.

- Step 1 Select the desired media in a program in the **Plan** area and right click the media to open the context menu.
- Step 2 Go to Jump > Jump to Specified Program and all the programs become selectable.

Plan				
+ 💷	▶ P1 ▶	2 🕨 P3 🕨 P4	Þ P	P5 🕨 P6 🕨 P7
Layer1 ⊚ ⊈) ⊡ (02 05	Play Stop Cross-P Media Continuation		
Layer 2		Rename		
	22 01	Jump	×	✓ Loop
		Open Keep		EOF
Layer 3		Cut	Ctrl+X	Stop
© 4) 6	Danda 02	Сору	Ctrl+C	Next Program
+ (1/1)	Group 1	Paste	Ctrl+V	
<11 2s tt	Progress	Copy Properties		
	▶ 02	Paste Properties		
		Locate Media		
	▶ Panda	Delete Media		

Figure 4-36 Program jump

Step 3 Select the desired program to complete the jump settings.

If you want to jump to a program in another group, click the name of the group where the program belongs, and then click the program name to complete the program jump between program groups.

Step 4 Repeat Step 1 to Step 3 to complete the jump settings for more programs.

After the program jump settings, 🖭 is displayed at the top right of the layer in the **Plan** area.

🖹 Note

When two programs become jump partners for each other, they will be played circularly.

4.5.5 Manage Program Groups

When you need a large number of programs, you can create groups to manage those programs. Each group supports 20 programs by default.

Step 1 Click + at the bottom left in the **Plan** area to add a program group.

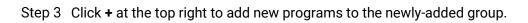
Figure 4-37 Add program groups



Step 2 Right click the group name and select **Rename** to give the group a new name.

Plan						
+ 63	▶ P1	▶ P2	▶ P 3	▶ P4	▶ P 5	
Layer 1		ê D	22			
© (⊅) ⊂	02	05	Grape			
Layer 2	- da		8 th			
© (\$) ⊂	22	01	01			
Layer 3 © 4) ப்	Danda	N3				
+ (1/1)	Group 1	- Rename				
⊄1 2s	⊅ Progr	Delete				

Figure 4-38 Rename groups



4.6 Playback Control

After the program editing, you can play the programs.

- Control the program playback.
 - Click **D** next to a program name in the **Plan** area to play the program.
 - Click III to pause the program playback.

(The **i**con turns to **ii** during the program playback. The **ii** icon turns to **a**fter the program is paused.)

- Click 🕨 to continue the program playback.
- Switch the playback content.

During the playback of a program, switch the playback content of a layer. For example, in the below figure, when **Program 1** is being played, double click the media in **Layer 2** of **P 2** to switch the playback of the media.

Figure 4-39 Playback control-1



• Control the media playback.

In the playback control area, control the playback of a single media or all the media.

Figure 4-40 Playback control-2



- Click or on the left side to play or pause the playback of all media in a program; click on the left side to stop the playback of all media in a program.
- Click or III next to a media name to play or pause the playback of the selected media.
- Click 🔟 at the top right, and the program media adopts the count up timer.
- Click 🙋 at the top right, and the program media adopts the countdown timer.
- Click at the top right, click the name of the program to be played synchronously and drag the media playback progress bar to play two media synchronously.
- Click 2s at the top left to set the fast-forward and rewind speed. The options include 2s, 4s, 8s and 16s. (The number refers to the playback speed and the unit is second.)
- Click 🕨 to set the fast-forward speed.
- Click to set the rewind speed.
- In the **Preview** area, click **Cut** or **Take** to send the preview program to the screen.

Figure 4-41 Preview playback



- Cut: Send the currently previewed program to the screen without transition effect.
- Take: Send the currently previewed program to the screen with the fade transition effect.
- If Keep is selected and the program is sent to the screen via Take or Cut, the program will be played from the current playback progress in the preview area.
 If Keep is not selected and the program is sent to the screen via Take or Cut, the program will be played from the beginning.
- FTB:

Click at the upper left of the main interface and the output image will fade to black within the time you set.

The time ranges from 0 to 5s and it defaults to 1s.

4.7 Save Projects

You can save the editing and settings as an independent project file for easy use in the future.

- Go to File > Save or Save As to save the current project file (*.pms3) to your local storage.
- Click 🛄 at the top left of the main interface to create a new project.
- Click I at the top left of the main interface to save the current project.
- Click I at the top left of the main interface to save the current project as a new project file.
- Click at the top left of the main interface to package the current project, such as all the used media or all the media files and project files, which is convenient for future use.



About This Chapter

This chapter introduces you to various settings of the software.

Overview

- System Settings
- Authorization
- Hotkey Binding
- MIDI Binding

5.1 System Settings

Set the startup-related settings. Go to **Settings > System Settings** to open the **System Settings** window.

5.1.1 General

Figure 5-1 System settings

	System Settings	×
General	Basic	
Display	□ Start software after power on	
Audio	Start software and open recent project after power on	
	Play project after opened	
Office	Auto save project Smin	
	Canvas	
	Presets:	
	Custom: #000000 R 0 ♀ G 0 ♀ B 0 ♀	
	OK Cancel	

Basic

- Start software after power on
 - Selected: Automatically launch Pilot MS3 when the system is started.
 - Deselected: Do not automatically launch Pilot MS3 when the system is started.
- Start software and open recent project after power on
 - Selected: Automatically open the last edited project when Pilot MS3 is launched.
 - Deselected: Display the default interface when Pilot MS3 is launched.
- Play project after opened
 - Selected: When you open a project, the project will be played from where it stopped playing last time.
 - Deselected: When you open a project, no media will be played and the project interface will be displayed.
- Auto save project

Set an interval that the system will automatically save the project. The value ranges from 1 to 30 min and it defaults to 5 min.

Canvas

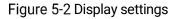
Set the background color of the editing area.

In the canvas settings area, change the background color of the editing area by selecting a preset color or customizing a color.

After the basic and canvas settings are done, click **OK** to apply the settings.

5.1.2 Display

System Settings	X
General Coding and Decoding Display Main Program Window: G1(NVIDIA Quadro K620) SDR • • (Take effect after restart) Audio General Office Fade In: 10.0s Fade Out: 10.0s Apply to All • MFPS MFPS	



Coding and Decoding

- Main Program Window: Select the graphics card for the rendering of the program main user interface. After the configuration, you need to restart the software.
- HDR: Enable the HDR rendering output.
- SDR: Enable the SDR rending output.

General

- Fade In: Set the time length from when the current media starts to play to when the media is fully displayed. The value ranges from 0 to 10 s. When the value is set to 0 s, there is no transition effect.
- Fade Out: Set the time length from when the current media starts to stop to when the media is stopped. The value ranges from 0 to 10 s. When the value is set to 0 s, there is no transition effect.
- Apply to All: Apply the duration of **Fade In** and **Fade Out** to all the programs. After the time length is set, if you do not click **Apply to All**, the transition will only be effective on the programs without the added media.
- MFPS: Real-time frame rate
 - Selected: Display the real-time frame rate at the bottom right on the media preview window.
 - Deselected: Do not display the real-time frame rate on the media preview window.

After the coding and decoding and general settings are done, click **OK** to apply the settings.

5.1.3 Audio

On the system settings window, click **Audio** to enter the audio settings tab page.

Figure 5-3 Audio settings

		System Settings	×
General	Channel:	扬声器 (Realtek(R) Audio) 🔹	
Display			
Office			
		OK Cancel	

Select an audio output channel from the drop-down list next to **Channel**. Click **OK** to complete the audio settings.

5.1.4 Office

Pilot MS3 supports playback of PowerPoint files. Before playback, configure the basic information of PowerPoint files.

On the system settings window, Click **Office** to enter the office settings tab page.

Figure 5-4 Office settings

System Settings								
General	PowerPoint							
Display	Resolution:	1920*1080 💌						
Audio	Slide Transition:	Animation Mode 🔹						
Office								
	□ Move between slides							
		OK Cancel						

- Resolution: Set the resolution according to the resolution of the PowerPoint file.
- Slide Transition: Set the transition of each slide of the PowerPoint document during playback.
 - Animation Mode: Show the animations of slides during playback.
 - Picture Mode: Do not show the animations of slides.
- Use arrow keys to switch between slides
 - Selected: Allow arrow keys to be used to switch between slides.
 - Deselected: Arrow keys cannot be used to switch between slides.

Click **OK** to complete the office settings.

5.2 Authorization

One authorization dongle corresponds to only one authorization file. When the dongle matches the authorization file, Pilot MS3 can be used normally.

Pilot MS3 supports the centralized management of multiple authorization files. When an authorization dongle is inserted, the system can automatically identify the corresponding authorization file to ensure the normal operation of Pilot MS3.

- Step 1 Import the authorization file.
 - 1. Go to **Settings > Authorization** to open the authorization settings window.
 - 2. Click **Import** at the bottom to open the authorization file importing window.
 - 3. Select the desired authorization file and click **Open**. The system will automatically import the file to Pilot MS3.

Figure 5-5 Authorization file

	Authorization		
Authorization List			
ID:1880038922			
ID:1250139482		Delete	
	Import		

Step 2 Check the authorization.

- 1. Insert the authorization dongle into the system.
- 2. The system will automatically identify the authorization file according to inserted the authorization dongle, and then display **In Use** after successful identification.

5.3 Hotkey Binding

Pilot MS3 supports custom hotkeys, and users can use those keys to operate Pilot MS3 simply and conveniently. Go to **Settings** > **Hotkey Binding** to show the hotkey settings interface, and the areas where you can carry out the hotkey binding are highlighted.

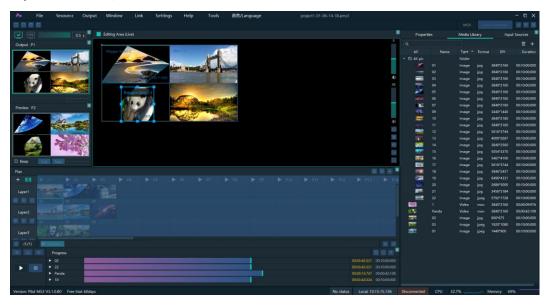


Figure 5-6 Hotkey binding

Click the target area, and then press the letter or number keys on the keyboard as needed to complete adding the hotkey.

After the settings, go to **Settings** > **Complete Binding** to make the hotkeys take effect and exit the hotkey binding interface.

🖹 Note

The **Ctrl+H** key combination is a built-in global hotkey which can quickly locate the mouse to the center of the main interface. When you set the hotkeys, this combination cannot be used.

For example:

Set the hotkey for Program 1 to Q.

- a. On the hotkey settings interface, click **Program 1**.
- b. Press the letter **Q** on the keyboard, and then a letter **Q** will be displayed on Program 1.



5.4 MIDI Binding

Bind the Pilot MS3 functions with the MIDI (Musical Instrument Digital Interface) keyboard. After a successful binding, you can control Pilot MS3 by using a MIDI keyboard.

5.4.1 Connect MIDI Keyboard

Prerequisites

- You have connected a MIDI keyboard to the computer where Pilot MS3 is installed.
- Make sure the computer where Pilot MS3 is installed have successfully recognized the connected MIDI keyboard.

Procedure

Step 1 Click **MIDI** at the top right of the user interface to open the MIDI connection settings window.

Figure 5-7 MIDI connection

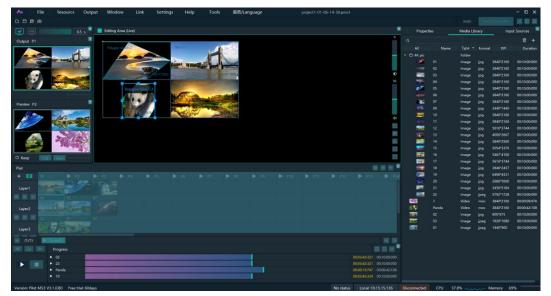
a subar dan ana dan dan ang Barang dan subar dan suba	MIDI Connection Settings			
MIDI List			¢,	
an an ar an an ar				
an an an an an an air an an an an ann a				
	Connect	Disconnect		

- Step 2 Pilot MS3 will automatically recognize all the connected MIDI keyboards.
- Step 3 Select the desired MIDI keyboard from the **MIDI List**.
- Step 4 Click **Connect** to complete the connection.

5.4.2 Bind MIDI

Step 1 Go to **Settings** > **MIDI Bindin**g to show the MIDI binding page. You can see all the available functions that can be bound with a MIDI keyboard are highlighted.

Figure 5-8 Available functions for MIDI binding



Step 2 Select the target function in Pilot MS3 and then press the desired key on the MIDI keyboard to complete the binding.

After a successful binding, go to **Settings** > **Complete MIDI Binding** to make the binding take effect and exit the binding page.



About This Chapter

This chapter introduces you the software-related and company-related information that may help you during the use.

Overview

- User Manual
- Software Updates
- About

6.1 User Manual

Go to **Help** > **User Manual** on the menu bar to open and view the product user manual.

6.2 Software Updates

Check the current version of the software. When a new software version is detected, the system will download the latest version and then you can follow the instructions to complete the update.

6.3 About

View the software version, license agreement and other company-related information.



About This Chapter

To better meet onsite playback requirements, Pilot MS3 has integrated some tools that can be used to edit video files.

Overview

• Transcoding Assistant

7.1 Transcoding Assistant

Pilot MS3 supports the conversion of the video coding format, code rate, resolution, and frame rate to satisfy the requirements of different playback scenarios.

Step 1 Go to Tools > Media Transcoding to open the transcoding assistant window.

Figure 7-1 Transcoding assistant

	Import Path	Encoding Format	Resolution	Duration	Progress					
1		Encoding Format	Resolution	Duration	Flogress	Save To C	:/Users/Nova0	05394/AppE	ata/Roam	ing
								Оре	n Char	nge
						Coding	Self-Adaptiv			
						Quality	Medium			
						Code Rate	Self-Adaptiv	e		
						Frame Rate	Self-Adaptiv	9		
						Resolutior	W: 1920	С н:	1080	
						(Resolutions g	reater than or	iginal will n	ot take efi	fec
						Audio	Кеер			
						optimized to	the videos and even resoluti t resolution op	ons only. (Picture file	
						Add	Delete		nscode	

Step 2 Click Add at the bottom to open the local folder where you can select the desired file.

You can also add multiple files by pressing the **Ctrl** key and selecting the files simultaneously.

- Step 3 Click Add to add them into the assistant.
- Step 4 Select the target video file.
- Step 5 On the right side, set the parameters of **Coding**, **Quality**, **Code Rate**, **Frame Rate**, **Resolution** and **Audio**.
 - Coding: Set the coding format of the transcoded video. The supported options include **Adaptive**, **h264**, **h265**, **VP9** and **hap**. When **Self-Adaptive** is selected, the video will be transcoded according to the original video coding.
 - Quality: Set the quality of the transcoded video. The supported options include **Low**, **Medium** and **High**.
 - High: Keep the quality of the transcoded video the same as the original video quality.
 - Low: The quality of the transcoded video is relatively blurred compared to the original video quality.
 - Medium: The quality of the transcoded video is between the high and low qualities.

- Code Rate: Set the code rate of the transcoded video. The supported options include **Self-Adaptive** and **Custom**.
 - Adaptive: The code rates before and after the transcoding are the same.
 - Custom: Set the desired code rate and the video will be transcoded according to the set value.
- Frame Rate: Set the frame rate of the transcoded video. The supported options include **Self-Adaptive**, **24**, **30**, **60** and **Custom**.
 - Adaptive: The frame rates before and after the transcoding are the same.
 - 24/30/60: The frame rate after the transcoding will be 24 Hz, 30 Hz, and 60 Hz, respectively.
 - Custom: Set the desired frame rate and the video will be transcoded according to the set value.
- Resolution: Set the resolution of the transcoded video.
 - W: Set the horizontal size of the transcoded video. The value defaults to 1920 and the recommended maximum value is 8192
 - H: Set the vertical size of the transcoded video. The value defaults to 1080 and the recommended maximum value is 8192.
 - If the set resolution after the transcoding is greater than the resolution of the original one, the resolution of the transcoded one will be the original resolution.
- Audio: Set how to deal with the audio that comes with the video. The supported options include **Keep** and **Remove**.
 - Keep: The transcoded video retains the audio in the video before transcoding.
 - Remove: The transcoded video display pure images without any audio.
- Step 6 Click **Transcode** and the system will automatically start the transcoding process.

When the progress reaches 100% in the **Progress** column, the transcoding completes. After the transcoding, the video will be saved in the path specified in **Save Path**.

- Click **Open** to open the local folder where you can view the transcoded files.
- Click **Change** to change the save path.
- Step 7 Click **Delete** at the bottom to delete the selected video files.



About This Chapter

This chapter helps you to configure the graphics card mosaic function.

Overview

- Set Main Display
- Change Resolutions
- EDID Management
- Output Mosaic

8.1 Set Main Display

Step 1 Right click on your desktop and select **Display settings**.

Figure 8-1 Display settings

	View	>
	Sort by	>
	Refresh	
	Paste	
	Paste shortcut	
	Intel® Graphics Settings	
2	NVIDIA Control Panel	
	New	>
	Display settings	
4	Personalize	

Step 2 Select a display to set it as the main display.

Figure 8-2 Multiple displays-1

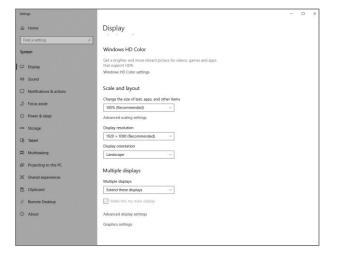
Settings		– D ×
Home Rind a setting P System Display Objective	Display Rearrange your displays. Setc 1 disale below to drange the settings for it. Press and hold (or select) a display, then drag to rearrange it.	Sleep better Night light can help you get to sleep by disking warmer colors at right, Select Night light settings to set things up.
Notifications & actions Focus assist Power & sitesp Storage Tablet	L 2 Menty Detect	Give feedback
러 Multitasking 과 Projecting to this PC 옷 Shared experiences	Night light Off Night light settings Windows HD Color	
Clipboard Clipboard Remote Desktop About	Can a brighter and more vibrant picture for videos, games and apps that apport HDIC. Windows HD Color setting: Scale and layout Change the size of text, apps, and other items	

Note

When multiple displays are connected, you can click **Identify** to show the number at the bottom left corner on each display.

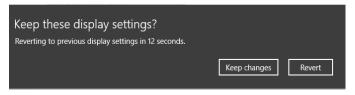
Step 3 For the Multiple displays item, select Extend these displays.

Figure 8-3 Multiple displays-2



Step 4 On the window that appears, select Keep changes.

Figure 8-4 Confirmation



Step 5 Check the box next to Make this my main display.

8.2 Change Resolutions

8.2.1 Set Standard Resolutions

Step 1 Right click on your desktop and select Display settings.

Figure 8-5 Display settings

	View Sort by Refresh	>
	Paste Paste shortcut	
E	Intel® Graphics Settings NVIDIA Control Panel	
	New	>
-	Display settings Personalize	

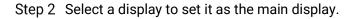
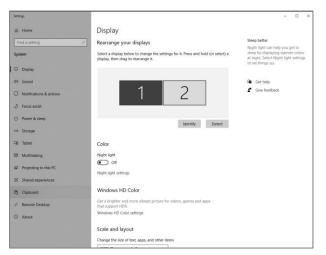


Figure 8-6 Multiple displays-1



Note

When multiple displays are connected, you can click **Identify** to show the number at the bottom left corner on each display.

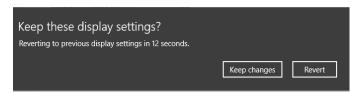
Step 3 For the **Display resolution** item, select the desired output resolution.

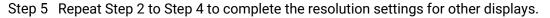
Figure 8-7 Multiple displays-2

Settings		20	×
ක Home	Display		
Find a setting ρ			
System	Windows HD Color		
C Display	Get a brighter and more vibrant picture for videos, games and apps that support HDP. Windows HD Colors estimats		
40 Sound			
Notifications & actions	Scale and layout		
D Focus assist	Change the size of text, apps, and other items 100% (Recommended)		
O Power & sleep	Advanced scaling settings		
🖙 Storage	Display resolution		
C8 Tablet	1920 × 1080 (Recommended) ~		
	Display orientation		
Di Multitasking	Landscape v		
Projecting to this PC	Multiple displays		
X Shared experiences	Multiple displays		
D Clipboard	Extend these displays		
) ^C Remote Desktop	Make this my main display		
③ About	Advanced display settings		
	Graphics settings		

Step 4 On the window that appears, select **Keep changes**.

Figure 8-8 Confirmation





8.2.2 Set Custom Resolutions

Step 1 Right click on your desktop and select NVIDIA Control Panel.

Figure 8-9 NVIDIA control panel

	View	>
	Sort by	>
	Refresh	
	Paste	
	Paste shortcut	
_		
	Intel® Graphics Settings	
2	Intel® Graphics Settings NVIDIA Control Panel	
E	, ,	>
	NVIDIA Control Panel	>

Step 2 On the NVIDIA Control Panel interface, go to Display > Change resolution.

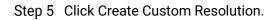
NVIDIA Control Panel		-		×
File Edit Desktop Display Help				
🕒 Back 🝷 🐑 🏠				
Select a Task B-3D Settings	Change Resolution	Resto	re Defau	A A
-Adjust image settings with preview -Manage 20 settings -Set Physic Configuration E: Disolary	You can adjust the amount of information appearing on the screen and reduce flickening. You can also choose the high definition country-specific signal for your standard-definition (SD) TV.	n (HD) for	mat if you	are u
Adjust desktop color settings Adjust desktop color settings Adjust desktop color settings Vere HOCP status Setting of path audio Adjust desktop size and position Adjust desktop size and position Set up multiple deplays Sereesoccity 30	L Steht the daplary you would like to change.			
	2. Choice the resolution. Carnetota: 1001 -			
	100, 132 = 000 100, 138 = 002 170, 138 + 02 170, 138 + 64 150, 72 = 40 V Catheren			
ivuten Information	3. Apply the following settings. Otae default color settings @Itae furthild refer vertices			~

Figure 8-10 Change resolutions

- Step 3 Select the desired display.
- Step 4 Click **Customize** to show the customize window.

Figure 8-11 Custom resolution-1

Customia	e .	×
	Select the resolutions that you want to add. You can create a custom resolution for a display that may not use a standard Windows resolution. Note that applying these resolutions may result in a temporary blank display.	
	Resolutions:	
	Click Create Custom Resolution to add items.	
	Enable resolutions not exposed by the display	
	Create Custom Resolution	
	OK Cancel	



- Step 6 Read the disclaimer information carefully and click **Accept** to show the **Create Custom Resolution** window.
- Step 7 Select the desired display.

Figure 8-12 Custom resolution-2

Select displays:				Identify displays
Display		ID	Current resolution	
Quadro K620				
LG Electronics LG F		1	1920 x 1080 at 50H	
	-ULL HD (2 0T 2)	2	1920 x 1080 at 50⊦	iz (32-bit)
Resolution settings:				Import settings
Display mode (as reported	d by Windows)			inportoctarigo
Horizontal pixels:	1920 ≑		Vertical lines:	1080 ≑
Refresh rate (Hz):	50 \$		Color depth (bpp):	32 ~
Scan type:	Progressive	\sim		
Timing				
Standard: C	VT reduced blank	\sim		
	Horizontal		Vertical	
Active pixels:	1920 🐥		1080 🔹	
Front porch (pixels):	48 🐥		3 🔺	
Sync width (pixels):	32 4		5 🔶	
Total pixels:	2080		1106 🗘	
Polarity:	Positive (+)	~		
			Negative (-)	Pixel clock:
Refresh rate:	55.30 KHz		50.000 🜩 Hz	115.0240 MH
			(49.000 to 51.000)	

- Step 8 Set the horizontal pixels, vertical lines, refresh rate and scan type.
- Step 9 Click **Test** and then click **Yes** on the window that appears.

Figure 8-13 Confirmation



Figure 8-14 Custom resolution-3

Customize	×
Select the resolutions that you want to add. You can create a custom resolution for a disple that may not use a standard Windows resolution. Note that applying these resolutions may result in a temporary blank display.	
Resolutions:	
Click Create Custom Resolution to add items.	
Enable resolutions not exposed by the display	
Create Custom Resolution	
OK Cancel	

Step 10 Click **OK** to complete the custom resolution settings.

After a custom resolution is created successfully, it will appear in the custom area as shown in the figure below.

Figure 8-15 Custom resolution-4

NVIDIA Control Panel		- (D X
File Edit Desktop Display Help			
🔇 Back 🝷 🐑 🛛 🐔			
Select a Task	Change Resolution		· · · · ·
-Adjust image settings with preview -Manage 3D settings -Set PhysiX Configuration E-Display	You can adjust the amount of information appearing on the screen and reduce Rickering. You can also choose the high def country-specific signal for your standard-definition (SD) TV.	Restore D intion (HD) format	_
- <u>Springer containon</u> - Adjust desition color settings - Adjust desition color settings - Neuer HOCP status - Set up objetial audio - Adjust desition size and position Adjust desition size and position	Select the dupler year would like to change. Selection of the sel		
-Set up Hereoscopic 30 Yew rating far games Yew rating far games Adjust video color settings Adjust video image settings Adjust video image settings Wew system topology Set up Moseic	2 Chonse the resolution. Connector: (GBB 1054 - 107		
	■ (Block)(1 (1 (1 (2 (2 (1 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2		
	Custome 3. Apply the following settings. O use defails call and settings @ use INTERT and settings		

8.3 EDID Management

After the display resolution settings, you need to manage the EDID for precise identification of display properties and to avoid the on-site screen display disorder.

Load EDID

The procedure of how to load the EDID is as follows.

Step 1 Right click on your desktop and select NVIDIA Control Panel.

Figure 8-16 NVIDIA control panel

	View	>
	Sort by	>
	Refresh	
	Paste	
	Paste shortcut	
	Intel® Graphics Settings	
2	Intel® Graphics Settings NVIDIA Control Panel	
E		>
	NVIDIA Control Panel	>

Step 2 On the NVIDIA Control Panel interface, go to **Workstation > View system topology**.

Figure 8-17 NVIDIA control panel

and the second				
View System Topol	logy			
the states				
The sage shows the deplace and graphics a	unb comented with	the sudies		
- Egrand al 🙆 Batheat				
Messic Displays				
System topology	Sinter	Settings		
deplaces				
Configuration		Lx 2 Topology		
tage settings Resolution, releash rate		5840 + 1080 pi	sels. 62.00 Hz	
Displays and Graphics Cards				
System topology	Status	Settings		
bate Dystem				
Driver version		452.57		
Wartical sync	0	3D Application	sectroled	
3D Stereo		Disabled		
Quadro P2000 (1 of 2)				
DisplayPort (4)		Not connected LDD (Monitor)	Max-Display Coving (Disabled)	
HOME		Connected: 15 IDID (Monitor)	Electronics LG FUIL HD (2 of 2) Math-Display Coning (Dicabled)	
ChapleyPort (2)		Not connected		
			Malk Display Cloning (Disabled)	
DisplayPort (1)		Not connected		
			Matt-Display Coving (Disabled)	
SU Mode		Disabled		
Usege Mode		WOOM		
Total memory		21499 MB		
Memory Ine		4863 N08		(Mare
E LG Electronico LG PULL HD			eris, 60.00 Hz, 508, 124 (020)	
🗄 Resolution, reliesh rate , r	totor de-	1922 1, 5080 pi Horizontal (220		
Active		1925	1000	
ACTIVA BOLINA		6	0	
East perch		44	4	
Same width		44	5	
Back porch		145	28	
Polarity		Position (+)	Positive (+)	
EDID starter		Macillan	1	
OS Screen Identifier		1		
🙂 🛲 Qaastre #7X S000 (2 of 2)				
m DisplayPort (4)		Not connected	Math-Display Cloning (Disabled)	

Step 3 Click **EDID (Monitor)** next to a desired output connector of the current graphics card to show the EDID management window.

Figure 8-18 EDID (Monitor)

NVIDIA Control Panel File Edit Desktop Workstation He	la la				
3 Back - 3					
Select a Task					
iii 30 Settings	View System Topolog	У			
-Adjust image antitrigs with preview -Manage 3D settings					
Change Heakdon	This page shows the displays and products cards of	othe bebannoo	this system.		
- Adjust dealing over settings	-D- Effective C Brunn				
- View HDCP status	Hosaic Displays				
-Set up digital autilit -Set up multiple displaye	System topology	Status	Settings		
- Still the multiple bigsays	🗉 🧱 Mosaic Displays				
-Adjust video color settings	Configuration		1.s.2.Tepplogy		
Adjust video inage onttrigs	Resolution, refresh rate		3840 × 1080 pixel	s, 60.00 Hz	
view surflers topology	Displays and Graphics Cards				
-Set up Mosarc	System topology	Status	Settings		
-Change ECC state Nanage GPU Utilization	E System				
The second se	Driver version		452.57		
	Vertical sync	0	10 Application con	trolled	
	3D Stereo		Disabled		
	E E Quadro P2000 (1 of 2)				
	DisplayFort (4)		Not connected EDID (Monitor), M	uti-Display Cloring (Disabled)	
	HDMI			chronics LG FULL HD (2 of 2) WE Display Cloning (Disabled)	
	DisplayPort (2)		Not connected	ulti-Display Cloning (Disabled)	
	DisplayPort (1)		Not connected	uti Singlay Cloning (Disabled)	
	SU Mode		Disabled		
	Usage Mode		WDDM		
	Total memory		21459 MB		
	Memory free		4863 MB		More
	II MILG Electronics LG PULL HD (2 o	620			9
	E Resolution, refresh rate, color		1920 x 1080 minut	60.00 Hz SDR (24 (080%)	
			Horizontal (2200)	Vertical (1125)	
	Active		1920	1080	
	Border		0	0	
	Front porch		85	4	
	Sync width		44	5	
	Back porch		148	3	
	Polarity		Positive (+)	Positive (+)	
	FDID source		Monitor	comme (s)	
	OS Screen Identifier		PENDING a		
	B Quadro RTX 5000 (2 of 2)				
Sustem Information	DisplayPort (4)		Not connected	ulti-Display Cloning (Disabled)	

Figure 8-19 Manage EDID

	Not Connected	VGA (Analog)	
	Not Connected	VGA (Analog)	
Electronics LG FUL	Monitor	DisplayPort (Digital)	
	Not Connected	VGA (Analog)	
1.2 (2 of 3)	Monitor	DisplayPort (Digital)	
1.2 (3 of 3)	Monitor	DisplayPort (Digital)	
1.2 (1 of 3)	Monitor	DisplayPort (Digital)	
Electronics LG FUL	Monitor	DisplayPort (Digital)	
	Not Connected	VGA (Analog)	
	1.2 (2 of 3) 1.2 (3 of 3) 1.2 (1 of 3)	Not Connected Monitor Not Connected Not Connected L2 (2 of 3) Monitor L2 (3 of 3) Monitor L2 (3 of 3) Monitor L2 (3 of 3) Monitor	Not Connected VGA (Analog) Electronics LG FUL Monitor DisplayPort (Digital) Not Connected VGA (Analog) L2 (2 of 3) Monitor DisplayPort (Digital) L2 (3 of 3) Monitor DisplayPort (Digital) L2 (1 of 3) Monitor DisplayPort (Digital) L2 (1 of 3) Monitor DisplayPort (Digital) L2 (1 of 3) Monitor DisplayPort (Digital)

- Step 4 Click **Export EDID** and then name the exported EDID file in the window that appears.
- Step 5 Select the **Load** tab to show the EDID loading window.
- Step 6 Click **Browse** and then select the EDID file exported in Step 4.
- Step 7 In the Select Connector to force EDID area, select the desired connector.

Figure 8-20 Load EDID

	ile:		Bro	wse		
lect	Connector to forc	e EDID:				
	Connector	Display	Status	Video signal	Comments*	^
Qu	adro P2000(1)					
	DisplayPort (1)		Not Connected	VGA (Analog)		
	DisplayPort (2)		Not Connected	VGA (Analog)		
	HDMI	LG Electro	Monitor	DisplayPort (Dig		
	DisplayPort (4)		Not Connected	VGA (Analog)		
Qu	adro RTX 5000	(2)				
	HDMI	DP1.2 (2 o	Monitor	DisplayPort (Dig		
	HDMI	DP1.2 (3 o	Monitor	DisplayPort (Dig		
	HDMI	DP1.2 (1 o	Monitor	DisplayPort (Dig		
	1100.0	LC Electro	Monitor	DiselsuBart /Dia		>

- Step 8 Click Load EDID.
- Step 9 On the dialog box that appears, click **OK** to complete loading the EDID.

Figure 8-21 EDID loaded successfully



Step 10 Go back to **Workstation** > **View system topology** to check the EDID status. If the original **EDID (Monitor)** changes to **EDID (File)**, the EDID is loaded successfully.

NVIDIA Control Panel Ele Edit Desktop Workstation H	alo				
Qirci - O G					
Select a Task G: 30 Settings	View System Topology				
- Aduat image settings with preview					
-Hanage ID settings -Set Physic Conflouration	This page shows the displays and graphics cards corre-	acted withe	the system.		
E Citoley					
- Change resolution - Adjust desktop color settings	🕂 Espand al 🕐 Befresh				
Rotate deplay	System topology	Status	Settings		
-Vev HDCP statue	E System				
-Set up digital audio Advant devites size and position	Driver version		452.57		
Get up multiple displays	Vertical sunc	0	10 Application con	troled	
Aduat video calva settings	3D Steveo	-	Disabled		
Aduat index maps arthrop	E Cuadro P2000 (1 of 2)				
D Workstation	DisplayPort (4)	-	Connected DP1.2	(5 of 5)	
Set up Monoc	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		EDID (File), Multi-D	Sapley Cloring (Disabled)	
Change ECC state	DisplayPort (3)	-	Connected DP1.2	(4 of 5)	
Hanavar GPU Lititiation			EDID (File) Multi-D	Stabley Cloring (Disabled)	
	DisplayPort (2)	-	Connected DP1.2	(2 of 5)	
	. 2253 9265		EDID (Flat, Multi-D	Napley Cloring (Disabled)	
	DisplayPort (1)		Connected DP1.2		
		-	LOID (Files, Multi-D	Sisplay Cloring (Disabled)	
	SLI Mode		Disabled		
	Usage Mode		WDDM		
	Total memory		21459 M8		
	Memory free		4398 MB		More More
	III. CP1.2 (3 of 5)				
	Resolution, refresh rate , color de.			、60.00 Hz, SDR (24 位間音)	
	1000		Horizontal (4256)		
	Active		4095	2160	
	Border		0	0	
	Front parch		48	1	
	Sync width		32	10	
	Back porch		80	32	
	Polarity	-	Positive (+)	Positive (+)	
	EDID source		Ele		
	OS Screen Identilier HDCP		1		
		-	Not supported		
	🕀 🌉 091.2 (2 of 5)				
	Resolution, refresh rate , color de.			60.00 Hz. SDR (24 位統治)	
	Active		Horizontal (4256) 4096	Vertical (2205) 2160	
	Active Border		4096	2160	
	Front porch		48	0	
Custon Information	Front porch Sync width		48	10	
and an end of the second s	sync width		N	19	

Figure 8-22 EDID loaded successfully

Unload EDID

The procedure of how to unload the EDID is as follows.

- Step 1 On the NVIDIA Control Panel interface, go to **Workstation > View system topology**.
- Step 2 Click **EDID** (File) to show the EDID management window.

Figure	8-23	EDID ((File))
--------	------	--------	--------	---

NVIDIA Control Panel le Edit Desktop Workstation He	in the second				
3 tes - O 6	*				
ecta Tak		_			
TO Settings	View System Topology				
- Adjust image settings with preview	Contraction of the second seco				
- Hanage ID settings - Set Physic Conflouration	This page shows the displays and graphics cards connect	cled within	the system.		
Display					
- Change resolution	🕂 Egoard al 🕐 Bettesh				
Adjust desktop calor settings Robote deplay	System topology	Chatro	Settings		
-Vew HDCP statue	B System	Saint	security .		
-Set up digital audio Aduat devites size and position	Driver version		452.57		
Set up multple deplays	Vertical sure		10 Application cor	studied	
Video	3D Stereo	-	Disabled	COLUMN STREET	
Adjust video color settings Adjust video image settings	E Cuadro P2000 (1 of 2)		100000		
Workstation	DisplayPort (4)		Connected DP1.2	a da	
Very system topology	ConfordAction (w)		FOID (File) Multi-D	Sapley Cloning (Disabled)	
-Set up Mosaic -Change ECC state	DisplayPort (3)		Connected DP1.2		
Harvest GPU Utilization	Displayrort (3)			(4 or s) Sispley Cloring (Disabled)	
	DisplayPort (2)		Connected DP1.2		
	Displayvort (2)			(2 of 5) Stoley Claring (Disabled)	
			Connected DP1.2		
	DisplayPort (1)			(3 of 5) Display Cloring (Disabled)	
	SU Mode	-	Disabled		
	Usage Mode		WDDM		
	Total memory		21459 MB		
	Memory free		4398 MB		More
			4306 MB		· More
	B Besolution, refresh rate , color de			50.00 Hz SDR (24 (28)A)	
	El Resolution, refresh rate , color de				
	Active		Horizontal (4256) 4096	Vertical (2205) 2160	
	Border		8090	0	
			48	3	
	Front porch		48	10	
	Sync width				
	Back porch		80	32	
	Polarity	-	Positive (+)	Positive (+)	
	EDID source		Ele		
	OS Screen Identifier		3		
	HDCP	-	Not supported		
	0 001.2 (2 of 5)				
	B Resolution, refresh rate , color de			a. 60.00 Ha. SDR. (24 代献帝).	
	1 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1			Vertical (2205)	
	Active		4096	2160	
	Border		0	0	
	Front porch		48	1	
System Information	Sync width		32	10	

Step 3 Select the **Unload** tab and then select the desired connectors.

Figure 8-24 Unload EDID

ect	Connector to Unio	Display	Status	Video signal	
_		Dispidy	Status	video signal	
Qu	adro P2000(1)				
	DisplayPort (1)		Not Connected		
	DisplayPort (2)		Not Connected	· 27	
		LG Electronics		DisplayPort (Digital)	
	DisplayPort (4)		Not Connected	VGA (Analog)	
Qu	adro RTX 5000	(2)			
	HDMI	DP1.2 (2 of 3)	Monitor	DisplayPort (Digital)	
	HDMI	DP1.2 (3 of 3)	Monitor	DisplayPort (Digital)	
	HDMI	DP1.2 (1 of 3)	Monitor	DisplayPort (Digital)	
	USB-C	LG Electronics	Monitor	DisplayPort (Digital)	
	DisplayPort (4)		Not Connected	VGA (Analog)	

- Step 4 Click Unload EDID.
- Step 5 After the EDID is unloaded successfully, click **OK** on the dialog box that appears.

Figure 8-25 EDID unloaded successfully

EDID successfully unloaded.
ОК

Step 6 Go back to **Workstation** > **View system topology** to check the EDID status. If the **EDID** (**File**) changes to **EDID** (**Monitor**), the EDID is unloaded successfully.

8.4 Output Mosaic

The graphics card supports connector mosaic output. The output connector mosaic must observe the following rules.

- The graphics card does not support irregular mosaic layouts. The mosaic layout must be 1×2, 1×3, 1×4, 2×2, 2×1, 3×1 or 4×1.
- The output resolutions of the graphics card connectors that are used for mosaic must be the same.
- Step 1 Right click on your desktop and select NVIDIA Control Panel.

Figure 8-26 NVIDIA control panel

	View	>
	Sort by	>
	Refresh	
	Paste	
	Paste shortcut	
	Intel® Graphics Settings	
E	Intel® Graphics Settings NVIDIA Control Panel	
E	, ,	>
	NVIDIA Control Panel	>

Step 2 On the NVIDIA Control Panel interface, go to Workstation > Set up Mosaic.

Be Edit Delgtop Workstein Help Stack - S 6				
Control - Contr	NVIDIA Control Panel			
Part of the second				
Provement Provement	😋 Back 🝷 🜍 🛛 🟠			
Control to the start before the start	Select a Task	Contrast of the second		
Image: Solution of the solution		Set Up Mosaic		
Section Configure 0 Section Configure 0 Image: Section Configure 0 Section Configure 0 Image		Constant of Consta		
Point Point of the set of th	Manage 3D settings Set Dhurit Configuration	Mosaic technology creates a single des	ktop from multiple displays and GPUs. Bezel correction is available to o	reate a seamless image.
 And Advances and Series and Se	Display			
 A constraint of the state of th				
Section 2 and 2 an				
Image: Section of the strategy Section of the str		Create new configuration		
Lot and the state of the state				
Constant to set (product)	Set up multiple displays			
Section through the section of				Lidentity displays
Orw. Date Strategy Orw. Datesys Sinc. coexistry Orw. Datesys Orw. Datesys Sinc. coexistry Ourse SCT. Since No No		Surr Canability Information		
Constructions Constr				
Contract STG Come		GPU/ Displays		
Our de Str. 2000 RE 2 OF J 3.0712 4.0713 5.15 Bitter series (# PALL KO Envelations to art (p Mouse: - el diagter muit fran et leut er de dater terre (ploching al advance) frang personiers (n common.	- Change ECC state		1	
2.04.2 3.04.2 4.04.2 4.04.2 4.04.2 4.04.2 4.04.2 4.04.4	Manage GPU Utilization	1. LG Electronics LG PULL HD		
1.0F12 1.0F12 1.0F12 1.0F100 service 16 P021 v0 Conditions to set (p. House:		Quedro RTX 5000	1	
4 OF 2 1.1.6 Becterios LEPALL 40 Constants to and up Protect: 4 displays multi-free a failure or display terrey (probably all advanced transparameter) in common.		2. DP 1.2		
 Li di Bectronos Li PALL HO Conditore la seria (Historia: Al diseira multi ber at last me desire torre (inducto gla delanza di tereg parameter (in common. 		3. DP 1.2		
Condense to set (g-Noae): - 4 displays much here at least are display here (pickshig at ablanced trace) paramiter (in commo.		4.0P1.2		
All displays must have at least one display timing (including all advanced timing parameters) in common.		5. LG Electronics LG PULL HD		
All displays must have at least one display timing (including all advanced timing parameters) in common.				
All displays must have at least one display timing (including all advanced timing parameters) in common.				
All displays must have at least one display timing (including all advanced timing parameters) in common.				
All displays must have at least one display timing (including all advanced timing parameters) in common.				
All displays must have at least one display timing (including all advanced timing parameters) in common.				
All displays must have at least one display timing (including all advanced timing parameters) in common.				
 You may use NVIDLA approved adaptors to connect the GRAs to the displays. 		 All displays must have at least one display 	r timing (including all advanced timing parameters) in common.	
		You may use NVIDIA approved adaptors	to connect the GPUs to the displays.	
		1		

Figure 8-27 Set up mosaic

Step 3 Click Create new configuration to show the mosaic settings window.

Figure 8-28 Mosaic settings

osaic Displays	Topology: 1 x 2		
Select topology 2. Select displays 3. Arrange displays	Laws a second second		
Select topology 2. Select displays 3. Arrange displays	4. Adjust overlap and bezel correction		
Number of displays:	Configuration Name		
2 ~	Mosaic setup		
Topology (rows x columns):			
1 × 2 ×			
Orientation of displays:			
Landscape ~			
Maximum GPU Topology			
Minimum GPU Topology			
(Finimum de d'ropology			
I am using recommended connections for the select	ted topology.		
Enable Mosaic			
elected topology:			
elected topology:			_
elected topology:		_	
elected topology:			
elected topology:		-	
eected topoogy:			
eected topology:			
eex teo topoogy:		٦	
eexist topogy:		٦	
eenten topoogy:		٦	
		٦	
eectes topooy:		٦	
		٦	
		Back Nex	

- Step 4 Select the screen number from the drop-down list of **Number of displays**.
- Step 5 Select the screen mosaic layout from the drop-down list of **Topology (rows x columns)**.

Step 6 Select the screen orientation from the drop-down list of **Orientation of displays**.

Step 7 Click **Next** to proceed.

Figure 8-29 Select displays

NVIDIA Mosaic set up		
osaic Displays		Topology: 1 x 2
Select topology 2. Select di	3. Arrange displays 4. Adjust	t overlap and bezel correction
isplays for Mosaic: (2 selecte Isplays Quadro P2000 1. LG Electronics LG FU Quadro RTX 5000 2. DP1.2 J. DP1.2 4. DP1.2 5. LG Electronics LG FU	Sync capability	Refresh rate: 66.00 Hz Resolution per digalay: 1920 x 1080 Total resolution: 1940 x 1080 paxels 2 displays are selected for Mosaic with sync.
		Go to next step to provide information about your display arrangement.
elected display sources:		
elected display sources:		

- Step 8 Select the connected displays and then select their refresh rate and resolution.
- Step 9 Click Next to proceed.

Figure 8-30 Arrange displays

NVIDIA Mosaic set up			Х
Mosaic Displays Topology: 1 x 2			_
1. Select topology 2. Select displays 3. Arrange displays 4. Adjust overlap and bezel correction			
Available display sources:			
2 0, ⁻ _{0,0}			
Topology:			
Total Resolution: 3840 x 1080 pixels			
Back Nex	ct	Finish	

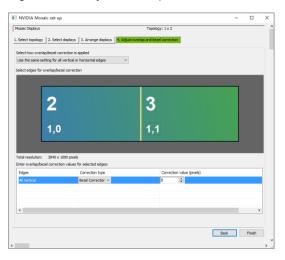
Step 10 Arrange the displays according to the screen arrangement and structure by dragging the available displays to the corresponding topology areas.

Figure 8-31 Arrange displays

NVIDIA Mosaic set up		-		>
Mosaic Displays	Topology: 1 x 2			-
I. Select topology 2. Select displays 3. Arrange dis	Server 4. Adjust overlap and bezel correction			
Display arrangement for Mosaic is complete.	. To enable Mosaic, click 'Apply'.			
	. To enable Mosaic, click 'Apply'.			
	. To enable Mosaic, dick Noply.			
	. To enable Mosaic, didi 'Apply'.	_		
Topology:	. To enable Mosaic, dick Vigoly'.		1	
Topology:	To enable Mosac, did Haaly.	_	1	
Topology:	To enable Mosac, did 1409/.		1	
Topology:	3		1	
Topology:	3		1	
	To enable Monaic, did Haari, 3 1,1			
Topology:	3]	
1,0	3			
Topology:	3	<u>åsoly</u>	Gree	

- Step 11 Click Apply and then click Yes on the confirmation window.
- Step 12 Click Next to proceed.

Figure 8-32 Adjust overlap and bezel correction



You can perform overlapping adjustment or bezel correction to the vertical or horizontal edges of the display as needed.

- 1. Select whether to use the same settings for all the vertical or horizontal edges of the display in the **Select how overlap/bezel correction is applied** area.
- 2. Select the desired edges and then enter the overlap or bezel correction values for the selected edges. Click **Apply** after the settings are done.

Step 13 Click **Finish** to complete the mosaic settings.

Figure 8-33 Mosaic completed

