Kompass FX2

Multimedia Playback Software

User Manual

Contents

1 **Overview**

1.1 Introduction

Kompass FX2 is a professional multimedia playback software developed by NovaStar. Together with the video or image processing device, it allows for professional management for LED screen playback. Featuring a simplified and friendly user interface, Kompass FX2 makes operations as simple as possible.

Kompass FX2 takes full advantage of the hardware decoding and rendering technologies of the professional graphics card, realizing smooth playback of multiple 4K videos of different formats. Besides, separated live and pre-edit modes greatly enhance the convenience and safety of video playback and control management. Kompass FX2 supports multi-layer and multi-program management, fade transition effect, quick picture rotation, and dynamic playback of PowerPoint files, thus undoubtedly becoming the ideal choice for a variety of fixed installation applications such as multimedia exhibition halls, conference rooms, data centers and more.

1.2 Features

- Simultaneous playback of 4x layers and 1x audio
- Visualized program arrangement and management
- Live and pre-edit modes
    - The program editing and playback are in sync in live mode
    - Edit the programs first before displaying them on the screen in pre-edit mode
- Media library management, including videos, pictures, PowerPoint files and audios
- Media file sorting
- Media file batch import
- NDI sources, website sources and stream media sources supported
- Media collection configurations
- Up to 1080p PowerPoint files supported
- Using a laser pointer for moving between slides in PowerPoint
- Playback progress management
- Program auto jump
- Configurable layer size and priority
- Main KV jumping settings
- Main media based playback progress management
- Crossfade on program switching
- Layer mask, cropping, keying, blurring and opacity adjustment
- Auto startup of built-in software on system power on
- Auto program playback on software startup
- Remote control via UDP or TCP/IP
- Controlled by a central control unit
- Controlled in VICP (Visual Intelligent Control Platform) developed by NovaStar

2 Software Installation and Activation

2.1 Software Installation

Requirements of Software Operating Environment

- CPU: 9th Generation Intel® Core™ i5 or later
- RAM: 16GB or greater DDR4 2666
- Graphics card: T400 or later discrete graphics card recommended
- HD space: 250G or larger SSD
- OS: Windows 10 Pro (64-bit)

Installing Software

The installation procedure of Kompass FX2 is the same as that of other software applications.

Step 1 Double click the program file (*.exe) and follow the instructions to proceed. On the **Select Additional Tasks** screen, select **Create a desktop shortcut** and click **Next**.

Step 2 Proceed to **Ready to Install** window and click **Install** to start the installation. After the installation process ends, click **Finish**.

Two application programs are installed during the installation process:

- Kompass FX2: The video playback and control application program
- NDI Sender: The NDI sender end that provides NDI inputs for Kompass FX2

Notes:

- It is recommended you turn off the anti-virus software and firewall in advance.
- During installation, if the anti-virus software or firewall prevents the installation, choose to allow the installation.
- If the software prompts you to restart after the installation, it is recommended you restart the software for normal operation.

2.2 Software Licensing

After Kompass FX2 is started, **Trial** is displayed at the top right, indicating the software is a trial version. If you want to obtain the license, please contact NovaStar sales engineer for purchasing the dongle or registration code.

In trial mode, the **Kompass FX2** text is displayed on the output.

Dongle detection rules are as follows:

- When the inserted dongle is recognized, **Trial** will disappear automatically and the output will not display the **Kompass FX2** text.
- Within 3 seconds after the dongle is removed, the software knows the dongle has been removed and prompts you that no dongles have been detected, and the software will again display the **Kompass FX2** text on the output in 5 seconds.

Figure 2-1 Dongle removed
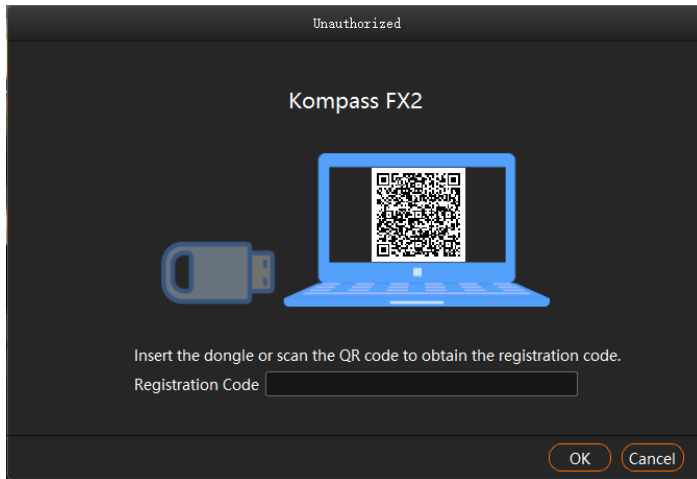
- When the dongle is inserted and recognized normally, the above window and the **Kompass FX2** text on the output will disappear automatically.

3 User Interface Introduction

After the software is started, 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

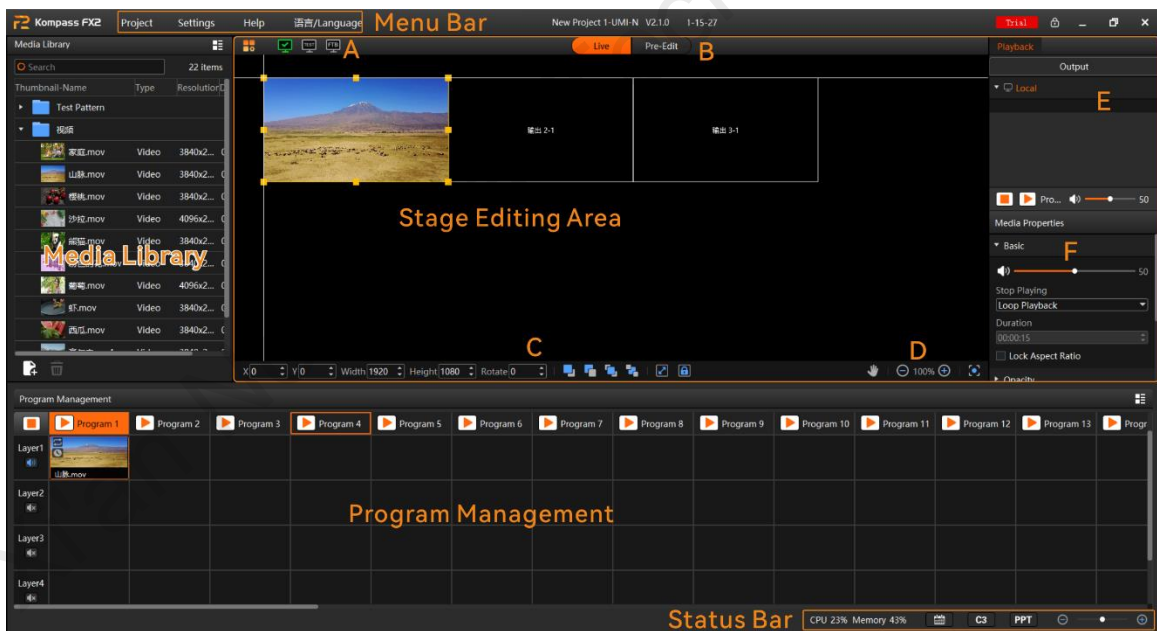Table 3-1 User interface area descriptions

Area	Item	Description
Menu bar	Project	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 file and all media in it for easy use in the future.
	Settings	Settings include system, output, audio, display mode and external

Area	Item	Description
		control settings.
	Help	• Use the transcoding assistant. • View and export the playback logs. • Open the user manual. • View the software information.
	语言 /Language	Change the UI language. The options include English and Chinese.
Media library		Add the desired media files, including videos, pictures, PowerPoint files and audios.
Stage editing area	Stage	• Preview the real-time playback content. • Edit the position and size of the added media.
	A	Output control buttons • : Pop up the output editing window. • : Enable the output screen and display the playback content on the screen. • : Disable the output screen. • : Close the test pattern and display the playback content. • : Open and display the test pattern. • : Disable the FTB function and display the playback content. • : Make the output fade to black.
	B	Two editing modes are provided. • Live: The playback editing process is displayed on the output screen in real time. • Pre-edit: The playback editing process will not be displayed on the output screen. After you have completed the editing, click at the top right in the stage editing area to send the playback content to the output screen and play the content from the beginning.
	C	Quickly adjust the layers. • X: Set the initial horizontal coordinate of the layer. • Y: Set the initial vertical coordinate of the layer. • Width: Set the width of the layer. • Height: Set the height of the layer. • Rotate: Set the angle by which the layer rotates clockwise. • : Bring the selected layer forward. • : Send the selected layer backward. • : Bring the selected layer to front. • : Send the selected layer to back. • : Make the selected layer fill the output area. • : Lock the stage editing area.
	D	Adjust the output area display. • : Pan the stage editing area.

Area	Item	Description
		• ⊖ 100% ⊕: Zoom in or out the stage editing area. • ⦿: Make the stage start at the origin and all layers locate within the visible range in the stage editing area.
	E	Control and view the playback progress. • ↻: Count up timer • ↺: Count down timer • ▶: Start the playback. • ⏸: Pause the playback. • ⏹: Stop the playback. • 🔊: Adjust the volume.
	F	Set the media properties, including the layer basic info, opacity, quality, cropping and transition effect.
Program management area	Program n	View the program name.

	Layer and layer status	• Layer n with/without audio: Displays the layer name and indicates whether the layer comes with audio or not.
		• 🔇: Turn off the layer audio.
		• 🔊: Play the layer audio.
		• Icons on the layer:
		  – 🕐: This icon indicates the layer is the main media and the timer in the **Playback Progress** area is based on this layer.
		  – ⇥: After the playback of the media in the current layer is completed, the layer stops the playback and displays the last frame of the playback image.
		  – 🔁: Within the timing period for the main media, the current layer media is in loop playback mode.
		  – ▣: Within the timing period for the main media, the audio media playback will be stopped after it is finished.
		  – Lock: The layer is locked.

Status bar		• ⊖—•—⊕: Increase or decrease the program column width. • PPT: Enable the PowerPoint file playback mode. You can use the laser pointer buttons or keyboard buttons to move between slides. • PPT: Disable the PowerPoint file playback mode. • C3: Disable the C3 control. • C3: The C3 control is enabled. • 📅: The scheduled playback is enabled. • 📅: The schedules playback is disabled. • Display the CPU and memory usage.

4　Applications

Figure 4-1 Kompass FX2 applications
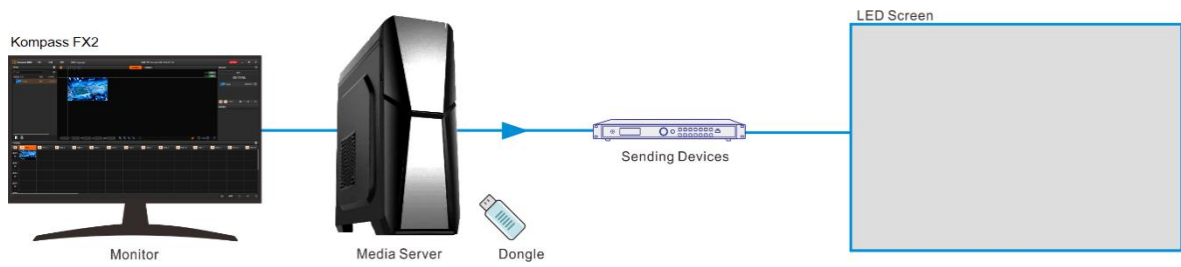
5　Project

Kompass FX2 allows you to add media files, edit the programs and set the program playback sequence and media properties. After all these are done, you can save the project as an independent project file to your local storage for future use.

5.1　Create New Projects

There are two methods to create a new project.

- Start Kompass FX2 and the software will create a new project automatically.
- Go to **Project** > **New** to create a new project.

5.2　Edit Outputs

Kompass FX2 supports output editing, allowing you to partition the output screen and perform output connector mosaic, thus realizing a mosaic output of desired connectors and partitions.

Click ⬛ to open the **Edit Output** window.

Figure 5-1 Edit output
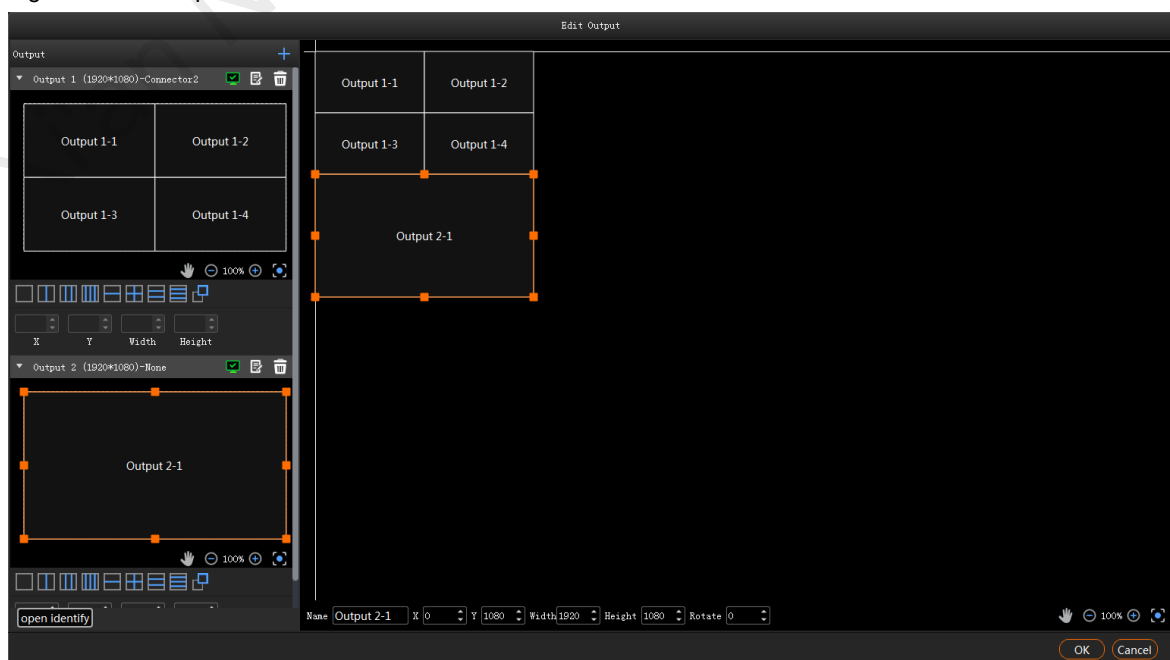
5.2.1   Add Outputs

Add and bind outputs automatically

After startup, Kompass FX2 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.
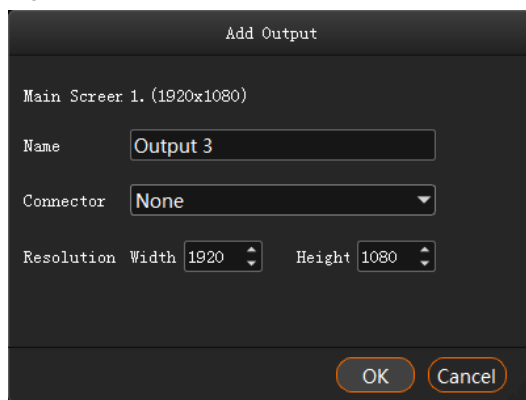
When you need to change the binding relations between the output connectors and screens, click ![icon] to change the output name, connector binding and resolution.

Add and bind outputs manually

When more graphics cards are installed on the control PC or you want to change the connector quantity in a saved project file, you can select to add the outputs manually.

Click ╋ in the output list area to add an output.

Figure 5-2 Add and edit outputs

- Name: Change the current output name.
- Connector: Select the desired output connector from the drop-down list or change the connector binding relation.
- Resolution: Set the desired output width and height.

5.2.2   Configure Regular Screens

Step 1   Click ![icon] to open the **Edit Output** window.

Step 2   Organize the output connectors on the right via drag and drop operations to suit the loaded screen.

Figure 5-3 Connector layout
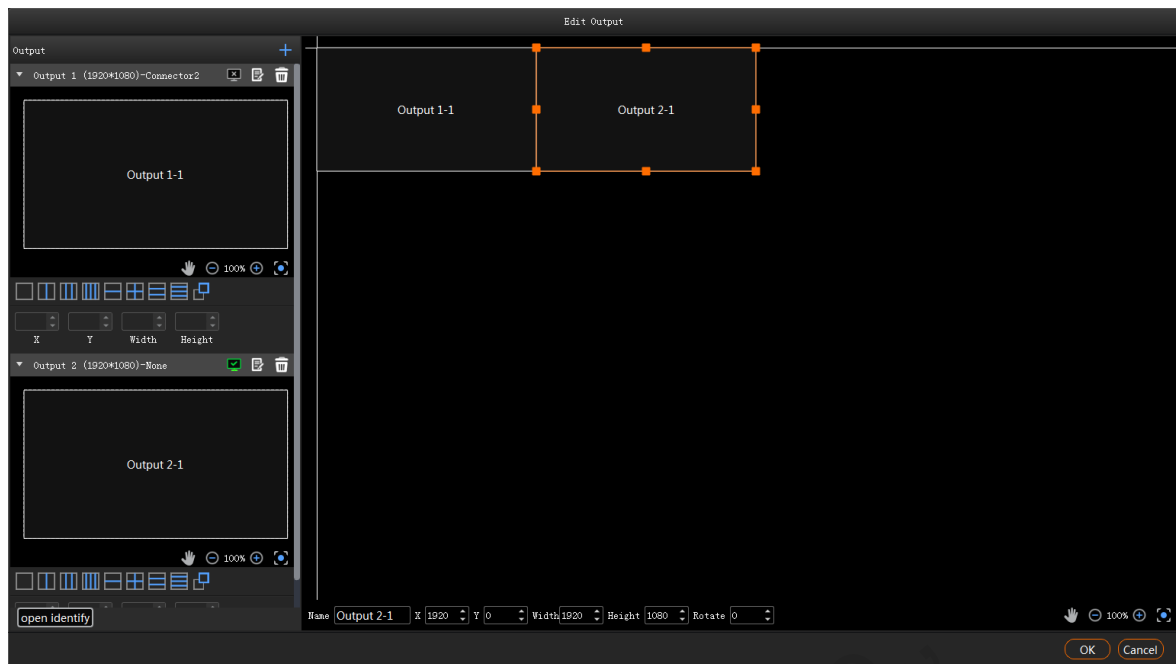
Step 3   Click **OK** to complete the editing.

Note:

In the output editing area, click and drag to select multiple outputs to adjust them simultaneously.

5.2.3   Construct Irregular Screens

When you want to output an image of an irregular shape, you can partition the output and reorganize the sub-outputs to suit the loaded screen.

Output Partitioning

This function divides an output into several sub-outputs, breaks up and reorganizes the outputs, realizing easy reconstructing and management for irregular output images.

You can realize the output of an irregular image via the reorganizing of regular output connectors.

Figure 5-4 T-shape output image
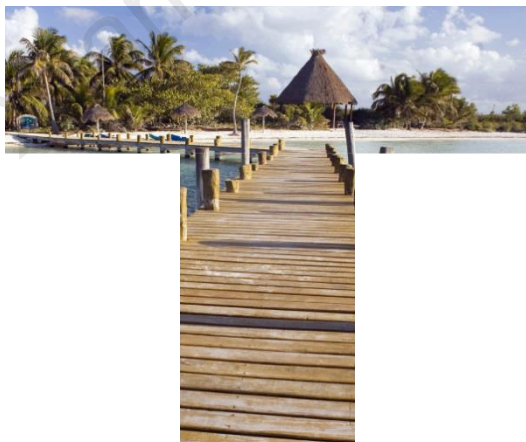
Step 1   Select a partition layout in the output list area.

Figure 5-5 Output partitioning
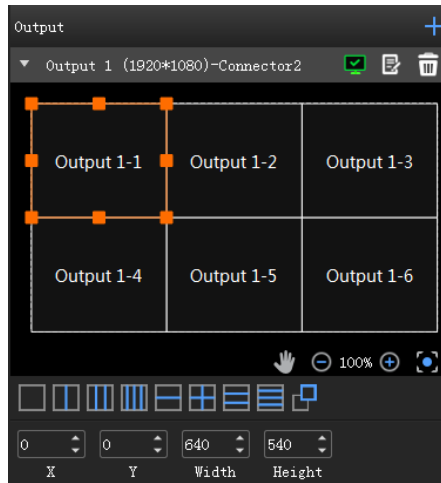
- ☐ : 1x sub-output

- ☐☐ : 2x sub-outputs in horizontal position

- ☐☐☐ : 3x sub-outputs in horizontal position

- ☐☐☐☐ : 4x sub-outputs in horizontal position

- ☐ : 2x sub-outputs in vertical position

- ☐ : 2x sub-outputs in both horizontal and vertical positions

- ☐ : 3x sub-outputs in vertical position

- ☐ : 4x sub-outputs in vertical position

- ☐ : Custom layout

Step 2   Select a sub-output and set its position and size.

- Position:
    - X: Set the initial horizontal position of the sub-output area.
    - Y: Set the initial vertical position of the sub-output area.
- Size:
    - Width: Set the width of the sub-output area.
    - Height: Set the height of the sub-output area.

Sub-Outputs Reorganizing

The mosaic output of multiple graphics card connectors is supported.

After startup, Kompass FX2 will automatically detect the graphics card connectors and display all the connectors in the output list on the left.

- ☑ : Enable the output.

- ☒ : Disable the output.

- 🗑 : Delete the output.

Click 📝 to change the output name, connector binding relation and resolution.

Step 1   Click and drag the sub-outputs on the right to reorganize them.

Figure 5-6 Sub-outputs reorganizing
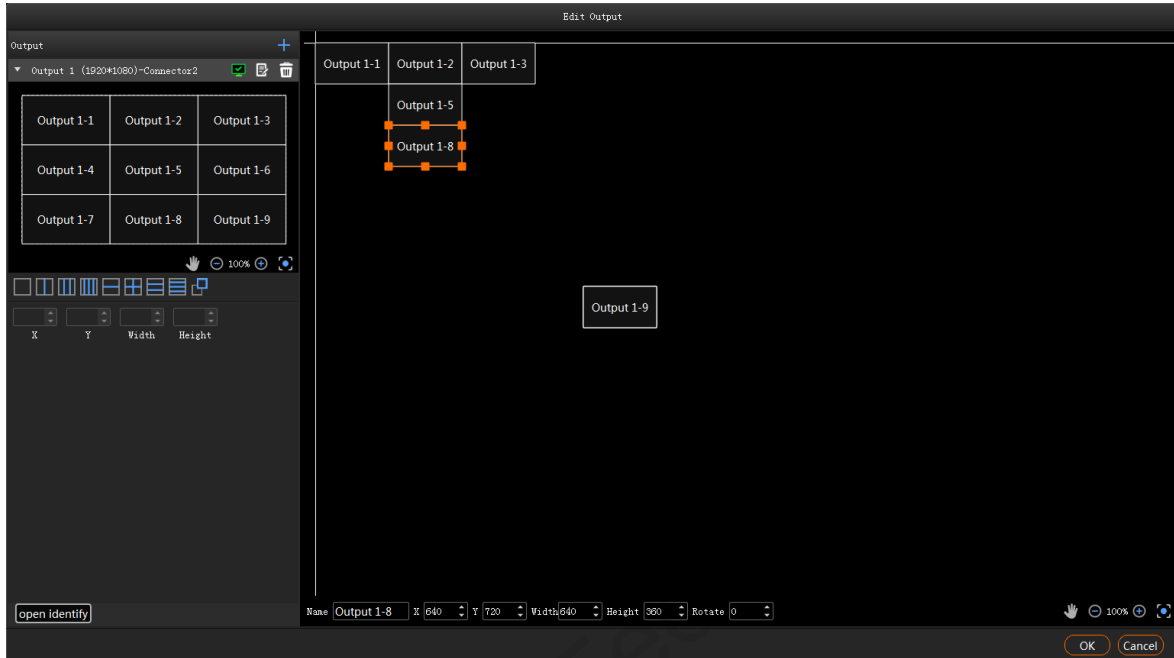
You can change the size and position of the sub-output at the bottom.

Figure 5-7 Output adjusting
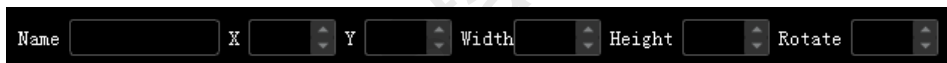
- Name: Change the current output name.
- X: Set the initial horizontal position of the sub-output or output on the stage. The adjusting reference is the top left corner of the stage.
- Y: Set the initial vertical position of the sub-output or output on the stage. The adjusting reference is the top left corner of the stage.
- Width: Set the width of the sub-output or output.
- Height: Set the height of the sub-output or output.
- Rotate: Set the rotation angle (clockwise) of the sub-output or output.

Step 2   Click **OK** to complete the reorganizing.

After the reorganizing, you can add the layer image to the stage area. The mapping between the sub-output and image is shown as follows.

Figure 5-8 Sub-output and image mapping
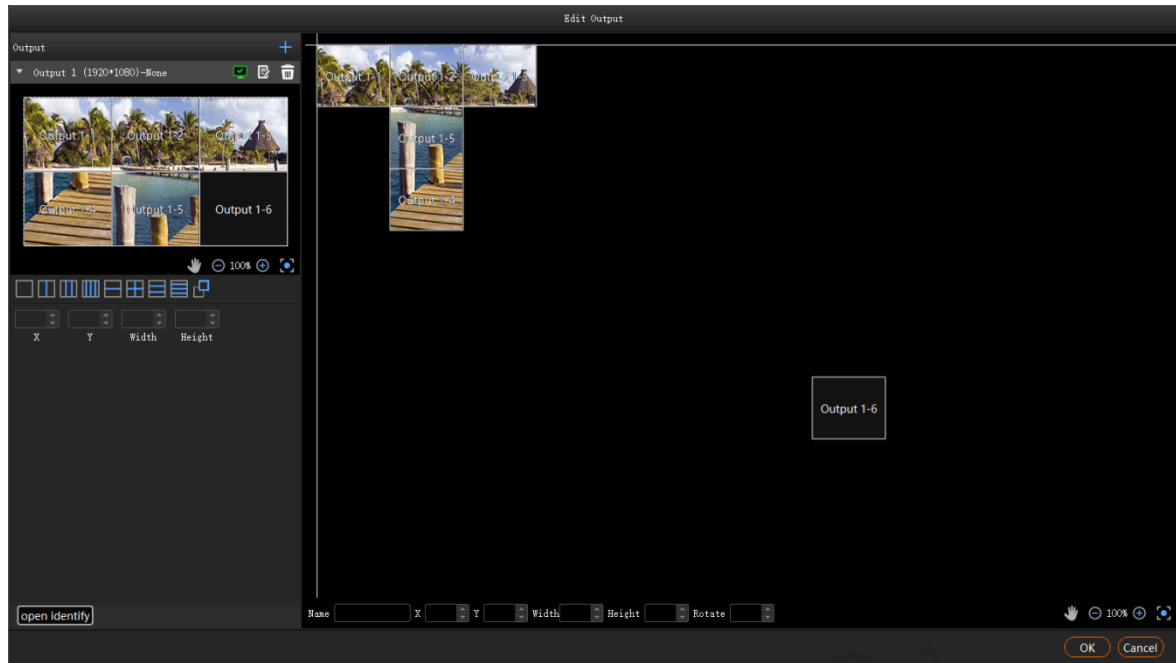
5.3 Manage Media

You can add the desired media files to the current media library. Kompass FX2 supports pictures, videos, PowerPoint files, audios, NDI, websites and streaming media.

The supported media formats are as follows:

- Video: mp4, avi, mkv, flv, mov, wmv, mpeg

- Picture: jpg, jpeg, bmp, png, gif, ico

- Audio: mp3, aac, flac, amr, ape, wav, wma

- Microsoft Office files: PowerPoint (1080p)

Note:

Recommended video coding formats:

- 4K < resolutions ≤ 8K, width ≤ 8192 pixels and height ≤ 4320 pixels: H.265 (HEVC) or VP9 recommended

- Resolutions ≤ 4K: H.264 (AVC) recommended

For a better image quality experience, the following video bitrates are recommended.

Recommended video bitrates for SDR uploads:

Type	Video Bitrate Standard Frame Rate (24 Hz, 25 Hz, 30 Hz)	Video Bitrate High Frame Rate (48 Hz, 50 Hz, 60 Hz)
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

5.3.1 Add Media Files

You can select to import a single media file or a folder including multiple media files.

5.3.1.1 Add Local Files

Step 1 Click ![icon] at the bottom left corner of the **Media Library** area, or right click the area to select **Add Local File**.

Step 2 Select the target media files and click **Open**. Kompass FX2 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 then click **Open** to complete the importing.

- Drag and drop to import: Select one or multiple media files and drag them to the blank area of the media library to complete importing.

5.3.1.2 Add Local Folders

Step 1 Click ![icon] at the bottom left corner of the **Media Library** area, or right click the area to select **Add Local Folder**.

Step 2 Select the target folder and click **Select Folder**. Kompass FX2 will import the folder and the media files in it to the media library automatically.

You can also select one or multiple folders and drag them to the blank area of the media library to complete importing folders quickly.

5.3.1.3 Add Text

Kompass FX2 supports the text as a kind of media and can play the text media.

Step 1 Right click the **Media Library** area to show the context menu and then select **Add Text**.

Figure 5-9 Add text
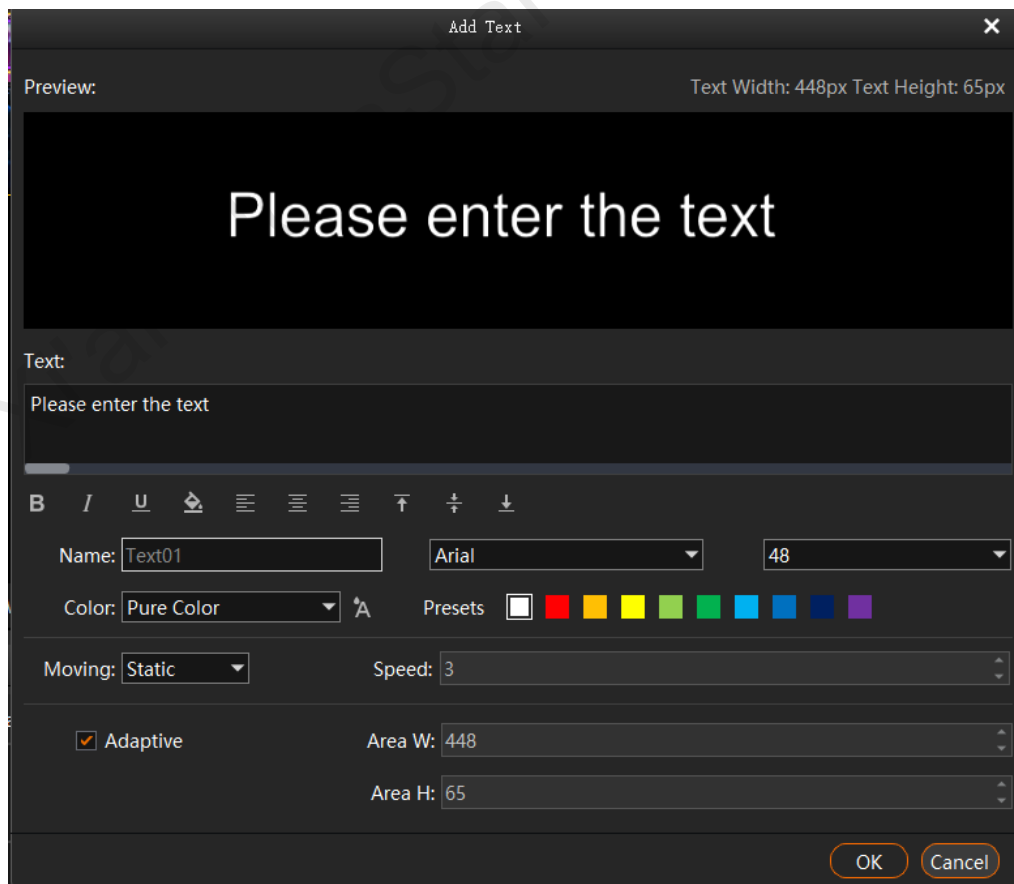
Step 2   Enter the desired content in the **Text** area.

Step 3   Adjust the text font and style.

You can set the following text attributes.

- **B** : Make the text bold or not.

- *I* : Italicize the text or not.

- U : Underline the text or not.

- ≡ : Align the text to the left.

  When the display area width is larger than the text width and the moving is set to **Static**, align the text to the left of the display area.

- ≡ : Center the text horizontally.

  When the display area width is larger than the text width and the moving is set to **Static**, center the text horizontally to the display area.

- ≡ : Align the text to the right.

  When the display area width is larger than the text width and the moving is set to **Static**, align the text to the right of the display area.

- ↑ : Align the text to the top.

  When the display area height is larger than the text height and the moving is set to **Static**, align the text to the top of the display area.

- ↕ : Center the text vertically.

  When the display area height is larger than the text height and the moving is set to **Static**, center the text vertically to the display area.

- ↓ : Align the text to the bottom.

  When the display area height is larger than the text height and the moving is set to **Static**, align the text to the bottom of the display area.

Step 4   Enter a name for you text in the text box next to **Name**.

Step 5   Set the text font and font size.

Select the desired font from the drop-down list and the default font is **Arial**.

Select the desired font size from the drop-down list and the default size is **48**. You can only select a number from the drop-down list and you cannot enter a number manually.

Step 6   Set the text font color.

Gradient and **Pure Color** are supported.

- Pure Color: Select **Pure Color** from the drop-down list and select the desired color block next to **Presets**.

  When you are not interested in any of the preset colors, click ᴬ to open the **Select Color** window to customize your own color, and then click **OK** to complete the pure color settings.
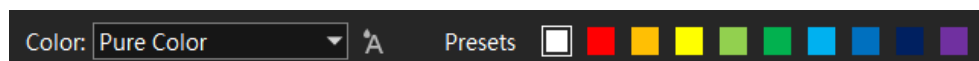
- Gradient: Select **Gradient** from the drop-down list and the default gradient color is displayed.

  Click two color blocks at the both ends of the gradient color to customize your own gradient colors. Set the gradient angle to complete the gradient color settings.

Step 7   Set the text moving effect and speed.

- The moving effects include Static, From Left, From Right, From Top and From Bottom.

- Speed: Set the moving speed of the text. This parameter is available when the moving effect is set to **Static**.

Step 8 Set the text display mode in the display area.

If **Adaptive** is selected, the text fills the display area; if **Adaptive** is deselected, the text is shown in its set size.

Note:

- If the area width or area height is smaller than the text width or height, the text will be cropped.

Step 9 Set the display area color.

1. Click ![icon] to open the **Select Color** window.

Figure 5-10 Select display area color
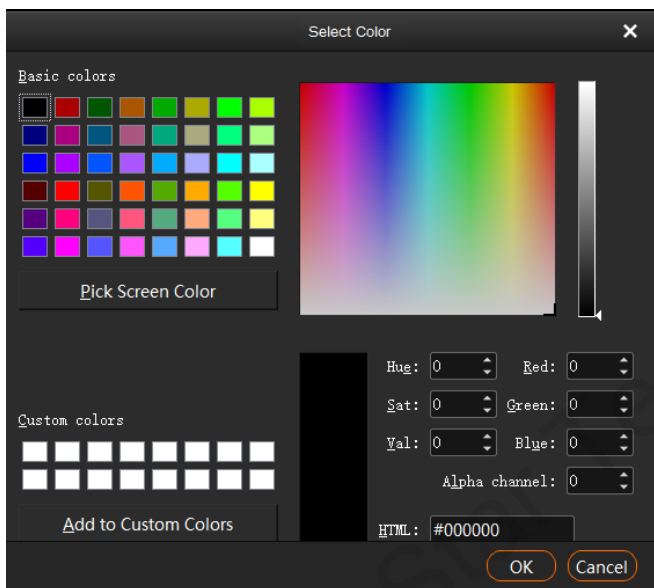
2. The **Alpha channel** value indicates the color transparency. The value ranges from 0 (totally transparent) to 255 (opaque).
3. Click **OK** to complete the display area color settings.

Step 10 Click **OK** to complete the whole text settings.

5.3.1.4 Add Sources from Acquisition Devices

Kompass FX2 can obtain input sources via data acquisition equipment.

Figure 5-11 Data acquisition connection
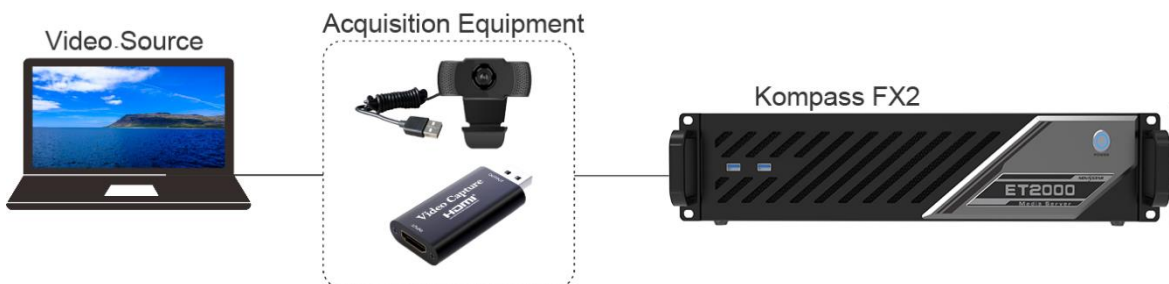
Step 1 Right click the blank area of **Media Library** and select **Add Acquisition Equipment**.

Figure 5-12 Add acquisition equipment
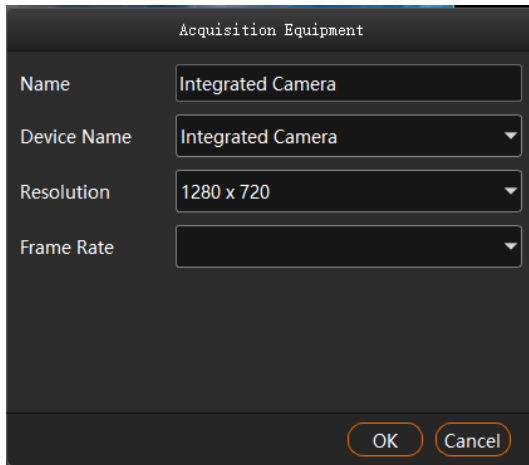
Step 2 On the displayed window, enter the capture device name next to **Name**.

Step 3 Select a data acquisition card name next to **Device Name**.

Step 4 The system will automatically read the resolution and frame rate.

Step 5 Click **OK** to complete the device adding.

5.3.1.5 Add NDI Input Sources

Before adding an NDI input source, you must configure the NDI source image size and position in NDI Sender and enable NDI so that Kompass FX2 can search and find the NDI source and add it.

Note:

The computers running the NDI Sender and Kompass FX2 must be on the same network segment.

Configurations in NDI Sender

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

Figure 5-13 NDI Sender
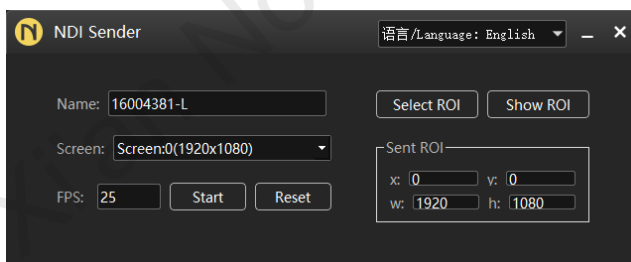
Step 2 Enter an NDI name.

Step 3 Click **Reset**.

After the name is changed, you must click **Reset** to make the setting take effect.

Step 4 If there are multiple screens in NDI Sender, select the screen you want to send.

If you want to send multiple screens, select the first screen you want to send.

Step 5 Click **Select ROI**, click and drag the mouse to select the display area you want to send.

In the **Sent ROI** area, you can see the position and size of the sent image. You can also change the **x**, **y**, **w** and **h** values to change the image position and size.

- X: The horizontal offset from the sent area to the selected screen's left edge

- Y: The horizontal offset from the sent area to the selected screen's top edge

- w: The horizontal width of the sent area

- h: The vertical height of the sent area

Step 6   Click **OK** to complete image settings in NDI Sender.

Step 7   Click **Start** to complete NDI Sender settings.

Note:

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

Add NDI Sources

Step 1   Right click the blank area of **Media Library** in Kompass FX2 and select **Add NDI Media**.

Step 2   The system will automatically search on the current network segment for all the devices with NDI enabled.

Figure 5-14 Add NDI media
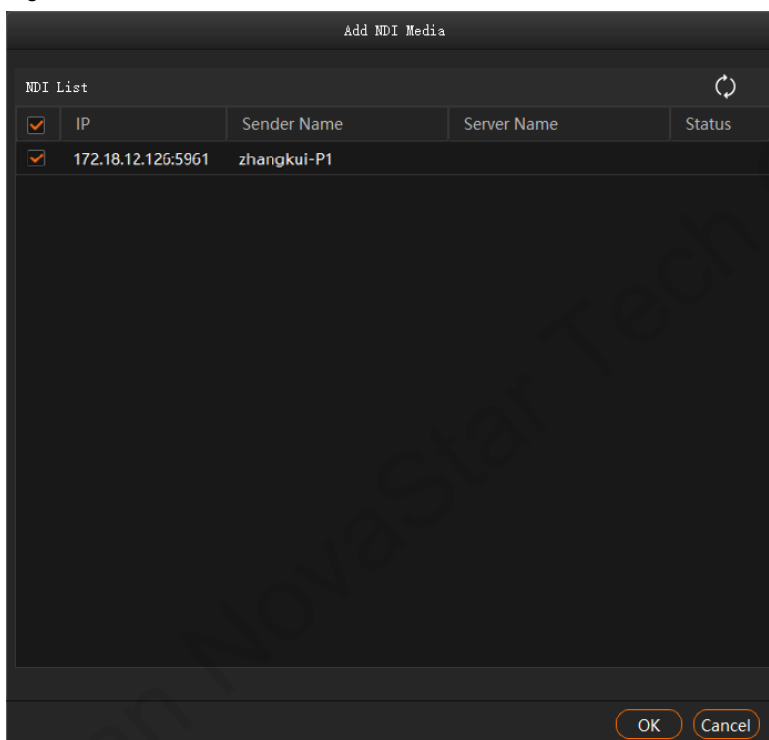
Step 3   Select the NDI sources from the NDI list.

Step 4   Click **OK** to complete NDI source adding.

Note:

After adding NDI sources, you can right click an NDI source and select **Edit** to change the NDI source name.

5.3.1.6   Add Website Input Sources

Prerequisites

The computer running Kompass FX2 is connected to the network.

Operating Procedure

Step 1   Right click the blank area of **Media Library** and select **Add Website**.

Figure 5-15 Add websites
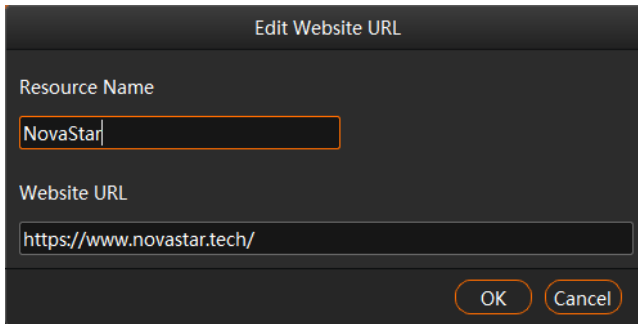
Step 2   Enter the name for the website input source to be added next to **Resource Name**.

Step 3   Enter the complete website domain name next to **Website URL**.

Step 4   Click **OK** to enter the added website.

Figure 5-16 Entered the added website
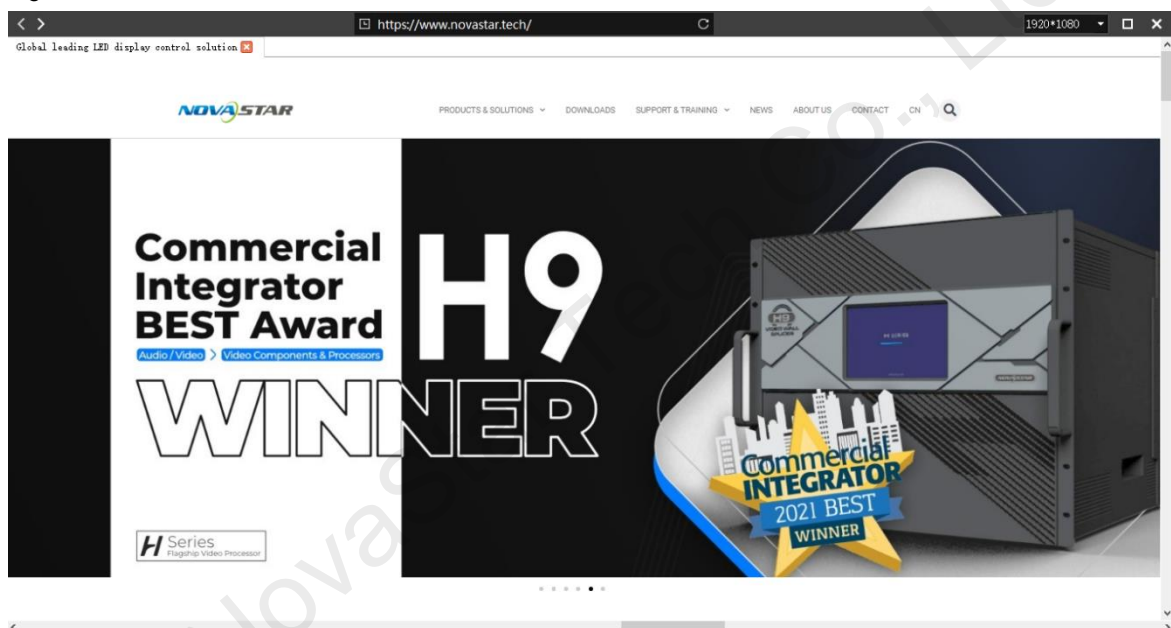
Step 5   Click the drop-down list on the top right to change the resolution of the web page.

Step 6   On the opened website, select the content you want to play.

Step 7   Click **×** at the top right corner of the website to close the website and complete adding the website.

Note:

When multiple tabs are opened on the website, the tab you stay on before closing the website will be used as the input source.

5.3.1.7 Add Streaming Media

Kompass FX2 supports adding streaming media in rtsp and rtmp formats as input source.

Step 1   Right click the blank area of **Media Library** and select **Add Streaming Media** to open the window of adding a media network address.

Figure 5-17 Add streaming media
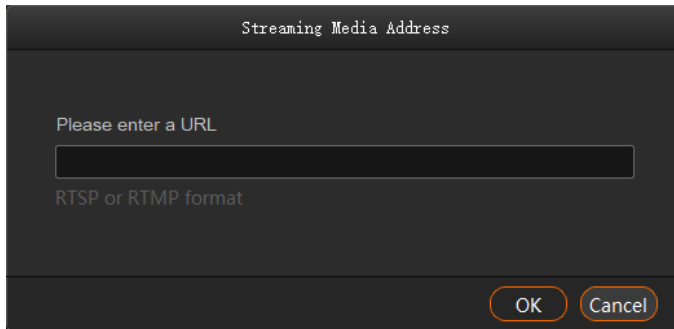
Step 2   Enter the media path in the URL field.

The path must begin with "rtsp://" or "rtmp://".

Step 3   Click **OK**.

5.3.1.8 Add Media Collection

Multiple videos or videos and pictures can be combined with a specific order to form a new video source called media collection. The videos and pictures in the collection can be played automatically according to the set mode.

Note:

The PowerPoint files, NDI sources, websites and streaming media cannot be added to the media collection.

Step 1   Right click the blank area of **Media Library** and select **Add Media Collection**.

Figure 5-18 Add media collection
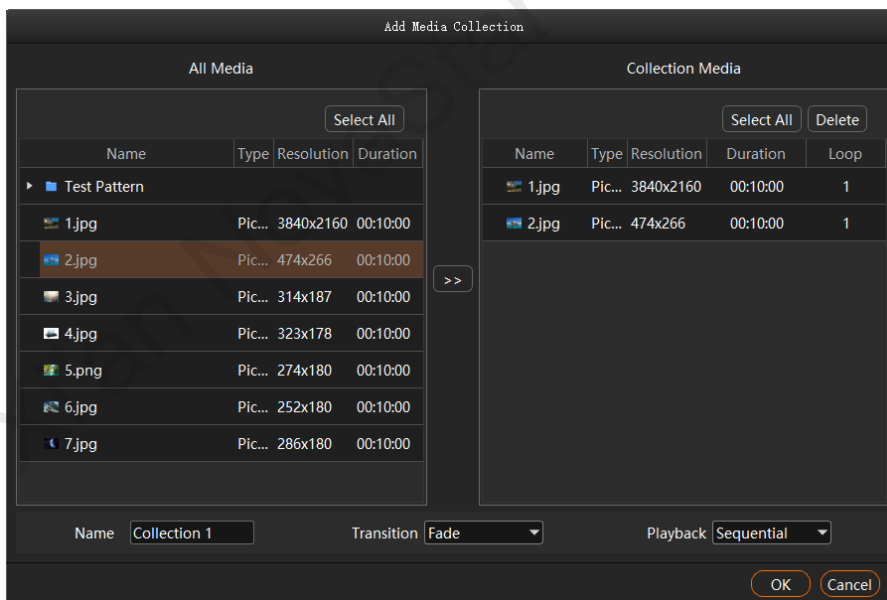
Step 2   In the **All Media** area, select the media files you want to add to the media collection

Step 3   Click >> in the middle to add the selected files to **Collection Media**.

Click and drag the media to change its order in the **Collection Media** area.

Step 4   For picture media, select a picture in **Collection Media** and click the value in the **Duration** column to change the playback duration of the picture.

For video media, select a video in **Collection Media** and click the value in the **Loop** column to change the number of times that the video can be played consecutively.

Notes:

- The duration of video media cannot be set.
- The number of playback times of picture media cannot be set.

Step 5   In the **Name** field, enter a name for the media collection.

Step 6   In the **Transition** filed, select a media switching effect. Supported effects include **Fade** and **Cut**.

Step 7   In the **Playback** field, select a playback order of media files in the media collection. Supported orders include **Sequential** and **Shuffle**.

Step 8   Click **OK**.

5.3.2 Manage Media Files

5.3.2.1 Renaming

- Right click the media file or folder and select **Rename**. Enter a new name in the text box that appears.
- Click the media file or folder and press the **F2** key. Enter a new name in the text box that appears.

5.3.2.2 Deleting

There are three methods to delete a media file.

- Select the desired media file and click 🗑.
- Right click the media file and select **Delete**.
- Click the media file and press the **Delete** key.

5.3.2.3 Management

You can create folders to classify the added media files.

- Click ▣ at the bottom left corner in the **Media Library** area, and then select **New Folder** and name the folder.
- Right click the **Media Library** area, and then select **New Folder** and name the folder.
- Select the desired media files and drag them to the new folder for better classification and management.
- Change the order of the files or folders by simply dragging and dropping them.

5.3.2.4 Switching View

Click the icon next to **Media Library** to switch the view mode.

- In list view mode, click ▦ to switch to the thumbnail view mode. All media files will be displayed in thumbnails and folders will not be displayed.
- In thumbnail view mode, click ▦ to switch to the list view mode. The media files will be displayed in folders.

5.4 Edit Programs

The playback unit of Kompass FX2 is a program. Each program supports at most four layers and one audio.

5.4.1 Edit Layers

Click and drag a media file to the layer in a program, and then adjust the layer in the stage editing area, such as the layer size and position.

Step 1   Select a media file in **Media Library** and drag it to the desired layer or output area.

Figure 5-19 Edit programs
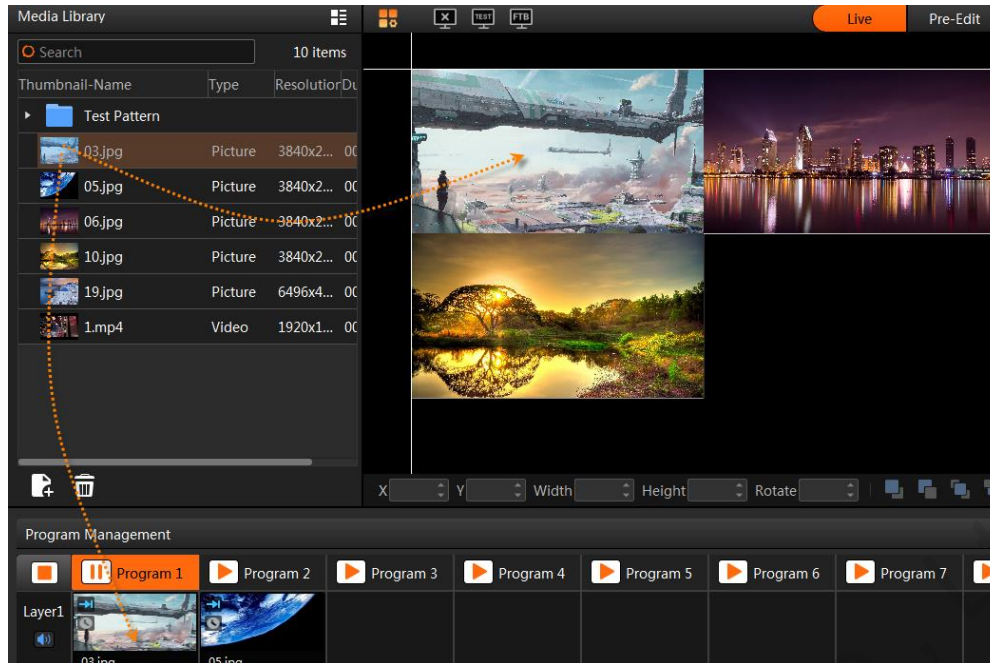
Step 2   Adjust the layer size, position, rotation and priority.

Figure 5-20 Adjusting layers
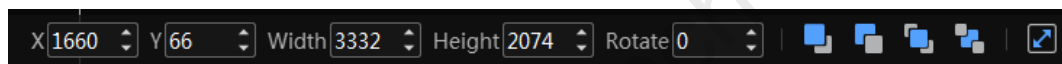
- Position adjustment: Drag and move the layer to adjust the layer position quickly, or fill in the values for the following parameters to precisely adjust the layer position.

    − X: Set the distance between the left edge of the layer and the left edge of the stage.

    − Y: Set the distance between the top edge of the layer and the top edge of the stage.

- Size adjustment: Drag the layer edge to adjust the layer size quickly, or fill in the values for the following parameters to precisely adjust the layer size.

    − Width: Set the layer width.

    − Height: Set the layer height.

- Rotate: Set the angle by which the layer rotates clockwise.

- Priority adjustment:

    − ![icon]: Bring the selected layer forward.

    − ![icon]: Send the selected layer backward.

    − ![icon]: Bring the selected layer to front.

    − ![icon]: Send the selected layer to back.

    − ![icon]: Make the selected layer fill the output area.

Step 3   Set whether to play the layer audio.

Click the audio icon in the **Layer** column on the left of the program columns to set whether to play the layer audio.

- ![icon]: Play the audio that comes with the layer.

- ![icon]: Do not play the audio that comes with the layer.

Step 4   Group the media.

4. In the stage editing area, select the target media.

   Press the **CTRL** key and click the mouse to select multiple media.

5. Right click to open the context menu and select **Group**.

   − For the media in the same group, the same icon appears on the top left of each layer as shown below.

   − For the group media, you can perform the playback, fast forward, rewind, pause and stop operations on all the media in the group simultaneously.

Figure 5-21 Layer group
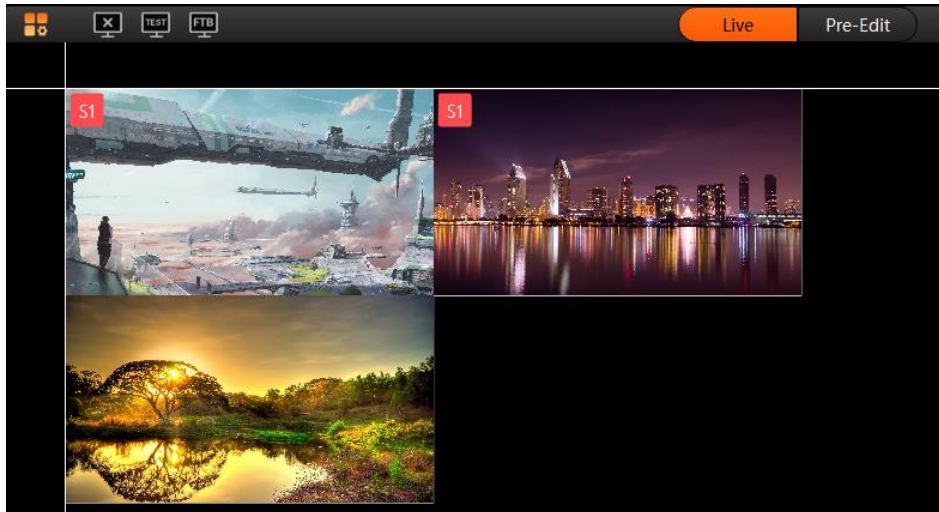
Step 5 Lock the layer media.

After a layer is edited, you can lock the layer to avoid unexpected changes to the layer caused by misoperation.

1. In the stage editing area, right click the target media to open the context menu.

Figure 5-22 Lock media
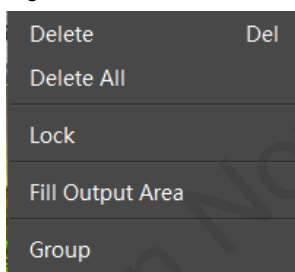
2. Select **Lock** to lock the selected media. After locked, the layer cannot be moved.

   − After the layer is locked, **lock** appears at the top right corner of the layer in the **Program Management** area.

   − After locked, the layer cannot be moved or re-sized, but the layer input source can be replaced.

   − Right click the locked layer and select **Unlock** to unlock the layer.

Notes:

• In the stage editing area, you can click and drag to select multiple layers.

• After you have completed all the editing in the stage editing area, click 🔒 to lock the stage to avoid the layout changes in the stage caused by misoperation.

5.4.2 Set Program Properties

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

Figure 5-23 Set program properties
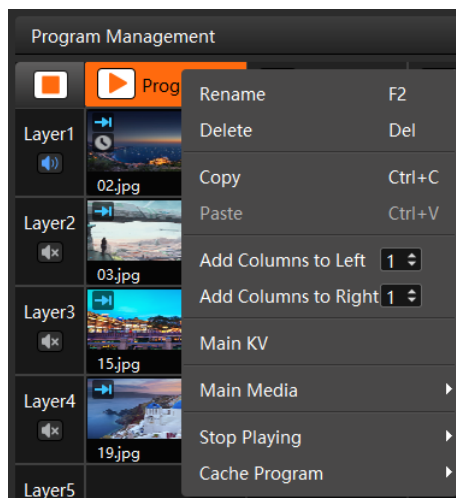
- Rename: Give the program a new name for better management.

- Delete: Delete the current program. All the layers, layer settings and media properties will be deleted.

- Copy: Copy the layers, layer settings and media properties in the current program.

- Paste: Paste the copied program to a new program.

- Add Columns to Left: Insert a specified number of program columns to the left of the currently selected program column.

- Add Columns to Right: Insert a specified number of program columns to the right of the currently selected program column.

Note:

To add program columns to left or right, click ⬍ to set the number of columns to be added first and then click **Add Columns to Left** or **Add Columns to Right**.

- Main KV: Set the current program as the main KV (key video) for easy program jump.

  After a KV program is set, if you add a layer in another no-layer program, the added-layer will automatically match the layer style in the KV program and be adjusted accordingly (such as position, size or rotation).

  If you add the layers to the program and then set the KV program, when you change the program with existing layers, the program will not match the layer style in the KV program.

  For example, after you have set the position, size and rotation of the layer 1 in the KV program, if you add a layer in an empty program, the layer 1 in the program will follow the same layer position, size and rotation with the layer 1 in the KV program.

- Main Media: Set which layer is used as the main media. The playback timing and program switching are all based on the main media.

- Stop Playing: Set the actions after the current program playback ends.
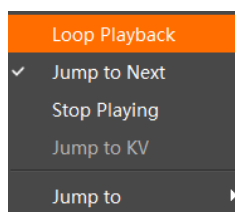
- Loop Playback: The current program will be played circularly.

- Jump to Next: The next program will be played automatically after the current program is stopped.

- Stop Playing: The playback will be stopped after the current program is stopped.

- Jump to KV: The main KV program will be played automatically after the current program is stopped.

–   Jump to: You can select the desired program and the specified program will be played automatically after the current program is stopped.

● Cache Program: Cache the next desired program in advance to improve program switching efficiency.

Before you set any program to be cached here, please go to **Settings** > **Output Settings** to enable the function first.

–   None: Do no cache a program in advance.

–   Auto Identify: The system will automatically identify the next program to be played and start to cache it.

–   Program n: Select the desired program to be cached. If the next program and the cached program are not the same one, the next program will be played automatically and the cached program will not be played.

5.4.3 Play Programs

After completing the program editing, play the programs through either of the following two methods.

● Click [▶] next to the program name in the **Program Management** area.

● Click [▶] next to the program name in the **Playback** area.

● Click [▶] or [II] next to each media to play or pause the playback of the selected media.

● For the media of the same group, drag the progress bar of a single media to control the synchronous playback of all the media in the group.

Note:

If there are no PowerPoint files in the playlist and the PowerPoint file playback mode is disabled, you can use the arrow keys, **Page Up** and **Page Down** keys on the keyboard to switch programs, and press the space key to start the playback.

5.4.4 Set Media Playback Properties

You can set whether to mute the playing, status when playback stopped and playback duration.

Step 1   Click the playing media in the **Program Management** area or the **Output** area to select the media.

Step 2   In the **Media Properties** area within the **Output** area, click **Basic** to set the basic properties of the media.

Figure 5-24 Basic properties
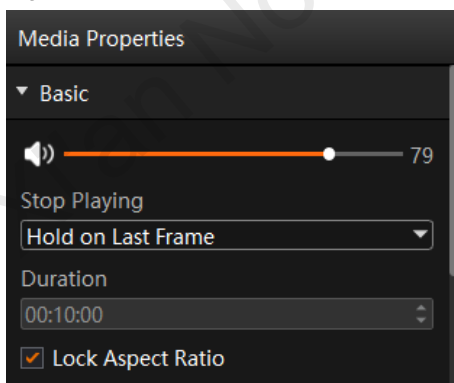
● Volume adjustment: Adjust the output volume of the program media.

● Stop Playing: Set the status or action when the playback of the current media ends.

–   Hold on Last Frame: After the playback of the current media ends, the output displays the last frame of the playback media.

–   Black Screen: After the playback of the current media ends, the output displays a black screen.

● Duration: View or set the playback duration of the media. When the media file type is picture, this option is available. The default duration is 10 minutes.

● Lock Aspect Ratio: When this option is selected, the media size is adjusted with its aspect ratio unchanged.

Notes:

- When the media file type is a PowerPoint file, the basic property settings are unavailable.
- When the media file type is audio, **Hold on Last Frame** and **Black Screen** options are unavailable.

5.4.5 Set Layer Opacity

You can set the overlapping effect of the output images by adjusting the layer opacity.

Step 1 Click the playing media in the **Program Management** area or the **Output** area to select the media.

Step 2 In the **Media Properties** area within the **Output** area, click **Opacity** to set the nontransparent degree of the layer.

Figure 5-25 Set layer opacity
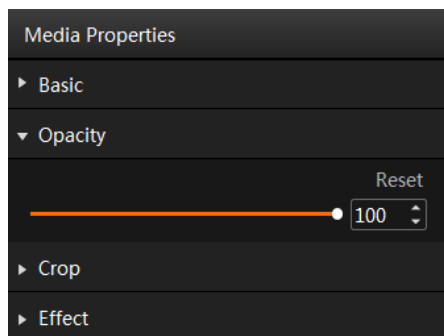
Step 3 Drag the slider to adjust the layer opacity degree, or enter a value in the text box below **Reset** to precisely adjust the layer opacity degree.

The value range is 0 to 100. 0 stands for totally transparent and 100 stands for nontransparent.

5.4.6 Set Layer Color

You can adjust the layer color parameters to adjust the output image effect. The related parameters are shown below.

Figure 5-26 Layer image quality

Table 5-1 Color parameters

Parameter	Description
Brightness	Adjust the brightness or darkness of the image. The value ranges from 0 to 100 and defaults to 50.
Contrast	Adjust the difference in brightness between light and dark areas of the image. The value ranges from 0 to 100 and defaults to 50.
Saturation	Adjust the strength or purity of the colors of an input source image. The larger the saturation, the more vivid the input source image; the smaller the saturation, the larger the image grayscale. The value ranges from 0 to 100 and defaults to 50.
Hue	Adjust the distinction between colors. The value ranges from –180 to +180 and defaults to 0.
Apply All	Apply all the parameter settings to all the layers.

- **Apply to All**: Apply the color settings to all the layers.
- **Reset:** Reset all the color parameters to defaults.

5.4.7   Crop Layers

Crop a certain part of the layer image and display it in the output area.

Step 1   Click the playing media in the **Program Management** area or the **Output** area to select the media.

Step 2   In the **Media Properties** area within the **Output** area, click **Crop** to set the cropping parameters.

Figure 5-27 Crop layers
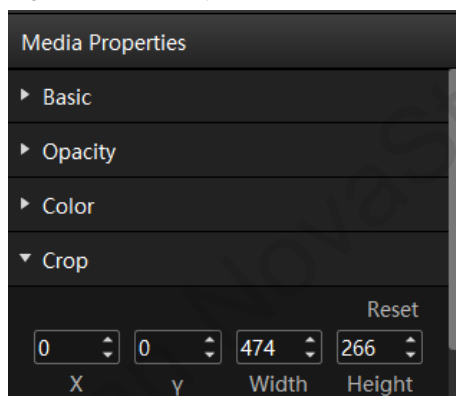
Step 3   Set the position and size of the cropped area.

- Position:
    - X: Set the distance between the left edge of the cropped area and the left edge of the layer.
    - Y: Set the distance between the top edge of the cropped area and the top edge of the layer.
- Size:
    - Width: Set the width of the cropped area.
    - Height: Set the height of the cropped area.

The cropping takes effect in real time and the cropping result is shown as follows.

Figure 5-28 Cropping

5.4.8 Set Layer Effects

Layer effect settings include blurring, keying, mask and inverting colors.

Step 1 Click the playing media in the **Program Management** area or the **Output** area to select the media.

Step 2 In the **Media Properties** area within the **Output** area, click **Effect** to set the related parameters.

Figure 5-29 Layer effect settings
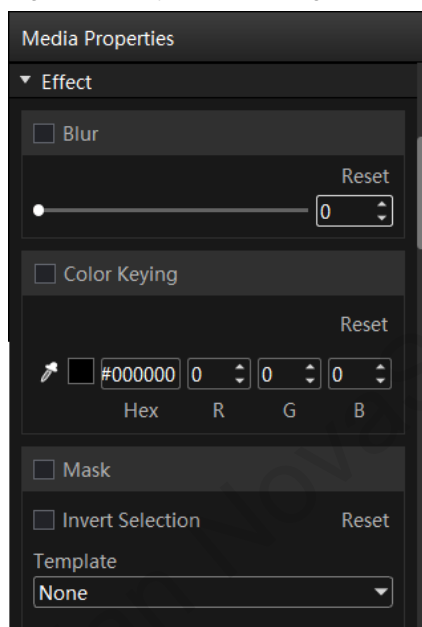
Blur

You can set whether to blur the layer image.

Step 1 Select **Blur** to turn on the function.

Step 2 Drag the slider to adjust the blurring degree.

The value range is 0 to 100, and it defaults to 0.

● 0: Do not blur the layer image.

● 100: Blur the layer image to the greatest extent.

Color Keying

Color keying is used to key out a solid-color background and replace it with transparency.

Step 1 Click 🖊 and select the color area to be removed.

Step 2   Pick the desired color.

After the color is selected, the picked color, the color Hex and RGB values are displayed next to 🖊 , or you can also set the Hex and RGB values to specify the color.

Step 3   Select **Color Keying** to turn on the function and remove the selected color in the layer image.

Mask

The mask function is used to remove the undesired part of the layer image.

Step 1   Select **Mask** to turn on the function.

Step 2   Select the layer mask template. The default option is **None**.

- None: Do not mask the layer image.
- Rectangle: Mask the layer image, and the cropped part is left as a rectangle.

Step 3   Set the height of the mask area (top and bottom) and the width of the mask area (left and right).

- Top: Set the height of the top mask area.
- Bottom: Set the height of the bottom mask area.
- Left: Set the width of the left mask area.
- Right: Set the width of the right mask area.

Note:

After the mask settings are completed, only the central area is kept. If **Invert Selection** is selected, the central area will be masked and the originally masked area will be displayed.

5.4.9   Set Sound Channel Mapping

You can configure the sound card for the layer media to output the media audio from different sound cards.

Step 1   Select the desired media from the program management area or the output editing area.

Step 2   Select **Sound Channel Mapping** in the **Media Properties** area on the right side.

Only the media with audio information supports this function.

Figure 5-30 Sound channel mapping
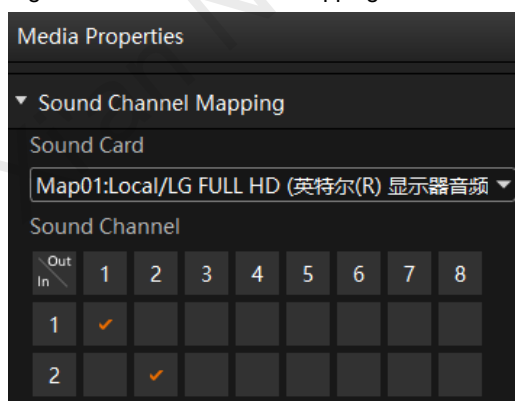
Step 3   Select the desired sound card from the drop-down list.

The default option is the sound card used by Kompass FX2. Please refer to 6.5   Audio Settings for specific sound channel mapping settings.

Step 4   Click the desired sound channel and sound track to configure the output channel for each track.

- At most 8 sound channels are supported. The specific sound track number depends on the actual media.
- If the media file does not contain any sound track information, the sound channel settings are not supported.

5.4.10 Set Scheduled Programs

After the program editing, you can realize automatic playback of the programs according to the scheduled time and times.

Step 1   Click ⬚ at the bottom of the main user interface to open the **Scheduled Playback** window.

Figure 5-31 Scheduled programs
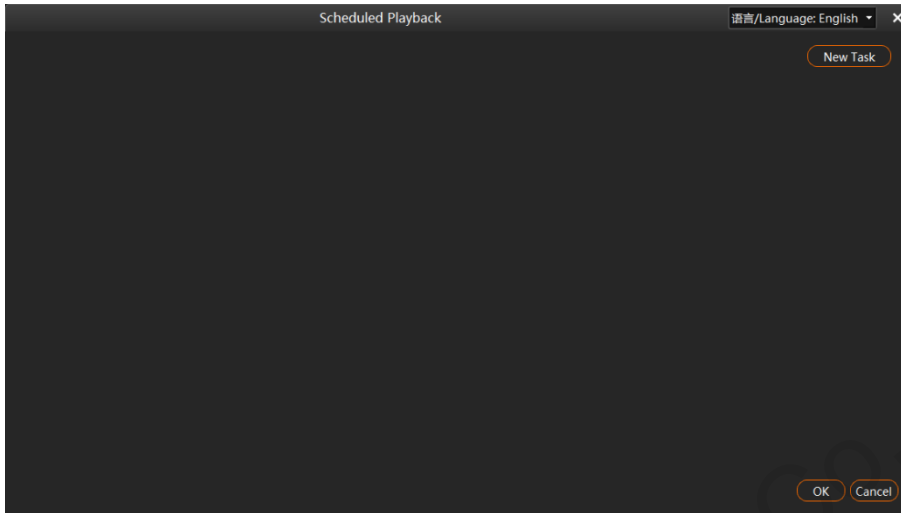
Step 2   Click **New Task** at the top right of the window to create a new playback task.

Figure 5-32 Playback tasks
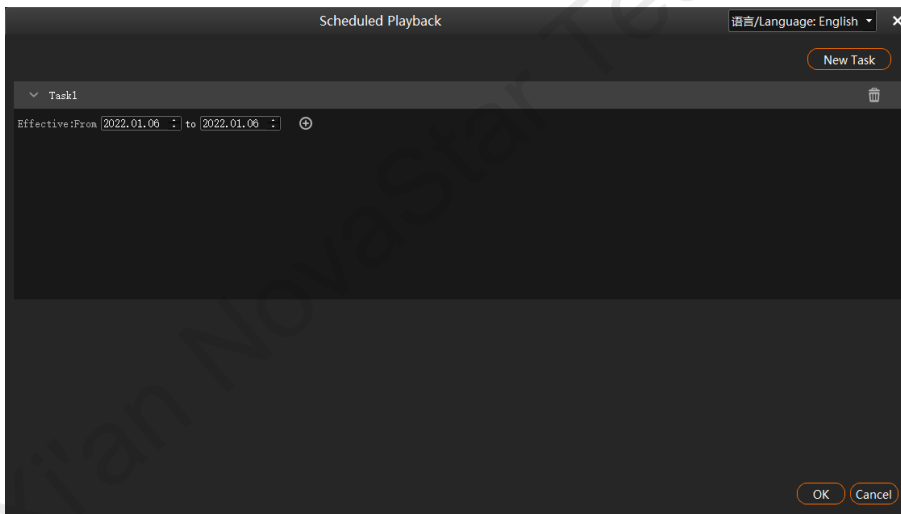
Step 3   Set the start date and end date of the task in the **Effective** area.

Step 4   Click ⊕ next to the effective time to add a new playback task.

Figure 5-33 Set scheduled programs
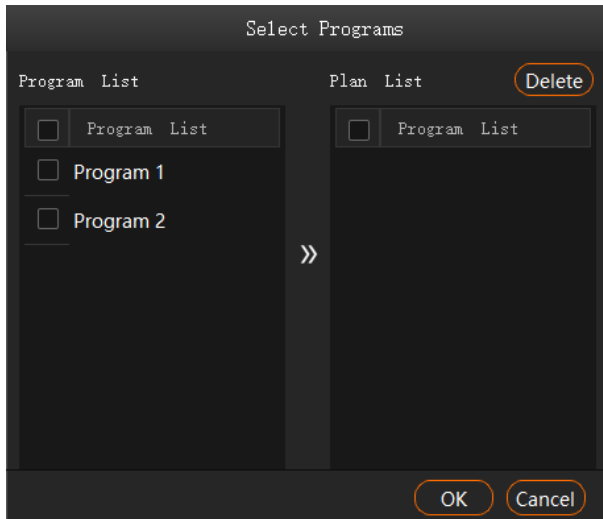
1. Select the desired programs in the **Program List** area on the left.

2. Click ≫ to add the selected programs to **Plan List.**

   The programs will be played according to the sequence (from top to bottom) in the **Plan List** area. If you want to adjust the playback sequence, please select the programs based on your desired priority and then add them to the plan list. If you select and add multiple programs, the programs will be added to the plan list based on their original sequence in the program list.

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

Step 5   Click **OK** to show the tasks and plans.

Figure 5-34 Set playback tasks
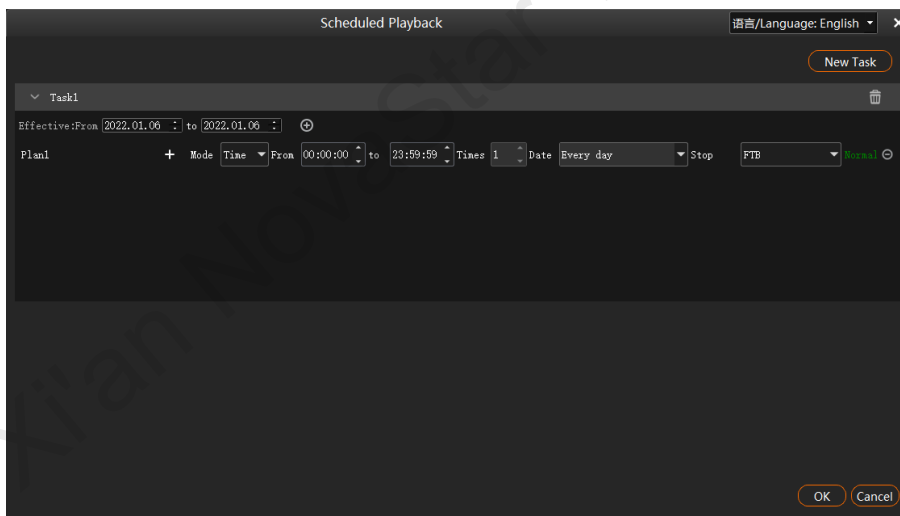
Step 6   Select the program playback mode next to **Mode**. The options include **Time** and **Times**.

- Time: The programs will be played by their durations circularly.
- Times: The programs will be played according to the set playback times.

Step 7   Set the start and end time within the schedule range.

1. Set the automatic start time of the program in the **From** area.

2. Set the automatic end time of the program in the **to** area.

   When the playback mode is set to **Times**, the end time of the program is **23:59:59** by default and cannot be changed.

Step 8   Set the program playback times.

Click the number next to **Times** to activate the times setting function. Enter the desired times and then the program will be played automatically according to the set times. When the playback mode is set to **Time**, the playback times of the program is **1** by default and cannot be changed.

Step 9   Set the program playback date. The options include **Every day**, **Monday**, **Tuesday**, **Wednesday**, **Thursday**, **Friday**, **Saturday** and **Sunday**.

- Every day: The plan will be played every day automatically according to the schedule within the effective time range.

- Monday: The plan will be played every Monday automatically according to the schedule within the effective time range.

- Tuesday: The plan will be played every Tuesday automatically according to the schedule within the effective time range.

- Wednesday: The plan will be played every Wednesday automatically according to the schedule within the effective time range.

- Thursday: The plan will be played every Thursday automatically according to the schedule within the effective time range.

- Friday: The plan will be played every Friday automatically according to the schedule within the effective time range.

- Saturday: The plan will be played every Saturday automatically according to the schedule within the effective time range.

- Sunday: The plan will be played every Sunday automatically according to the schedule within the effective time range.

Step 10   Set the action after the program stops. The options include **FTB** and **Current Frame**.

- FTB: After the program playback ends or the playback time reaches the end time, the output image fades to black.

- Current Frame: FTB: After the program playback ends or the playback time reaches the end time, the output image displays the frame when the program stops.

Step 11   Repeat Step 4 to Step 10 to add more plans under the current task.

Step 12   Repeat Step 2 to Step 10 to add more tasks and plans.

Notes:

- Different plans cannot have overlapping time slots.
- Different tasks cannot have overlapping time slots.

Other Operations

- Delete plans

    In the **Scheduled Playback** window, click ⊖ next to the desired plan to delete the plan.

- Delete tasks

    In the **Scheduled Playback** window, click 🗑 next to the desired task to delete the task.

- Edit plans

    Click at the desktop taskbar to open the **Scheduled Playback** window and then add, edit or delete the desired plans or tasks.

5.5 Save Projects

You can save the project when you are satisfied with the project settings for easy use in future.

Go to **Project** > **Save** or **Save As** to save the current project file (*.ftsp) to your local storage.

The project file includes the following information:

- Media files

- Output editing settings
- Programs and all layers in the programs

5.6 Package Projects

You can save the edited project and the imported media files as an independent project file for easy and convenient use on any computer in the future.

Step 1 Go to **Project** > **Package Project**.

Step 2 Enter the project file name, and select the save location and desired files in the displayed window.

Figure 5-35 Package projects
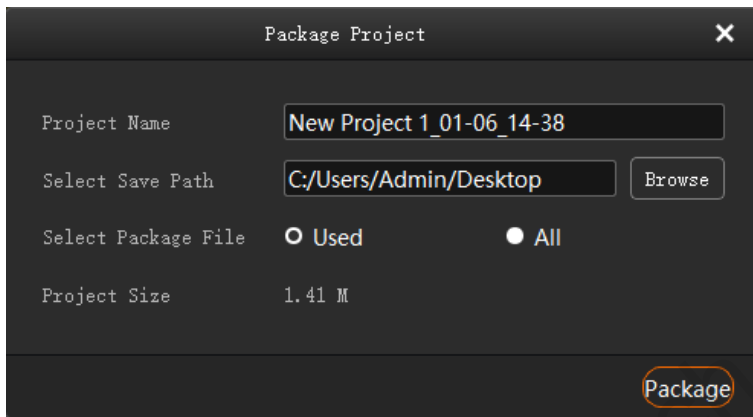
- Used: The media files that have been imported to the media library and added into the programs
- All: All the media files that have been imported to the media library

Step 3 Click **Package**.

6 **Settings**

6.1 System Settings

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

Figure 6-1 System settings
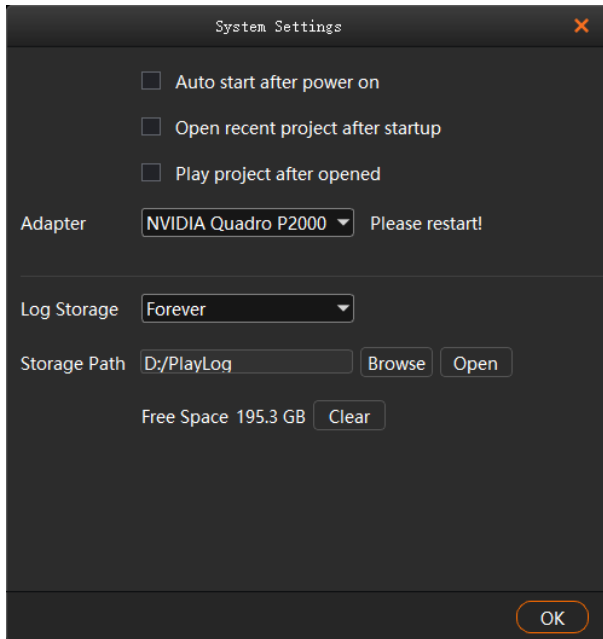
- Auto start after power on:
    - Selected: Kompass FX2 will be started automatically when OS starts.
    - Deselected: Kompass FX2 will not be started when OS starts.
- Open recent project after startup:
    - Selected: The recently-opened project will be opened when Kompass FX2 starts.
    - Deselected: A new project will be created when Kompass FX2 starts.
- Play project after opened:
    - Selected: The recently played project will be played automatically when Kompass FX2 starts.
    - Deselected: No project will be played when Kompass FX2 starts.
- Adapter: Select the adapter for the video rendering of the software. After the selection, you must restart the server where Kompass FX2 is installed.
- Log Storage: Set the save duration for the playback logs. The supported options include **1Month**, **3 Months**, 6 Months, **12 Months** and **Forever**.
- Storage Path: Select the save location for the playback logs.
    - Click **Browse** to select the desired folder.
    - Click **Open** to open the folder where logs are saved.
    - Click **Clear** to clear the cache of the logs.

6.2 Output Settings

Set the program transition effect, transition duration, as well as the FTB status and duration.

Go to **Settings** > **Output Settings** to open the **Output Settings** window.

Figure 6-2 Output settings
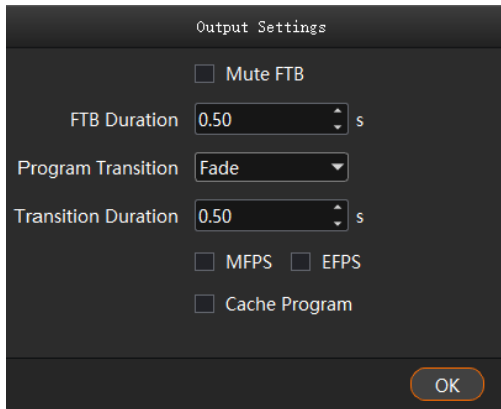
- Mute FTB: Set whether to turn off the audio during the FTB process.
    - Selected: The audio will be turned off.
    - Deselected: The audio will be output as normal.
- FTB Duration: Set the time length the FTB process lasts. The value range is 0s to 2.00s and it defaults to 0.5s.
- Program Transition: Set the program transition effect. The options include **Fade** and **Cut**.
- Transition Duration: Set the time length the fade effect lasts. When **Program Transition** is set to **Fade**, this option is available. The value range is 0s to 2.00s and it defaults to 0.5s.
- MFPS/ EFPS: The real-time frame rate
    - MFPS: After checked, the real-time frame rate will be displayed at the bottom left of the preview window in the editing area.
    - EFPS: After checked, the real-time frame rate will be displayed at the bottom left of the output image.
- Cache Program: Set whether to enable the program cache function.
    - Selected: The function is enabled.
    - Deselected: The function is disabled.

6.3 Multiple Displays

When two or mode displays are connected, you can duplicate the desktop or set it to show different content on each display, that is, extend mode. Go to **Settings** > **Multiple Displays** to select the desired mode.

- Duplicate: All the connected displays output the same content.
- Extend: The connected displays output the different contents. The extend mode is the default option.

6.4 External Control

Kompass FX2 supports remote control and control via a control device, allowing users to manage Kompass FX2 conveniently. For details on the commands and command writing rules of remote controlling and controlling via a control device, please see *Control Protocol of NovaStar Playback and Control Software*.

Go to **Settings** > **External Control** to open the **External Control** window.

Figure 6-3 External control
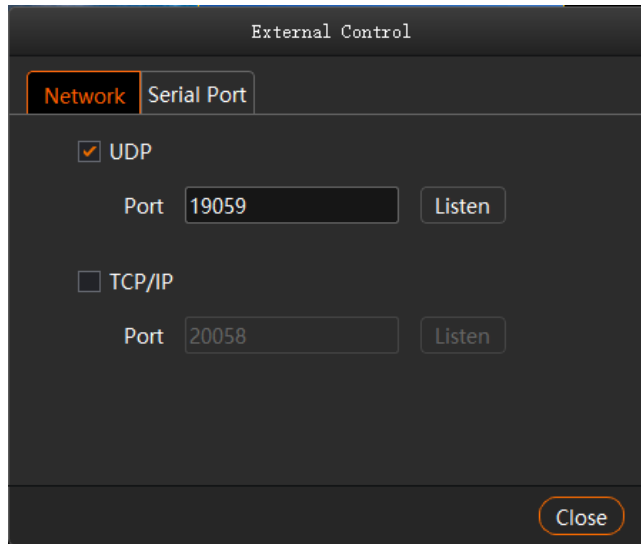
6.4.1 Control via Network

For control via a network, Kompass FX2 supports remote control via UDP and TCP/IP protocols.

Go to **Settings** > **External Control** to open the **External Control** window shown in Figure 6-3.

Control via UDP Protocol

Step 1 Select **UDP** to enable UDP control.

Step 2 In the text box next to **Port**, enter the UDP port number of Kompass FX2.

The UDP port number ranges from 1024 to 65535 and defaults to 19059.

Step 3 Click **Listen**. Kompass FX2 will automatically check whether the port number you entered in Step 2 is occupied.

- Occupied: Re-enter a port number and click **Listen** again to check.
- Not occupied: The UDP control settings are completed.

Control via TCP/IP Protocol

Step 1 Select **TCP/IP** to enable TCP/IP control.

Step 2 In the text box next to **Port**, enter the TCP/IP port number of Kompass FX2.

The TCP/IP port number ranges from 1024 to 65535 and defaults to 20058.

Step 3 Click **Listen**. Kompass FX2 will automatically check whether the port number you entered in Step 2 is occupied.

- Occupied: Re-enter a port number and click **Listen** again to check.
- Not occupied: The TCP/IP control settings are completed.

6.4.2 Control via Serial Port
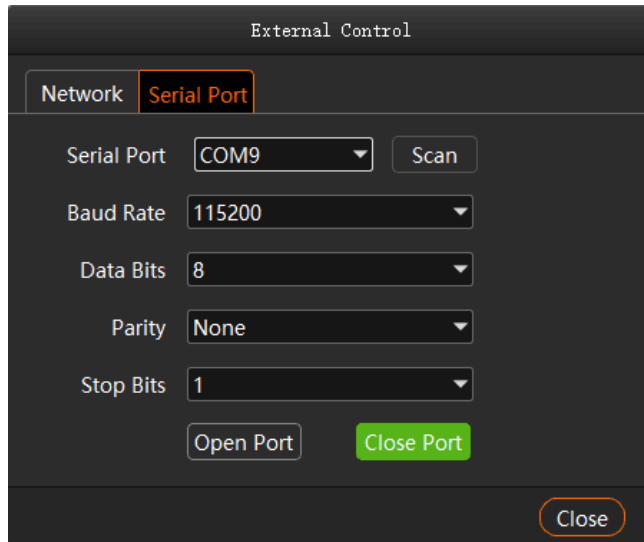
To control Kompass FX2 via serial port, use a serial cable to connect the control device to the computer where Kompass FX2 is installed.

Step 1 Go to **Settings** > **External Control** > **Serial Port** to open the window shown in Figure 6-4.

Figure 6-4 Serial port control

Step 2　Click **Scan**. The system will automatically scan the serial ports of the computer.

Step 3　Click the drop-down box next to **Serial Port** and select the serial port currently connected to the control device.

Step 4　Set **Baud Rate**, **Data Bits**, **Parity**, and **Stop Bits**.

Note:

The parameter values of baud rate, data bits, parity and stop bits of the serial port on the control device must be the same as the values of those parameters you set in Kompass FX2.

Step 5　Click **Open Port** to finish serial port settings.

Step 6　Click **Close** to close the **External Control** window.

6.4.3　Control via App

Kompass FX2 built in a media server can be controlled via an App named Visual Intelligent Control Platform (VICP). The connections for App control are as follows.

Figure 6-5 Connections for App control
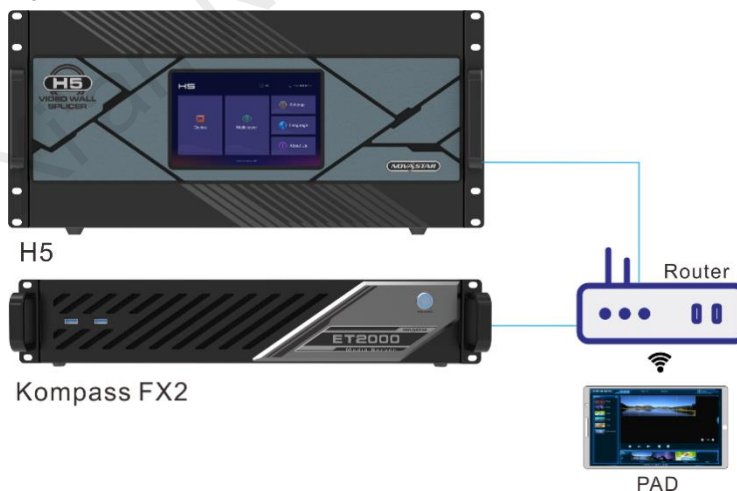
Connection Requirements

The media server, H series device and Pad device with VICP installed must be on the same network segment.

Media Server Configuration

- Obtain the IP address of the media server.

  1. On the media server, press **Win** and **R** keys simultaneously to open the **Run** command dialog window.

Figure 6-6 Run command window
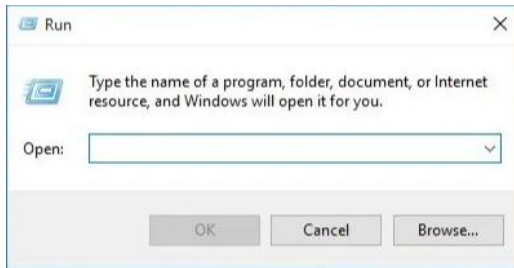
  2. Type "cmd" in the search box and then press **Enter** to open the command prompt.
  3. Type "ipconfig" and then press **Enter** to show the device IP address.

Figure 6-7 Obtain the IP address of the media server
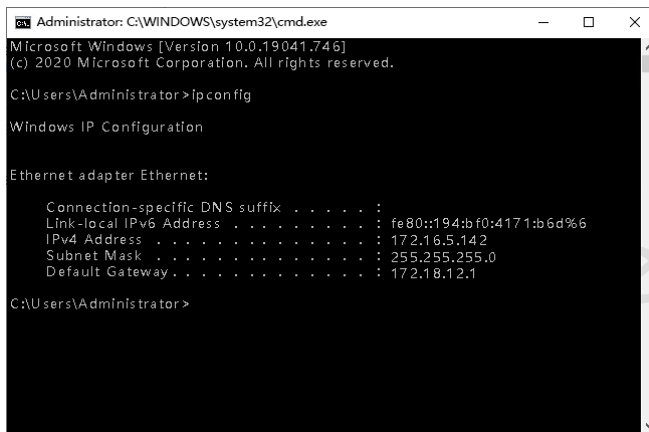
IPv4 address indicates the IP address of the media server.

- Configure the listening port of the media server.

  1. Run Kompass FX2 and then go to **Settings** > **External Control** to open the external control settings window.
  2. Select the **Network** tab.
  3. Check the box in front of **TCP/IP** to enable the TCP/IP control.
  4. Enter the port number in the text box next to **Port**.

Figure 6-8 Port settings
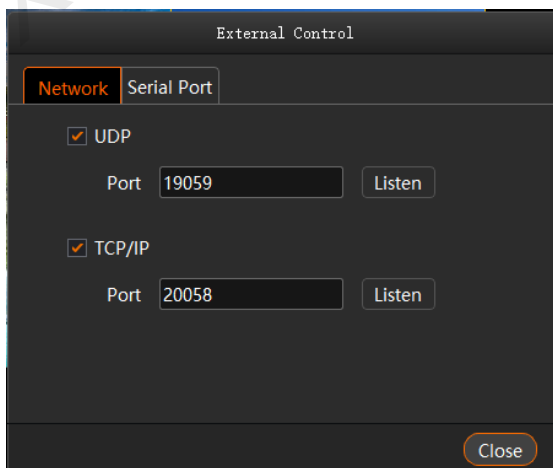
  5. Click **Listen** to enable the listening for the external control.

If the port is occupied, a prompt saying "Listening failed: The port is being used." is shown. You must re-enter a port number and click **Listen** again.

If a prompt saying "Listening succeeded." is shown, the listening succeeds and the **Listen** button is highlighted. Click **OK** to complete the settings.

6. Click **Close** to complete the port settings.

Note:

When you use the App for device control, please refer to the App user manual for operation details.

6.5 Audio Settings

You can configure the correspondent relations between the sound cards and sound channel mappings. One sound card corresponds to one mapping only.

For example, if you select Map 01 for the layer media A, B and C at the same time, the audio information in these three media will be output via the sound card that Map 01 corresponds to. If you want to change the sound card for these three media, you only need to change the sound card that Map 01 corresponds to rather than set the sound card for each media respectively.
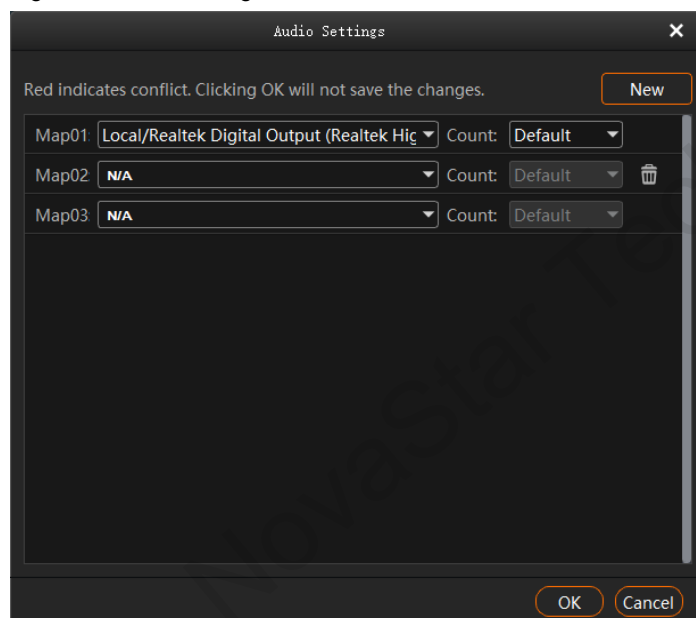
Figure 6-9 Audio settings

- Three mappings are displayed by default. You can click **New** at the top right to add a new mapping.
- The drop-down list shows all the sound card devices of the device.

  Kompass FX2 supports hot plugging of sound card devices without the need to restart the software.

- Configure the sound channel count for the mapping. The supported options include **Default**, **2**, **4**, **6** and **8**.

 **Default** indicates the sound channel count of the corresponding sound card.

7 **Help**

7.1 Transcoding Assistant

Kompass FX2 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 **Help** > **Transcoding Assistant** to open the transcoding settings window.

Figure 7-1 Transcoding assistant
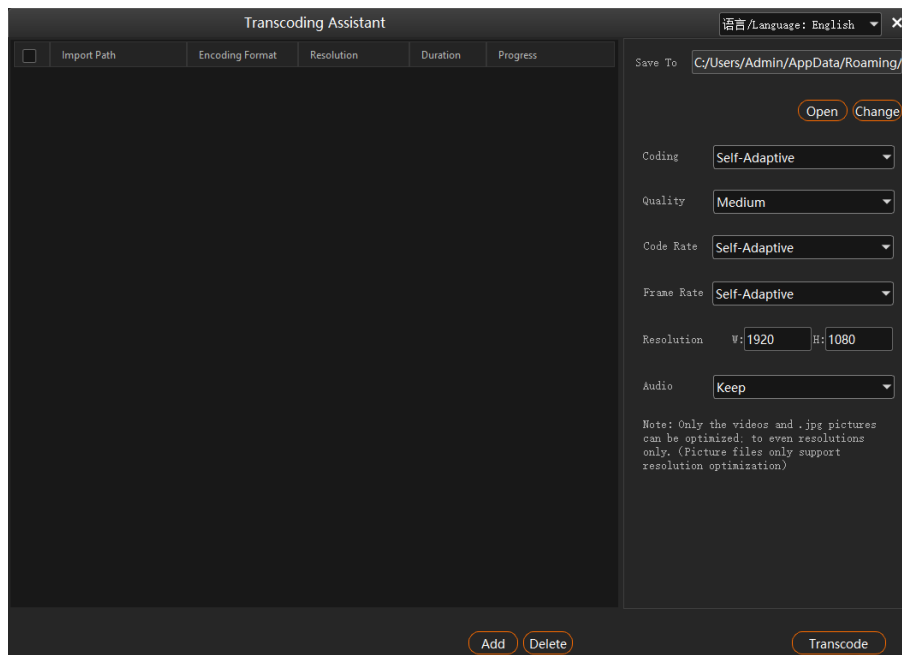
Step 2   Click **Add** at the bottom to open the local folder where you can select the desired file.

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

Step 3   Click **Select File** to add them into the assistant.

Step 4   Select the target file for transcoding.

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 can reach a maximum value of 16384.

    - H: Set the vertical size of the transcoded video. The value defaults to 1080 and can reach a maximum value of 16384.

- 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 5 Repeat Step 4 and Step 5 to set the transcoding parameters for other video files.

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**.

Step 7 Click **Open** to open the local folder where you can view the transcoded files.

- Click **Change** to change the save path.
- Click **Delete** at the bottom to delete the selected video files.

7.2 Play Log

Kompass FX2 supports the automatic statistics of the playback logs. When you select a certain date, time or media name, you can search for the desired logs. The log information includes the number, media name, start time, end time, total duration and playback times.

Step 1 Go to **Help** > **Play Log** to open the playback log window.

Figure 7-2 Play log
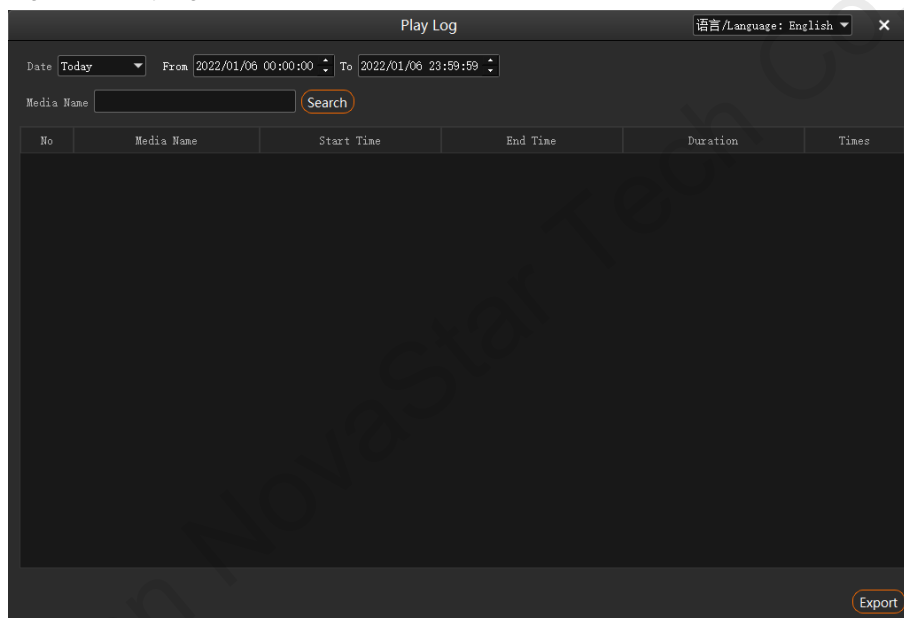
Step 2 Click **Date** and select the desired time. The supported options include **Today**, **Recent 7 Days**, **Recent 1 Month** and **Recent 3 Months**.

Note:

Before you use this function, please set the value range of **Log Storage** greater than the time range you set here.

Step 3 Set the start and end time.

Step 4 Enter the media file name in the text box next to **Media Name** to search for the payback logs of this single media, otherwise the playback logs of all media files will be searched and displayed.

Step 5 Click **Search** to start the search and statistics.

Click **Export** to export the playback logs to your local computer.

7.3 User Manual

On the menu bar, go to **Help** > **User Manual**, or press the **F1** key on the keyboard to open the user manual.

7.4 About

On the menu bar, go to **Help** > **About** to view the software information.

8 **Language**

Kompass FX2 supports two interface languages: English and Chinese. You do not need to restart the software after the UI language changes.

- Go to 语言/**Language** > **English** to set the UI language to English.

- Go to 语言/**Language** > 中文 to set the UI language to Simplified Chinese.

Statement

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