NovoDS Studio UM

V0.01

Contents

Overview 4
DS Playlists 5
The DS Playlists Main Menu 6
Creating a Playlist 7
Using Grid Mode 8
Customizing a Grid Mode Layout 8
Using Flexible Mode 11
The Editing Menu 12
The General Panel 13
The Pages Panel 13
The Background Design Panel 14
Media Background 15
IP Stream Background 16
Video In Background 17
Preview On Device Panel 17
The Editing Panel 18
The Content Menu 19
Media 21
Web Page 25
YouTube Video 26
IP Streaming 27
Text 28
Twitter 30
Social Media 31
RSS 32
Weather Report 33
Clock 34
Online Calendar 35
Video In 36
People Counting 37
Importing Content (Grid Mode Only) 38
Exporting a Playlist 41
Importing a Playlist 42
Configuring DS Playlist Settings 43
Exporting to DS Cloud 44
DS Schedules 45

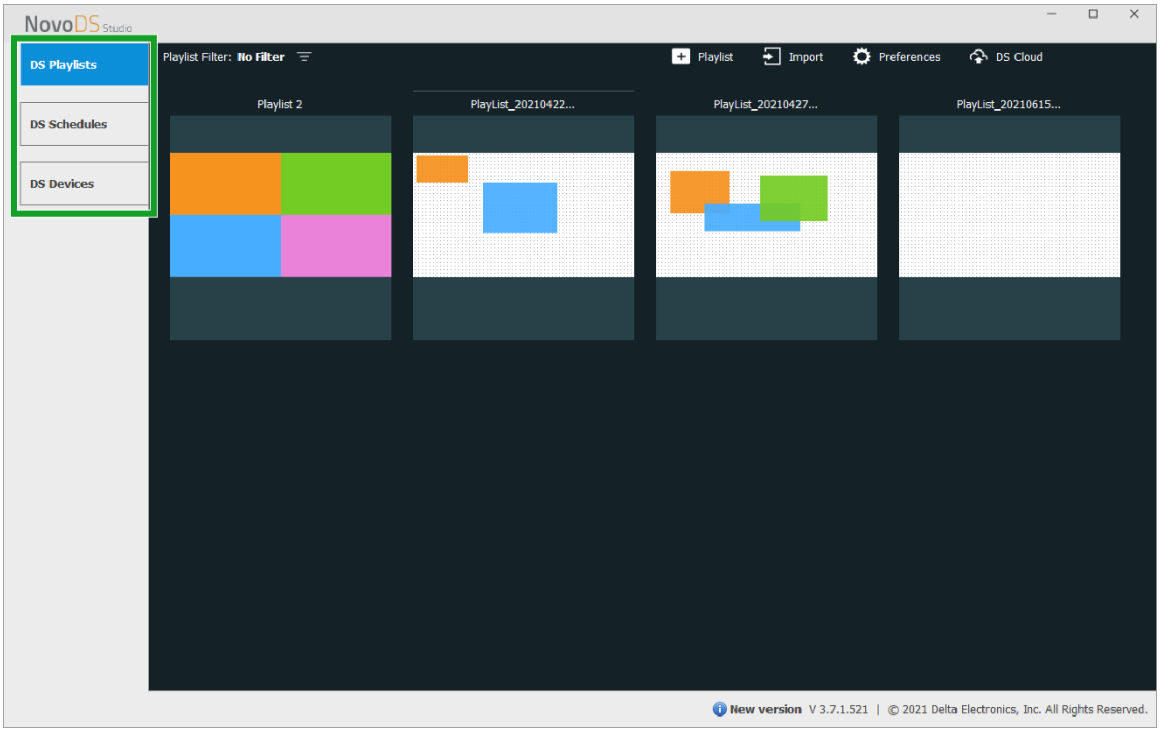
The DS Schedules Main Menu 46
Creating a Schedule 47
Adding a Schedule Item 48
Recurrence Date Time Tab 49
Playlist Tab 50
Exporting a Schedule 52
Importing a Schedule 52
DS Devices 53
The DS Devices Main Menu 54
Adding a Device 56
Controlling a Device 58
Playing a Playlist 59
Uploading a Schedule 59
Device Settings 60
General 60
Playlist 60
Network 61
Display 61
Scheduling On/Off Times 61
Auto Play 62
Serial Port 62
Misc. 62
Creating a Group 63
Adding Devices to a Group 64
Playing a Playlist (Group) 65
Uploading a Schedule (Group) 66
Other Group Functions 67
Generating a Configuration File 68
Viewing Remote Snapshots 69
Creating an Announcement 70
Exporting Your Device List 72

Overview

NovoDS Studio is a suite of software applications that allows the user to handle every step of the digital signage process for displays with a supported Novo device, from content creation all the way to content deployment. NovoDS Studio consists of the following applications:

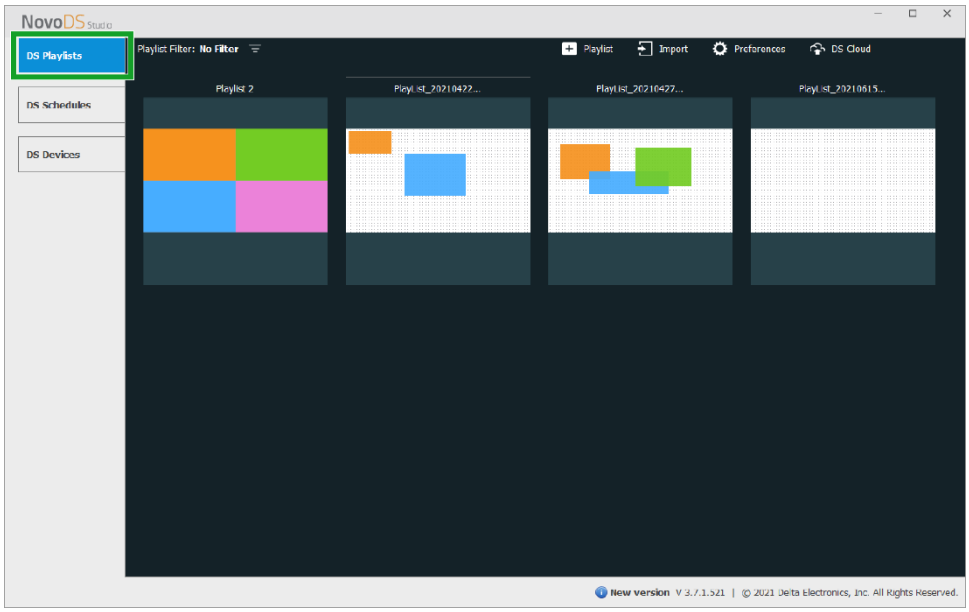
- **DS Playlists**: Allows you to create and edit the multimedia content you want to show on your display.
- **DS Schedules**: Allows you to plan and schedule the playback of the content created in DS Playlists.
- **DS Devices**: Allows you to remotely manage and control all your displays with Novo devices.

Each application can be accessed by selecting their respective tab on the right side of the NovoDS Studio interface.



DS Playlists

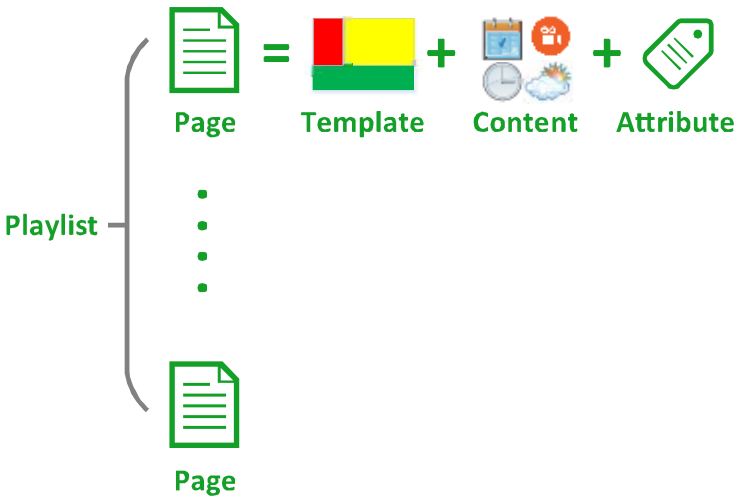
As described above, DS Playlists allows users to create and edit multimedia content for use in their digital signage displays with a Novo device.



Before starting, it's best to define some of the key terms used throughout this document for items used in the application:

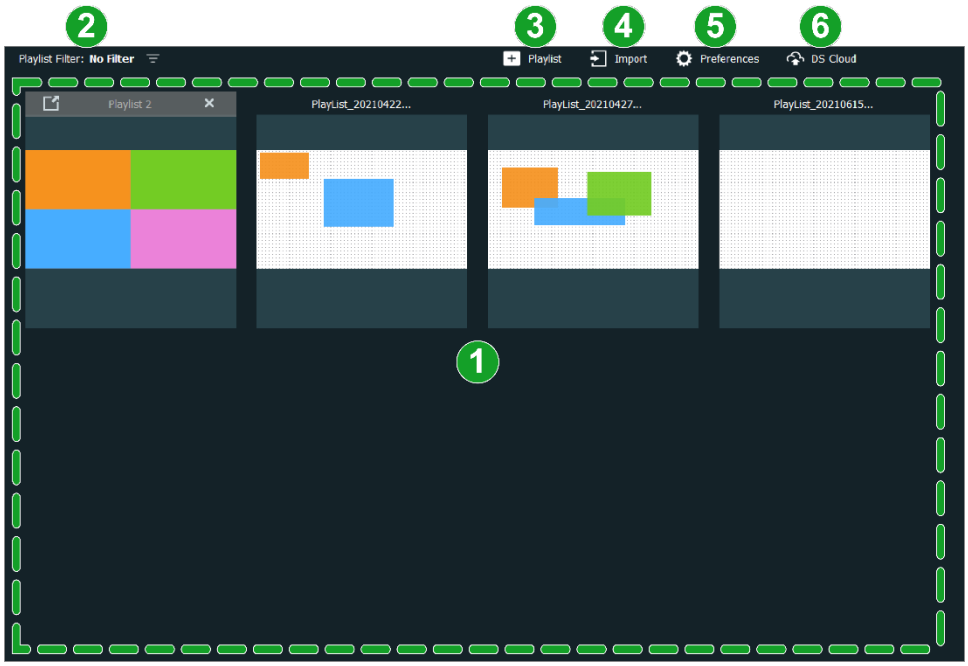
- **Playlist**: A multimedia content package designed to be played on Novo devices, consisting of one or multiple pages.
- **Page**: A screen layout that is filled with multimedia content.
- **Template**: A screen layout that consists of one or multiple "regions" that can be applied to any page.
- **Content**: Resources that can be placed in a page, including text, images, music/audio, video, web pages, video streams, Twitter and RSS feeds, and others.
- **Attribute**: Characteristics associated with the playback of content such as duration, rendering effect, etc.

The following image illustrates their relationship.



The DS Playlists Main Menu

Upon selecting the DS Playlists tab, you will enter the main menu. The following items can be accessed from the main menu.

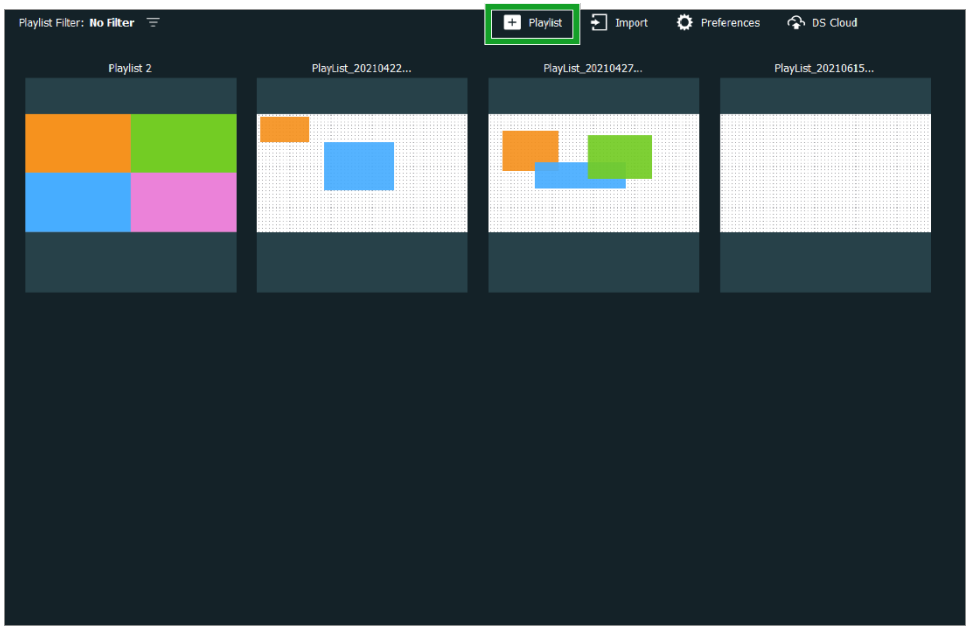


No.	Item	Description
1	Playlists Panel	Shows previews of all the playlists available in DS Playlists. • Click the preview for a playlist to begin editing the playlist. • Mouse over a playlist and click the export icon ( ), to export the playlist. • Mouse over a playlist and click the delete icon ( ), to delete the playlist.
2	Playlist Filter	Filters the playlists shown in the playlist panel based on the type of Novo device the playlist is used in.
3	Create Playlist	Creates a new playlist. Go to XXXX for more information on creating a playlist.
4	Import Playlist	Imports a playlist from a local file (in .npl or .npl2 file format).
5	Preferences	Allows you to: • Set the local folder you want to save all your playlists to. • Configure the language for the DS Playlists application
6	DS Cloud	Allows you to upload your playlists to a cloud-based server so that it can be accessed via the DS Cloud application.

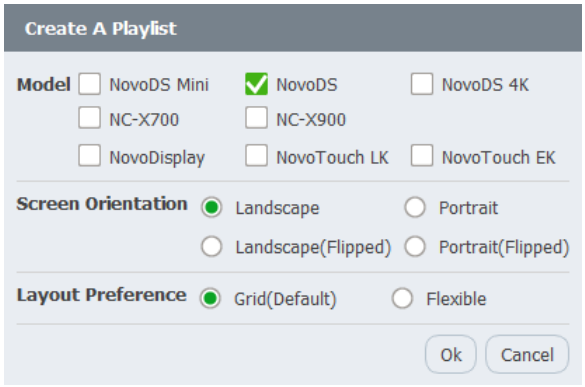
Creating a Playlist

To create a playlist:

1. Click the create playlist button at the top of the DS Playlist main menu.



2. In the **Create a Playlist** pop-up menu, select an option for each of the following settings for the playlist and then click **OK**:

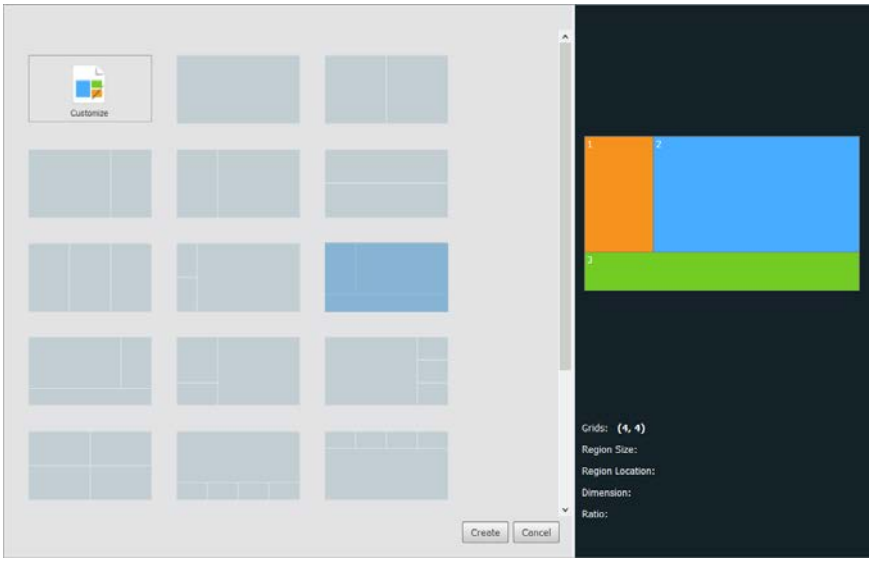


- **Model**: Select the Novo device you want the playlist to be played on.
- **Screen Orientation**: Select the screen orientation of the display which the playlist will be played on. Orientations labelled “(Flipped)” are for displays that are XXXX.
- **Layout Preference**: Choose the type of playlist format you want to use.
  NOTE: The layout type (Grid or Flexible) selected in this field will be the layout type for ALL of the pages in your playlist. DS Playlist does not allow mixing and matching layout types within a playlist.

If you selected **Grid** in the **Layout Preference** setting, go to XXXX for further instructions. If you selected **Flexible** in the **Layout Preference** setting, go to XXXX for further instructions.

Using Grid Mode

When you select **Grid** in the **Create a Playlist** menu, you will enter the **Select Template** menu for grid mode.



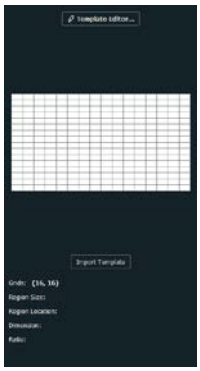
In the **Select Template** menu, choose one of the following options:

- Select **Customize** to create your own grid-based layout for the playlist page, and go to XXXX for further instructions on creating a custom grid-based layout.
- Select one of the available preconfigured page layouts.
  NOTE: If you select a preconfigured layout, the panel on the right side of the menu will show feature a more detailed depiction of the layout. Mouse-over any of the regions in the layout to view details related to the region including size, location, dimensions, and ratio.

Once you have selected the type of grid-based layout you want to use for your page, click **Create** to begin editing the content for your page. Go to XXXX for details on editing the content for your playlist.

Customizing a Grid Mode Layout

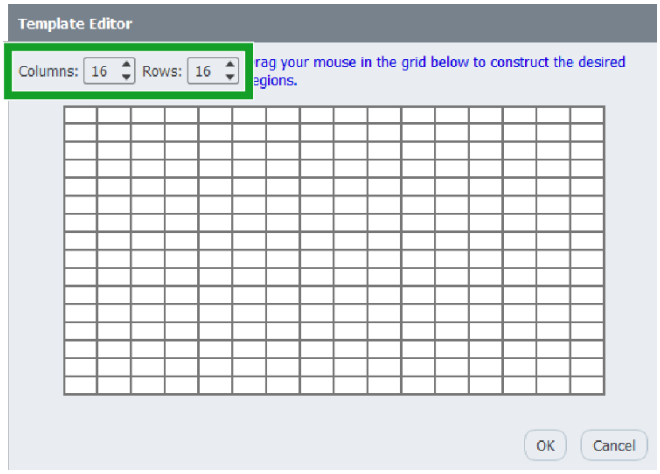
When you select **Customize** in the **Select Template** menu for grid mode, the panel on right side of the menu will show the default 16x16 grid layout preview.



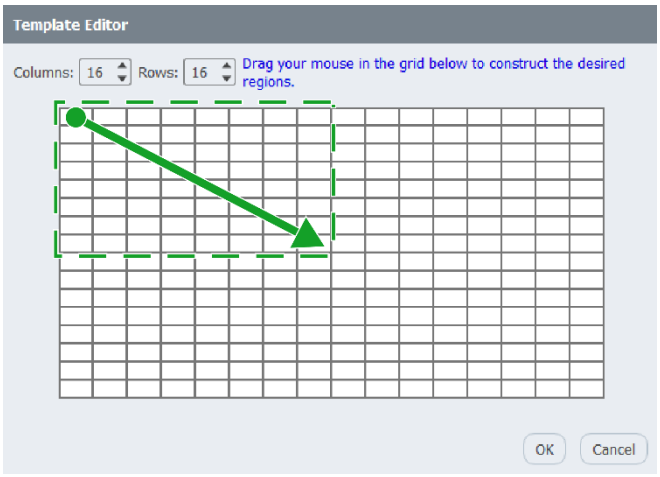
- Click on either the **Template Editor…** button at the top of the panel or the preview in the middle of the panel to enter the **Template Editor** window to customize your layout.
- Click on **Import Template** to import a previously designed grid-based template.

In the **Template Editor** window:

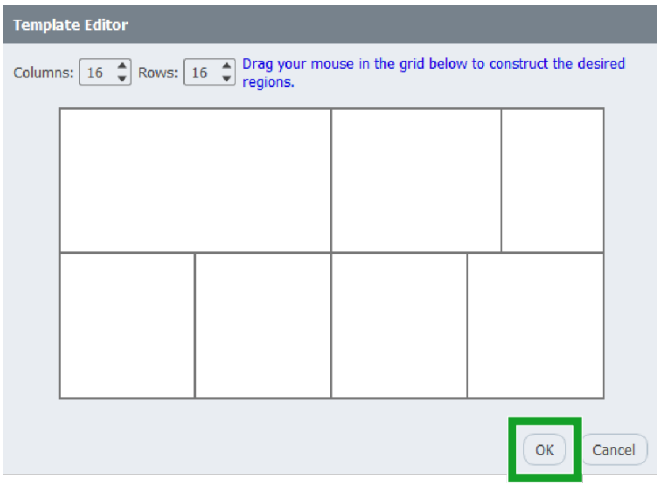
1. Select the number of columns and rows you want for your grid.



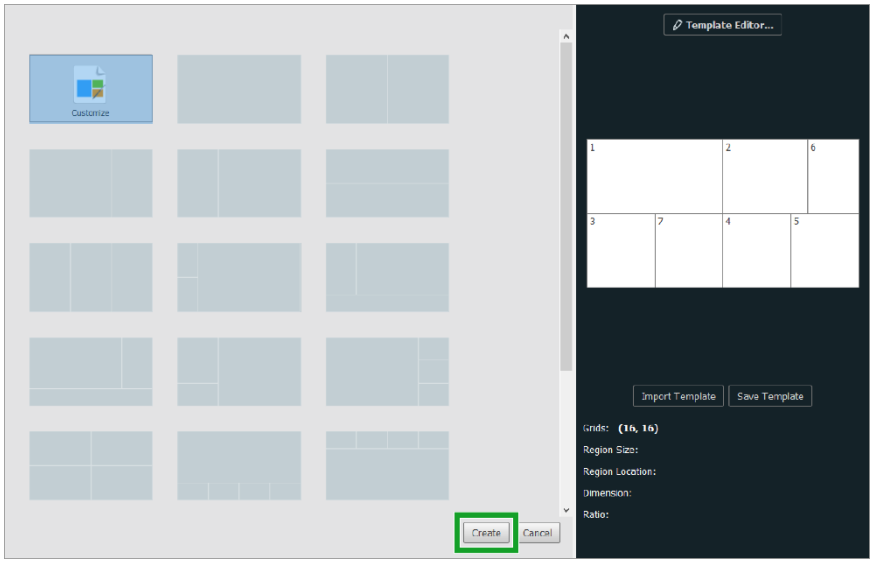
2. Click and drag your mouse in the grid layout to create a region within the template.



3. Repeat step 2 to create all the regions you want in your layout.
   NOTE: To revert a region you have already created to the original grid, right-click on the respective region.
4. Click **OK** to finalize your design and return to the **Select Template** menu.

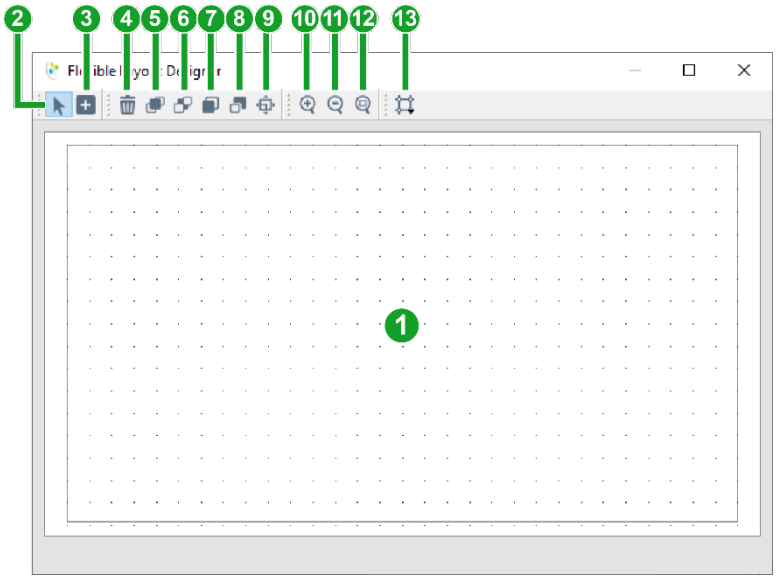


5. Click **Create** in the **Select Template** menu to select your custom-made layout and begin editing the content for your playlist page. Go to XXXX for details on editing the content for the page.
   *NOTE: If you want to save the layout you customized as a template for future use, click **Save Template** in the **Select Template** menu.*



Using Flexible Mode

When you select **Flexible** in the **Create a Playlist** menu, a **Flexible Layout Designer** window will pop-up for you to create your own playlist page layout. Use the following tools in the window to create the layout.

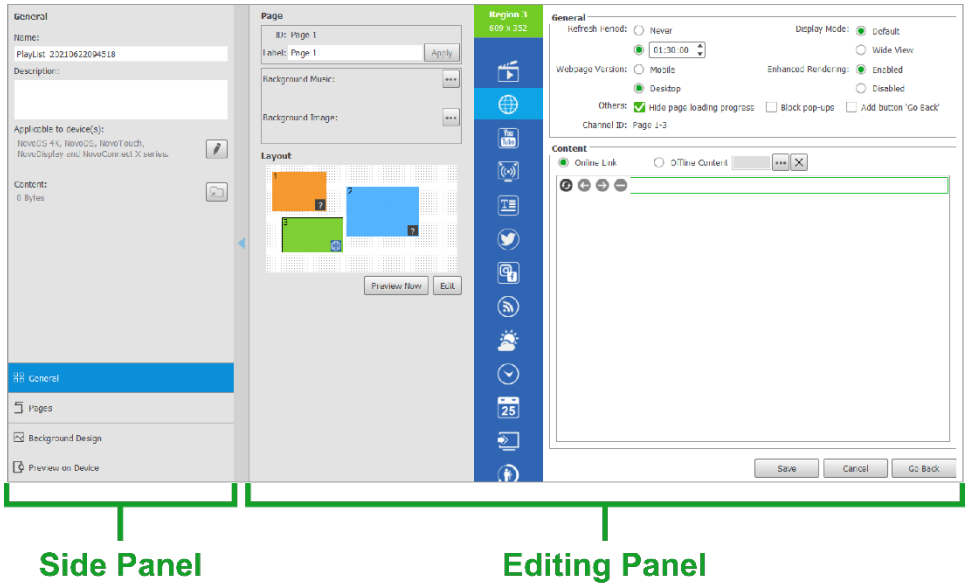


No.	Item	Description
1	Artboard	Acts as the canvas for your layout Select the Create New Item button, and then click and drag within the artboard to create a multimedia item in the layout. *NOTE: The black border in the artboard indicates the boundaries of the display.*
2	Cursor	Allows you to select, move, or re-size an item on the artboard.
3	Create New Item	Allows you to create a multimedia item within the playlist layout. Once the button is selected, you will have a choice of the type of multimedia item you want to create. After selecting the multimedia type, click and drag within the artboard to create the item. *NOTE: If you choose not to select a multimedia type, the item you will create will be an "Unset" item which can be switched to any multimedia type after.*
4	Delete	Deletes the selected item from the layout.
5	Bring to Front	Brings the selected item to the most top layer of the layout.
6	Sent to Back	Sends the selected item to the farthest layer of the layout.
7	Pop up item	Brings the selected item one layer forward in the layout.
8	Push down item	Sends the selected item one layer backward in the layout.
9	Properties	Allows you to configure the position, size, and multimedia type of the selected item.
10	Zoom in	Zooms in on the artboard
11	Zoom out	Zooms out on the artboard
12	Zoom fit	Snaps the zoom level back to fit the boundaries of the display.
13	Snap to Grid	Allows you to configure the size of the square grids within the artboard, as well as enable/disable the setting where items align to the grid when moved.

Once you have finished designing your page layout via Flexible mode, close the **Flexible Layout Designer** pop-up window and use the editing menu to finish editing your playlist page. Go to XXXX for details on editing the content for the page.

The Editing Menu

Once you have finished choosing or designing a layout for your playlist page, you will enter the editing menu. The editing menu features a side panel and a main editing panel:



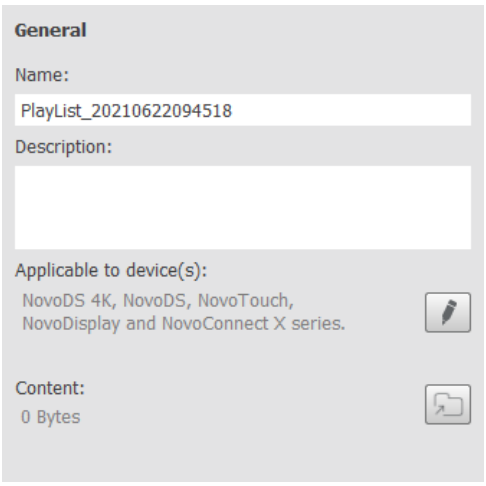
The side panel allows you to access the following menus at the bottom of the panel to configure overall settings for the playlist:

- **General** – Configures general settings for the playlist including playlist name, description, Novo device, and content included. Go to XXXX for more details on the **General** menu.
- **Pages** – Allows you to add and/or edit multiple pages within the playlist. Go to XXXX for more details on the **Pages** menu.
- **Background Design** – Allows you to create a multimedia background for your entire playlist. Go to XXXX for more details on the **Background Design** menu.
- **Preview on Device** – Allows you to preview the playlist on a single device via the device's IP address. Go to XXXX for more details on the **Preview on Device** menu.

The editing panel is the main interface for editing the content within a playlist page. Go to XXXX for more details on the editing panel.

The General Panel

Select the **General** tab at the bottom of the editing menu's side panel to access the general panel and configure general settings for the playlist.

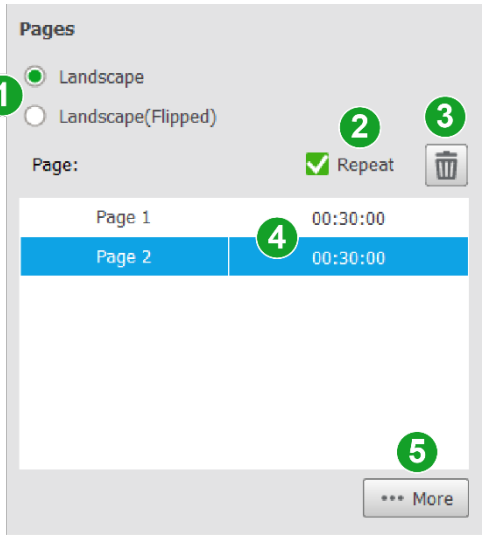


The following options are available in the general panel:

- **Name** – Edit the name for the playlist in this field.
- **Description** – Enter or edit a description for the playlist in this field.
- **Applicable to device** – Click the edit button ( ) to configure the Novo devices the playlist will be played on.
- **Content** – Click the folder button ( ) to open the folder where the playlist and its related files are stored in your local storage.

The Pages Panel

Select the **Pages** tab at the bottom of the editing menu's side panel to access the pages panel and add or edit multiple pages in your playlist.



The following options are available in the pages panel:

No.	Item	Description
1	Orientation	• Select **Landscape** to set the playlist to broadcast in normal landscape orientation.

		• Select **Landscape (Flipped)** set the playlist to broadcast in a mirrored landscape orientation for images that will be reflected off a mirror.
2	Repeat	Check this box if you want the playlist to repeat after it has finished playing.
3	Delete	Select a page in the page menu and click this button to delete the page from the playlist.
4	Page List	Lists all the pages in your playlist. • Click a page to view the main editing panel for the respective page. Go to XXXX for more details regarding the editing panel. • Click and drag on a page to re-order the page sequence. • Double-click the time for a page to edit the duration for which the page will be displayed.
5	More	Click and select one of the following options to add a page to the playlist: • **Page** – Adds a new page to the playlist. Once selected follow the instructions in XXXX or XXXX to select the template for the new page. • **Link** – Adds a copy of an already created page to the playlist. • **Import** – Imports a page from another playlist.

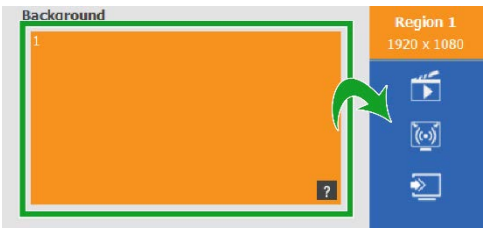
The Background Design Panel

Select the **Background Design** tab at the bottom of the editing menu's side panel to access the background design panel and add a multimedia background to your playlist.
NOTE: The background design panel adds a background to the entire playlist. For instructions on adding a background for only a certain page within a playlist, go to XXXX.

Once you have entered the background design panel follow the steps below to add a background design:

1. Select **Media Content** in the background design panel and a background frame will appear to the right of the side panel.

2. Click the background frame in the panel and a multimedia options menu will appear to the right of the background frame.

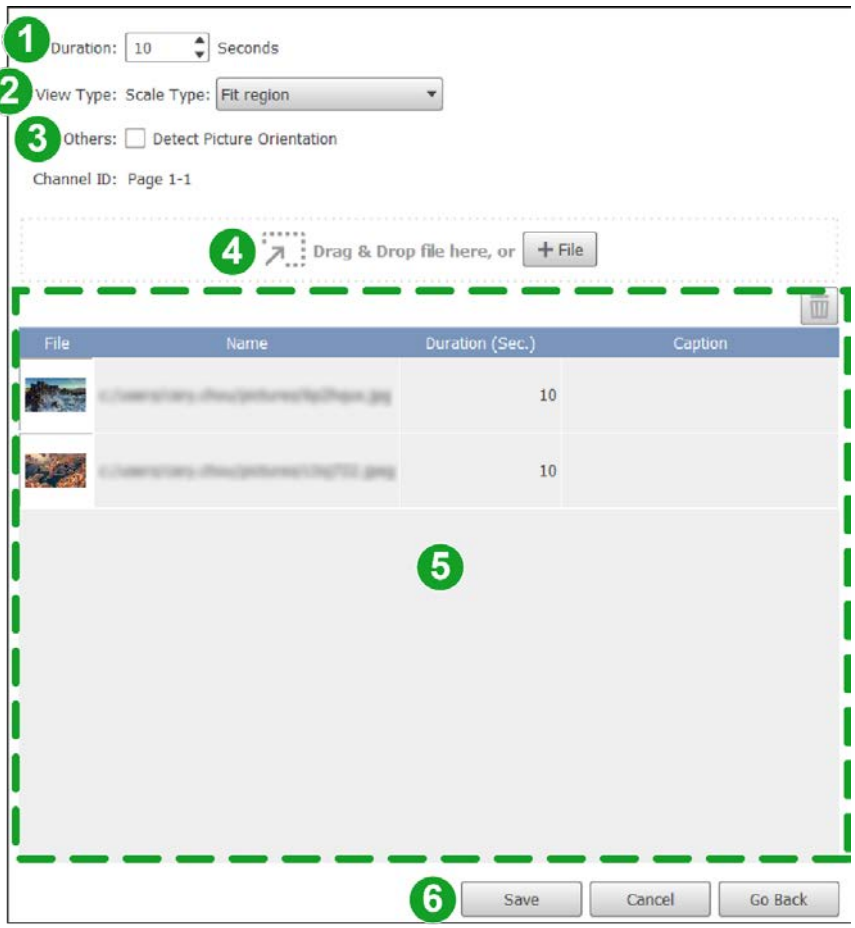


Select one of the following options to select and configure the type of media you want as the background for your playlist:

Button	Item	Description
	Media	Makes the background an image, video, document or music file(s). Go to XXXX for more details on configuring the media file for your background. *NOTE: Supported file formats include PNG, JPG, JPEG, BMP, MP4, WMV, 3GP, AVI, MOV, PPT, PPTX, PDF, and MP3.*
	IP Stream	Makes the background a video stream from a camera connected to the network. Go to XXXX for more details on configuring the IP stream for your background.
	Video In	Makes the background either video from a device connected to the display's HDMI port or a stream from a USB webcam connected to the display. Go to XXXX for more details on configuring the video input for your background.

Media Background

When you select media ( ) for a background design, an editing menu will appear for the media. Follow the steps below to add a media file as a background:



1. In the **Duration** field, select how long the media file will play in the background.
2. In the **View Type** field, select one of the following options to configure how the image/video will fit into the background frame:

- **Stretch to fit region** – Stretches smaller images/videos horizontally so that they fit into the background frame.
- **Fit region** – Scales the images/videos so that the full image fits into the background frame.
- **Scale to fill region** – Scales up smaller images/videos until the background frame is completely filled.

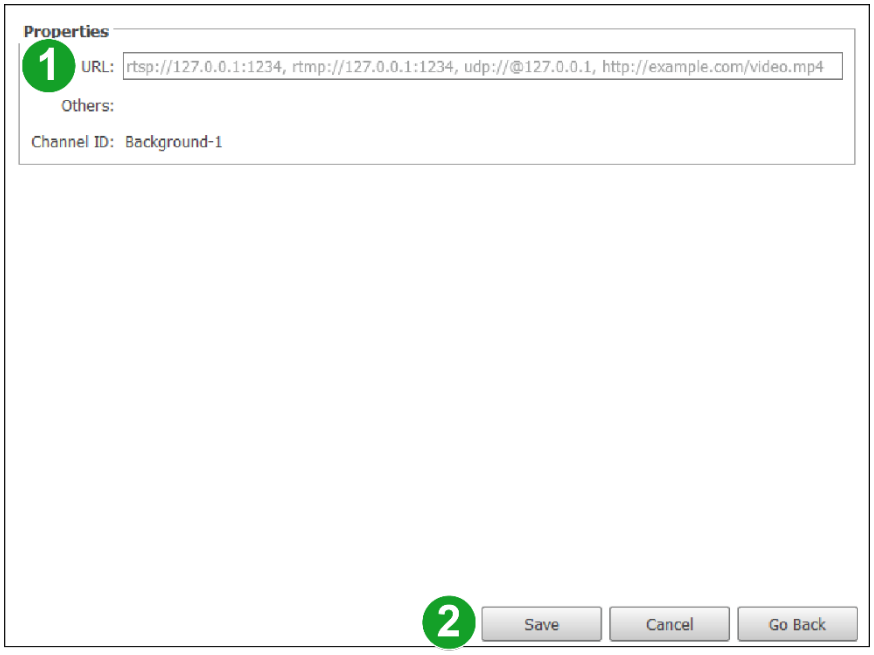
3. In the **Others** field, check the **Detect Picture Orientation** to make automatic corrections to the picture orientation.
4. Drag and drop or click the **+ File** button and select the media file you want to use as the background. Repeat this step to add more media files as backgrounds.
   NOTE: Supported file formats include PNG, JPG, JPEG, BMP, MP4, WMV, 3GP, AVI, MOV, PPT, PPTX, PDF, and MP3.
5. In the file list choose any of the following options to configure your background:

   - Click and drag any file to re-order the playback sequence.
   - Double-click the **Duration** column for any file to configure how long the respective file will play for before switching to the next file.
   - Double-click the **Caption** column for any file to add a description for the file.
   - Select any file and click the delete button ( ) to remove the file from the background playback list.

6. Click **Save** to finish configuring the background settings.

IP Stream Background

When you select IP stream ( ) for a background design, an editing menu will appear for the stream. Follow the steps below to add an IP stream as a background:



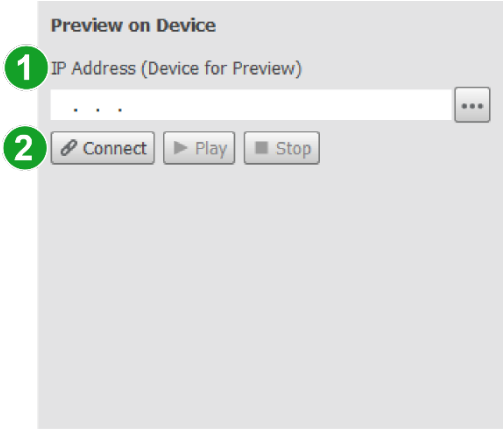
1. In the **URL** field, enter the URL for the IP stream
2. Click **Save** to finish configuring the background settings.

Video In Background

When you select video in ( ) for a background design, an editing menu will appear for the type video input. Follow the steps below to make video from an HDMI device or a webcam video stream the background:

Preview On Device Panel

Select the **Preview On Device** tab at the bottom of the editing menu's side panel to access the preview panel and preview your playlist page on a display connected to your network. Follow the steps below to preview your playlist page:

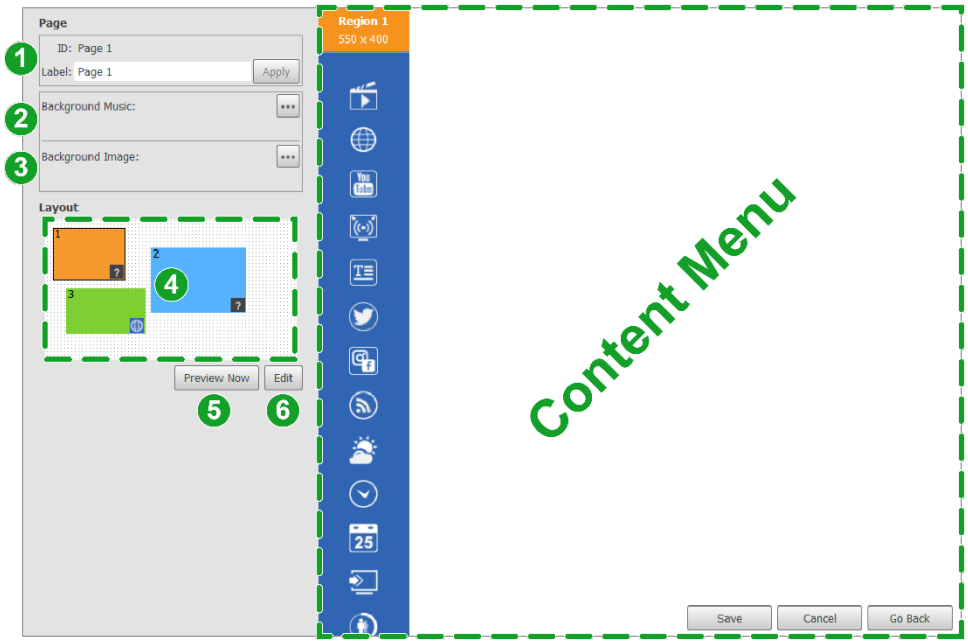


1. In the **IP Address** field, enter the IP address for the display where you want the preview to be shown, or click the more button ( ) to select from a list of connected devices.
2. Click the **Connect** button to connect to the display, and then click the **Play** button to begin the preview.

Once the preview is playing you can click the **Stop** button to stop the preview, the **Play** button to resume the preview, or **Disconnect** to disconnect from the display altogether.

The Editing Panel

The editing panel is the main interface for editing the content within a playlist page. Follow the steps below to edit the content for a page:



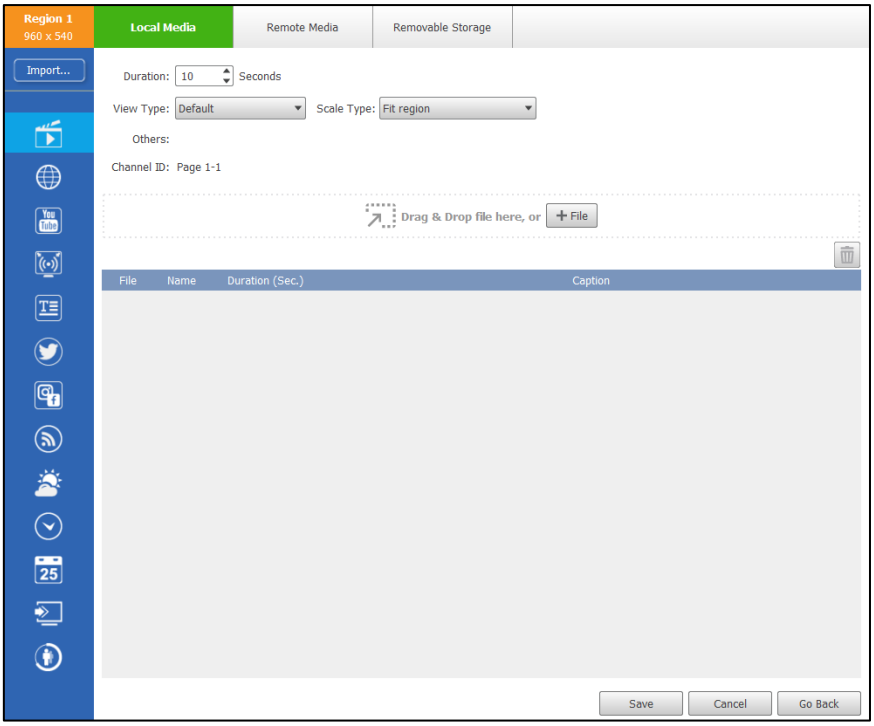
*NOTE: If your playlist contains multiple pages, select the **Pages** in the side panel and select the page you want to edit from the page list.*

1. [OPTIONAL] In the **Label** field, edit the name of the page.
2. [OPTIONAL] In the **Background Music** field, click the more button (…) to add background music to the page or playlist via a music file stored on your local device or via an audio stream URL.
3. [OPTIONAL] In the **Background Image** field, click the more button (…) to add a background image or color to the page.
   *NOTE: The **Background Image** field adds a background to the respective page only. For instructions on adding a background for the entire playlist, go to XXXX.*
4. In the **Layout** window, click on any of the page items to configure the content for the item in the content menu. Go to XXXX for more details regarding the content menu.
5. [OPTIONAL] Click **Preview Now** to view a preview of the page.
6. [OPTIONAL] Click **Edit** to change or edit the layout for the page. For layouts that used Grid mode, go to XXXX for more details on editing the layout. For layouts that used Flexible mode, go to XXXX for more details on editing the layout.

For details on editing the content for each item within the page's layout, go to XXXX.

The Content Menu

When you click on an item/box in the **Layout** window of the editing panel, the content menu will appear to the right. The content menu allows you to select the type of content that will appear in each item/box on a page and then configure the content itself.



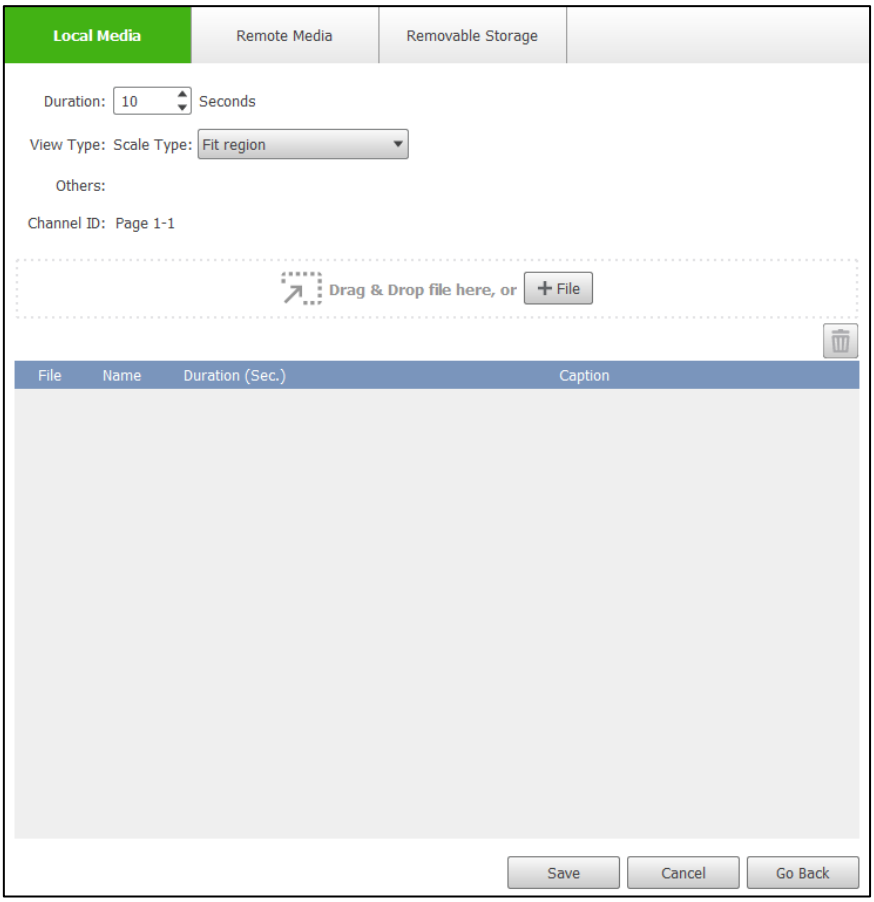
To select the type of content that will appear in an item/box on the page, click one of the options in the bar to the left of menu. The type of content available include:

Button	Item	Description
Import...	Import	[For Grid Mode Only] Allows you to import content from an item/box in another playlist's page. Go to XXXX for more details on importing content.
	Media	Makes the layout item/box display an image, video, document, or music file(s) that is either stored locally, remotely (via cloud storage), or on a removable storage device. *NOTE: Supported file formats include PNG, JPG, JPEG, BMP, MP4, WMV, 3GP, AVI, MOV, PPT, PPTX, PDF, and MP3.* Go to XXXX for more details on configuring the file settings.
	Web Page	Makes the layout item/box display a webpage. Go to XXXX for more details on configuring the webpage settings.
	YouTube	Makes the layout item/box display a YouTube video. Go to XXXX for more details on configuring the YouTube video settings.
	IP Stream	Makes the layout item/box display a video stream from a camera connected to the network. Go to XXXX for more details on configuring the IP stream settings.
	Text	Makes the layout item/box display customized text. Go to XXXX for more details on configuring the text settings.

	Twitter	Makes the layout item/box display a Twitter feed. Go to XXXX for more details on configuring the feed settings.
	Social Network	Makes the layout item/box display a Facebook or Instagram profile. Go to XXXX for more details on configuring the social network settings.
	RSS	Makes the layout item/box display an RSS feed. Go to XXXX for more details on configuring the feed settings.
	Weather	Makes the layout item/box display a weather report. Go to XXXX for more details on configuring the weather report settings.
	Clock	Makes the layout item/box display a clock or timer. Go to XXXX for more details on configuring the clock/timer settings.
	Calendar	Makes the layout item/box display a Google, Microsoft, of iCal account calendar. Go to XXXX for more details on configuring the feed settings.
	Video In	Makes the layout item/box display video from a device connected to the display's HDMI port or a USB webcam connected to the display. Go to XXXX for more details on configuring the video input settings.
	People Count	Makes the layout item/box display a people count from a people counting camera. Go to XXXX for more details on configuring the people count settings.

Media

To display a media file in a layout item/box click the media button ( ) in the bar to the left of the content menu, and the media menu will appear.

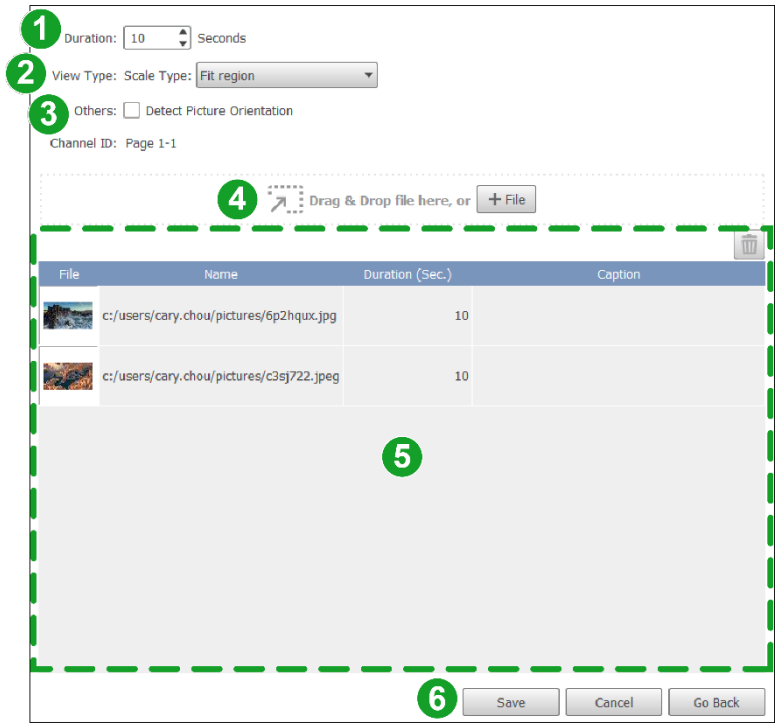


The media menu features three sub-menus which can be accessed at the top of the menu:

- **Local Media** – Allows you to upload media files from your local storage.
- **Remote Media** – Allows you to upload media files from remote cloud-based storage (e.g. DropBox, OneDrive, etc.).
- **Removable Storage** – Allows you to upload media files stored on a removable storage device (e.g. USB flash drive)

Each submenu features different configuration options. Follow the instructions below to configure the display settings for each type of media file.

Local Media



1. In the **Duration** field, select how long each media file will be displayed in the layout item/box.
   *NOTE: If you want to have each media file to be displayed for different amounts of time configure the **Duration** field in step 5.*
2. In the **View Type** field, select one of the following options to configure how the image/video will fit into the layout box:

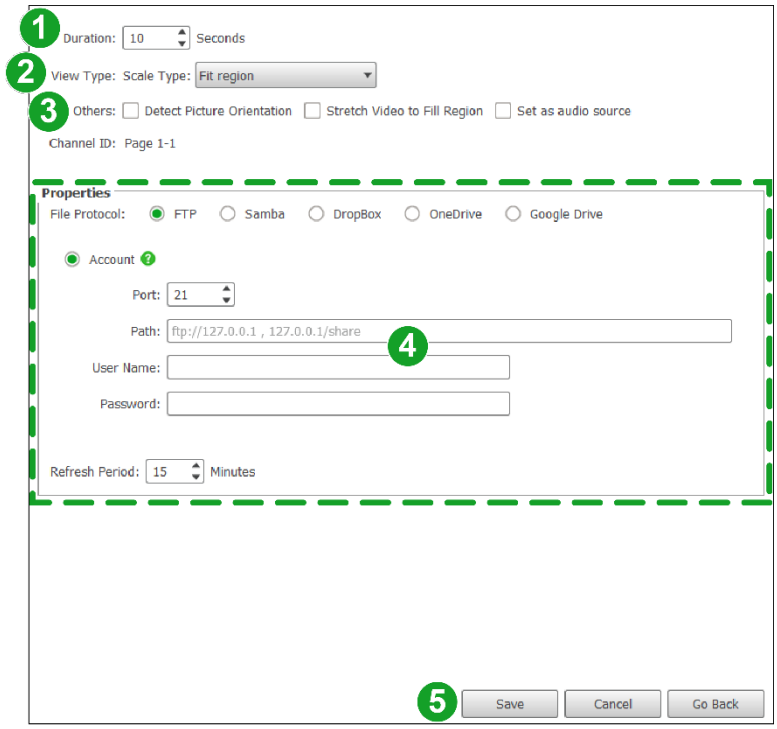
   - **Stretch to fit region** – Stretches smaller images/videos horizontally so that they fit into the layout box.
   - **Fit region** – Scales the images/videos so that the full image fits into layout box.
   - **Scale to fill region** – Scales up smaller images/videos until the layout box is completely filled.

3. In the **Others** field, check the **Detect Picture Orientation** to make automatic corrections to the picture orientation.
4. Drag and drop or click the **+ File** button and select the media file you want to be displayed in the layout box. Repeat this step to add more media files.
   NOTE: Supported file formats include PNG, JPG, JPEG, BMP, MP4, WMV, 3GP, AVI, MOV, PPT, PPTX, PDF, and MP3.
5. In the file list, choose any of the following options to configure the playback of the media files you have selected for the box:

   - Click and drag any file to re-order the playback sequence.
   - Double-click the **Duration** column for any file to configure how long the respective file will play for before switching to the next file.
   - Double-click the **Caption** column for any file to add a description for the file.
   - Select any file and click the delete button ( ) to remove the file from the playback list.

6. Click **Save** to finish configuring the media settings.

Remote Media



1. In the **Duration** field, select how long each media file in the remote storage directory will be displayed in the layout item/box.
2. In the **View Type** field, select one of the following options to configure how the image/video will fit into the layout box:

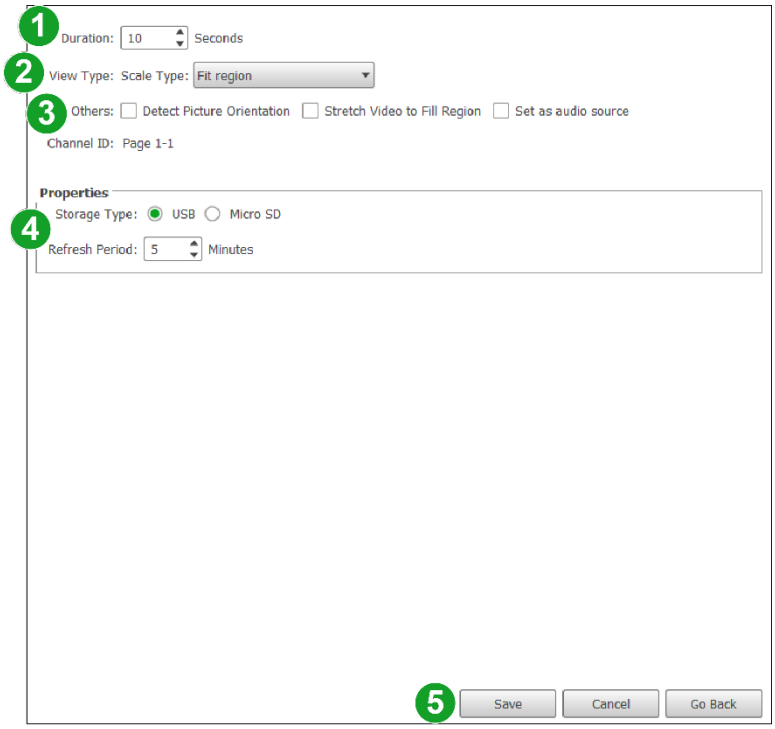
    - **Stretch to fit region** – Stretches smaller images/videos horizontally so that they fit into the layout box.
    - **Fit region** – Scales the images/videos so that the full image fits into layout box.
    - **Scale to fill region** – Scales up smaller images/videos until the layout box is completely filled.

3. In the **Others** field, check any of the following options:

    - **Detect Picture Orientation** – Makes automatic corrections to the picture orientation.
    - **Stretch Video to Fill Region –** Stretches the video horizontally to fill the size of the box.
    - **Set as audio source** – Make the display broadcast the audio from the media file.

4. Enter the login settings for the storage service you are using, and then in the **Refresh Period** field select how often you want DS Playlist to check for new files stored in the path given.
5. Click **Save** to finish configuring the media settings.

Removable Storage



1. In the **Duration** field, select how long each media file in the removable storage will be displayed in the layout item/box.
2. In the **View Type** field, select one of the following options to configure how the image/video will fit into the layout box:

    - **Stretch to fit region** – Stretches smaller images/videos horizontally so that they fit into the layout box.
    - **Fit region** – Scales the images/videos so that the full image fits into layout box.
    - **Scale to fill region** – Scales up smaller images/videos until the layout box is completely filled.

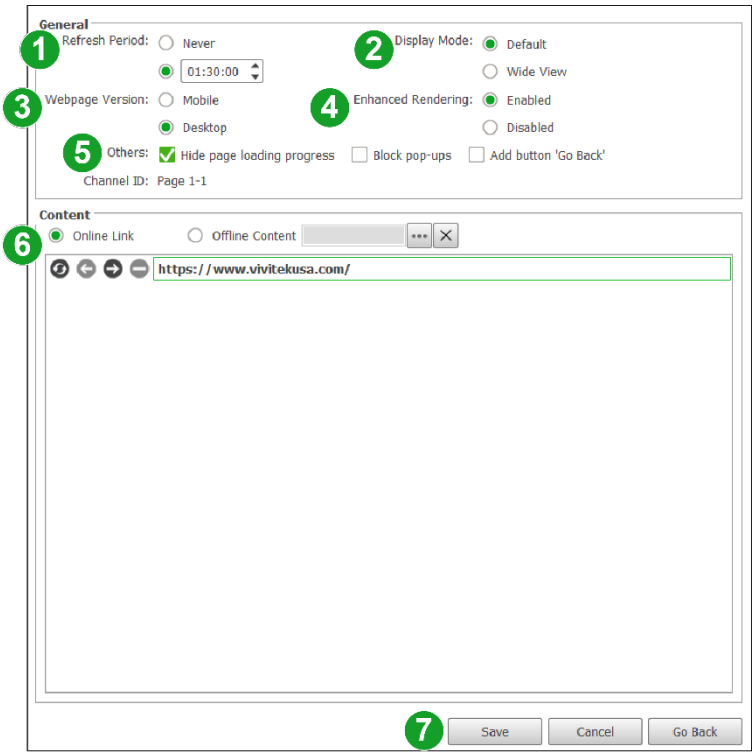
3. In the **Others** field, check any of the following options:

    - **Detect Picture Orientation** – Makes automatic corrections to the picture orientation.
    - **Stretch Video to Fill Region –** Stretches the video horizontally to fill the size of the box.
    - **Set as audio source** – Make the display broadcast the audio from the media file.

4. Select the type of storage device you are using, and then in the **Refresh Period** field select how often you want DS Playlist to check for new files stored in the path given.
5. Click **Save** to finish configuring the media settings.

Web Page

To display a web page in a layout item/box click the web page button ( ) in the bar to the left of the content menu, and the web page menu will appear. Follow the instructions below to configure the display settings for the web page.



1. In the **Refresh Period** field, set the amount of time you want to pass before the web page is refreshed, or select **Never** if you do not want the web page to refresh.
2. In the **Display Mode** field, select the if you want the web page to be displayed in its default mode or in a wide view.
3. In the **Webpage Version** field, select which version of the web page you want displayed.
4. In the **Enhanced Rendering** field, select whether or not you want the web page shown in enhanced resolution.
5. In the **Others** field check any of the following options:

    - **Hide page loading progress** – Does not show the loading progress each time the web page is refreshed.
    - **Block pop-ups** – Blocks and pop-up windows from the web page.
    - **Add Button "Go Back"** – Adds a "Go Back" button in the layout box whose placement within the box can be chosen from nine pre-set locations.

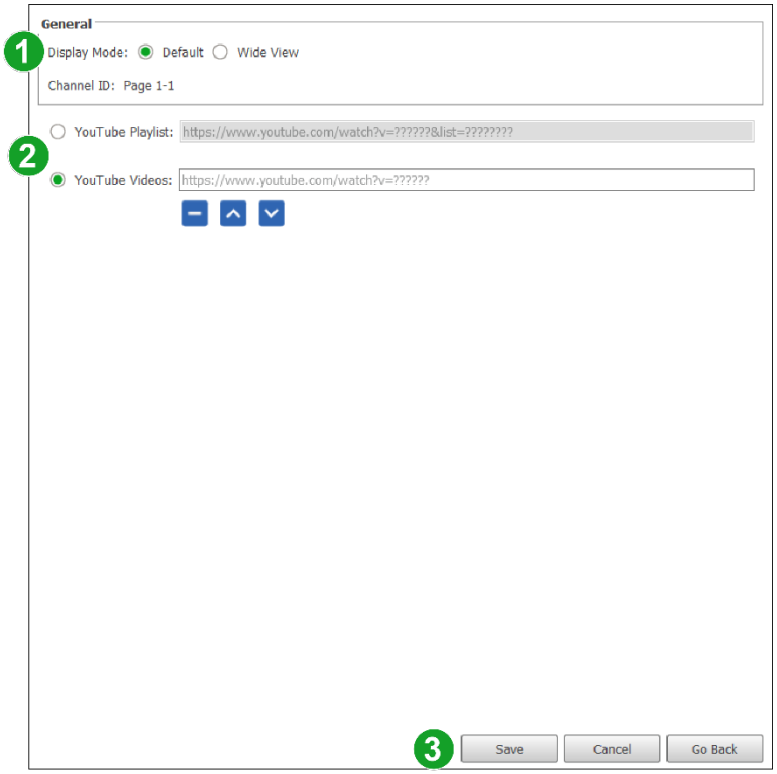
6. In the **Content** section, choose one of the following options:

    - To display a web page that is currently available on the Internet, select **Online Link**, then enter the URL for the web page into the field below, and then click the refresh button ( ) to load a preview of the web page into the **Content** window.
    - To display an offline web page that is saved on your local storage, select **Offline Content**, then click the more button ( ) to select the file for the web page in your local storage.

7. Click **Save** to finish configuring the web page settings.

YouTube Video

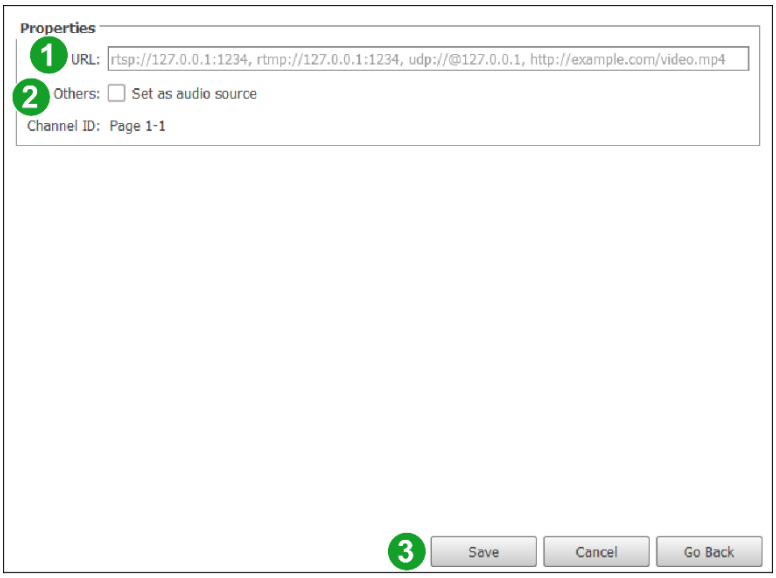
To display a YouTube video or YouTube playlist in a layout item/box click the YouTube button ( ) in the bar to the left of the content menu, and the YouTube menu will appear. Follow the instructions below to configure the display settings for the YouTube video or playlist.



1. In the **Display Mode** field, select the if you want the video to be displayed in its default mode or in a wide view.
2. In the video section, choose one of the following options:
   - To display a YouTube playlist, select **YouTube Playlist**, then enter the URL for the playlist into the field to the left.
   - To display one or more YouTube videos, select **YouTube Vidoes**, then enter the URL for the playlist into the field to the left and a listing will appear for the video. Select a video in the list and click the up or down button (/) to re-order the video within the list, or click the remove button ( ) to remove it from the list.
3. Click **Save** to finish configuring the YouTube video settings.

IP Streaming

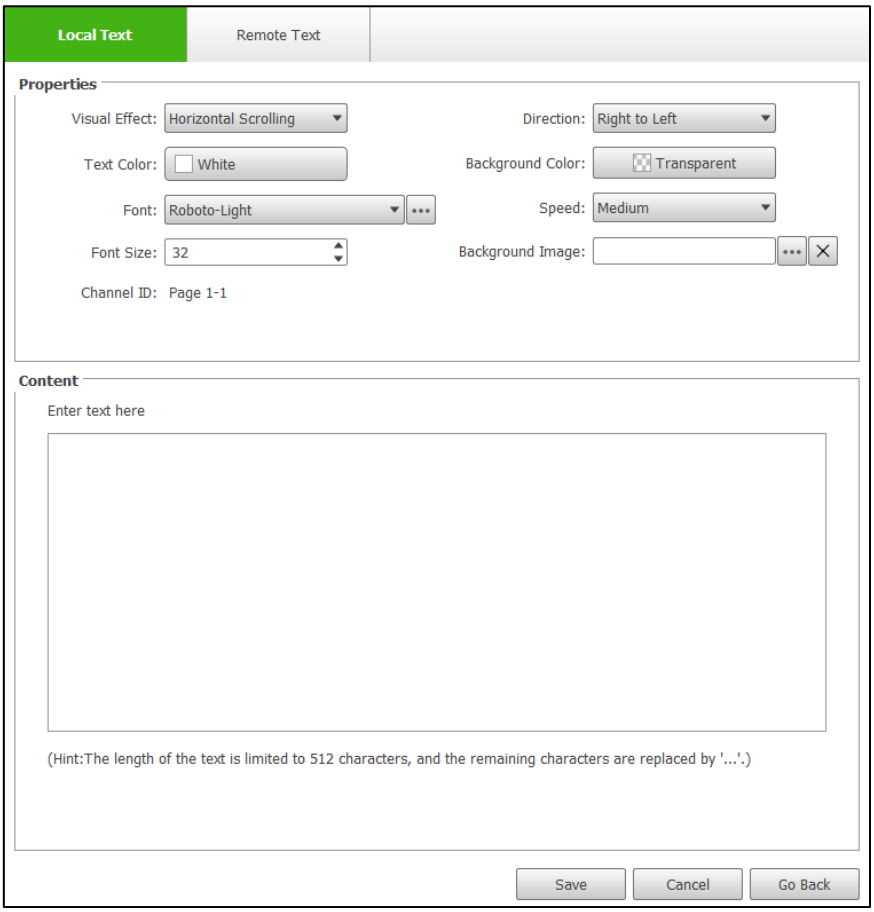
To display a video stream from an IP camera in a layout item/box click the IP stream button ( ) in the bar to the left of the content menu, and the IP stream menu will appear. Follow the instructions below to configure the display settings for the IP video stream.



1. In the **URL** field, enter the URL for the IP camera.
2. In the **Others** field, click the **Set as audio source** box to have the display broadcast the audio from the IP camera's video stream.
3. Click **Save** to finish configuring the YouTube video settings.

Text

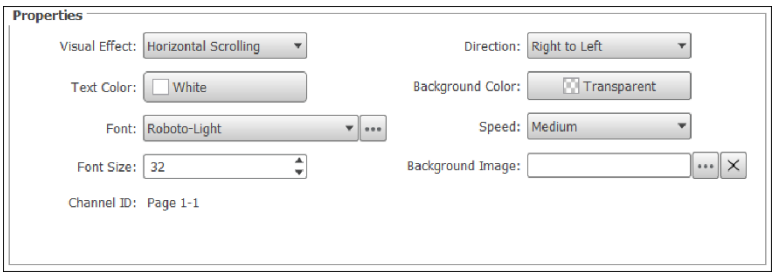
To display a text in a layout item/box click the text button ( ) in the bar to the left of the content menu, and the text menu will appear.



The text menu features two sub-menus which can be accessed at the top of the menu:

- **Local Text** – Allows you to display text directly entered in the text menu.
- **Remote Text** – Allows you to display text saved as a .txt file on a remote cloud-based storage account (e.g. DropBox, OneDrive, etc.).

The properties section of the text menu is the same for both the Local Text and Remote Text sub-menus. The following options are available to configure the general display settings for the text.

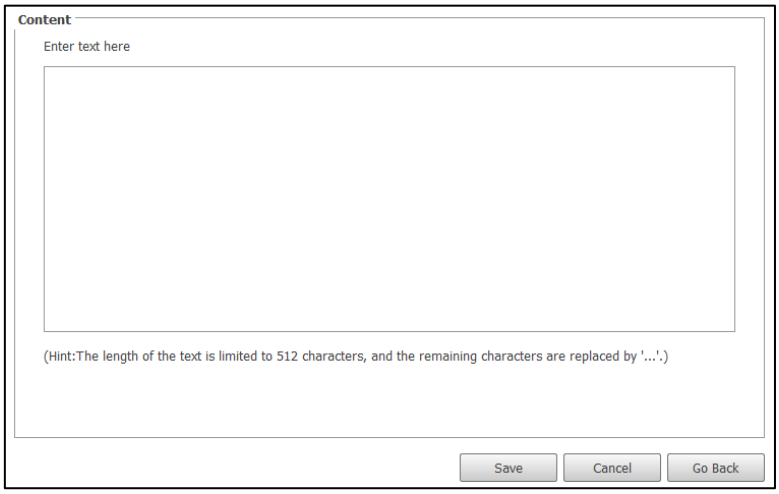


- **Visual Effect** – Configures the method in which the text is displayed within a box. The available options include **Static**, **Horizontal Scrolling**, **Vertical Scrolling**, **Rich Text**, and **QR Code**.
  The availability of the settings below will be based on the type of **Visual Effect** chosen.

- **Align** – Aligns the text to one of the nine preset places within the box.
- **Text Color** – Allows you to choose from several preset colors or select a custom color for the text.
  *NOTE: For more text related options such as text stylization, select **Rich Text** in the **Visual Effect** field and then use the text tool bar in the **Content** setting.*
- **Background Color** – Allows you to choose a transparent background, or a preset or custom color for the background.
- **Font** – Sets the font for the text. To use a font not included in the drop-down menu, click the more button ( ) and upload the font you want to use.
- **Background Image** (OPTIONAL) – To add a background image in the layout item/box for the text, click the more button ( ) and upload the image you want to use.
  *NOTE: The **Background Image** field adds a background to the layout box only. For instructions on adding a background to the entire page, go to XXXX. For instructions on adding a background for the entire playlist, go to XXXX.*
- **Font Size** – Sets the size of the text.
- **Direction** – Sets the direction in which the text scrolls.
- **Speed** – Sets the speed at which the text scrolls.

Once you have configured the general settings for the text, add the actual text in the following fashion (based on the sub-menu):

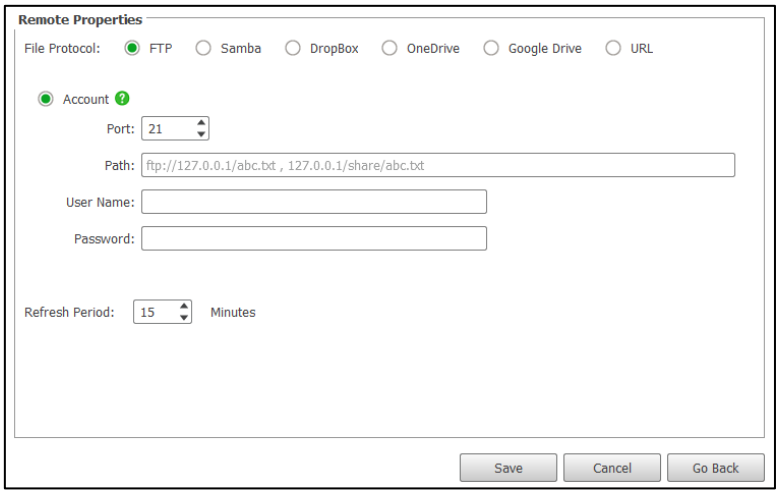
Local Text



In the **Content** section, enter the text directly. If **Rich Text** is selected in the **Visual Effect** field, a text tool bar will be available to stylize the text with basic word processing features.

Once you have finished entering and stylizing the text, click **Save** to finish.

Remote Text

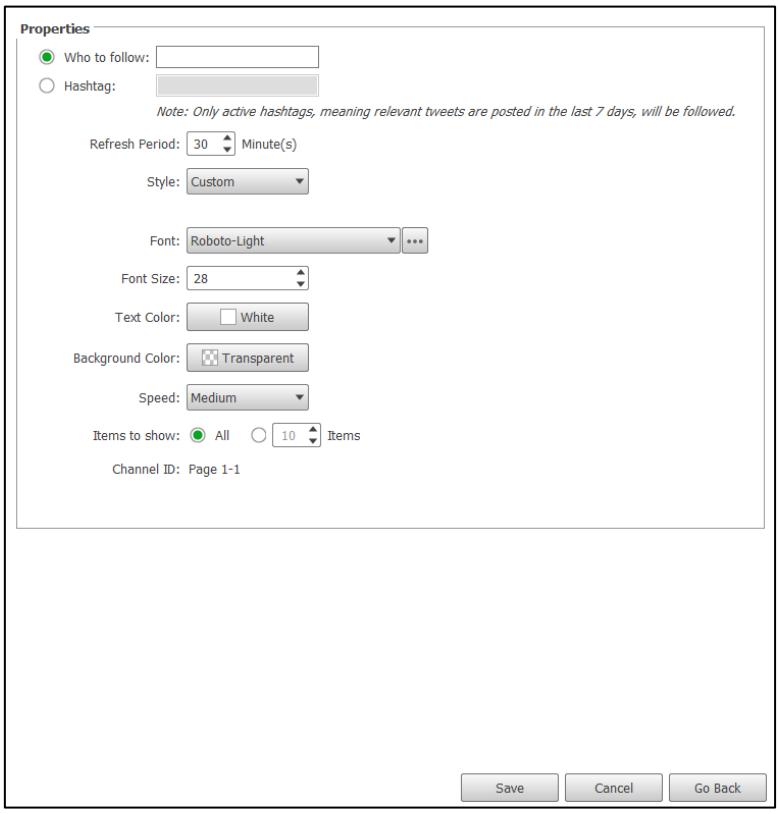


In the **Remote Properties** section, enter the login settings for the storage service where the text file is located, and then in the **Refresh Period** field select how often you want DS Playlist to check for new files stored in the path given.

Once you have finished configuring all the account settings, click **Save** to finish.

Twitter

To display a feed from a Twitter account of hashtag in a layout item/box, click the Twitter button ( ) in the bar to the left of the content menu, and the Twitter menu will appear.



In the **Properties** section of the Twitter menu, select **Who to follow** to display a feed from a Twitter profile or **Hashtag** to display a feed for a hashtag, and then enter the respective profile or hashtag to the right of your selection.

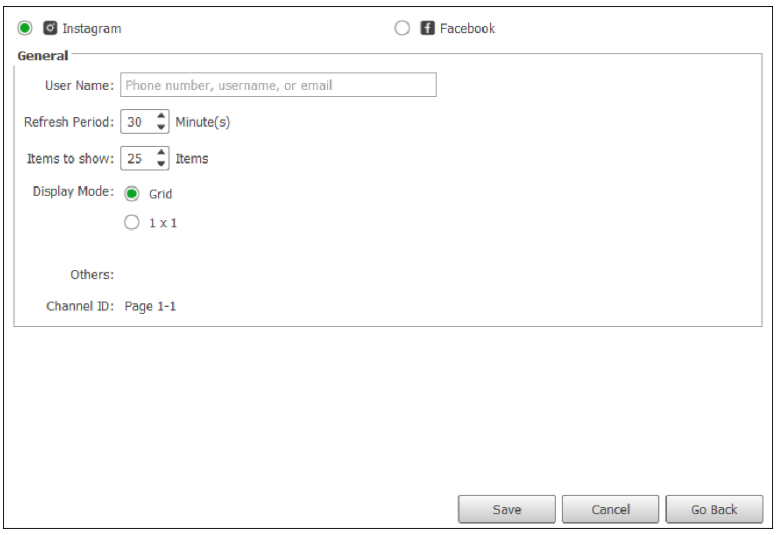
Once you have selected the type of Twitter feed, the following options will become available to configure the display settings for the Twitter feed. The availability of the settings below will be based on the type of Twitter feed selected.

- **Refresh Period** – Sets the amount of time (in minutes) you want to pass before the Twitter feed is refreshed.
- **Style** – Sets the visual style of the feed. The availability of some of settings below will also be based on the type of **Style** chosen.
- **Font** – Sets the font for the text. To use a font not included in the drop-down menu, click the more button ( ) and upload the font you want to use.
- **Font Size** – Sets the size of the text.
- **Text Color** – Allows you to choose from several preset colors or select a custom color for the text.
- **Background Color** – Allows you to choose a transparent background, or a preset or custom color for the background.
- **Speed** – Sets the speed at which the feed scrolls.
- **Items to show** – Allows you to limit the number of tweets shown in the feed.
- **Text Scale** – Allows you to increase the size of the text.
- **Theme** – Chooses the color theme for the feed. Select **Background Transparency** if you want the feed to feature a transparent background.

Once you have finished configuring the Twitter feed settings, click **Save** to finish.

Social Media

To display a feed from an Instagram of Facebook profile in a layout item/box, click the social media button ( ) in the bar to the left of the content menu, and the social media menu will appear.



At the top of the social media menu, select the type of social media profile you want to display in the layout box.

Once you have selected the type of social media profile, the following options will become available to configure the social media feed. The availability of the settings below will be based on the type of social media profile selected.

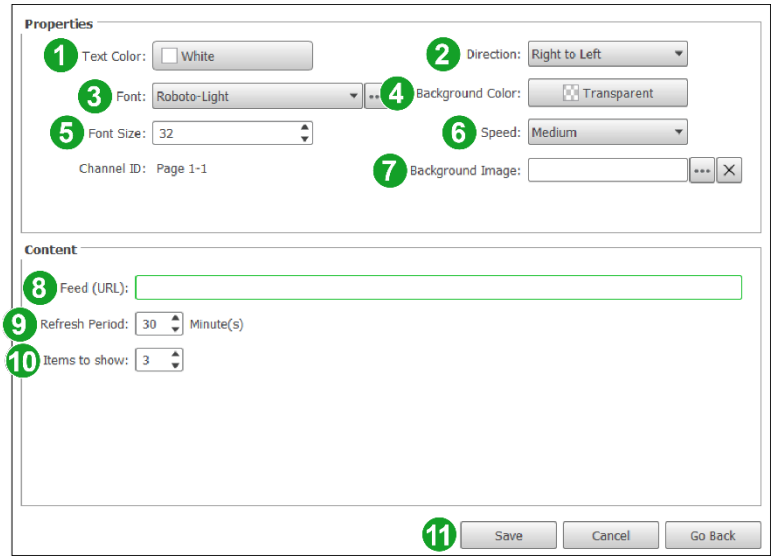
- **User Name** – Enter either the phone number, profile name, or e-mail address of the user's whose profile you want displayed.

- **Refresh Period** – Sets the amount of time (in minutes) you want to pass before the profile is refreshed.
- **Items to show** – Sets the number of posts that are shown in the feed.
- **Display Mode** – Select if you want the posts shown in a grid or in successive full-size postings. The availability of some of settings below will also be based on the type of **Style** chosen.
- **Play Video** – Automatically plays any video posted by the profile.
- **Show Author** – Configures the feed to display the author of any post.
- **Show Likes** – Configures the feed to display the amount of likes for each post.
- **Display text and photos on the surface** – Configures the feed to display XXXX
- **Displays text and photos in turn** – Configures the feed to display XXXX
- **Transition Effect** – Configures the direction the feed scrolls each time it is updated.

Once you have finished configuring the Twitter feed settings, click **Save** to finish.

RSS

To display an RSS feed in a layout item/box, click the RSS button ( ) in the bar to the left of the content menu, and the RSS menu will appear. Follow the instructions below to configure the display settings for the IP video stream.

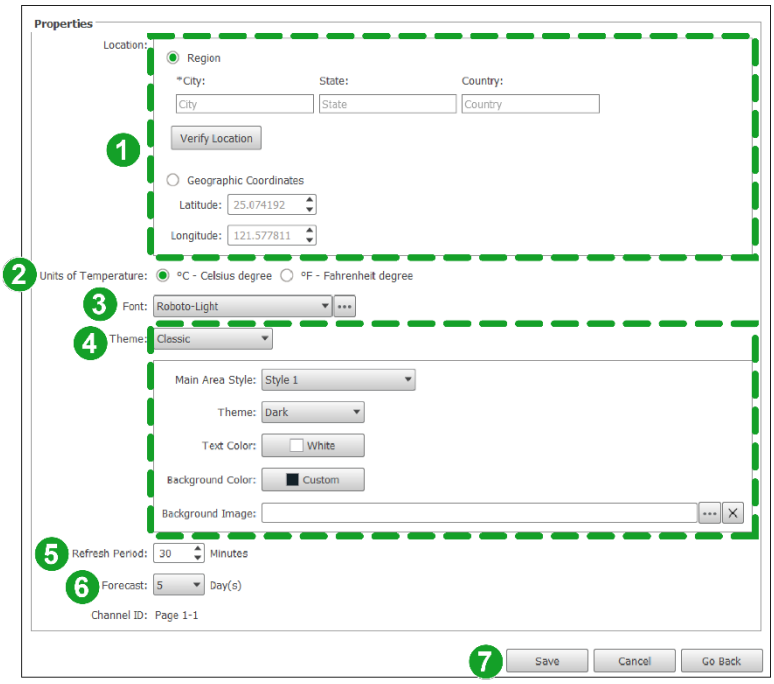


1. In the **Text Color** field, choose from either several preset colors or select a custom color for the text.
2. In the **Direction** field, set the direction in which the text scrolls.
3. In the **Font** field, set the font for the text. To use a font not included in the drop-down menu, click the more button ( ) and upload the font you want to use.
4. In the **Background Color** field, choose a transparent background, or a preset or custom color for the background.
5. In the **Font Size** field, set the size of the text.
6. In the **Speed** field, set the speed at which the feed scrolls.
7. (OPTIONAL) In **Background Image** field, click the more button ( ) to add a background image in the layout item/box for the feed and upload the image you want to use.
   *NOTE: The **Background Image** field adds a background to the layout box only. For instructions on adding a background to the entire page, go to XXXX. For instructions on adding a background for the entire playlist, go to XXXX.*

8. In the **Feed** field, enter the URL for the RSS feed.
9. In the **Refresh Period** field, set the amount of time (in minutes) you want to pass before the RSS feed is refreshed.
10. In the **Items to show** field, set the number of items you want to show in the feed.
11. Click **Save** to finish to finish configuring the RSS feed.

Weather Report

To display a weather report in a layout item/box, click the weather button ( ) in the bar to the left of the content menu, and the weather menu will appear. Follow the instructions below to configure the display settings for the weather report.



1. In **Location** box select the how you want to define the location of the weather report. Once you select an option configure the following options:

   - For **Region**, enter the **City**, **State** (Optional), and **Country** (Optional) and then click **Verify Location**.
     *NOTE: A green check will appear if the region entered has been successfully verified. If a red X appears, ensure that your spelling and location details are correct. If you are still unable to verify the location, select the **Geographic Coordinates** option.*
   - For **Geographic Coordinates**, enter the Latitude and Longitude coordinates for the location.

2. In the **Units of Temperature** field, select the unit you want to use for the weather report.
3. In the **Font** field, set the font for the weather report's text. To use a font not included in the drop-down menu, click the more button ( ) and upload the font you want to use.
4. In the **Theme** field, select the overall theme you want for the weather report box. Once selected, configure the following settings for the theme:

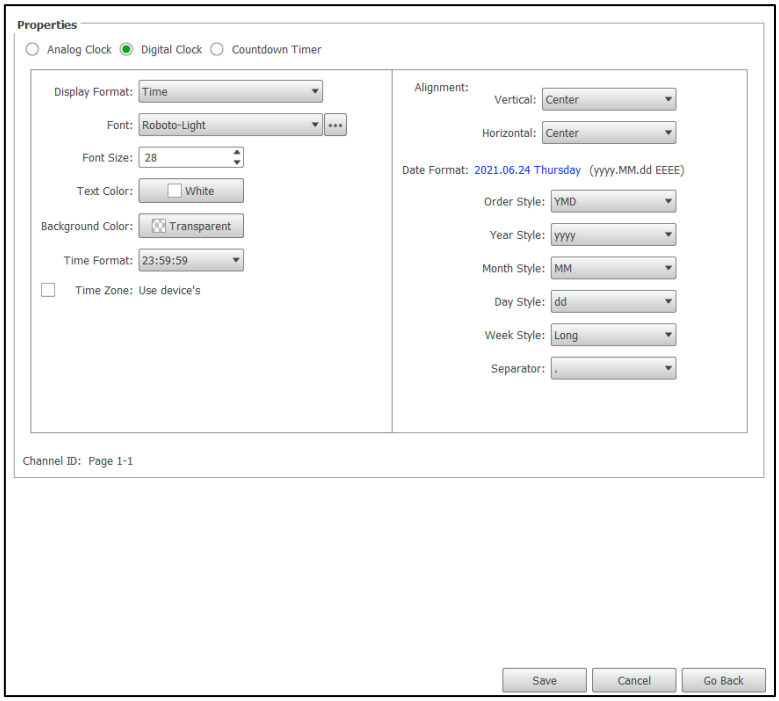
   - In the **Main Area Style** field, select one of the preset styles for the theme.
   - In the **Theme** field, select the color palette for the weather report box.
   - In the **Text Color** field, choose from either several preset colors or select a custom color for the text shown in the box.

- In the **Background Color** field, choose a transparent background, or a preset or custom color for the background.
- (OPTIONAL) In **Background Image** field, click the more button ( ) to add a background image in the layout item/box for the weather report and then upload the image you want to use.
  *NOTE: The **Background Image** field adds a background to the layout box only. For instructions on adding a background to the entire page, go to XXXX. For instructions on adding a background for the entire playlist, go to XXXX.*

5. In the **Refresh Period** field, set the amount of time (in minutes) you want to pass before the weather report is refreshed.
6. In the **Forecast** field, set whether you only want to show today's weather or also include a 5-day forecast.
7. Click **Save** to finish configuring the weather report.

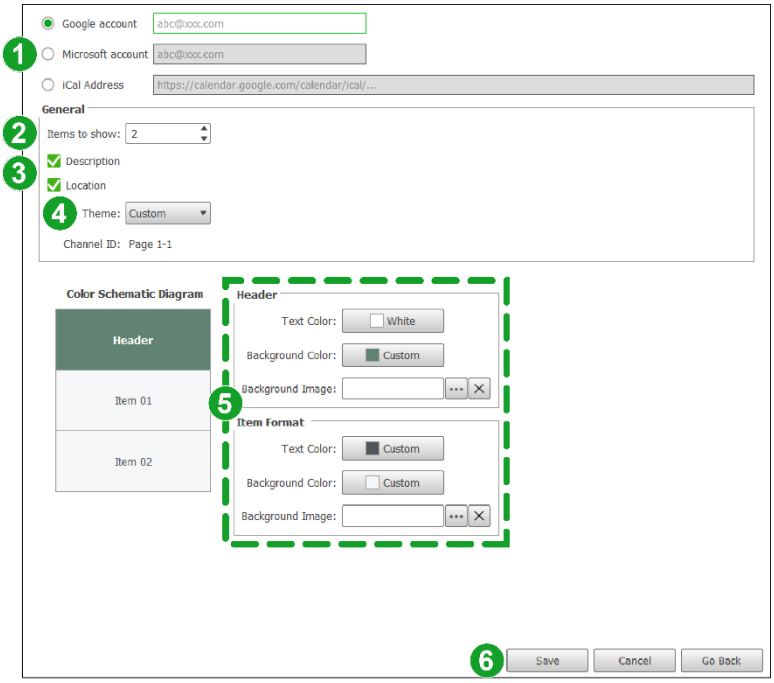
Clock

To display a clock or timer in a layout item/box, click the clock button ( ) in the bar to the left of the content menu, and the clock menu will appear. Select the type of clock or the **Countdown Timer** option at the top of the menu and then configure the appearance settings for the clock in the box below to configure the clock. Once you have finished configuring the clock, click **Save** to finish.



Online Calendar

The online calendar menu allows you to link the layout box to your Google/Gmail, Microsoft, or iCalendar-based calendar and show upcoming items in your schedule. To display your calendar/schedule in a layout item/box, click the calendar button ( ) in the bar to the left of the content menu, and the clock menu will appear. Follow the instructions below to configure the display settings for the calendar.



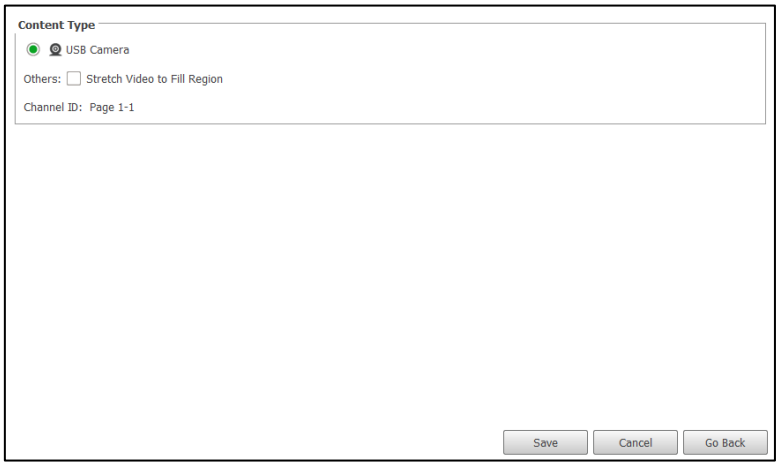
1. Select the type of account for your calendar. The options include Google, Microsoft, or iCal accounts.
2. In the **Items to show** field, set the number of upcoming calendar/schedule events to show in the layout box.
3. Check the Description and/or Location boxes to include more detailed information regarding each event.
4. In the **Theme** field, select from several preset styles or select **Custom** to customize the appearance of the calendar in the layout box.
5. If you select **Custom** in the **Theme** field, you will be able to configure the following settings in the **Header** and **Item Format** boxes:

    - **Text Color** – Choose from either several preset colors or select a custom color for the text shown in both the calendar's header or schedule items.
    - **Background Color** – Choose a transparent background, or a preset or custom color for the header and schedule item's background.
    - (OPTIONAL) **Background Image** – Click the more button ( ) to add a background image in the header or schedule item and then upload the image you want to use.

6. Click **Save** to finish configuring the calendar.

Video In

To display a video from a device connected to the display's HDMI port or a video stream from a USB webcam, click the video in button ( ) in the bar to the left of the content menu, and the video in menu will appear.



At the top of the menu, select either **HDMI** or **USB Camera** depending on the type of device connected.

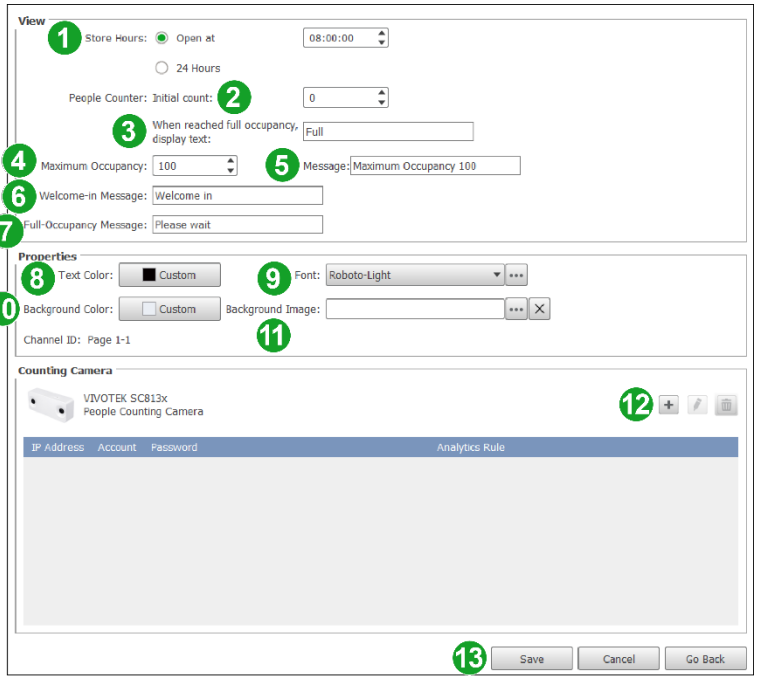
Once you have selected the type of video input, the following options will become available to configure the display settings for the video. The availability of the settings below will be based on the type of video input selected.

- **Always Display On Top** – Configures the video in the box to always be shown on the display.
- **Display in High Resolution** – Sets the video to be shown in High Resolution
- **Set as audio source** – Make the display broadcast the audio from the video input.
- **Stretch Video to Fill Region** – Stretches the video to fill the layout box.

Once you have finished configuring the video input settings, click **Save** to finish.

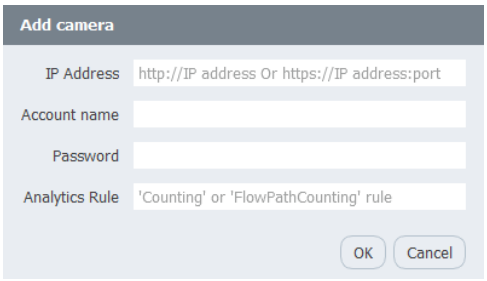
People Counting

To display a count of people within a given space (e.g. the number of customers in a store) using a people counting camera, click the people counting button ( ) in the bar to the left of the content menu, and the video in menu will appear. Follow the instructions below to configure the display settings for the people count.



1. In the **Store Hours** field, select whether the store features an opening time or if the store is open 24 hours. Once you select an option configure one of the following settings:
   - For **Open at**, set the time at which the store opens.
   - For **24 Hours**, select **Restart counting** if you want the count to restart at a given time, and then set the time at which the count is reset.
2. In the **Initial count** field, set the number at which the count starts at.
   NOTE: This option is for use if you have a given number of staff members already present during opening time which you want to include in the count.
3. In the **When reached full occupancy…** field, enter the text you want to be displayed when the maximum occupancy number is reached.
4. In the **Maximum Occupancy** field, select the number for the maximum occupancy.
5. In the **Message** field, enter the text indicating the maximum occupancy number.
6. In the **Welcome-in Message** field, enter the welcome message text you want to be displayed.
7. In the **Full-Occupancy Message** field, enter the text you want displayed for full occupancy.
8. In the **Text Color** field, choose from either several preset colors or select a custom color for the text of the counter.
9. In the **Font** field, set the font for the text. To use a font not included in the drop-down menu, click the more button ( ) and upload the font you want to use.
10. In the **Background Color** field, choose a transparent background, or a preset or custom color for the background.

11. (OPTIONAL) In **Background Image** field, click the more button ( ) to add a background image in the layout item/box for the feed and upload the image you want to use.
12. In the **Counting Camera** section, click the add button ( ) to add the camera that will be used to count. Once you click the add button you will have to enter the following parameters for the camera:



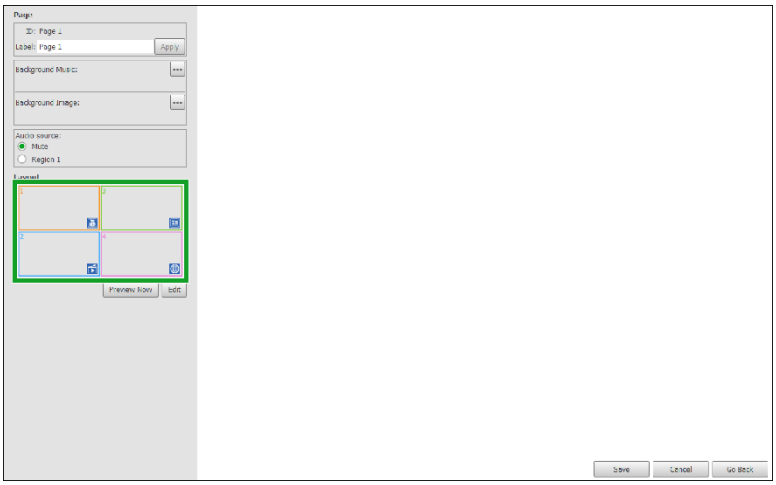
- **IP Address**
- **Account name**
- **Password**
- **Analytics Rule**

13. Click **Save** to finish configuring the people counter.

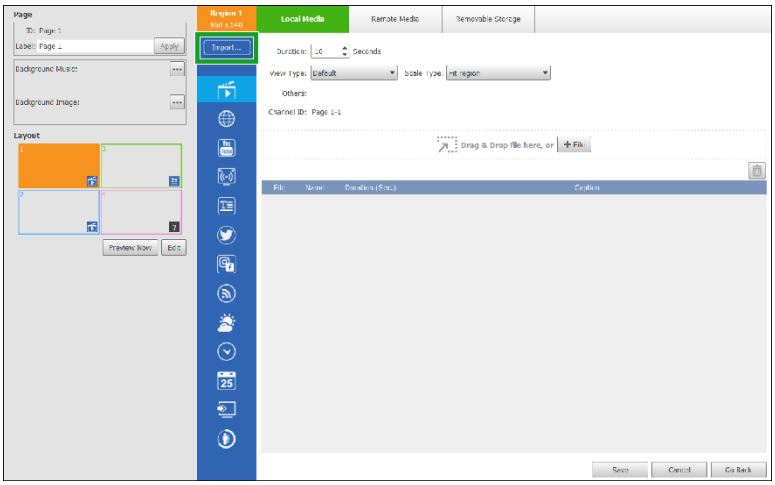
Importing Content (Grid Mode Only)

For layouts in Grid mode, you can import content (and their settings) for a layout item/box from another playlist page. To import content for a layout box follow the steps below:

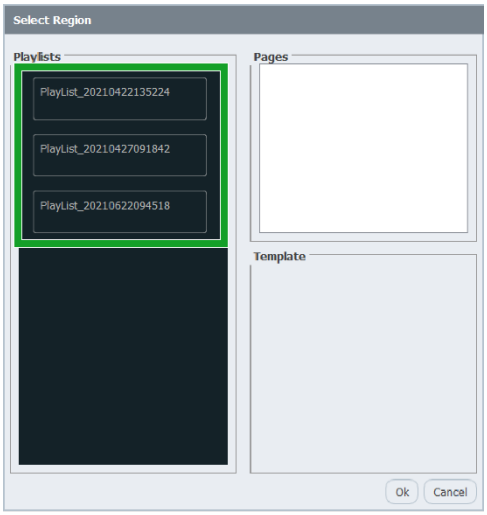
1. In the **Layout** section of the editing panel, click on the layout box that you want to import the content to.



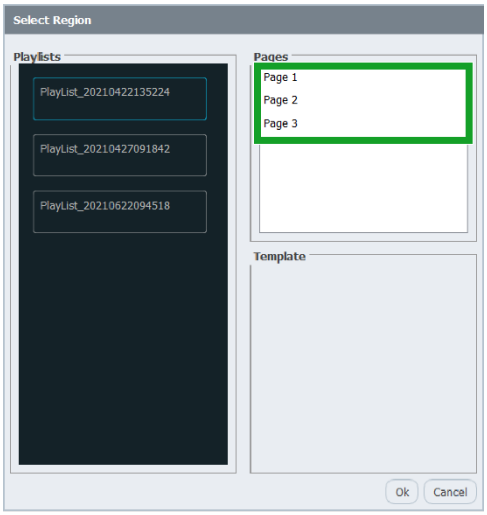
2. In the content bar, click **Import…**



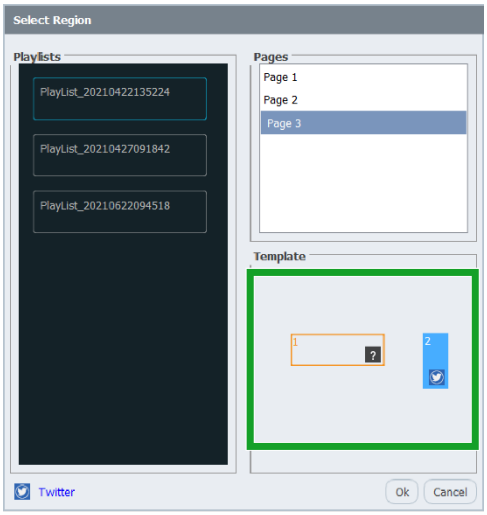
3. In the **Playlists** menu of the **Select Region** pop-up window, click the playlist that features the content you want to import.



4. In the **Pages** menu of the **Select Region** pop-up window, click the page that features the content you want to import.



5. In the **Template** section of the **Select Region** pop-up window, click the layout box that features the content you want to import.

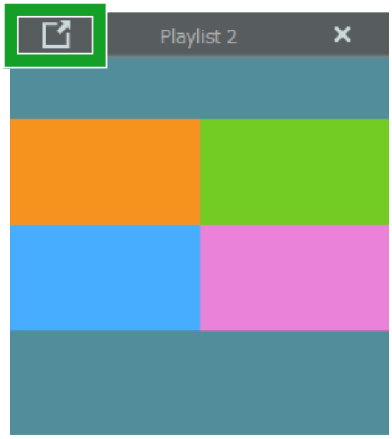


6. Click **Ok**.

Exporting a Playlist

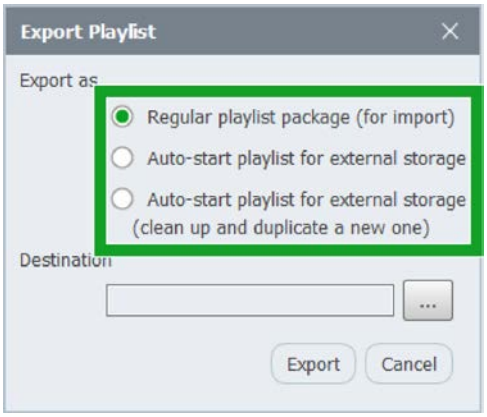
Once you have created a playlist, you can export it as a file onto either your local storage or into an external storage device which will automatically play when connected to a Novo device. Follow the steps below to export your playlist:

1. In the main DS Playlist, screen mouse over the playlist you want to export and click the export button ( ) at the top-left corner of the playlist preview.

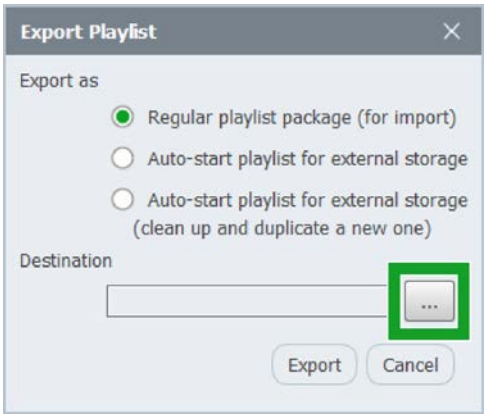


2. In the **Export Playlist** menu, select one of the following options:

- **Regular playlist package (for import)** – Saves the playlist as an .npl2 file onto your local storage.
- **Auto-start playlist for external storage** – Saves the playlist onto an external device which will automatically play once connected to a Novo device.
- **Auto-start playlist for external storage (clean up and duplicate a new one)** – Overrides the playlist on an external device with the selected playlist.



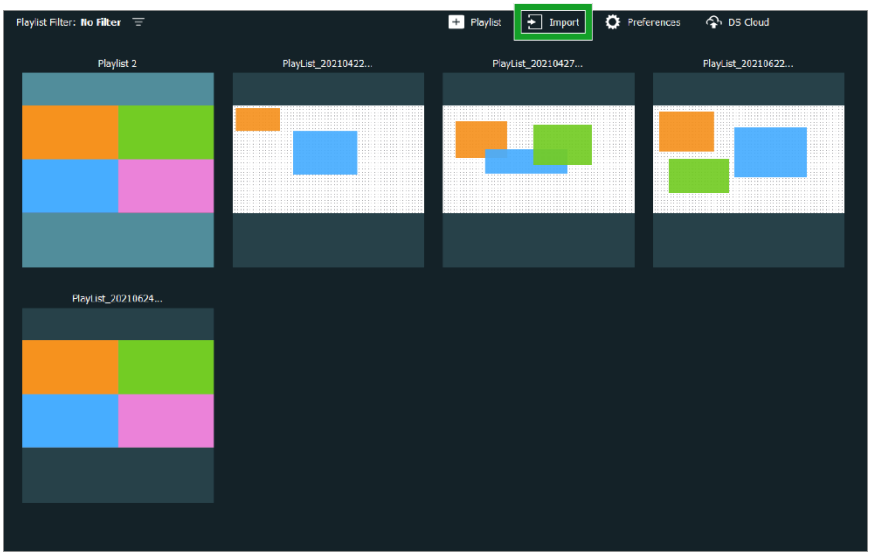
3. In the **Destination** field, click the more button () and navigate to the local folder or external drive where you want to save the playlist.



4. Click **Export**.

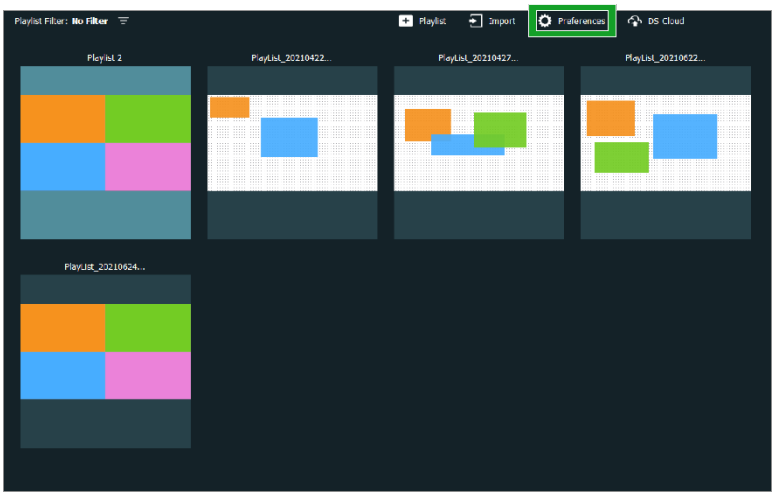
Importing a Playlist

To import a playlist that has been saved on your local storage, click the **Import** button at the top-right corner of the main DS Playlist screen, and then select the .npl2 file on your local storage.

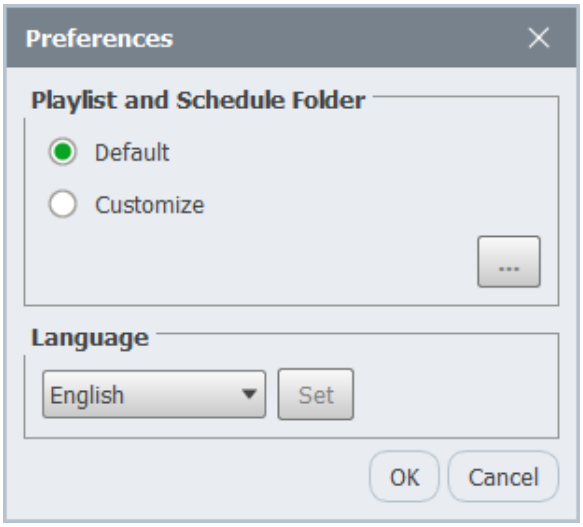


Configuring DS Playlist Settings

To configure DS Playlist's settings including which file folder on your local storage that the playlists are stored on and the interface language, click the **Preferences** button at the top-right corner of the main DS Playlist screen.



In the **Preferences** pop-up menu, the following options are available:

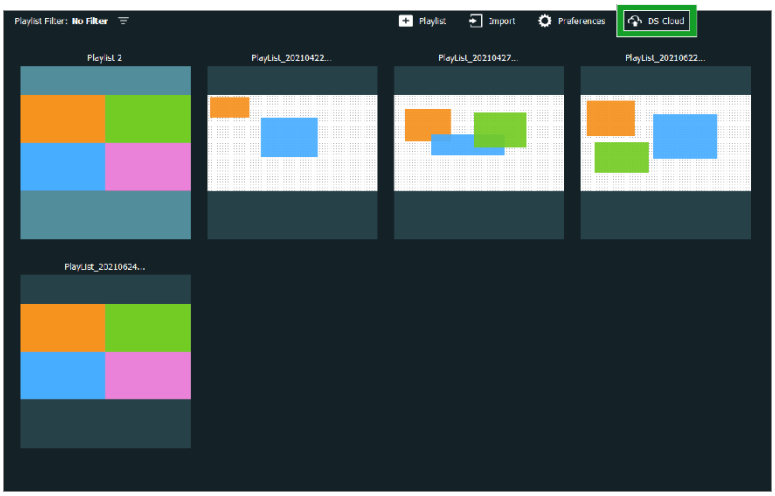


- In the **Playlist and Schedule Folder** section, select **Default** if you want the Playlists created in DS Playlist to be stored in the default folder, select **Customize** and then click the more button (...) to select the folder you want the playlists saved to.
- In the **Language** section, select the language for the DS Playlist interface and then click **Set**.

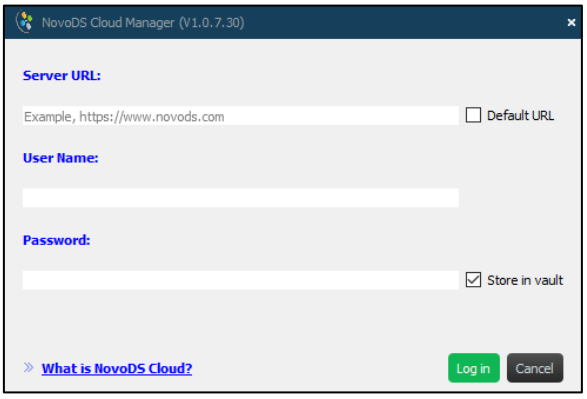
Once you have configured the settings click **OK** to finish.

Exporting to DS Cloud

To export your playlists to the cloud to be accessed via the DS Cloud service, click the **DS Cloud** button at the top-right corner of the main DS Playlist screen.

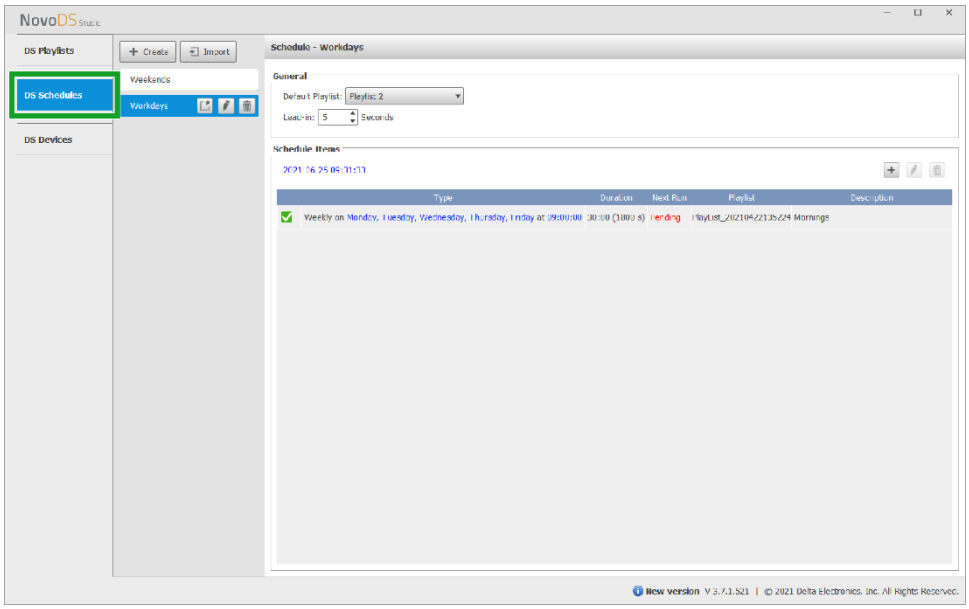


In the **NovoDS Cloud Manager** pop-up window that appears, enter the **Server URL**, **User Name**, and **Password** for your NovoDS account and then click **Log in**.



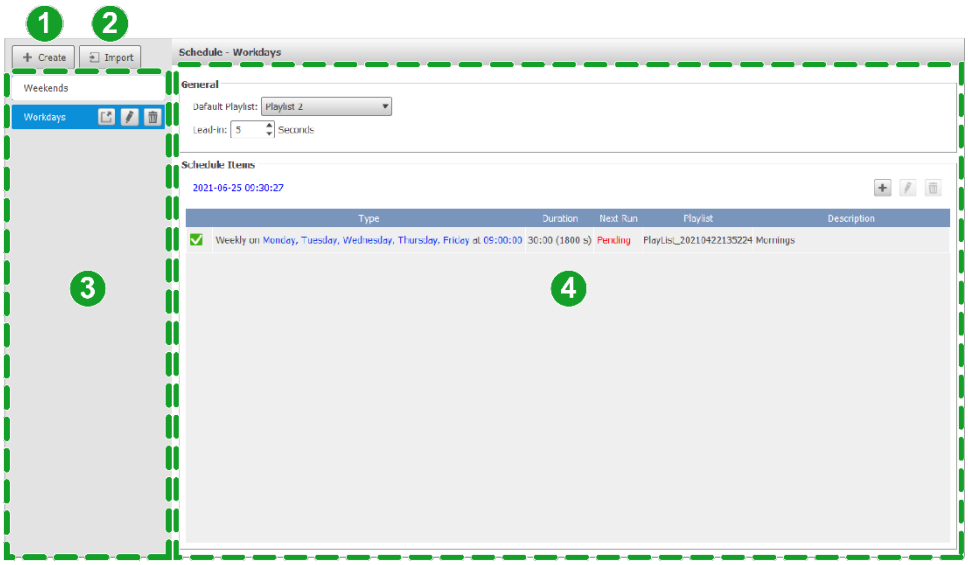
DS Schedules

DS Schedules is the application within NovoDS Studio that allows you to plan and schedule the playback of content (playlists) created in DS Playlists.



The DS Schedules Main Menu

Upon selecting the DS Schedules tab, you will enter the main menu. The following items can be accessed from the main menu.

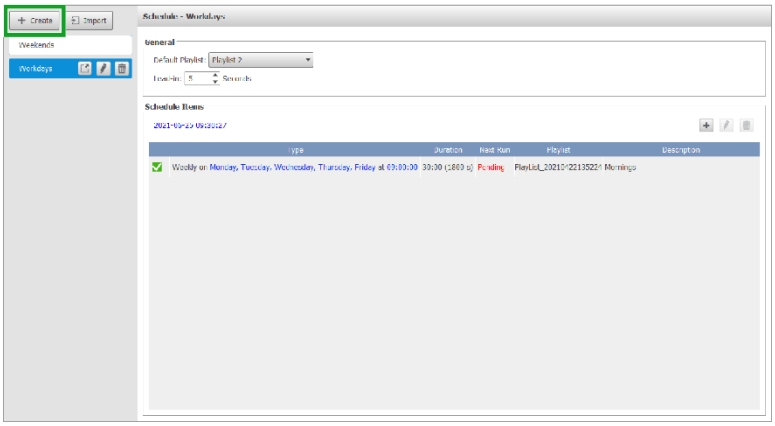


No.	Item	Description
1	Create Schedule	Creates a new schedule. See XXXX for more information on creating a schedule.
2	Import Schedule	Imports a schedule from a local file (in .ndss file format). See XXXX for more information on importing a schedule.
3	Schedule List	Lists all the schedules managed in DS Schedules. Click a schedule in the list to begin editing the schedule in the editing panel. You can also choose one of the following options for a selected schedule: • Click the export button ( ) to export the schedule. See XXXX for more information on exporting a schedule. • Click the rename button ( ) to rename the schedule. • Click the delete button ( ) to delete the schedule.
4	Editing Panel	Allows you to edit your schedule. You can also choose one of the following options: • Double-click an item or click the edit button ( ) to edit the schedule item. • Click the add button ( ) to add a new schedule item. • Click the delete button ( ) to delete a schedule item.

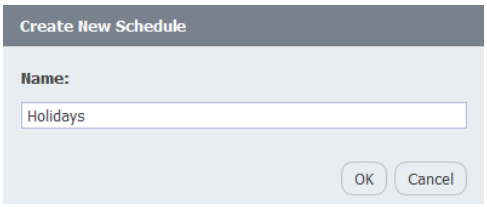
Creating a Schedule

To create a schedule:

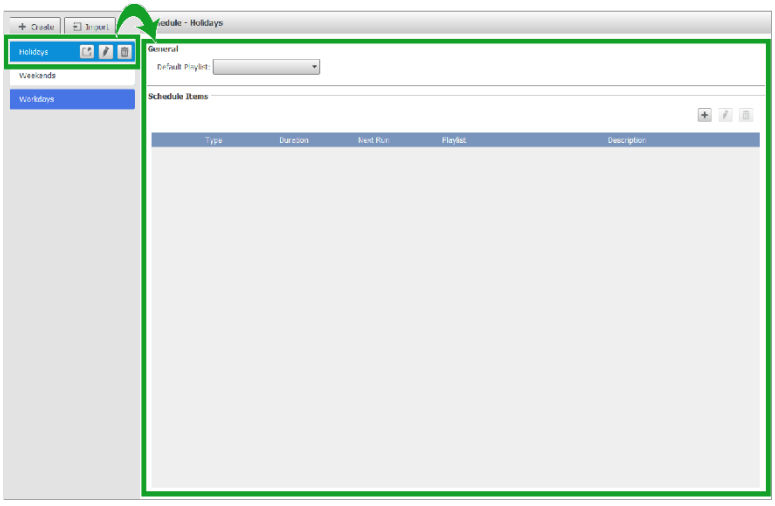
1. Click the **+ Create** button at the top of the DS Schedules main menu.



2. In the **Create New Schedule** pop-up window, enter the name for the new schedule.
   NOTE: You can change the name of the schedule at any time by clicking the rename button ( ) in the schedule list.

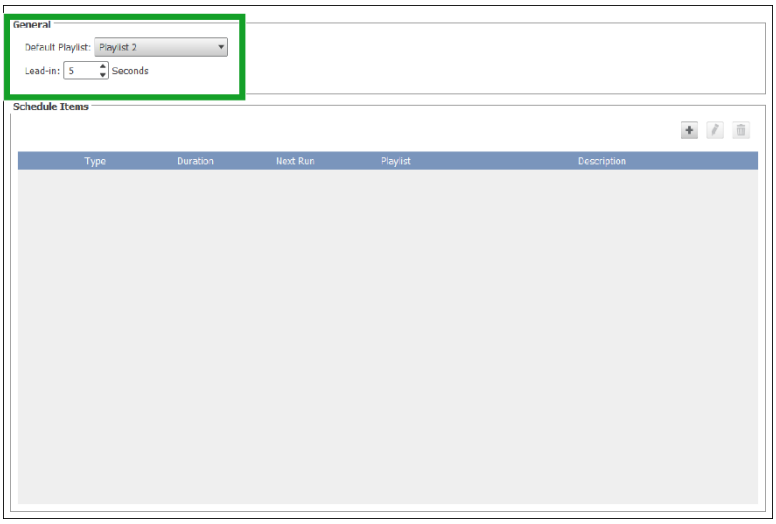


3. Select the schedule in the schedule list and the schedule will appear in the editing panel.



4. In the **General** section of the editing panel, configure the following settings:

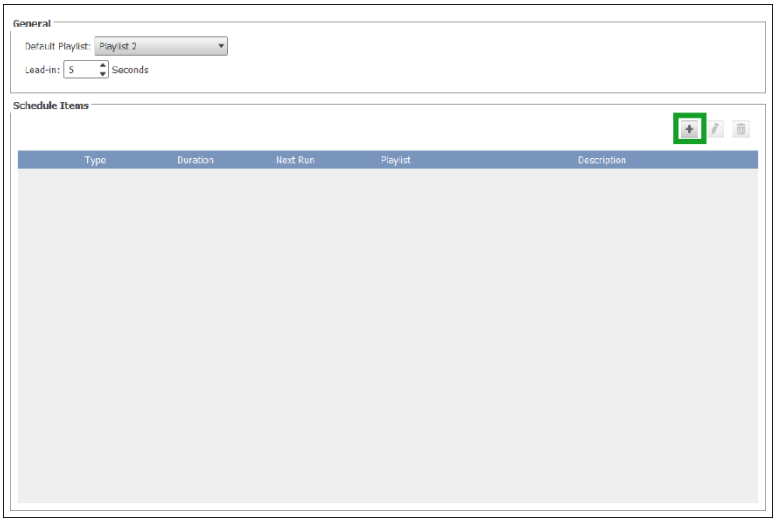
    - In the **Default Playlist** drop-down menu, choose the playlist you want to be displayed at any given time when there is no other playlist scheduled.
    - In the **Lead-in** field, select the amount of time (in seconds) between transitions to different schedule items.



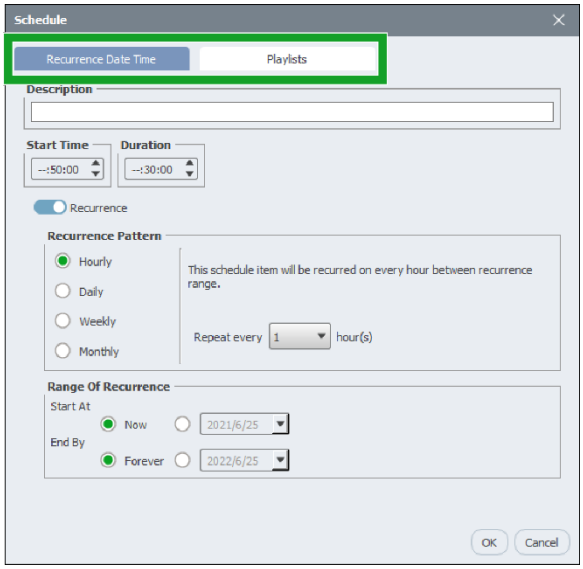
Once you have finished the steps above, you can begin adding individual schedule items to the schedule. Go to XXXX for further instructions on adding schedule items.

Adding a Schedule Item

To begin adding a schedule item, click the add button ( ) in the **Schedule Items** section of the editing panel.



In the **Schedule** pop-up window that appears there are two tabs featuring settings that you will have to configure:



- **Recurrence Date Time** – This tab configures the times, dates, and frequency that your schedule item will be active. Go to XXXX for further instructions on configuring the **Recurrence Date Time** tab.
- **Playlist** – This tab configures which playlists will be displayed during the times set in the **Recurrence Date Time** tab. Go to XXXX for further instructions on configuring the **Playlist** tab.

Recurrence Date Time Tab

Configure the following items in **Recurrence Date Time** tab:

No.	Item	Description
1	**Description**	Enter the name or description for the schedule item.
2	**Start Time** / **Duration**	• If the schedule item is a recurring event (if #3 is sent to **Recurrance**), set **Start Time** to the time of the day when you want the schedule item to activate and then set how long you want the item to be active in the **Duration** field.

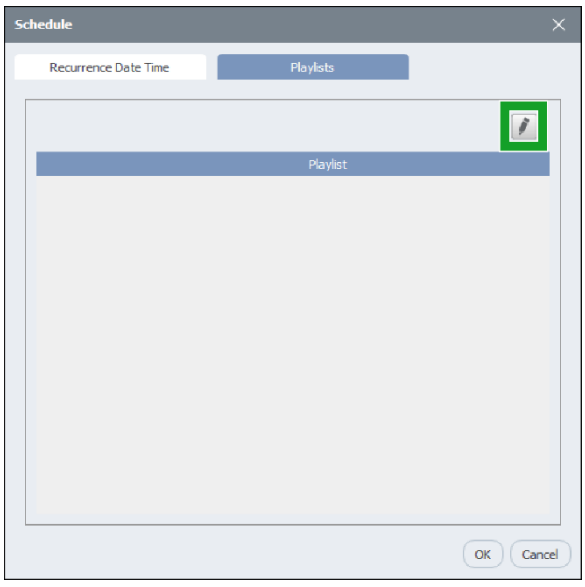
		• If the schedule item is a one-time event (if #3 is sent to **Once**), set the **Start Date** and **End Date** in the respective field.
3	**Recurrence / Once**	• Set this item to **Recurrence** if you want the schedule item to repeat. • Set this item to **Once** if you want the schedule item to be a one-time event.
4	**Recurrence Pattern**	If **Recurrence** is selected in #3, select one of the following options. • **Hourly** – Schedules the event to occur every number of hours at the time entered in the **Start Time** field. Set the number of hours between each occurrence in the **Repeat every hour(s)** field. • **Daily** – Schedules the event to occur every day of the week. • **Weekly** – Schedules the event to occur on days of the week selected. • **Monthly** – Schedules the event to occur at the date selected in the **Repeat on date** field for every month.
5	**Range of Recurrence**	If **Recurrence** is selected in #3, configure the following options: • In the **Start At** field, select **Now** if you want the schedule item to activate immediately, or enter the date that you want the schedule item to be activated. • In the **End By** field, select **Forever** if you want the schedule item to continue into the future, or enter the date that you want the schedule item to be deactivated.

Once you have finished configuring the **Recurrence Date Time** tab, click the **Playlist** tab and configure the settings.

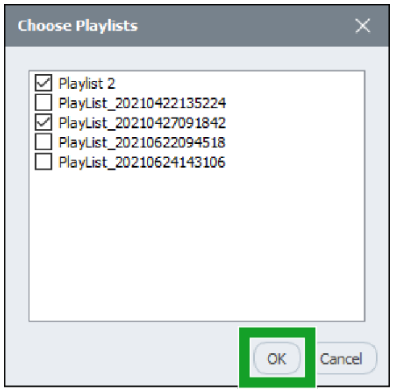
Playlist Tab

Follow the steps below to select the playlists that will be played during the times set in the **Recurrence Date Time** tab:

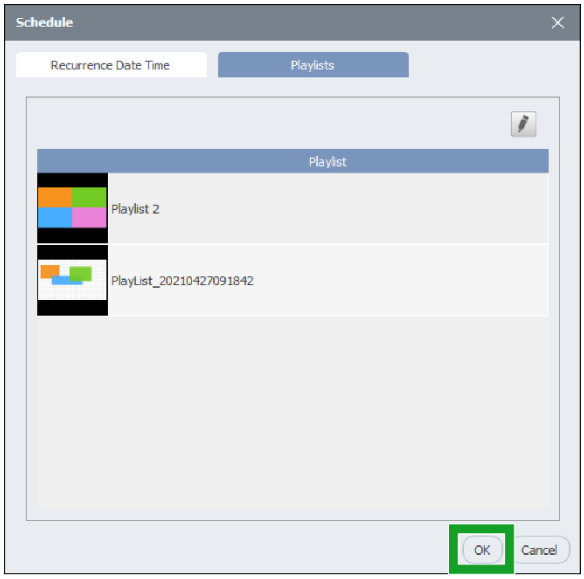
1. In the **Playlist** tab, click the edit button ( ).



2. In the **Choose Playlist** pop-up window, check all the playlists you want to be displayed and then click **OK**.

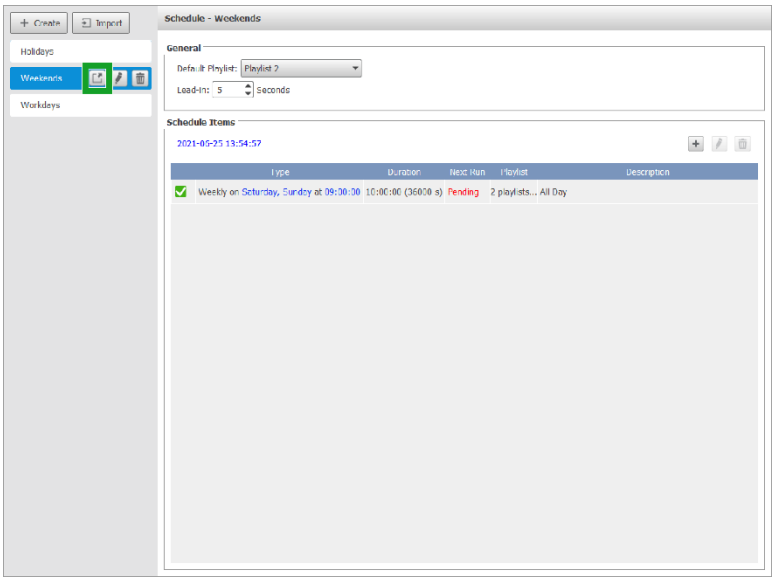


3. In the **Playlist** tab, click **OK**.



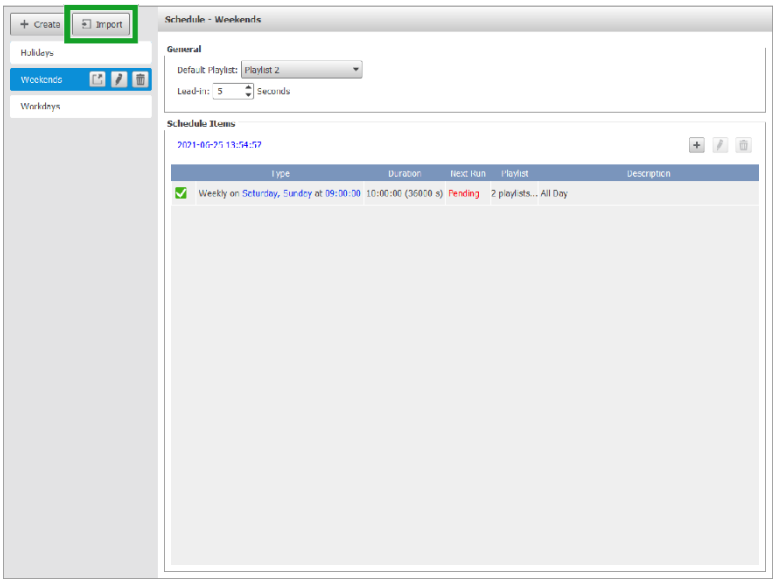
Exporting a Schedule

Once you have created a schedule, you can export it as a file onto your local storage. To export a schedule, click on the schedule you want to export, click the export button ( ) next to the schedule, and then navigate to the folder you want to save the file.



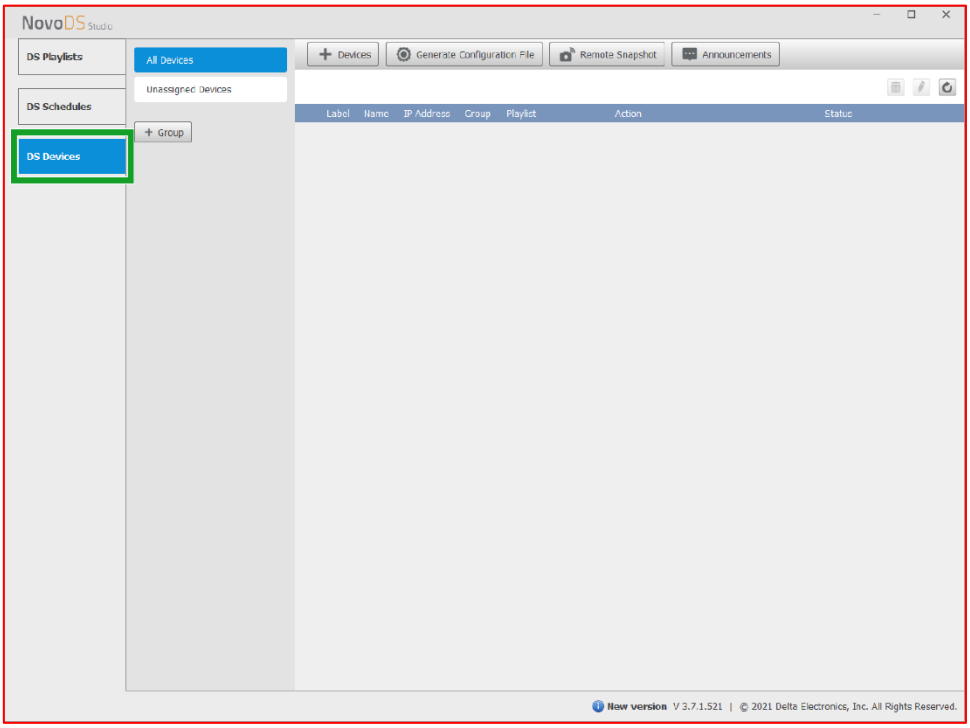
Importing a Schedule

To import a schedule that has been saved on your local storage, click the **Import** button at the top-left corner of the main the main DS Schedules screen, and then select the .ndss file on your local storage.



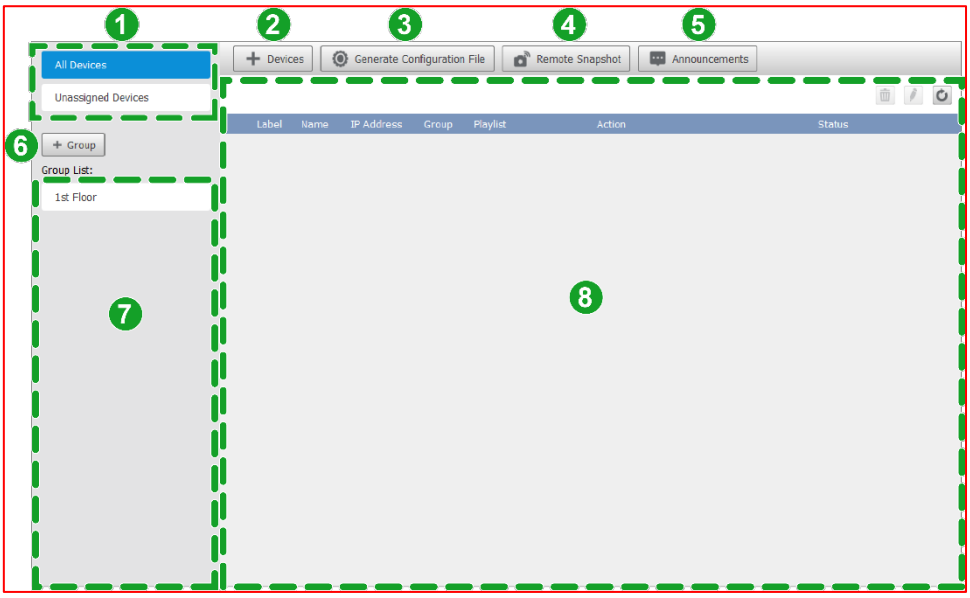
DS Devices

DS Devices is the application within NovoDS Studio that allows you to remotely manage and control (including playing playlists created in DS Playlists and applying schedules created in DS Schedules) all your displays with Novo devices connected to the same network.



The DS Devices Main Menu

Upon selecting the DS Devices tab, you will enter the main menu. The following items can be accessed from the main menu.

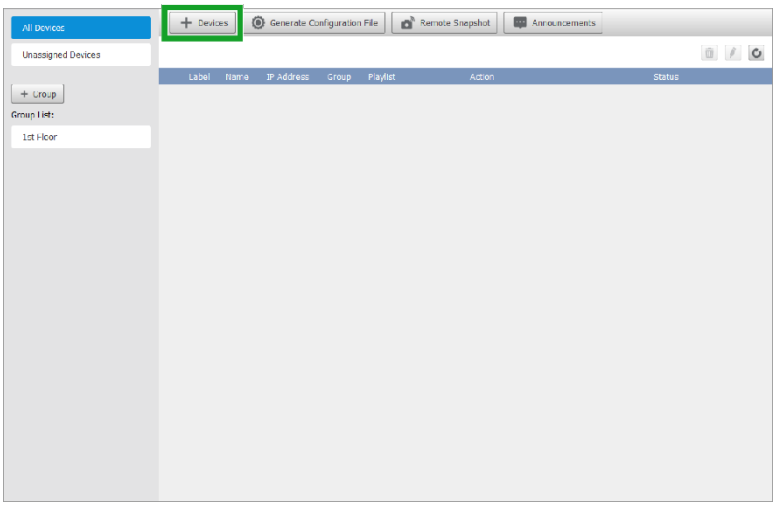


No.	Item	Description
1	Device Categories	Filters the devices in the device list based on the following categories: • **All Devices** – Lists all the devices added into DS Devices in the device list section. • **Unassigned Devices** – Lists the devices added into DS Devices that has not been assigned to any group(s) in the device list section.
2	Add Devices	Adds any Novo device connected to the same network. Go to XXXX for more details on how to add a device. Also allows you to export your device list. Go to XXXX for more details on how to export your device list.
3	General Configuration File	Saves the account and connection configurations for current DS Devices connection, for import by any other user. Go to XXXX for more details on how to save a general configuration file.
4	Remote Snapshot	Shows a real-time preview of what the devices in your device list are currently displaying. Go to XXXX for more details regarding the remote snapshot window.
5	Announcements	Allows you to broadcast impromptu announcements on any device in your device list. Go to XXXX for more details on how to broadcast an announcement.
6	Add Group	Creates a group for your devices to better organize your device list. Go to XXXX for more details on how to create a group.
7	Group List	Lists the groups you have created.
8	Device List	Lists your devices and their related information and status based on the category or group you have selected.

		• Select a device and click the delete button ( ) to remove the device from the device list. • Select a device and click the edit button ( ) to edit the device details including the device name, description, IP address, and the group they belong to. • Select a device and click the refresh button ( ) to refresh the information in the **Status** column of the device list.

Adding a Device

Before you can manage a Novo device via DS Devices, the device must first be added into the device list. To add a device, click the **+ Devices** button at the top of the DS Devices main menu:

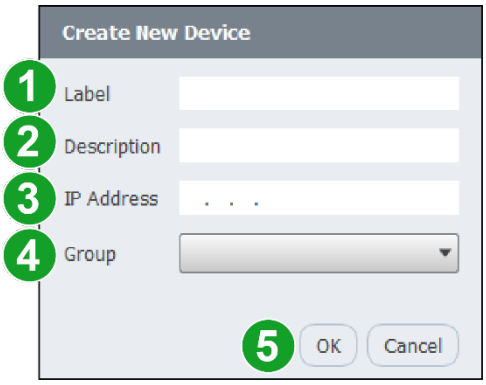


After clicking the **+ Devices** button you will have three different options for adding a device:

- **New** – Adds an individual device using the device's IP address.
- **Auto Discover** – Allows DS Devices to add any compatible devices detected in your network.
- **Import** – Adds all the devices from a previously exported device list.

Adding a Device via New

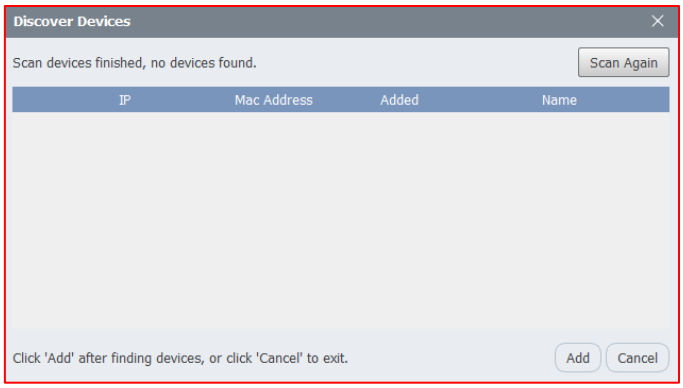
When **New** is selected the **Create New Device** pop-up window will appear. Follow the steps below to add a device:



1. In the **Label** field, enter a name to identify the device in the list.
2. In the **Description** field, enter a description to help further identify the device in the list.
3. In the **IP Address** field, enter the IP address for the device (consult your IT specialist if needed).
4. [OPTIONAL] In the **Group** field, select the group you want to add the device to. Go to XXXX more information regarding creating groups.
5. Click **OK** to finish adding the device.

Adding a Device via Auto Discover

When **Auto Discover** is selected, the Discover Devices pop-up window will appear. Give DS Devices some time to scan your network for compatible devices.



Once DS Devices has finished scanning a list of compatible devices will appear, click the boxes next to the devices you want to add to your device list and then click **Add** to finish adding the device(s).

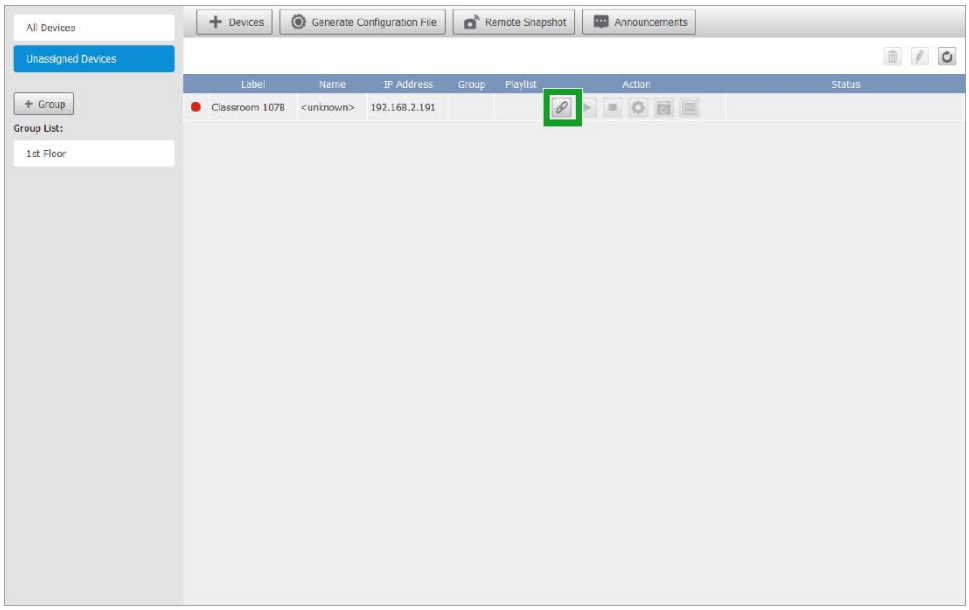
Adding a Device via Import

When **Import** is selected, navigate to and select the XML file for the exported device list. Once you have selected the XML file the list of devices in the file will appear, click the boxes next to the devices you want to add to your device list and then click **Add** to finish adding the device(s).

Controlling a Device

Before you can control the device, you must first ensure that it is connected. To connect the device, click its connection button ( ) in the action column of the device list.

NOTE: If you do not click the connection button ( ) for a device you will only be able to see the device status on in the device list.



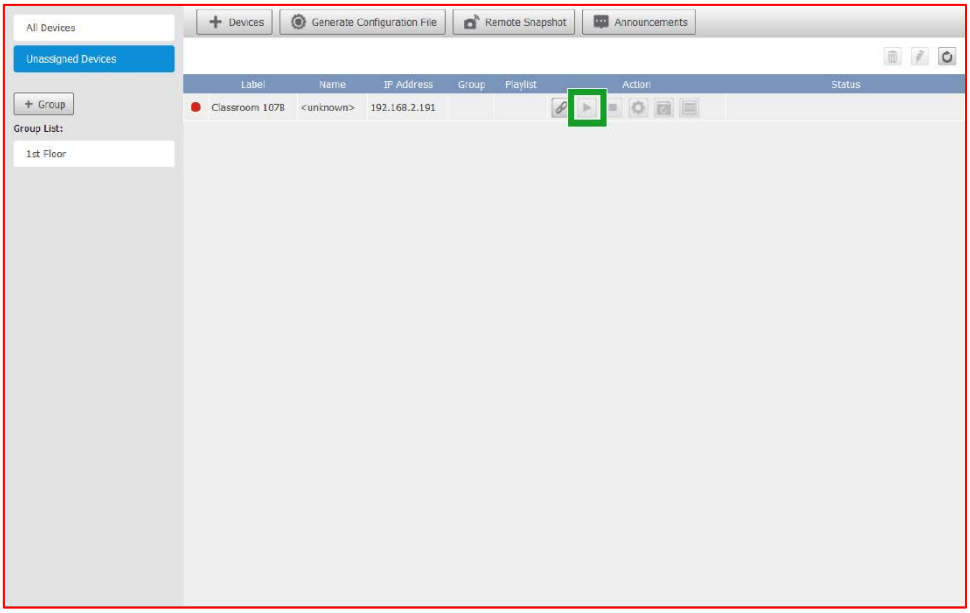
Once the device is connected, you will be able to perform the following control functions:

- Play/Stop a playlist – Go to XXXX for more information on playing a playlist.
- Upload a schedule – Go to XXXX for more information on uploading a schedule.
- Configure the device's settings – Go to XXXX for more information on configuring device settings.

Playing a Playlist

Once a device is connected in DS Devices, it can play any playlist created in DS Playlists.

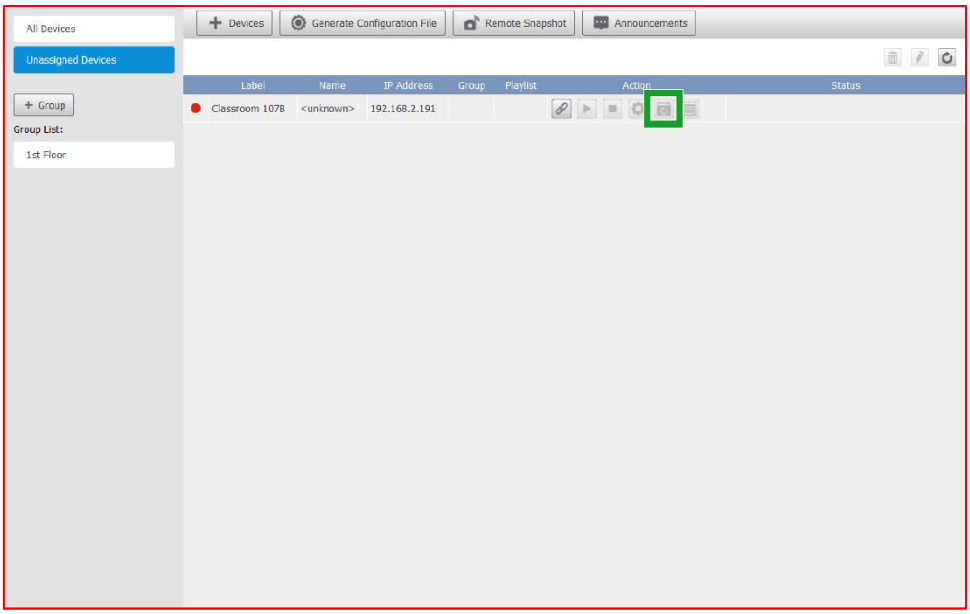
To have a device play a playlist, click its play button ( ) in the action column of the device list, and then select the playlist you want to play.



To stop the device from playing a playlist, click its stop button ( ) in the action column of the device list

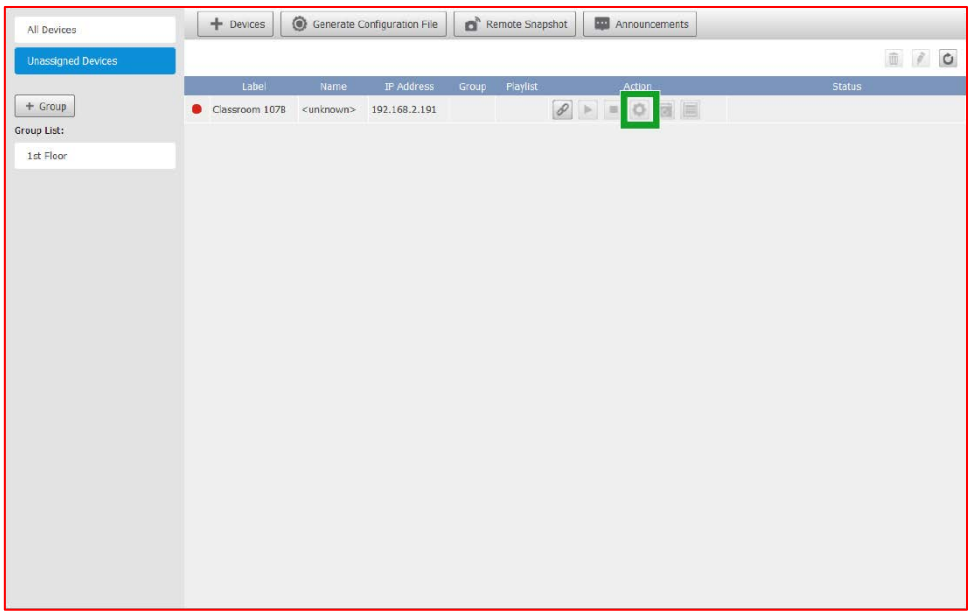
Uploading a Schedule

Once a device is connected in DS Devices, you can upload any schedule created in DS Schedules to have it run on the device. To upload a schedule and let it run on a device, click the schedule button ( ) in the action column for the device in the device list, and then select the schedule you want to upload.



Device Settings

To configure a device's settings, click the settings button ( ) in the **Action** column for the device you want to configure and the **Device Settings** menu will appear.
*NOTE: The device must be connected in order to access the **Device Settings** menu. To connect the device, click the connection button ( ) next to the settings button.*



The **Device Settings** menu features seven tabs which you can select to configure their related settings: **General**, **Playlist**, **Network**, **Display**, **Auto Play**, **Serial Port**, and **Misc.** See the sections below for information regarding each tab.

General

The **General** tab in **Device Settings** menu lists basic information for the device, including its name, model, current firmware version, current build version, and system language.

MISSING SCREENSHOT

You can also update/change the Device Name and/or Language for the device in the **General** tab.

Playlist

The **Playlist** tab in **Device Settings** menu lists all the playlists that have been uploaded to the device.

MISSING SCREENSHOT

Network

The **Network** tab in **Device Settings** menu lists all the network related information for the device, including its current Wi-Fi mode, SSID, Wi-Fi IP address, LAN (RJ-45) IP address, and MAC address.

MISSING SCREENSHOT

Display

The **Display** tab in **Device Settings** menu allows you to configure the following settings for the device:

MISSING SCREENSHOT

Item	Description
Resolution	Sets the display resolution you want for the device. *NOTE: The available display resolution options will be based on the device model.*
Zoom	Sets the zoom level for the device.
HDMI Signal	Enables/Disables video output from the HDMI port on the device. *NOTE: Once HDMI Signal is disabled the display that the Novo device is connected to will no longer broadcast video from the device, but the device can still be controlled via DS Devices.*
HDMI Cable	Shows the current status of the device's HDMI connection.
On/Off Schedule	Allows you to schedule a time for all the displays connected to the Novo device to power on or off. Go to XXXX for more instructions on the On/Off Schedule function. *NOTE: This scheduling function is a different function from the schedules created in DS Schedules. This function allows you to schedule power on/off times, DS Schedules allows you to schedule playback of playlists.*

Scheduling On/Off Times

The **On/Off Schedule** field in the **Display** tab of the **Device Settings** menu allows you to schedule a time for any displays connected to the respective Novo device to power on and/or off. To create an On/Off Schedule, follow the steps below:

MISSING SCREENSHOT

[Please provide steps and screenshots for this procedure (the procedure was not shown during the demo)]

Auto Play

The **Auto Play** tab in **Device Settings** menu allows you to configure the following settings for the device:

MISSING SCREENSHOT

Item	Description
Auto-start signage after idle-timeout	Sets the amount of time after the display has returned from an idle status that it will begin playing a playlist.
Auto-start playlist	Sets the playlist that will play when the display auto-starts
Show Connection overlay during signage playback	XXXX
Auto-play from external storage upon its insertion	Enables/Disables the device to automatically play a playlist stored on an external storage device once it is connected to the Novo device.

Serial Port

The **Serial Port** tab in **Device Settings** menu allows you to send direct control commands to the device to control a display or projector it is connected to via the RJ-45 port.

MISSING SCREENSHOT

Misc.

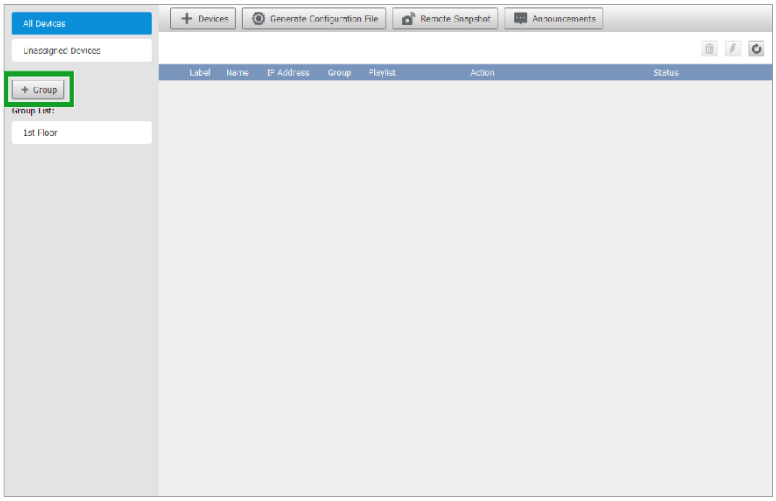
The **Serial Port** tab in **Device Settings** menu allows you to configure the following detailed settings for the device:

MISSING SCREENSHOT

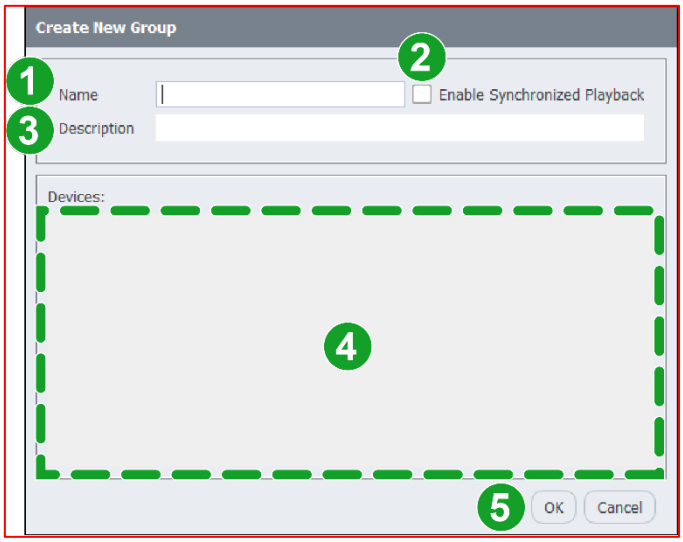
Item	Description
Common Alerting Protocol	Allows you to enable Common Alerting Protocol (CAP) safety alerts to be broadcast by your device. Once enabled click **Settings…** to setup and configure the alert.
Date and Time	Sets the date and time for the device
Auto Reboot	Allows you to set a pre-scheduled time for the device to reboot.
Firmware Update	Updates the device's firmware Over-The-Air (OTA) to the newest version.
Factory Data Reset	Resets the device to its default factory settings.

Creating a Group

Groups allow you to organize the devices in your device list into customized categories (e.g. “1st Floor”, “Building C”, “Conference Rooms”, etc.). You can also use groups to have all the devices in a group perform the same action. To create a group, click the **+ Group** button in the side panel of the DS Devices main menu.



Once you click the **+ Group** button, the **Create New Group** pop-up window will appear. Follow the steps below to create the group:



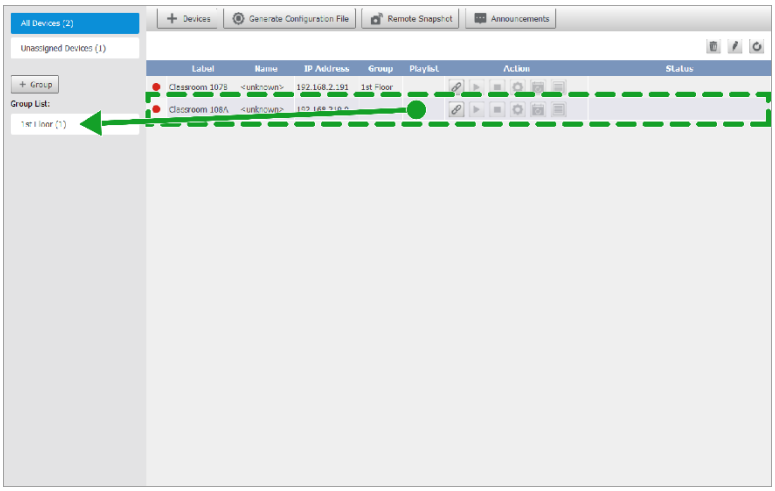
1. In the **Name** field, enter the name you want for the group.
2. Check the **Enable Synchronized Playback** box if you want the devices in the group to be able to play the same playlist at the same time.
3. In the **Description** field, enter a more description to help further identify the group.
4. The **Devices** field will list all the **Unassigned Devices** in your device list. Check the box next to the devices you want to add into your group.
5. Click **OK** to finish creating the group.

To add new devices to a group after you have created it, follow the instructions in XXXX.

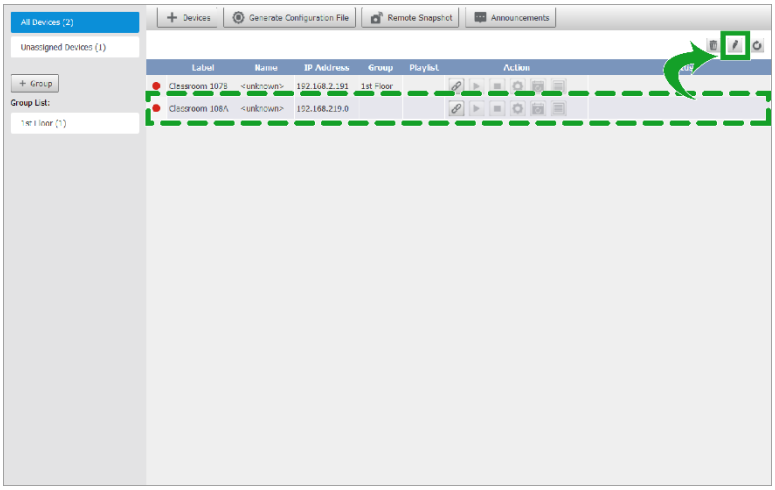
Adding Devices to a Group

To add a device to an already created group, use one of the following methods below:

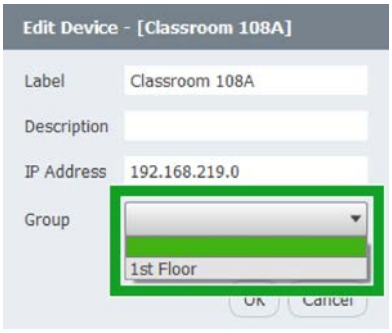
- Click and drag the device into the group in the group list.



- Select the device and click the edit button ( ) at the top-right of the device list.



Then in the **Edit Device** menu select the group you want to add the device to in the **Group** drop-down menu and then click **OK**.



Once you have added devices to a group, you will be able to have all the devices in the group perform the following functions:

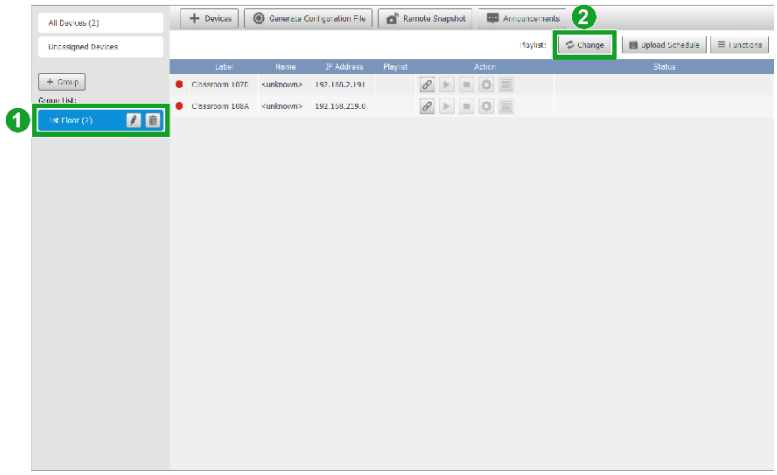
- Play/Stop a playlist – Go to XXXX for more information on having a group play a playlist.

- Run a schedule – Go to XXXX for more information on having a group run a schedule.
- Other functions – Go to XXXX for more information on other group functions.

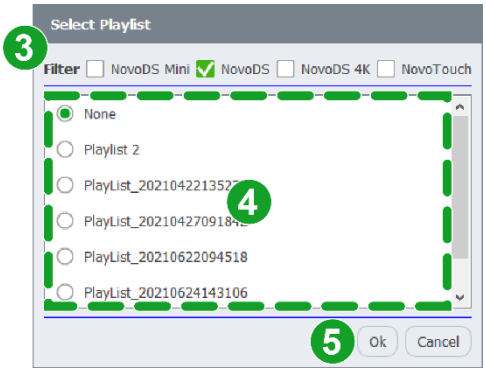
Playing a Playlist (Group)

To have all the devices in a group play a playlist, follow the steps below:

1. Click on the group in the group list.
2. Click the **Change** button at the top-right of the device list.

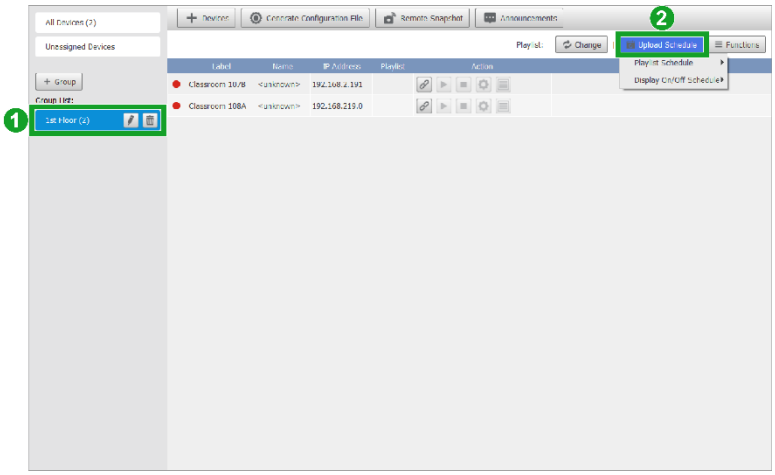


3. In the **Filter** field, check all the Novo device types you want the playlist to play on from the group.
4. Select the playlist you want to play in the main window.
5. Click **OK**.



Uploading a Schedule (Group)

To upload a schedule to all the devices in a group and have them run the schedule, click on the group in the group list and then click the **Upload Schedule** button at the top-right of the device list.

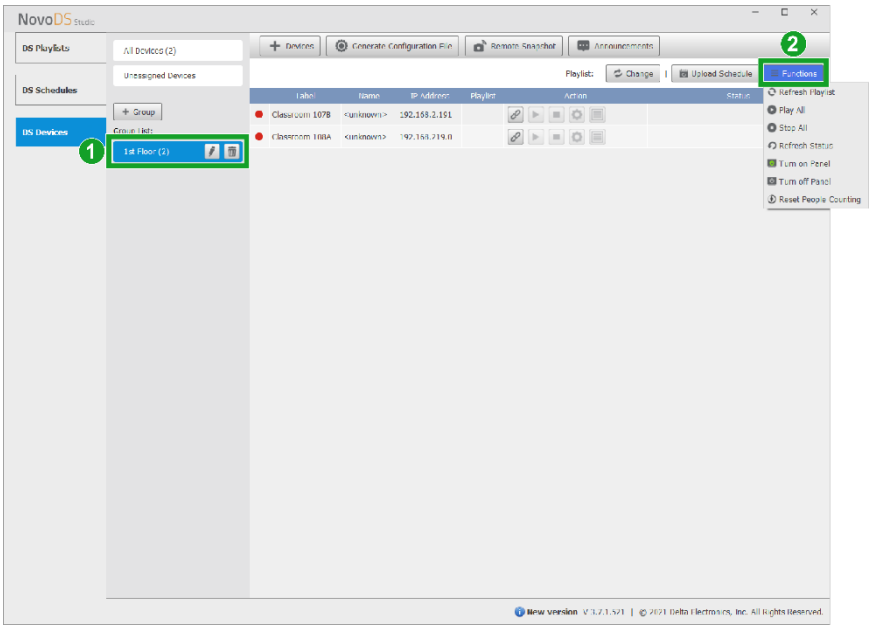


Once you click the **Upload Schedule** button you have two options:

- Select **Playlist Schedule** to upload a schedule for playback of a playlist created in DS Playlist. Go to XXXX for more information on having creating a playlist schedule.
- Select **Display On/Off schedule** to upload a schedule for powering on/off the devices created in the device settings menu. Go to XXXX for more information on creating a power on/off schedule.

Other Group Functions

To access other functions available for a group, select the group and then click the **Functions** button at the top-right of the device list.



The following functions are available:

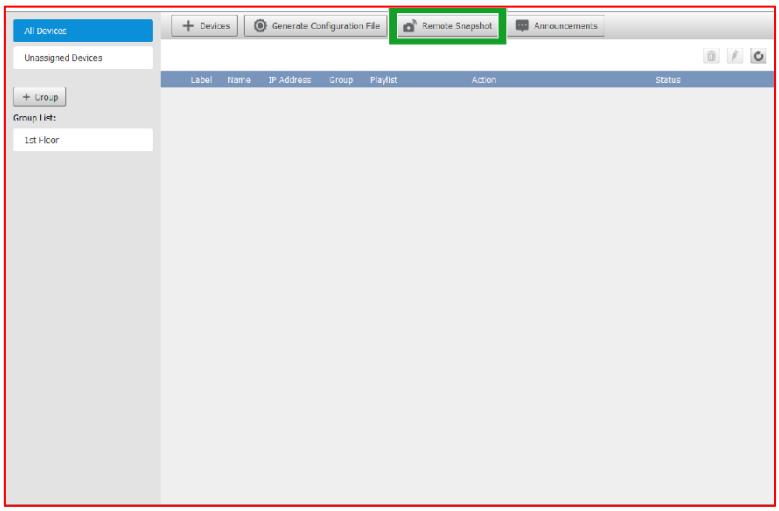
- **Refresh Playlist** – Refreshes the playback on the playlist playing on all device in the group.
- **Play All** – Have all devices in the group play their current playlist.
- **Stop All** – Have all devices in the group stop playback of the playlist they are currently playing.
- **Refresh Status** – Refresh the information shown in the **Status** column of the device list.
- **Turn on Panel** – Powers on all the devices in the group.
- **Turn off Panel** – Powers off all the devices in the group.
- **Reset People Counting** – Resets the counter for devices with a people counting camera connected.

Generating a Configuration File

[Please provide steps and screenshots for this procedure (the procedure was not shown during the demo)]

Viewing Remote Snapshots

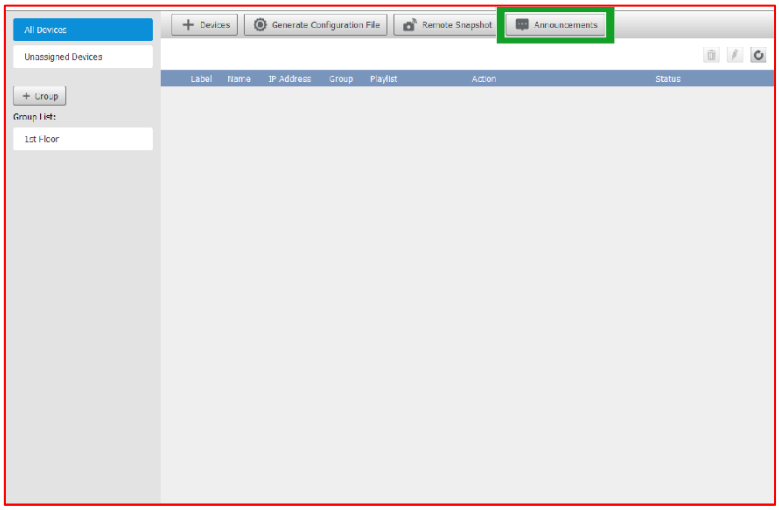
To view a real-time preview of what the devices in your device list are currently displaying/broadcasting, click the **Remote Snapshot** button at the top of the DS Devices main menu:



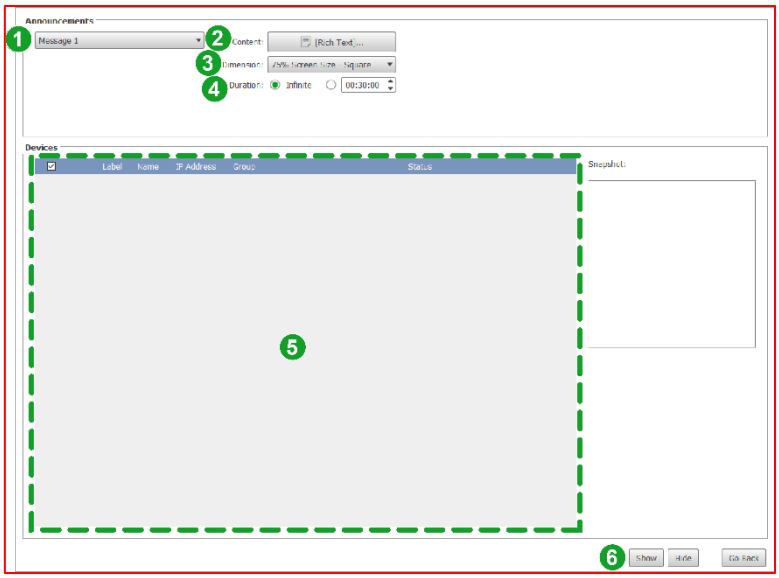
Once you click the **Remote Snapshot** button, DS Device's main window will show previews of the current screen for every device in your device list. Uncheck the box at the top-right corner for a device to remove its preview from the remote snapshot window.

Creating an Announcement

To broadcast an impromptu announcement that will play over the content currently being shown on any device in your device, click the **Announcements** button at the top of the DS Devices main menu:

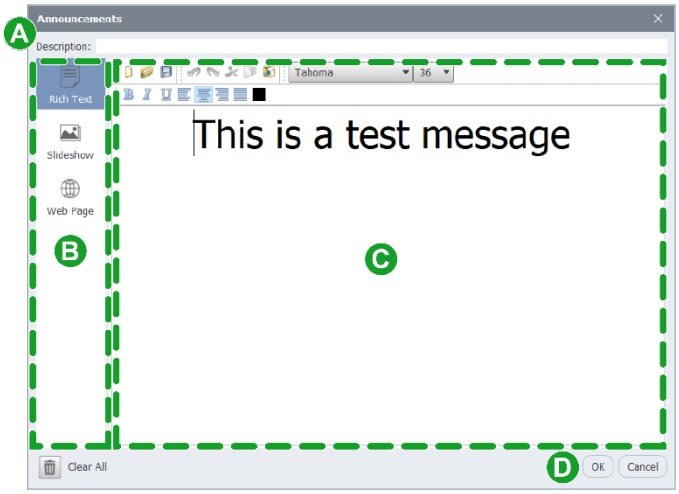


Once you click the **Announcements** button, DS Device's main window will switch to the Announcements editing menu. Follow the steps below to create an announcement:



1. In the message drop-down menu, select one of the 8 preset announcements slots to create/edit a new message.
   NOTE: DS Device only allows up to 8 announcements to be saved at a time. If you have already previously created 8 different announcements, you will need to replace one of the saved announcements to create the new announcement.

2. Click the **Content** button and in the pop-up window that appears complete the following steps:



   A. In the **Description** field enter a name/description for the announcement that will be shown in the message drop-down menu.
   B. Select one of the following content types for the announcement:

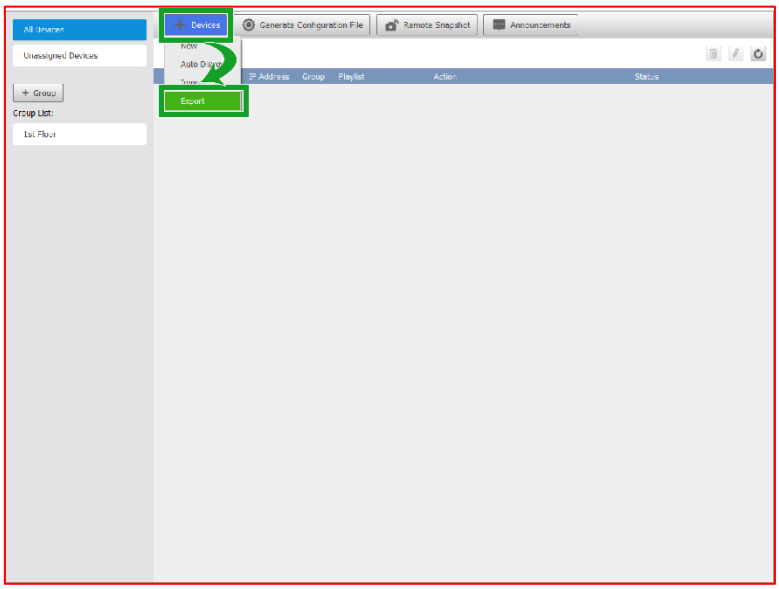
      - **Rich Text** – Allows you to use stylized text for the announcement
      - **Slideshow** – Allows you to use a slideshow of image files from your local storage for the announcement.
      - **Web Page** – Allows you to show a web page for the announcement.

   C. Enter/Edit the actual content of the announcement in the main window.
   D. Click **OK** to finish creating the announcement.

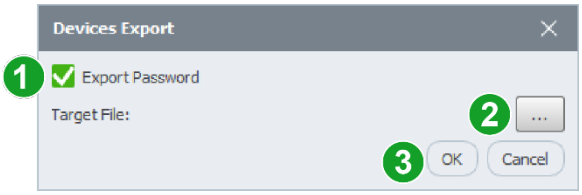
3. In the **Dimension** drop-down menu, select the percentage of the screen space the announcement will cover and the shape (square or rectangle) of the frame around the announcement.
4. In the **Duration** field, select how long the announcement will last for.
5. In the **Devices** list, check the boxes next to all the devices that you want the announcement to broadcast on.
6. Click **Show** to begin broadcasting the announcement on the selected devices.

Exporting Your Device List

To export your device list so that it can be imported by another DS Devices user, click the **+ Devices** button at the top of the DS Devices main menu, and then select **Export** from the drop-down menu that appears.



Once you select **Export** in the drop-down menu, the **Devices Export** menu will appear, follow the steps below to export your device list:



1. Check the **Export Password** box if you want to also include device passwords in the export file
2. In the **Target File** field, click the path button (...) and navigate to the folder you want to save the device list to in your local storage.
3. Click **OK** to export the device list.