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1 INTRODUCTION

Vsign Design Studio is used to create Digital Signage Content for Vsign Digital Signage Platform. VSign Digital Signage Platform is a powerful Digital Signage content management system and suite of signage players. Digital signage is a form of electronic display that shows information, advertising and other messages. Digital signs (such as LCD, LED, TV, plasma displays, or projected images) can be found in public and private environments, such as retail stores and corporate buildings. In other words, digital signs are there to service a need for information. It's important then to ensure a good mix of information and targeted advertising to meet the business's goals.

VSign is a digital signage solution and consists of a suite of applications, including:

- Content Management System (CMS)
- Content Design Studio
- TV Display Client
- Windows Display Client
- Android Display Client

VSign Signage Players for the display clients are used to play VSign Signage content.

With Vsign, the content can be designed in two ways:

- By using a web browser on the internet accessible Vsign Content Management System (CMS)
- By using Vsign Content Design Studio

Vsign Content Design Studio provides you to create digital signage content without any internet access. Display clients are not required to have any internet connection and show digital signage contents offline. On the other hand, with Vsign CMS, the content is designed from anywhere using a web browser, scheduled to Display clients and then downloaded automatically by Display clients when appropriate.

VSign solution used with VSign Design Studio instead of VSign CMS is based on 3 concepts.

- Displays
- Media/Library
- Layouts

Displays represent the hardware connected to the TV/Projector/Tablet panel that is actually displaying the end content.

Media content can be split into two categories. File based media that is uploaded and stored in the Library and Layout based media that doesn't have an associated file but is configured directly on a layout instead. An image or video would be Library Media and some free Text would be Layout based media. VSign Content Design Studio supports following Media types:

- Image
- Video
- Text

Layouts are the design that is seen on the screen. VSign allows you to split the screen up into different Regions, each containing their own Timeline of media to play. A layout itself remains on screen until all the Timelines have finished playing through once, then an entirely fresh Layout can be loaded with



different positioning and size of Regions, with different Timelines. The Layouts created by VSign Design Studio are compatible with the layouts designed with VSign CMS.

Once Layouts are designed with VSign Design Studio, Display Clients are required to be configured to enable "Offline Mode" and then Displays can show the Layouts sequentially.

This manual will guide you through the details of VSign Content Design Studio.



2 VSIGN DESIGN STUDIO MENU

The menu items of Vsign Design Studio are:

- Dashboard
- Layouts
- Library
- Resolutions

VSign Design Studio is opened with the Dashboard page and Dashboard view of the VSign Design Studio can be seen in the following figure:

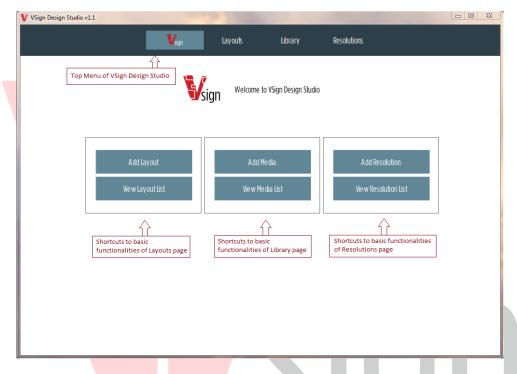


Figure 1: Startup Dashboard Page

Menu items are seen on the top menu of the Vsign Design Studio window. Briefly, "Dashboard" provides shortcut to basic functionalities of "Layouts", "Library" and "Resolutions" pages. "Layouts" is used to design layouts that are intended to be shown on displays. "Library" is used to upload and view file based media content; image and video. "Resolutions" is used to define target resolutions of the Layouts.

2.1 DASHBOARD

Dashboard page is the start page of Vsign Design Studio and it is accessible from the top menu of the VSign Design Studio window via "VSign" header. Dashboard includes shortcuts to basic functionalities of other pages: Layouts, Library and Resolutions.

Firstly, the shortcut buttons related with "Layouts" page are "Add Layout" and "View Layout List".

- "Add Layout" is used to generate a new layout.
- "View Layout List" is used to view "Layouts" page which shows the list of all generated Layouts.

Secondly, the shortcut buttons related with "Library" page are "Add Media" and "View Media List".

- "Add Media" is used to add file based media to Vsign Design Studio library.
- "View Media List" is used to view "Library" menu which shows the list of all added file base media.

Thirdly, the shortcut buttons related with "Resolutions" page are "Add Resolution" and "View Resolution List".

- "Add Resolution" is used to define a screen Resolution.
- "View Resolution List" is used to view "Resolutions" page which shows the list of all defined screen resolutions.

The functionalities of all shortcut buttons will be explained in the next sections.



2.2 LAYOUTS

Layouts page is used to add and design layouts and it is accessible from the top menu of the VSign Design Studio window via "Layouts" link.

A layout is a complete screen design, including content and a background image. A layout has one or more regions which contain a playlist of media to show. Layouts are designed at a target resolution, but they will dynamically resize if they are shown on a Display that has a different resolution. Layouts can be:

- Added
- Edited
- Deleted

There are two possible views of the Layouts page when "Layouts" is selected. These views are:

- If there are not any designed Layouts, "Add Layout" and "Import Layout" functionalities are shown.
- If there are designed Layouts, Layouts page is opened showing existing Layout list together with "Add Layout" and "Import Layout" and other layout transactions.

These views can be seen sequentially in the following figures:

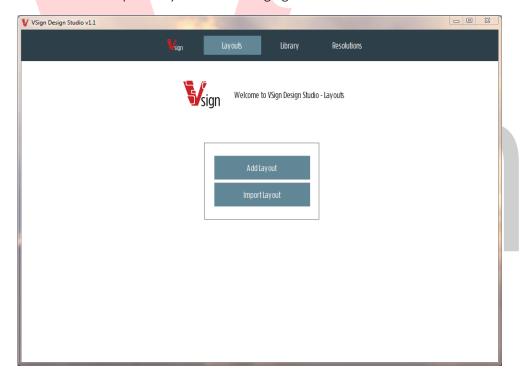


Figure 2: VSign Design Studio Layouts Page without any Layout



Figure 3: VSign Design Studio Layouts Page with generated Layout List

Layouts page provides following functionalities:

- View all generated Layouts
- Add a new layout
- Import a previously generated Layout
- Export one or more than one Layout in a file based structure which is required for signage players to play Layouts
- Design, edit, copy or delete any selected Layout in the Layout List

Layout list has three columns.

- Checkbox column to add Layout to the playlist of the Vsign Signage Players
- Layout name
- Layout row menu button

The first column includes checkboxes which are used to select intended Layouts to be played by Vsign Signage Players. If a layout is not selected, it is not included in the playlist of VSign Signage Player.

The second column includes the name of the Layout.

The third column includes a button which provides a row menu for the Layout as seen in the following figure.

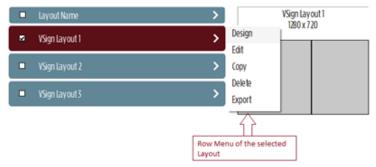


Figure 4: Row Menu for the Layout

- Design: Designs Layout with desired regions and timelines on Layout Design page
- Edit: Edits the name of the Layout
- Copy: Copies the Layout with a different Layout name
- Delete: Deletes Layout
- Export: Exports Layout in compressed file format

A Layout can be selected by clicking the desired Layout name in the list. After the selection, a preview of the selected layout is seen on the right side of the list. The preview shows the regions with selected background color of the Layout. The default background color is black.

The figure above also shows a selected Layout which is also added to playlist of VSign Signage Player by checking the checkbox in the first column.

The row header of the Layout List provides transactions on multiple Layouts via row menu button in the third column as seen in the following figure.

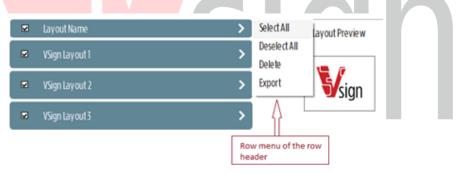


Figure 5: Row Menu for the Layout List Header

- Select/ Deselect All: Selects or deselects all Layouts to be played by Vsign Signage Players.
- **Delete**: Deletes one or more than one Layout at one time
- Export: Exports one or more than one Layout at one time

2.2.1 ADD LAYOUT

"Add Layout" is used to generate a new Layout and it is accessible from "Add Layout" button in Layouts page. Once "Add Layout" button is clicked, following form is shown:

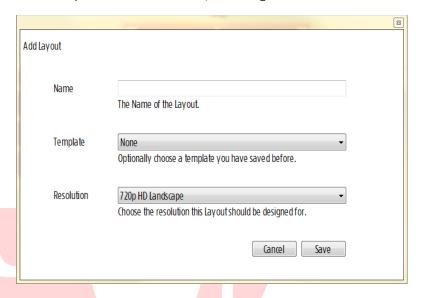


Figure 6: Add Layout Form

- Name: A custom name of the Layout.
- Resolution: Target resolution of the Layout which is defined by using Resolution page functionalities.

Once all fields are provided, "Save" button is clicked to create the Layout and then "Layout Design" page is opened. The details of Layout Design page will be explained in the following sections.

The Layout is generated with only one region which has the resolution same with the target resolution of the Layout by default.

2.2.2 IMPORT LAYOUT

"Import Layout" is used to add a previously generated Layout and it is accessible from "Import Layout" button in Layouts page. Once "Import Layout" button is clicked, following form is shown:

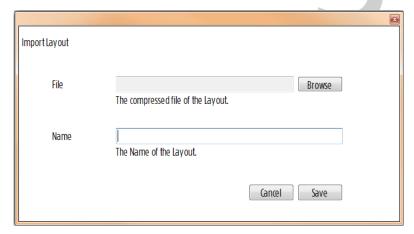


Figure 7: Import Layout Form

- **File**: The compressed file of the Layout. A Layout is imported and exported in compressed file format.
- Name: A custom name of the Layout.

Once all fields are provided, "Save" button is clicked to import the Layout and then "Layout Design" page is opened. The details of Layout Design page will be explained in the following sections.

2.2.3 EDIT LAYOUT

"Edit Layout" is used to edit the name of the Layout and it is accessible from the row menu of the Layout in Layouts page. Once "Edit" is selected, following form is shown.

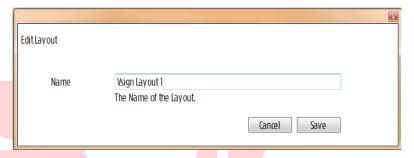


Figure 8: Edit Layout Form

• Name: A custom name of the Layout.

After "Name" field is provided, "Save" button is clicked to save the change.

2.2.4 COPY LAYOUT

"Copy Layout" is used to copy the Layout with a different Layout name and it is accessible from the row menu of the Layout in Layouts page. After "Copy" is selected, following tool window is opened.

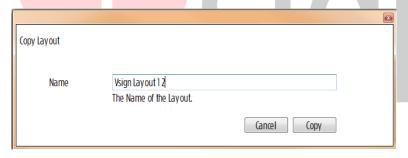


Figure 9: Copy Layout Form

• Name: A custom name of the Layout.

After "Name" field is provided, "Copy" button is clicked to save the change. Then new Layout is added to Layout list.

2.2.5 EXPORT LAYOUT

"Export" is used to export one or more than one Layouts. A Layout is exported in a compressed file format.

In order to export only one Layout, "Export" is selected from the row menu of the Layout in Layouts page. In order to export more than one Layout at one time, "Export" is selected from the row menu of the row header in Layouts page.

After "Export" is selected, following form is opened.

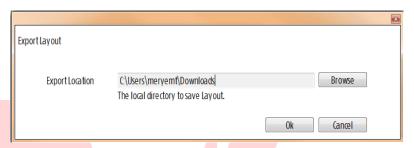


Figure 10: Export Layout Form

Export Location: The directory in local file system of the PC to save exported files.

After "Export Location" field is provided, "Ok" button is clicked to save Layout files.

2.2.6 DELETE LAYOUT

"Delete" transaction is used to delete one or more than one Layouts.

In order to delete only one Layout, "Delete" is selected from the row menu of the Layout in Layouts page. In order to delete more than one Layout at one time, "Delete" is selected from the row menu of the Layout row header in Layouts page.

2.3 LAYOUT DESIGN

"Design Layout" is used to design Layout with desired regions and timelines and it is accessible from the row menu of the Layout in Layouts List page. It is also accessible via clicking the preview of the Layout in the Layouts page.

After "Design" is selected, following Layout Design page is opened.

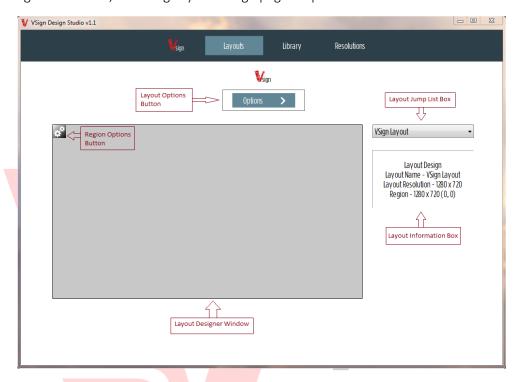


Figure 11: Layout Design Page

Layout Design page includes following partitions:

- A Layout Options button to edit settings related with the Layout
- A Layout Designer window to edit size and locations of regions
- A Layout jump list box to select the desired Layout from the List of Layouts
- A Layout information box displaying Layout name, resolution and properties of the selected region

The Layout Designer is the main part of content creation in VSign Design Studio. Each time a new Layout is created, or an existing one needs a design change, the Layout Design Page is used.

Layout Design is simple through the use of drag and drop, interactive design flexibility. When Designing a Layout from scratch, Layout comes with one Full Screen Empty Region.

The Layout Designer Jump List provides navigation between all generated Layouts as seen in the following figure. It is accessible from an icon at the right hand side of Layout Designer window.

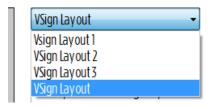


Figure 12: Layout Designer Jump List

Once clicked, it presents a list of Layout names - clicking the name will load corresponding layout into the designer window.

2.3.1 LAYOUT OPTIONS MENU

At the top Layout Design page, The "Options" button provides access to the higher level functions in the designer. The "Options" button provides a menu as seen in the following figure:



Figure 13: Layout Options Menu

- Add Region: Add a new Region to the Layout that can then be positioned (drag/drop) and resized. It can then have content assigned to it.
- Background: Change the Background image, color and aspect ratio.
- Edit Properties: Adjust the name of the Layout.

2.3.2 REGION OPTIONS MENU

Regions are defined areas on the Layout that can hold sets of content (called Playlists). Regions are shown on the Layout Designer as semi-transparent white overlays as seen in the following figure.

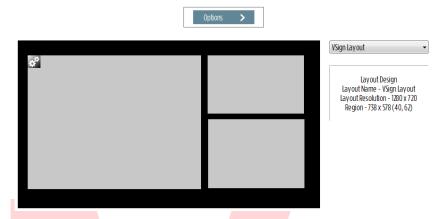


Figure 14: Layout Designer

Regions can be moved around inside the Layout using drag and drop. Regions can also be resized by using the mouse. In order to resize the region, mouse cursor is moved to right or bottom edge of the region until double-headed arrow appears. Once this arrow appears, mouse is clicked and dragged up, down, left or right to make region larger or smaller.

The Display clients have limited support for overlapping Regions - for the best compatibility please sure the Regions do not overlap.

Each Region has its own menu of Actions. The Action menu for Regions always appears at the top left of the Region as seen in the following figure.



Figure 15: Region Options Menu

- Edit Timeline: Assign content to this Region or change the sequence of existing content.
- Options: Assign the Region a name and manually adjust its width, height and coordinates.
- **Delete**: Completely remove this Region and all its associated content.
- Push to Top/Bottom: Push Region to top or bottom of all other regions in order to have support for overlapping Regions. Note that the Display clients have limited support for overlapping Regions

2.3.3 EDIT LAYOUT BACKGROUND

"Background" is used to set background image and color. It is also used to set target resolution of the Layout. Background is accessible via Options menu of Layout Design page. Once "Background" is selected, following form is opened:



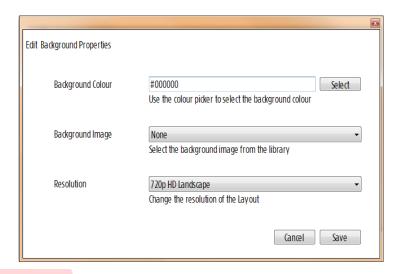


Figure 16: Edit Layout Form

- Background Color: Represents hex color of the Layout background. "Select" button enables to select color from a color chooser dialog.
- Background Image: Represents background image of the Layout. Background image selected from the Vsign Design Studio library.
- Resolution: Represents target resolution of the Layout. Resolution is selected from the Vsign Design Studio resolution list.

2.3.4 ADD REGION

"Add Region" is used to add a new Region that can then be positioned (drag/drop) and resized. Add Region is accessible via Options menu of Layout Design page. Region is added with default location and size. Once Add Region menu item is clicked, a new region on the top left of the Layout appears and is ready to be moved or resized by the designer as seen in the following figure.

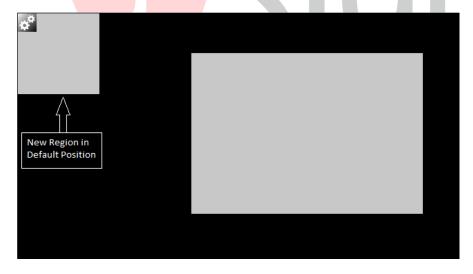


Figure 17: Layout Designer with New Added Region

2.3.5 REMOVE REGION

"Remove Region" is used to remove a Region from the Layout. Remove Region is accessible via Region Options button. Once Remove Region menu item is clicked, the region and all its associated content is removed.

2.3.6 EDIT REGION TIMELINE

Each Region on a Layout has its own Playlist of content, which will be shown in order by the Display Client. If required a Playlist can consist of a single item (such as a company logo), or multiple items (such as an image slide show).

A Region's Playlist is viewed/edited by using the Region Options button and selecting Edit Timeline. The following form is shown.



Figure 18: Region Timeline Form

Content is assigned to a Region Timeline using the "Media Toolbox" shown on the left hand side of the Region Timeline form. This toolbox lists all of the available media types on the VSign Design Studio.

Media content that has already been assigned to the Playlist can be edited or removed using the links on the Playlist media bars. Each bar has its own "Action" Links as seen in the following form.



Figure 19: Media Row Menu in Region Timeline Form

- Edit: Edits properties (duration etc.) of selected media in the region timeline/ playlist.
- **Delete**: Completely remove selected media from region timeline/ playlist



Once a content is selected, its preview can be seen on the right hand side of the Region Timeline form.

2.3.6.1 ADD CONTENT

The first item in the Media Toolbox is the "Library" item. This allows stored content to be assigned directly from the VSign Design Studio library.

Pressing the "Library" link in the media toolbox will open the Assignment form below. The Assignment form has a "staging area" for media which has been queued for assignment.

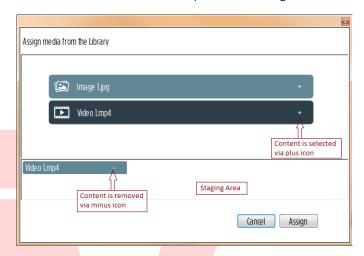


Figure 20: Assign Content to Region from Library

Media is assigned by using the plus icon, once pressed the media item is automatically moved to the staging area. Items can be removed from the staging area using the minus icon.

The second item in the Media Toolbox is the "Image". After Image is selected following form is shown.



Figure 21: Assign Image to Region from Local File System

Image is added from local file system of user PC by using Add File button. After image is selected it is added to playlist of the region. It is also added to VSign Design Studio library.

The third item in the Media Toolbox is the "Video". After Video is selected, following form is shown.

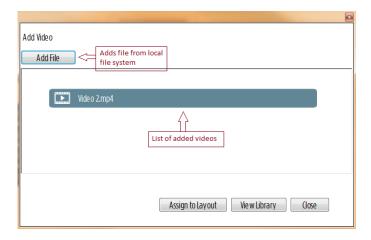


Figure 22: Assign Video to Region from Local File System

Video is added from local file system of user PC by using Add File button. After video is selected it is added to playlist of the region. It is also added to VSign Design Studio library.

The last item in the Media Toolbox is the "Text". After Text is selected, following form is shown.



Figure 23: Assign Text to Region

The text is entered in the text area and can be formatted by using the toolbox above the text area.

2.3.6.2 EDIT CONTENT

Editing content that has already been assigned to region playlist, is accessible from the links on the playlist media bars on Region Timeline form.

After "Edit" is selected for video media type, following form is shown.

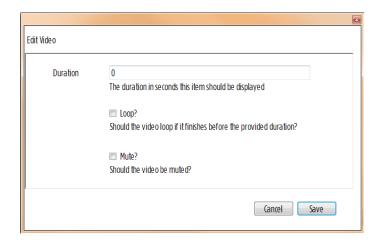


Figure 24: Edit Video in the Region Timeline

• **Duration**: Sets the duration of the video in the region.

• **Loop**: If provided duration is longer than video duration, makes it loop or not

• Mute: Sets video mute or not

After Edit is selected for image media type, following form is shown.

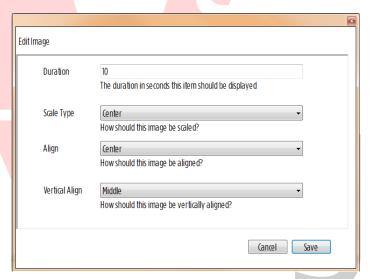


Figure 25: Edit Image in the Region Timeline

- **Duration**: Sets the duration of the image in the region.
- Scale Type: Sets image scaled center or stretch.
- Align: Sets image horizontally aligned left, center or right if image is scaled center.
- Vertical Align: Sets image vertically aligned top, middle or bottom if image is scaled center.

After Edit is selected for text media type, following form is shown.



Figure 26: Edit Text in the Region Timeline

- **Duration**: Sets the duration of the text in the region.
- Text toolbox: Sets font, font size and etc. for the text.

2.3.6.3 DELETE CONTENT

Deleting content that has already been assigned to region playlist, is accessible from the links on the playlist media bars on Region Timeline form. The content is deleted from the region playlist, not from the VSign Design Studio library.

2.3.7 EDIT REGION PROPERTIES

A Region's properties are viewed/edited by using the Region Options button and selecting "Options". The following form is shown.

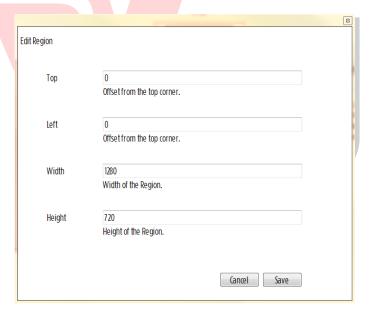


Figure 27: Edit Region Form

- **Top**: Sets region's offset from the top corner of the Layout.
- Left: Sets region's offset from the left corner of the Layout.
- Width: Sets region's width.
- Height: Sets region's height.

2.3.8 PUSH REGION TO TOP / BOTTOM

A Region can be pushed to top or bottom of all other regions in the Layout by using the Region Options button and selecting "Push Region to Top" or "Push Region to Bottom" menu items. The Display clients have limited support for overlapping Regions - for the best compatibility please sure the Regions do not overlap.

2.4 LIBRARY

Library page is used to add and view file based media content; image and video. VSign Design Studio Library is the store for all file based media that is added and can be used on one or more Layouts.

Library page is accessible from the top menu of the VSign Design Studio window by clicking "Library". There are two possible views of the Library page when "Library" is selected. These views are:

- If there are not any media in the Library, "Add Media" functionality is shown.
- If there are media in the Library, existing Media list is shown together with "Add Media" functionality.

These views can be seen sequentially in the following figures:

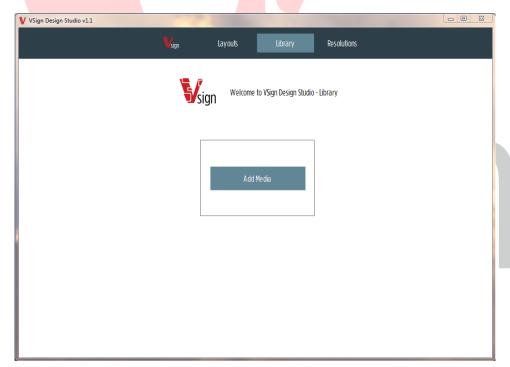


Figure 28: VSign Design Studio Library Page without any Media

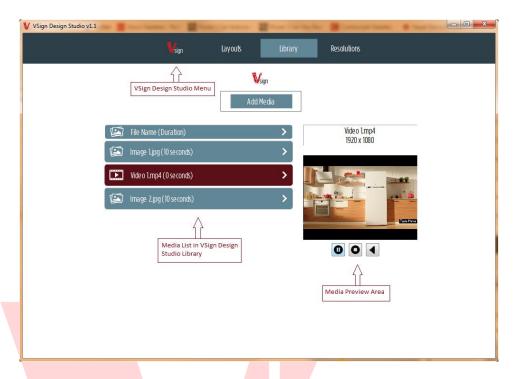


Figure 29: VSign Design Studio Library Page with Media List

A media is selected by clicking the desired media name in the list. After the selection, a preview of the selected media is seen on the right side of the list.

Each Media in the list has a row menu. Row menu is viewed by clicking the arrow button in a row in the media list as seen in the following figure.



Figure 30: Media Row Menu in the Library Page

• Delete: Removes Media from the list and VSign Design Studio Library.

2.4.1 ADD MEDIA TO LIBRARY

"Add Media" transaction is used to add image or video to VSign Design Studio Library and it is accessible from "Add Media" button in Library page. Once "Add Media" button is clicked, the media is selected from local file system of user PC.

2.4.2 REMOVE MEDIA FROM LIBRARY

"Remove Media" transaction is used to remove a media in VSign Design Studio Library and it is accessible from row menu of the media in the list by selecting "Delete" menu item. Once "Delete" is selected, media is removed only if it is not used in any generated Layout.

2.5 RESOLUTIONS

Resolutions page is used to add a resolution for Layouts and view resolution list. Layouts are designed to run on a particular resolution and will function best when shown on a signage player with a



matching resolution. If they are shown on a signage player with a different resolution they will automatically scale to fit.

Resolutions page is accessible from the top menu of the VSign Design Studio window by clicking "Resolutions". There are two possible views of the Resolutions page when "Resolutions" is selected. These views are:

- If there are not any saved resolution, "Add Resolution" functionality is shown.
- If there are any saved resolutions, existing Resolution list is shown together with "Add Resolution" functionality.

These views can be seen sequentially in the following figures:

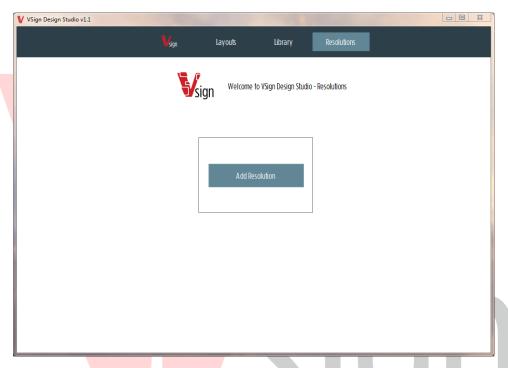


Figure 31: VSign Design Studio Resolutions Page without any Defined Resolution

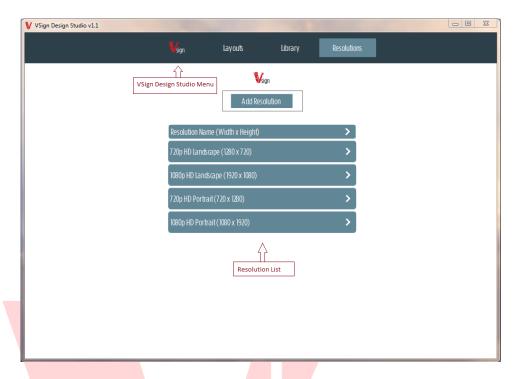


Figure 32: VSign Design Studio Resolutions Page with Resolution List

A resolution is selected by clicking the desired resolution name in the list. VSign Design Studio comes with a resolution list by default.

Each Resolution in the list has a row menu. Row menu is viewed by clicking the arrow button in a row in the resolution list as seen in the following figure.

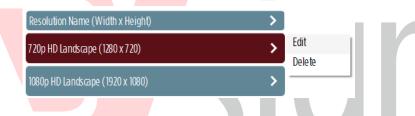


Figure 33: Resolution Row Menu in the Resolutions Page

- Name: Edits Resolution properties; name, width and height.
- **Delete**: Removes Resolution from the list.

2.5.1 ADD RESOLUTION

"Add Resolution" transaction is used to add resolution and it is accessible from "Add Resolution" button in Resolutions page. Once "Add Resolution" button is clicked, following form is shown.

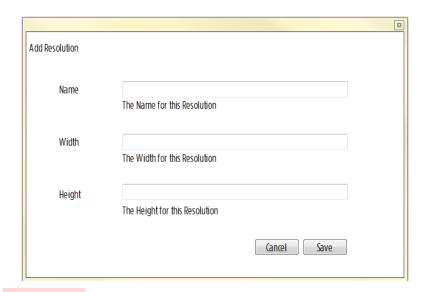


Figure 34: Add Resolution Form

- Name: A custom Name for the resolution.
- Width: Sets the width of the Resolution in pixels.
- Height: Sets the height of the Resolution in pixels.

2.5.2 REMOVE RESOLUTION

"Delete" transaction is used to delete one or all Layouts.

In order to delete only one resolution, "Delete" is selected from the row menu of the Resolution in Resolutions page. In order to delete all resolutions at one time, "Delete All" is selected from the row menu of the Resolution row header in Resolutions page.

2.5.3 EDIT RESOLUTION

"Edit Resolution" transaction is used to edit Resolution properties and it is accessible from row menu of the Resolution in the Resolution list by selecting "Edit" menu item. Once Edit is selected, new Name, width and height can be assigned to Resolution.

3 VSIGN DESIGN STUDIO INSTALLATION

The VSign Design Studio is distributed as a windows installer file (MSI) which is a standard "double click" installation. There are 2 steps to follow:

- Preparation Minimum Requirements and MSI
- Installation Double click the MSI to start the installation process.

3.1 PREPARATION – MINIMUM REQUIREMENTS

It has been necessary to set out some minimum requirements for the installation process.

- Microsoft Windows XP SP3 / Windows Vista / Windows 7 (recommended Windows 7)
- .NET Framework v4 or higher
- Internet Explorer 7+ (recommended IE10 or higher)
- Windows Media Player 11 or later
- Codec Pack (Ex: K-Lite Codec Pack)

3.2 INSTALLATION

To start the installation double click on the "VSignDesignStudio-***.msi" file. The installer will take you through a number of screens asking for your confirmation at each stage. The steps are outlined below.

First step is to run the setup file. You may see security warning when installing VSign Design Studio. Click on "Run" to begin the installation. Then, the installer presents a welcome screen below. Click "Next" to continue.

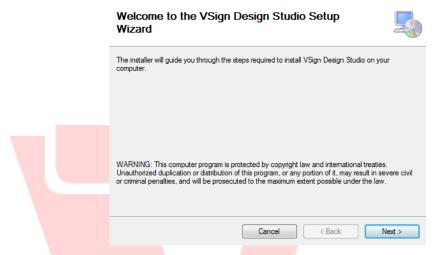


Figure 35: Run Setup File

In the second step installation folder is selected. You will see following screen. Chose the location where VSign Design Studio should be installed. The default location should normally be sufficient, however to change the location click browse. After making the selection (or if leaving to the default) click "Next" to continue.

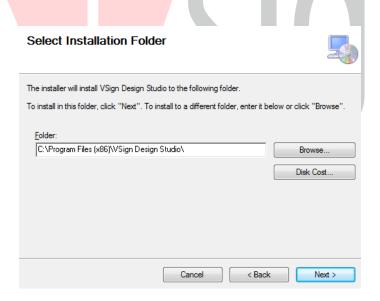


Figure 36: Installation Folder Selection

Lastly a confirmation message is then shown. When it is ok with the selections made, click "Next" to begin. Otherwise click "Back" to correct any errors. When the Installation is complete, Click "Close" to exit.



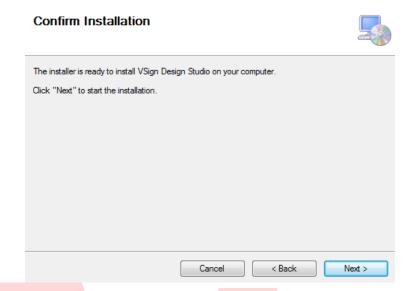


Figure 37: Confirm Installation

4 CONFIGURING DISPLAY CLIENTS

VSign Design Studio is used to create VSign Signage Content without any requirement to have internet connection. The created content can be played by all Display Clients. Display Clients must be configured to play content in offline mode in order to play content created by VSign Design Studio.

The following sections describes configuration details for the following display clients:

- Windows Display Client
- Android Display Client
- TV Display Client

4.1 CONFIGURE WINDOWS CLIENT

Windows client does not support to play content generated by VSign Design Studio yet.

- 4.2 CONFIGURE ANDROID CLIENT
- 4.3 CONFIGURE TV CLIENT