



Delta Web Interface Modules

StackSignage 2.2

User Guide



StackSignage 2.2 : User Guide

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| | |
|--------------------------------|----|
| Introduction | 5 |
| Software Agreement | 6 |
| Architecture | 7 |
| Scheduler Server Requirements | 9 |
| DeltaServer: Behind the Scenes | 10 |
| Signage Content Components | 11 |
| Login and Start Scheduler | 14 |
| Menus and Navigation | 17 |
| Management: System Config | 18 |
| Servers and Roles | 20 |
| Screens (displays) | 22 |
| Screen Groups | 23 |
| Management: Org. Config | 25 |
| Clients | 26 |
| Contracts | 27 |
| Categories | 28 |
| Management: Media Config | 29 |
| Media Workflow | 31 |
| Media Assets | 32 |
| Thumbnail Configuration | 37 |
| Text Overlay | 40 |
| Layouts | 42 |
| Transitions | 44 |
| Dashboard | 46 |
| Scheduling | 48 |
| Templates | 50 |
| Daylists | 53 |
| Daylist Scheduling (Rules) | 57 |
| Fit to Fill | 59 |
| Calendar | 61 |
| Live Schedule | 63 |

| | |
|-----------------------------|----|
| Reports | 66 |
| Template Stats | 67 |
| Client Reports | 68 |
| Delta Resources | 69 |
| Logs | 70 |
| Snapshots | 71 |
| MediaSync | 72 |
| Snapshot | 74 |
| For Developers | 75 |
| Framerates | 76 |
| Pre-check Template URL | 77 |
| Web Page JS Events | 78 |
| Snapshot API | 80 |
| System Backup and Switching | 83 |
| Document Information | 84 |
| Index | 85 |

Introduction

The StackSignage module provides an advanced content management system and digital signage management solution primed for the unique and stringent needs of large-format digital signage, live event and paid display installations, where timing, content delivery and management, reporting, and alignment to commercial goals are critical.

StackSignage provides a web interface dashboard and control front end to networked Delta Media Servers that deliver the playback and display configuration via the DeltaServer and DeltaGUI applications.

StackSignage 2.2

- Introduction of the MicroConductor app on the scheduler PC, replacing the Player app on each media server.
- Improvements to the Scheduler interface.

Software Agreement

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Architecture

Scheduler PC

StackSignage is managed by a Scheduler PC, accessed via web browser. This holds the **Scheduler** app, the **MicroConductor** app that handles all communications with the media server(s), and a **MySQL database**. It instructs what gets played, where and when, presents a control dashboard, and reports on the playback activity. The primary Scheduler PC can be supported by a backup PC.

The optional **Snapshot** app on the Scheduler PC allows camera capture at prescribed times as proof of display. The Scheduler software triggers a frame-save command and a frame is saved from the camera to a configurable location.

Delta Media Servers

These are the servers that carry the **DeltaServer** display configuration and playback software. Once the displays have been configured, this software need not be addressed directly.

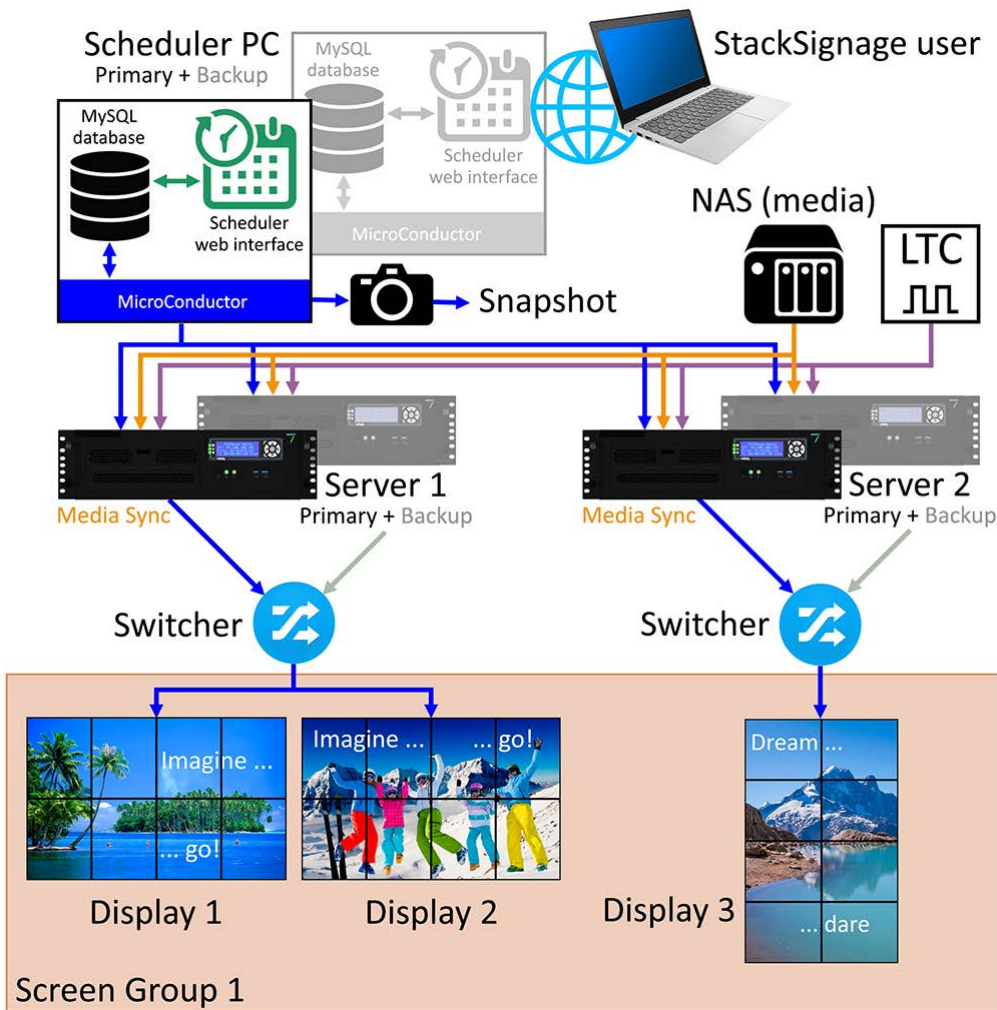
The media servers can also have backup servers in place that can be switched in as a fail-safe.

These servers also hold the display media and the **MediaSync** app. Media can be sourced and distributed, if required, from a Network Attached Storage (NAS) server. **MediaSync** syncs files between configurable sources and destinations for ensuring media are available on any server where they may be needed.

As many servers as required are networked and are preferably genlocked (**LTC** synchronised) via an audio stream.

➤ For more guidance, see [Synchronising Delta Media Systems](#)

In this example system there is a scheduler and two servers. Media is uploaded from a NAS, and an LTC source provides synchronisation. There are three displays in a screen group, two linked to the first server, one to the other. The servers are each configured to these display dimensions. As a backup, each server has a standby server that can be called into play if needed.



Primary and Backup Servers

Everything is duplicated in this illustration, except for the Screens (Displays 1-3). For the closest to a fail-safe operation, all media servers are running, all populated with the same media resources in mirrored locations. Each server has its StackSignage show configured for their connected display arrangements. Here the video walls are quite different. A single backup server *could* be used, set up with separate configurations for each display and switchable to either. It needs a little more expertise with the DeltaServer software but only takes a little longer to switch over.

The Scheduler holds the main database, but this could be stored elsewhere and shared between a primary and a backup. The live database is the most volatile element, so today's changes will not be mirrored on your last database backup.

How much fail-safe you build in is up to you. It could be a minimum spare server and/or Scheduler.

➤ See [System Backup](#) ⁸³

Scheduler Server Requirements

Browser Support

The Delta Web Service aims to provide a modern and powerful web-based interface to the Delta Media Server, using a selection of web technologies to allow advanced user interfaces and real-time feedback. Some of these are not implemented in older web browsers. Whilst Delta Web Service may run without major issues in older browser versions, we do not actively test these versions and do not fix bugs or support issues that appear in them. If in doubt, use an up to date browser and version for the most reliable performance.

Server Requirements

7thSense web-based applications are tested and designed to run with the full range of Delta Media Servers.

Additionally, it is possible to install the Scheduler application onto any PC that meets the following minimum requirements to allow for running on a local control or maintenance PC:

Operating System: Windows 10

Processor: Intel i5

Memory: 4 GB RAM

Disk Space (free): 400 MB

Systems running StackSignage must also meet the system and space requirements of MySQL 8.

DeltaServer: Behind the Scenes

StackSignage creates and manages the show, DeltaServer manages the displays

StackSignage Scheduler is a web-based front end interacting with a MySQL database application. StackSignage 2.2 introduces the **MicroConductor** layer on the Scheduler PC that communicates between the database and the media servers running 7thSense **DeltaServer** software to render media to displays.

DeltaServer, which has its own user interface – DeltaGUI – runs multiple timelines playing media through configurations to any kind of display. Signage applications frequently run to video walls, and in this situation DeltaServer configures the displays for size, resolution, number of channels, bezel correction, and if required in 'Composition Mode' for optimising media resources over distributed display areas.

This much will be covered during installation by the systems integrator, and should require little further intervention unless the display elements are changed.

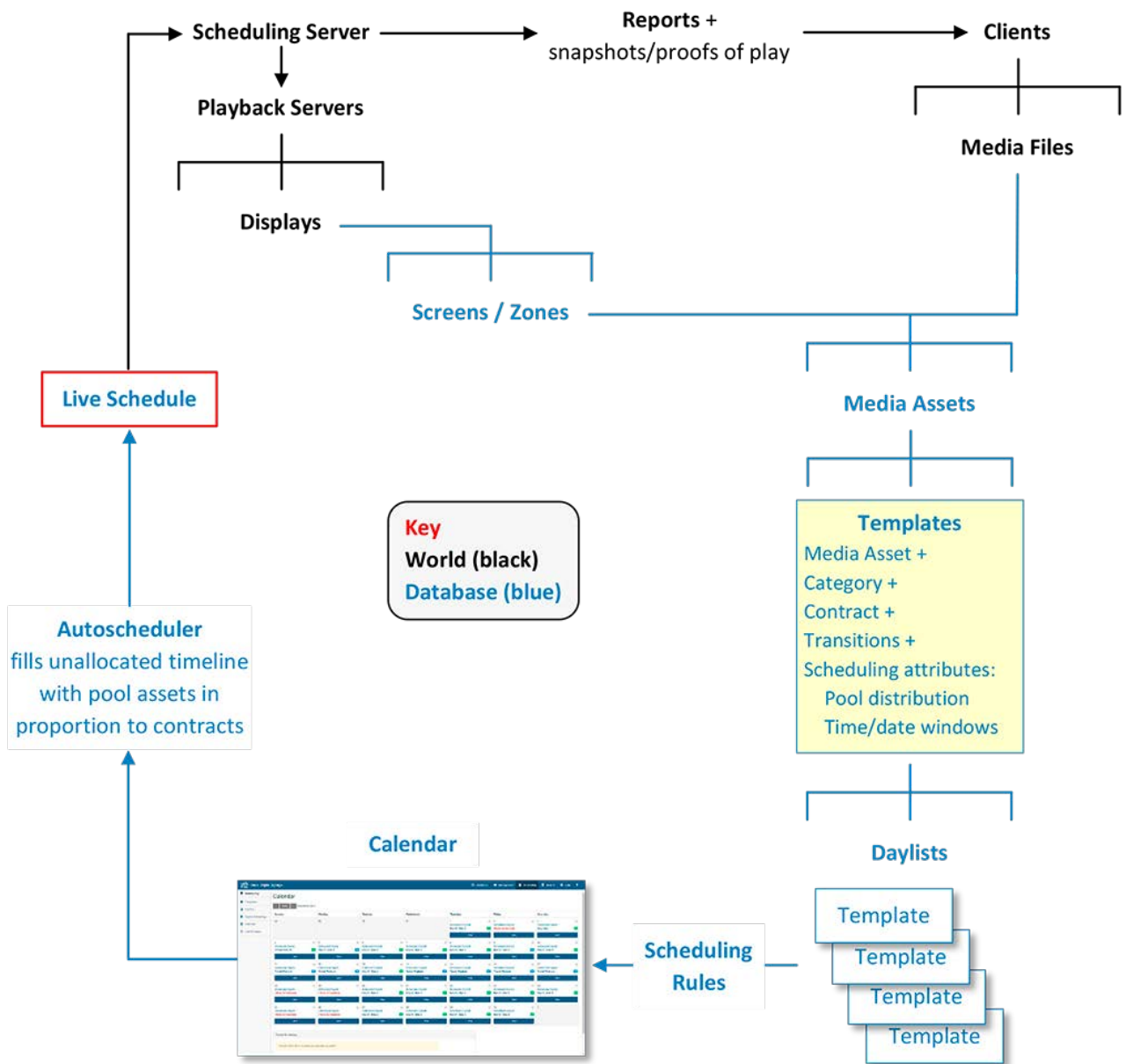
StackSignage interacts directly with DeltaServer, sending instructions on which media resources to use, how and when. These dynamically populate however many timelines have been set up (so that different media can play simultaneously through a number of channels), pulling in effects and transitions between items, according to times. Once set up, you should have little need to know about DeltaServer, but it is worth knowing a few things:

- DeltaServer must be running on each media server. It should run automatically when the servers are switched on, and the icon is available always on the Delta Server desktop.
- When DeltaServer is running, it has a Playback window showing what media is being currently played on Timeline 1, but this is usually running in fullscreen mode, so if you cannot see the Desktop, press the 'F' key to make the Playback windowed.
- When DeltaServer runs, a show file plays by default. The name of this file will be set on installation to be your StackSignage show file. If any changes to display configuration are made they will be in this file, so this file must be re-saved.
- The media framerate must match that of the Delta timeline. If you need to change the framerate to match video media or capture frames, you will need to make some changes using DeltaGUI, the same front-end to DeltaServer used for configuring the display outputs and/or to the configuration of the MicroConductor app.

DeltaServer Configuration

The DeltaServer and DeltaGUI software operation, managing media and setting up displays, are all covered in detail in the user guides available on the [7thSense support portal](#).

Signage Content Components



Glossary of Terms

Server

A Delta Media Server operating a DeltaServer timeline, configured to drive displays being used.

Scheduler

A server operating as a timeline scheduler. May be accessed over IP from any PC without further installation.

Dashboard

The dashboard shows a summarized view of each of the servers and their current status. Buttons allow you to:

- re-sync servers if there has been a break in service
- view a log of the server's events
- refresh the list of media assets when these are added to or removed from the server
- start and stop the service.

Screens

Screens are where the media will play. A screen can be a defined area within a video wall, or the whole of it.

Screen Group

This is a tag used to associate screens for filtering list views, for example by physical location.

Clients

Clients are your customers/advertisers. The system allows you to build a client list with all relevant customer names, attaching their media and building relevant contract details for each. Even if you have a single agency as a client, add them here for personalised reports.

Contracts (number of plays)

Contracts can be set up with standard details that can be applied to many different clients with their media assets.

Example: a contract for '100 plays per day' may be applied to 'Customer A, media 12' and 'Customer B, media 25' where each is contracted to have the same number of plays per day.

Categories

Categories are used to classify Templates so that no two items of the same category run sequentially when autoscheduled.

Templates

A Template allows you to map selected Media Assets to your displays to meet client and contractual requirements. You also have the option to 'Pool' the Template, allowing it to be scheduled automatically. Templates must be at least 1 second long.

Layouts

Layouts are used by Templates to define areas within a screen that allow media to be added in layers that do not fill the whole screen.

Zones

Zones are screen areas defined in Layouts.

Media Assets

A media asset is an **instruction to play** a stored *media resource* on a display or displays for a certain time, with an optional start and stop control string.

Text Overlays

Text with fade and linear animation can be added as a layer over media resources in Media Assets.

Daylist

The Daylist enables you to create a playlist of media for a whole (or part) of a day. In the Calendar, you apply the daylist to as many days as you wish. Any gaps in the Daylist may be filled manually, or automatically scheduled by the system.

Calendar

The Calendar shows the rules-based scheduled Daylists for one month at a time.

Live Schedule

This is where Templates and Fit to Fills are added dynamically to the timeline playing out to the Screens.

Login and Start Scheduler

StackSignage will normally be pre-installed and tested on complete signage systems delivered by 7thSense.

- The MySQL **database**, the **Scheduler** app, the **MicroConductor** app, and the **Snapshot** app are installed on the Scheduler server PC. MySQL must be installed first.
- The **DeltaServer** software and **MediaSync** app are installed on each 7thSense media server.

The program location on all servers is C:\7thSense\web\data\app.

It is assumed from here on that all required components of the StackSignage system are physically installed and connected.

Switch all units on and run all the software.

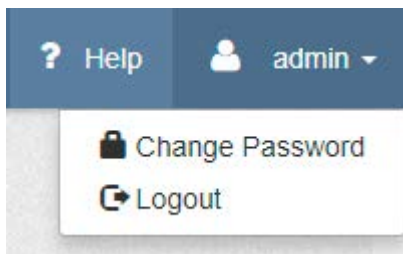
- StackSignage apps are started as services in the browser front end as illustrated below.
- Players may be set to run DeltaServer initially with a fullscreen playback window. If the screen is all black instead of the Desktop, exit fullscreen mode by pressing the F key.

Starting the servers and synchronising with LTC

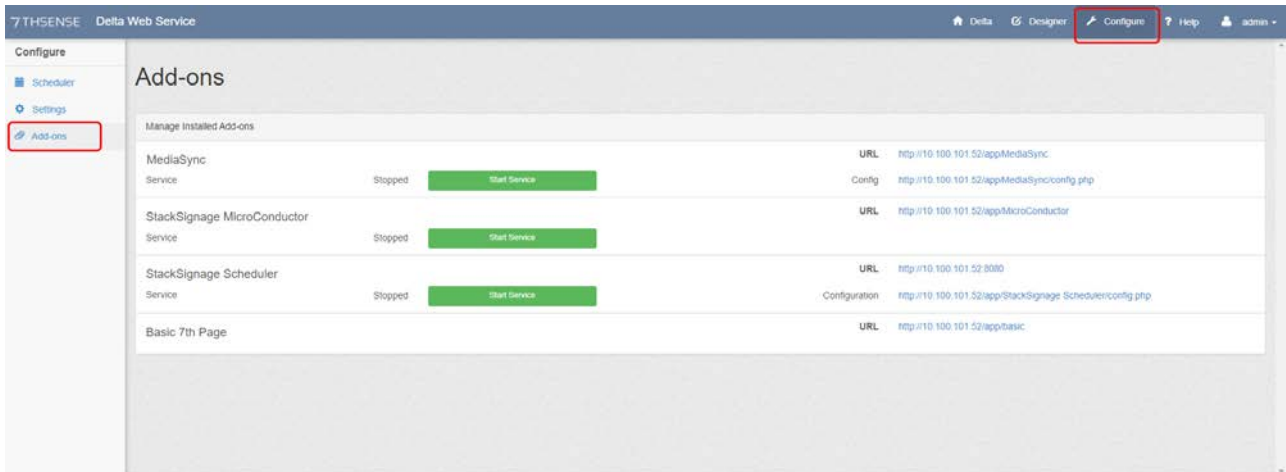
The Scheduler PC communicates with the servers over the network, so use the web service now to run first the Scheduler service then the MicroConductor service on each, and check that the synchronising timecode (LTC) chase is turned on if required. (LTC chase and framerate are set during the installation of MicroConductor.)

On the Scheduler PC, type the IP address of the **scheduler** into a browser tab (or 'localhost' if this is a remote PC). This will offer the login page, so use the default username and password of admin/admin.

- You can set up your own username and password under Admin:



Click the top-right 'Configure' button, then 'Add-ons' at the bottom of the left menu bar:



This will list Delta Web Service add-ons that have been installed. They will show green if stopped and red if started.

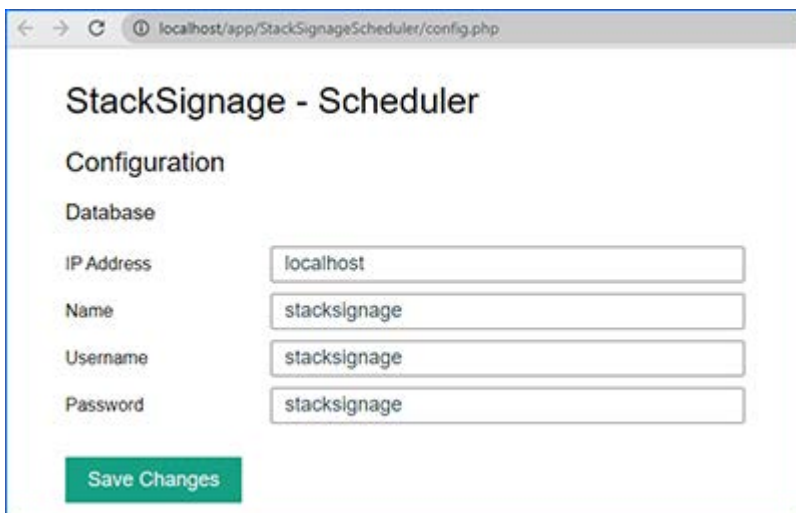
Click the Start buttons in order:

1. Start StackSignage – Scheduler
2. Start MicroConductor
3. Start MediaSync

Scheduler Configuration

Click on the Configuration link on the right:

[http://\[IP Address\]/app/StackSignage%20Scheduler/config.php](http://[IP Address]/app/StackSignage%20Scheduler/config.php)



This is where you can return if you need to update the Scheduler login details.

You are now ready to add all the components of a signage system:

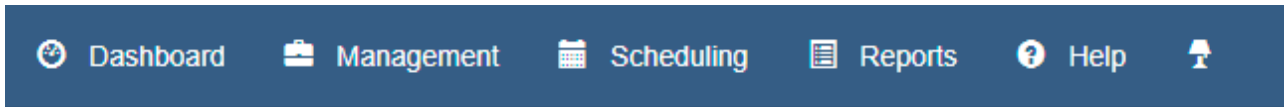
- **System** (servers, screens and screen groups)
- **Media** (assets, layout and transition)
- **Organisation** (clients, contracts and categories)

These can be found under [Management](#)¹⁸.

Menus and Navigation

Navigating the StackSignage Application

At the top you will find the main menu. These choices bring up local menus on the left side.



Dashboard

This is your view of all the StackSignage networked Servers, for status and control. [More...](#) ⁴⁶

Management

This provides the Management menu options for assembling all the component parts for playing content. [More...](#) ¹⁸

Scheduling

Here you bring together client requirements with media resources to determine what is played, when or how often, and where, avoiding any blank screens and gaps. [More...](#) ⁴⁸

Reports

List media availability and records of played schedules for clients and for management. [More...](#) ⁶⁶

Help

View this user guide.

Lighting

Choose between bright and dark screen pages for the StackSignage Scheduler app.

Depending on the page requirements, you will find list tools including filters and bulk actions for selected items (top of page, left), and local toolbars (top of page, right). These are described in the respective sections below.

Management: System Config

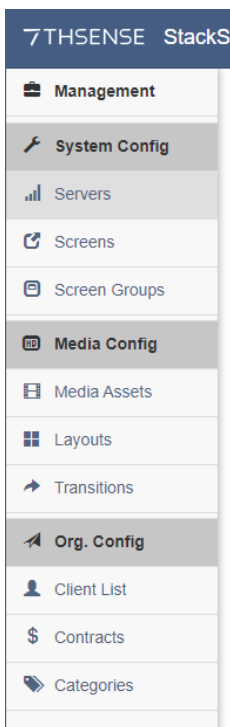
From any networked PC, open a web browser and go to the **Scheduler** IP address, port 8080 (e.g. 10.100.101.123:**8080**).

The first thing you will see is the empty Dashboard page:



Nothing will be listed until the Servers and Screens have been added, which we will do next. Click on the 'Management' tab in the top-right menu:

Here all the components for creating Schedules are created and managed:



System Config

First we need to set up the PCs that will schedule and play all the media, where the media can be displayed by the servers, and manage how many to see at once.

Media Config

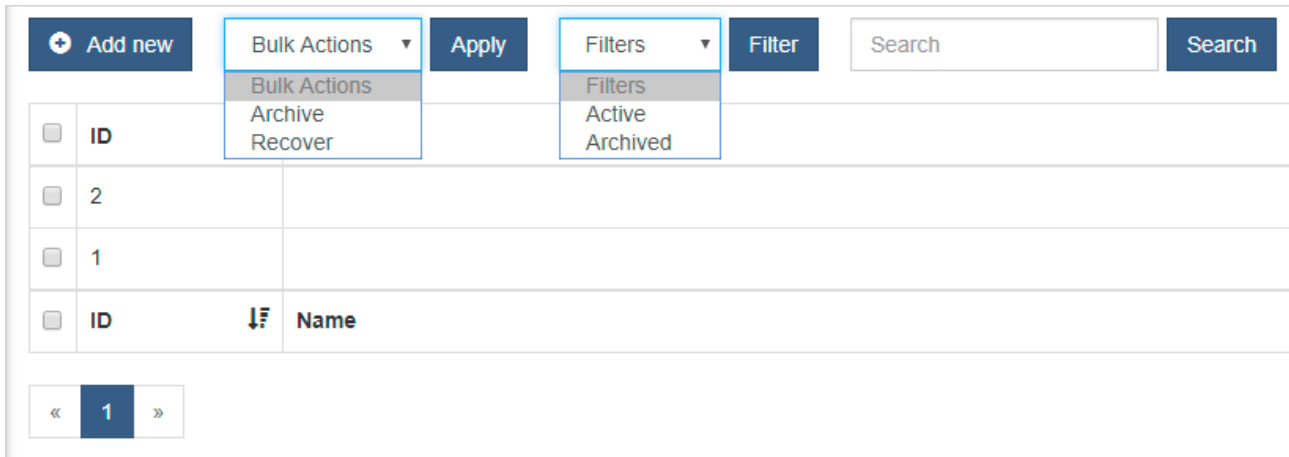
Next we can build the instructions for playing media on the displays, including layouts and transitions between items.

Org. Config

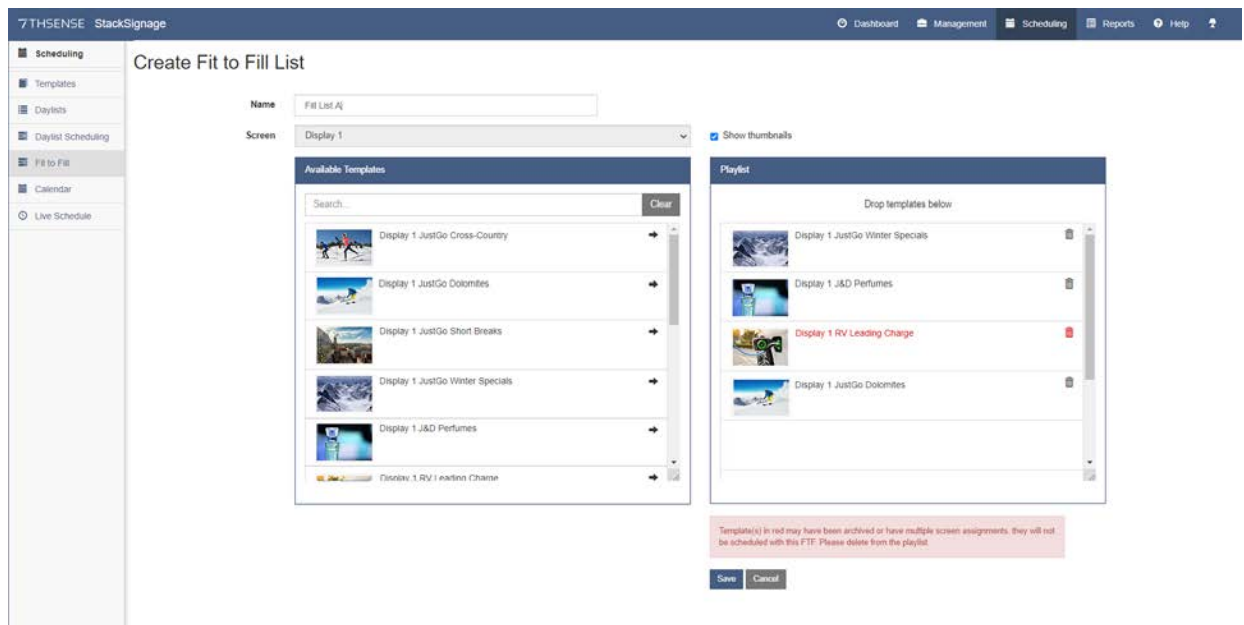
This is where clients, contracts and categories are defined. Categories can be used to avoid sequential playing of similar items.

Adding, Editing, Removing Items

At the top of every component page under Management, is a common control bar:



- Add an item with 'Add New'.
- Edit an item by clicking its name, make changes, and Save.
- ID numbers are auto-allocated when an item is created, but you can sort lists by newest or oldest first.
- Click the header ID checkbox to select all items listed, or click single items to select them.
- Bulk actions are 'Archive' and 'Recover'. There is no absolute 'Delete'.
- An archived item can be recovered by filtering to view 'Archived' rather than 'Active' list items, then select.
- Note that archived templates that are still part of a [Fit to Fill](#)⁵⁹ playlist will be shown in red, along with a warning:



- Search searches the Name field only.

Servers and Roles

Servers are the networked devices that comprise the StackSignage system.

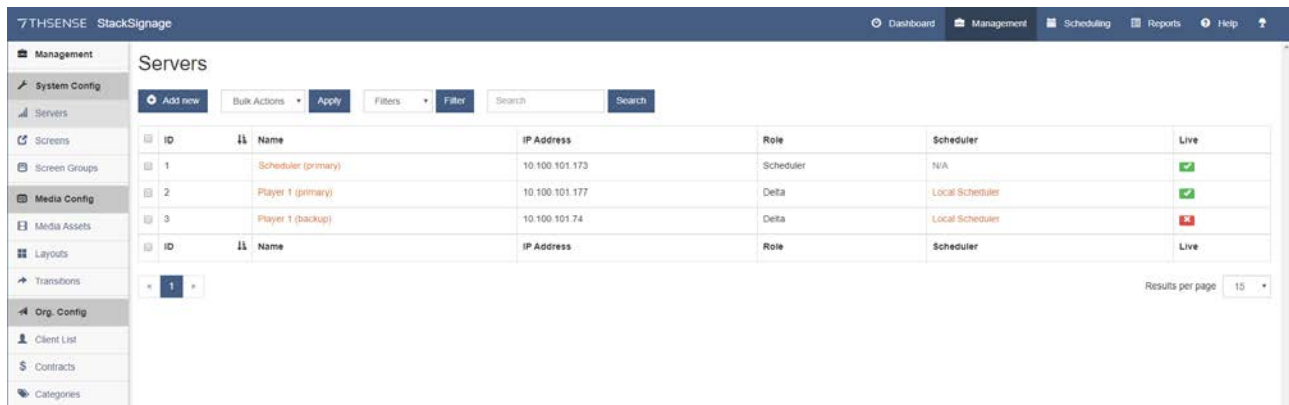
Servers can have one of three **roles**: Scheduler (conducts the 'orchestra'), NAS, and Delta (media) server. The **status** of 'live' or 'backup' assigned is for the purposes of logging and client reporting/billing. If the *use* changes (a backup is being used as a primary), then the *status* must be changed manually here.

Each server (Scheduler and media server) needs to be added, and for the media servers, respective screens must be linked. Name your servers for easy identification, add their IP address, select the role, and whether live (primary) or backup:

Media servers are also linked to their displays, and to which scheduler server they will listen:

The third role that server can play is that of a NAS. These just require a name and IP address, and whether live or backup.

As with the displays, servers are listed, can be sorted, filtered and managed:



The screenshot shows the 'Servers' management page in the 7THSENSE StackSignage interface. The page has a navigation menu on the left with options like Management, System Config, Servers, Screens, Screen Groups, Media Config, Media Assets, Layouts, Transitions, Org. Config, Client List, Contracts, and Categories. The main content area is titled 'Servers' and contains a table with columns for ID, Name, IP Address, Role, Scheduler, and Live status. There are three rows of server data. The first row is a Scheduler (primary) with IP 10.100.101.173 and a Live status of 'Yes' (green checkmark). The second row is a Player 1 (primary) with IP 10.100.101.177 and a Live status of 'Yes' (green checkmark). The third row is a Player 1 (backup) with IP 10.100.101.74 and a Live status of 'No' (red cross). The table also includes a search bar, filters, and a 'Results per page' dropdown set to 15.

| ID | Name | IP Address | Role | Scheduler | Live |
|----|---------------------|----------------|-----------|-----------------|------|
| 1 | Scheduler (primary) | 10.100.101.173 | Scheduler | N/A | Yes |
| 2 | Player 1 (primary) | 10.100.101.177 | Delta | Local Scheduler | Yes |
| 3 | Player 1 (backup) | 10.100.101.74 | Delta | Local Scheduler | No |

Note the red cross against a backup Player (media server). This simply reflects that its current status is not Live, not that it is not online or running.

The StackSignage Dashboard (click the 'Dashboard' tab) will now be populated. (See also: [Dashboard](#)⁴⁶.)

Screens (displays)

Screens are where the media will play. A screen can be a defined area within a video wall, or the whole of it.

Screens are fed by the media **Servers** and are attached to **Media Assets** to define where they play.

Let's say we have three display walls as in the architecture illustration used [here](#)⁷. Each display is called a Screen in StackSignage, so let's add them. Click on 'Add New' and create Display1 to run from server timeline 1 (different displays can run from separate timelines simultaneously).

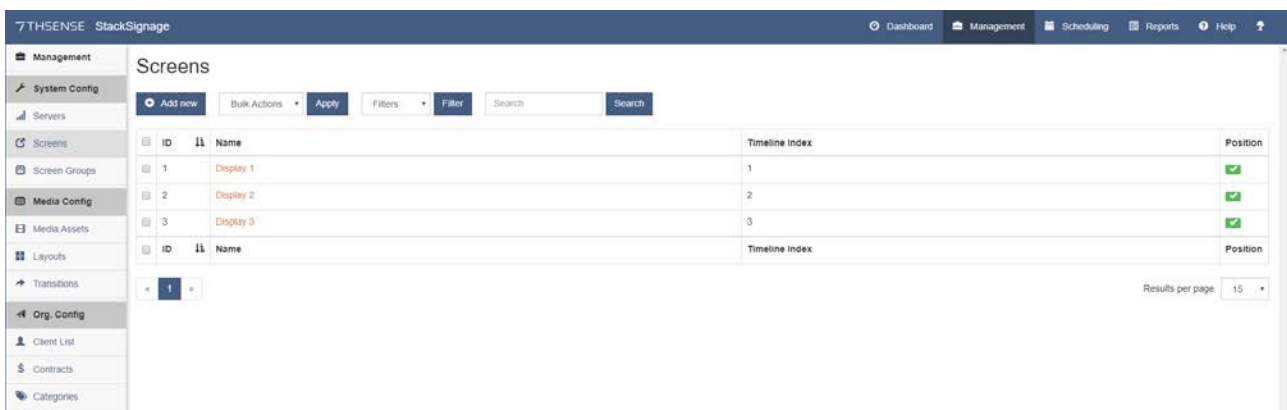


- If the media fits the display dimensions, the X-Y coordinates of the top-left corner will be 0,0, and the width and height of the pixel measurements for this display area.
- If the media over multiple screens and, for example, this screen is to display only one quadrant of a piece of media, then you will need the media coordinates for the start point within the media, and the pixel width and height of the area of the media to show on this screen.

Here we have also added an optional proof-of-show camera to take time-stamped snapshots.

Check to enable the screen and click the 'Create' button.

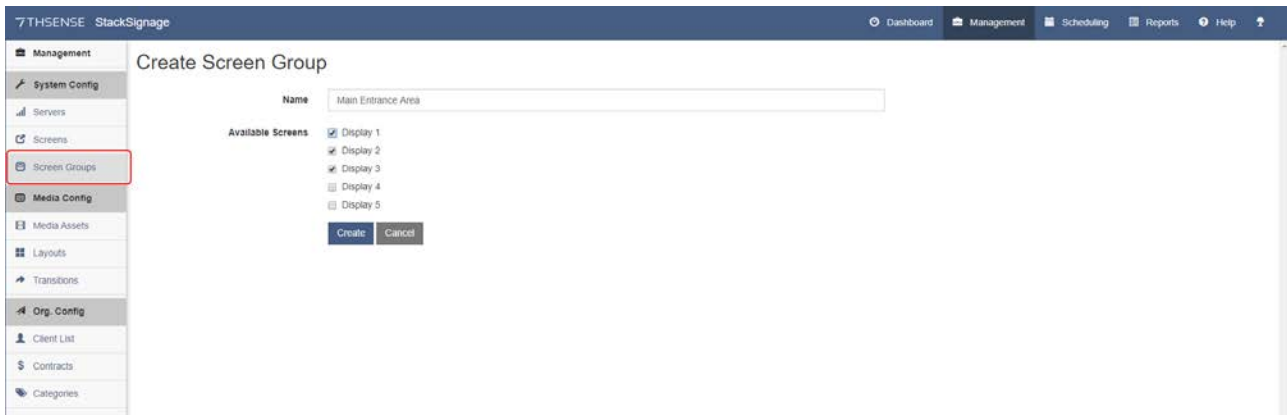
When all screens have been added in this way, you can see them listed, filter, sort and manage them:



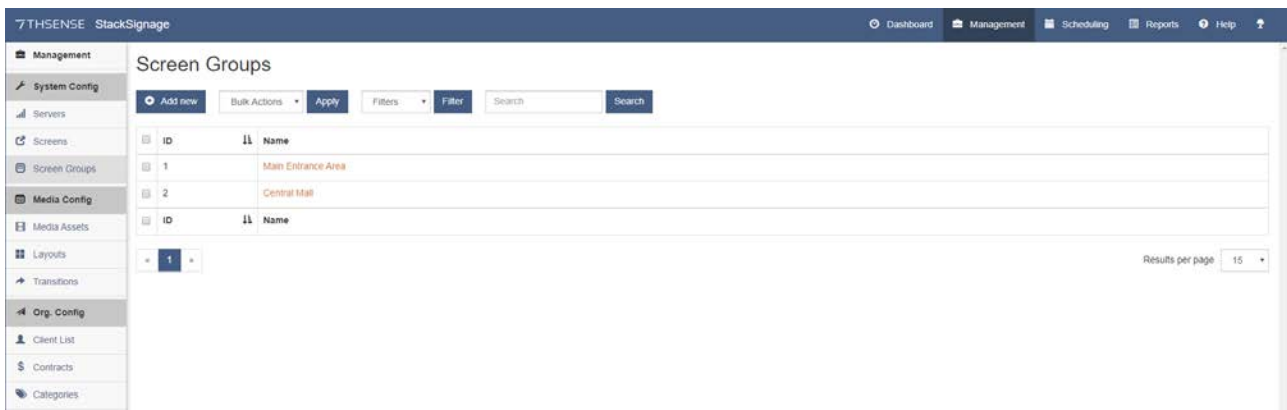
Screen Groups

Since there may be many screens to manage in the Scheduler, the 'single view of everything' could become too cluttered. Rather than having to remember which server feeds which display everywhere, it makes more sense to address a physical location where displays are sited – for example: 'Main Entrance Area', 'Central Mall' and so on.

Click on 'Add New' and create a screen groups by giving it a name and selecting the related screens:



When all screen groups have been added in this way, you can see them listed, filter, sort and manage them. They can be edited by clicking on their names:



Screen groups are used in the Live Schedule, where you can choose to filter the view by 'Show all', or by screen group name, from the top-left drop-down selector:

7THSENSE StackSignage

- Scheduling
- Templates
- Daylists
- Daylist Scheduling
- Fit to Fill
- Calendar
- Live Schedule

Live Schedule

Show all

- Show all
- Central Mall
- Main Entrance Area

| 00 | 01 | 02 | 03 |
|-----------|------------------|----|----|
| 00 | | 05 | |
| Display 1 | [Dark Green Box] | | |
| Display 2 | | | |

Management: Org. Config

You will attach your supplied media to Clients and assign Categories to them, so do this before you start work on the media assets.

[Clients](#)²⁶ are those supplying the media for display and to whom you will report.

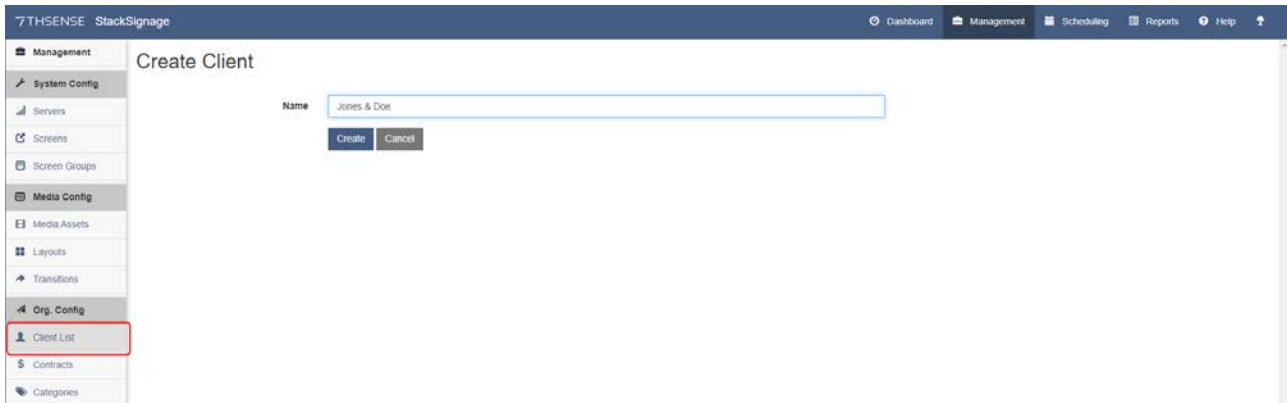
[Contracts](#)²⁷ are the required minimum displays per day that can be assigned to media.

[Categories](#)²⁸ are used to ensure items of the same category (e.g. footwear, travel, vehicles) are not autoscheduled sequentially.

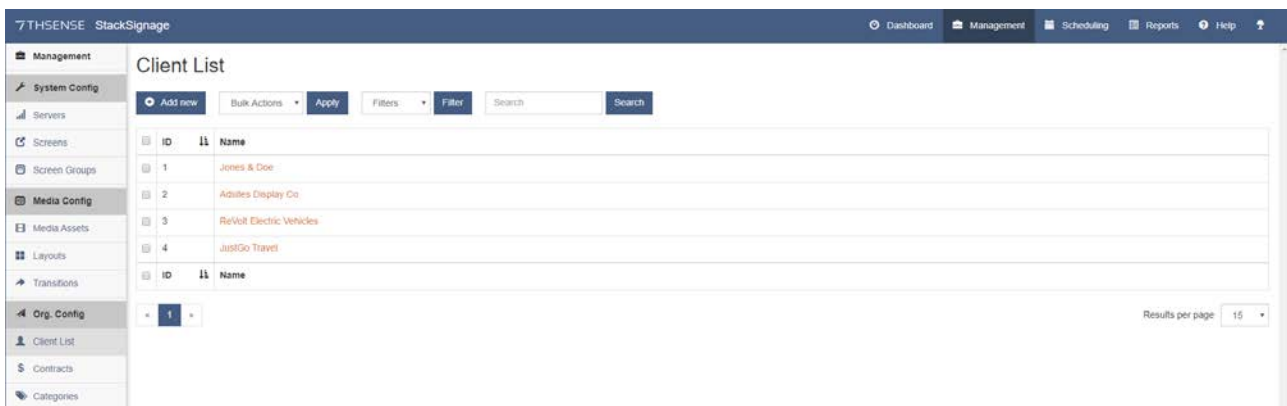
Clients

Clients will have schedule **Templates** and **Contracts** associated with them. Their **Media Assets** are linked via the **Templates**.

Click 'Add New' to add your first client, and click 'Create':



Click 'Add New' to add more. As with other components of StackSignage you can control the selection, order, and list view:



You might want to add yourself as a dummy client (here, 'AdSite Displays Co. '), so that you can relate filler media to it. These are useful for uneven time-slot matching, and explained under [Media Assets](#) ³². By assigning fillers to a Client makes reporting of these events easier to see.

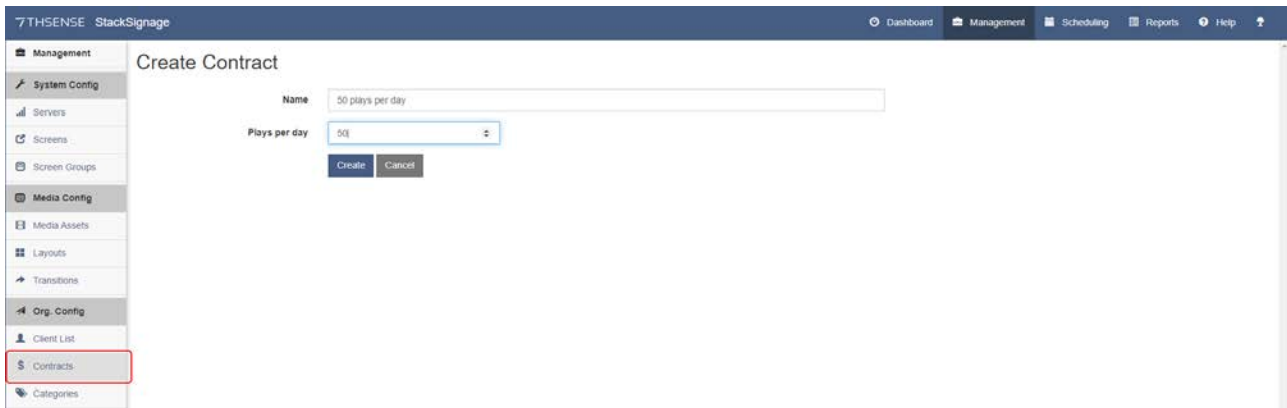
Contracts

Contracts are play profiles that control how many times a piece of media has been asked to be played. Give meaningful names, for example if a particular time slot or display location might be required. Plays per day are actually normalised across the day for what is possible accounting for all demands. Think of a Contract as a weighting value.

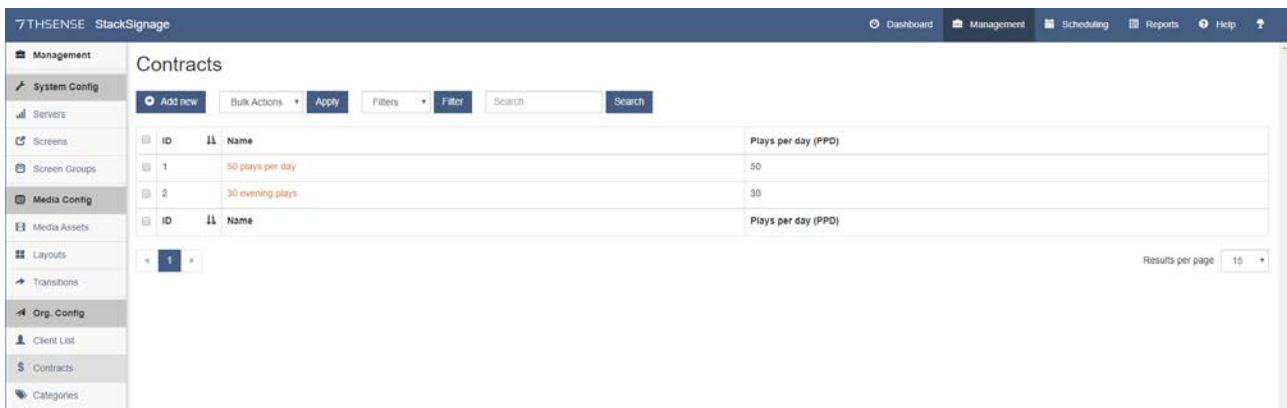
Contracts are generic, and can be used by any Client or Media Asset in any Template.

Contracts are used by schedule **Templates**. If you *only* schedule a Template manually, there is nothing to alert you to falling below or exceeding a Contract. If you use up part of a Contract in manual placements, autoscheduling will take account of this in allocating additional plays.

Click 'Add New' to add your first contract, and click 'Create':



Click 'Add New' to add more. As with other components of StackSignage you can control the selection, order, and list view:



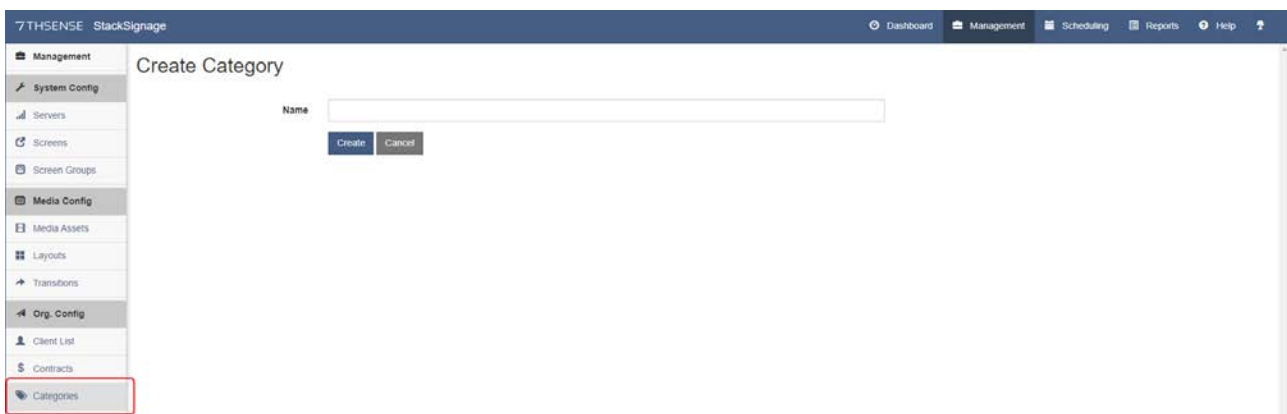
Categories

Categories avoid media of the same category from being sequential, in order to distinguish them better.

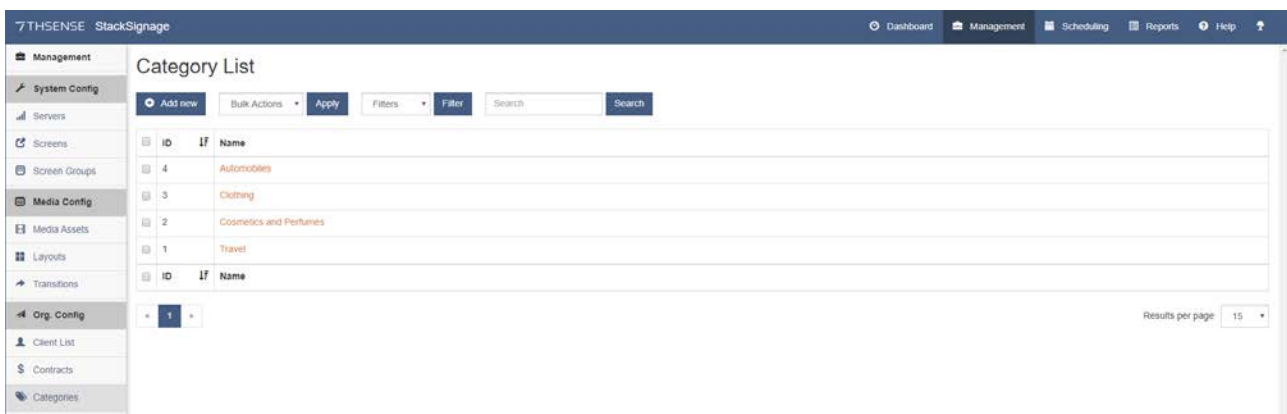
Categories are used by **Media Assets** and schedule **Templates**.

Examples: Travel, Cosmetics, Clothing, Automobiles.

Click 'Add New' to add your first category, and click 'Create':



Click 'Add New' to add more. As with other components of StackSignage you can control the selection, order, and list view:



Management: Media Config



Before managing media for the first time, make sure there is media available on all of the media servers. You will want to experiment and learn to begin with.

Loading Media onto media servers

The Delta Media Servers play media that is stored on them as instructed by the StackSignage module. Therefore everything required to be played must reside on the servers that will feed the required displays. Use well-structured and named folders for easy access and good management. The available Movies will be listed by their filename if codec files, or 'base name' (i.e. prefix to the frame number) if frame-based files.

Workflow

- Distribute media to all **Servers**.
- Refresh the **Resource** pool available to the DeltaServer software in the StackSignage database.
- Select media resources to assemble **Media Assets** that are assigned to **Screens**.
- Profile **Media Asset** usage in **Templates**.
- Add **Templates** to **Schedules** automatically or manually.

For folder locations by media type, and for preferred media formats, see the online Workflow Guide:

➤ [Delta Workflow Guide](#)

If you are using a NAS, see also:

➤ [Using Networked Movie Storage](#)

These available resources will be fully described as 'Media Assets' in the Scheduler application.

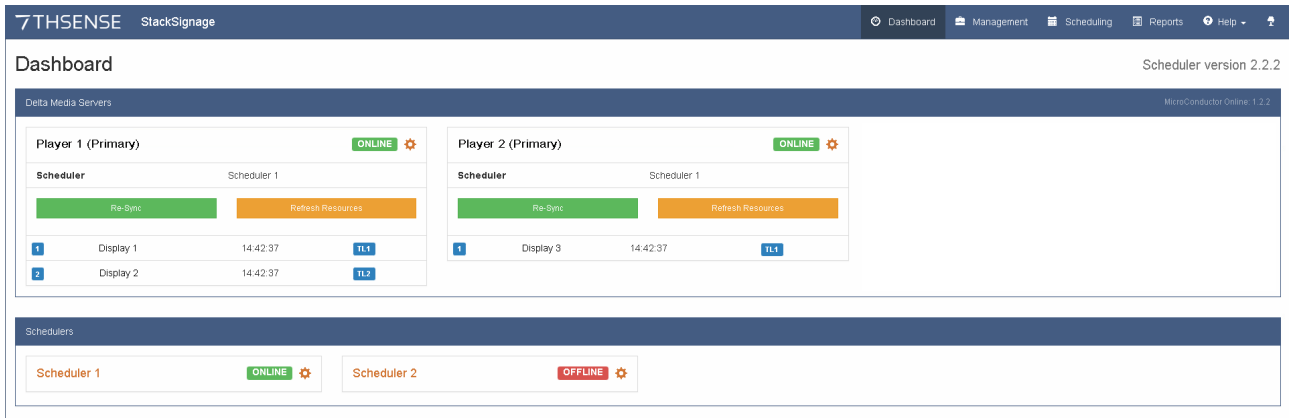
MediaSync

The [MediaSync](#)⁽⁷²⁾ app, mounted on each Delta media server, ensures that media stored on a NAS is copied down when the Dashboard 'ReSync' button is pressed.

Refreshing Media Lists


Note: you will not see this on your Dashboard until after the initial set-up of both [Servers](#)⁽²⁰⁾ and [Screens](#)⁽²²⁾.

The DeltaServer software requires its internal lists of media to be refreshed whenever media are added or removed. To do this, press 'Refresh Resources' in Dashboard for each Player (media server). A confirmation message will be displayed below the buttons.



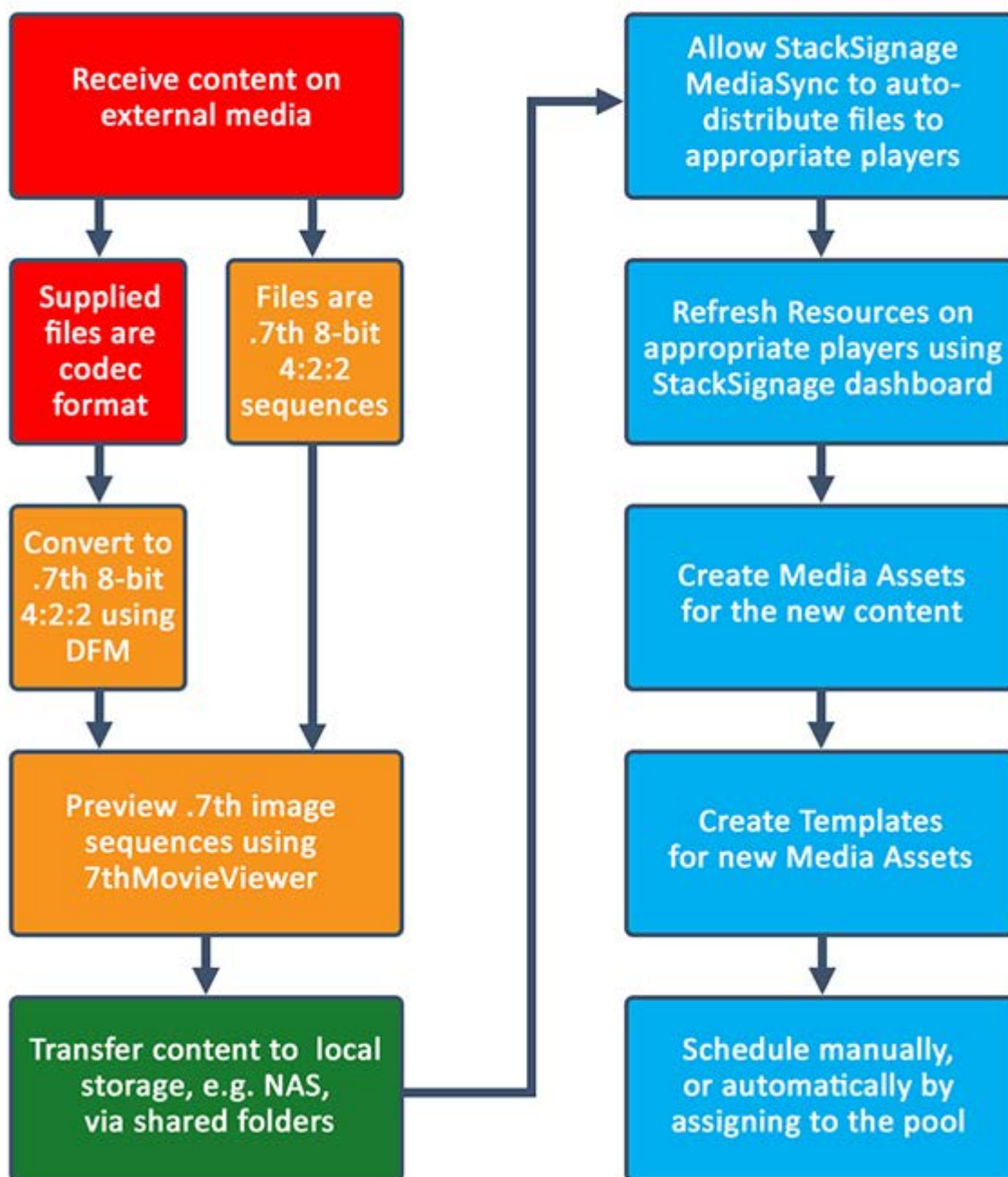
Media Workflow

Here is a basic overview of the media workflow. It runs from receiving and checking valid media formats, through conversion and preview, to ingesting the verified content and preparing it for scheduling.

 Click blocks to go to detailed guidance, in this (opens in the same browser tab) and other user guides (in a new browser tab).

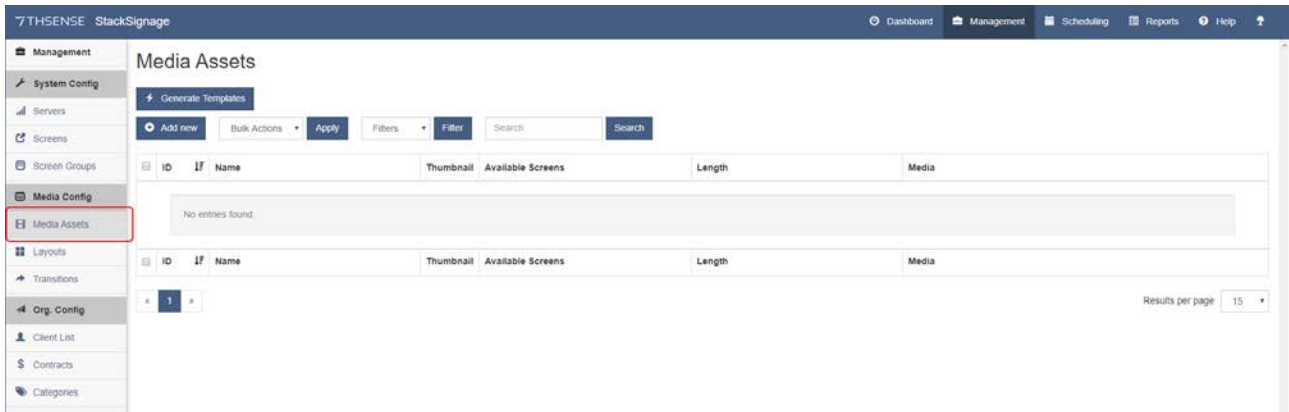
Review and Upload

Prepare and Schedule



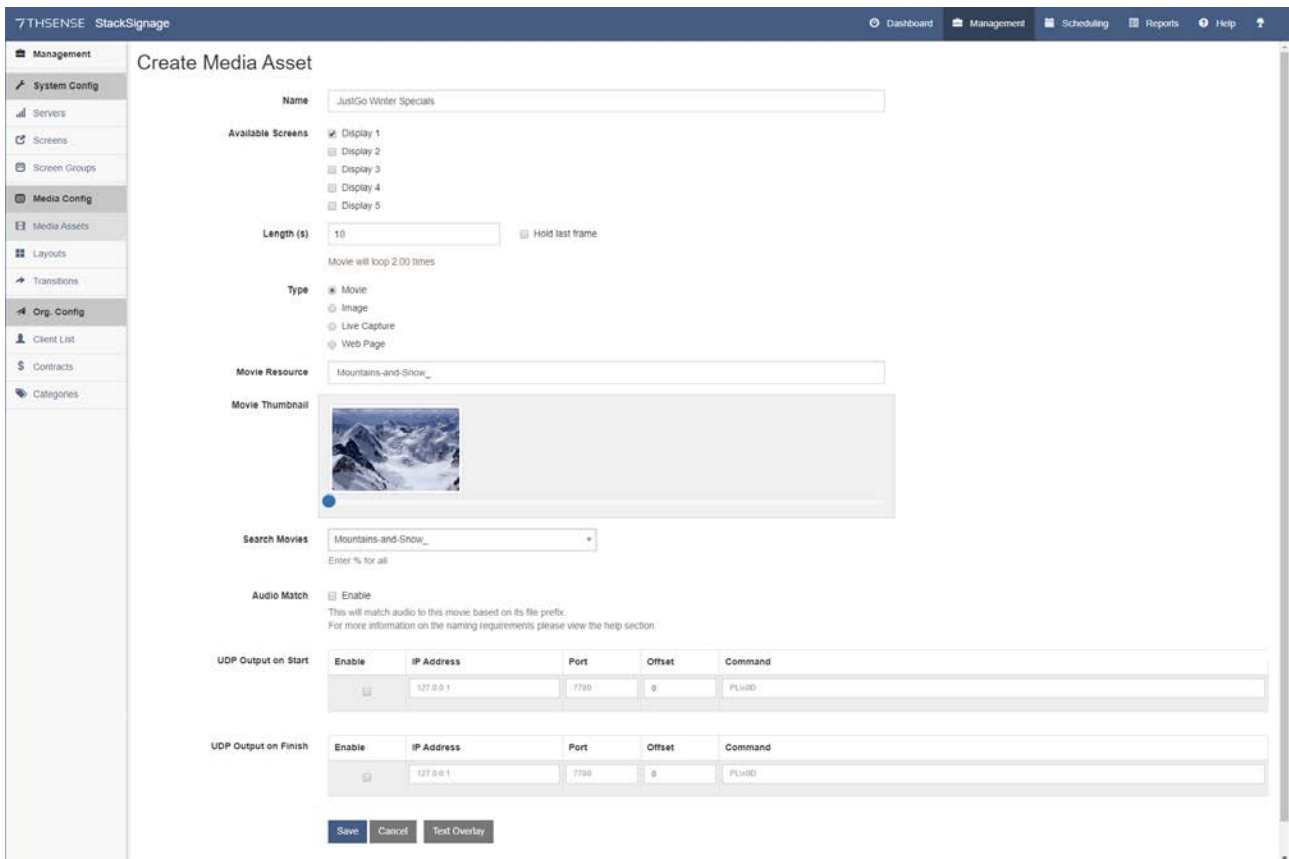
Media Assets

A media asset is an **instruction to play** a stored media resource on a display or displays for a certain time, with an optional start and stop control string.



Media Assets are called by schedule **Templates**.

Here, our client JustGo Travel has supplied a 10-second movie with the base filename 'Mountains-and-Snow_', which we will show on Display 1.



Name

Type a meaningful name that you will use in scheduling. This might include a company and/or a campaign name. A good resource and Media Asset naming discipline will save a lot of potential confusion later.

Available screens

These are the display areas you have previously set up. If a resource will be played on more than one screen, select all screens to which it will be available.

Length (Movie, in seconds)

Whatever the length of the actual media resource, this determines the playing duration of this Media Asset.

Movies will loop back to their start if allocated more time than their length. A movie with slightly more frames than exact seconds (e.g. 958 frames at 30 fps) can only be shown in full seconds duration and in multiples of 5 seconds (in this example, 30 seconds) so would be cut slightly short.

If a movie is slightly fewer frames than exact seconds assigned to it, check '**Hold last frame**' to play the last frame continuously until the end of the play duration instead of looping.

Other media have no time definition, so play time is defined here. A message may need to be displayed at some times for 5 seconds, and at other times for 10, so two media assets would be created, suitably named.

Note that the minimum size for a **Template** is 1 second, so assets shorter than this will be forced to play for a minimum of 1 second.

Information below the length: shows number of loops, truncation or last frame repeats wherever the movie length differs from the assigned length in seconds.

Type

Select the type of media. This also determines the search list contents below.

Movie Resource

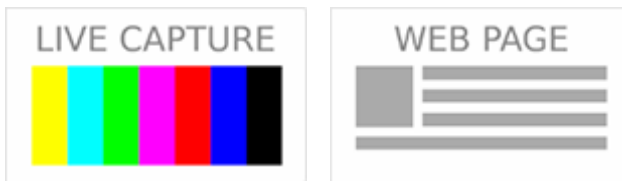
You *can* type the resource filename exactly, here, but it is better populated by selecting from the search box. Note that movie frame sequences end with an underscore character.

Movie Thumbnail

Thumbnails are generated for movies when resources are refreshed (Dashboard, Refresh Resources).

(see [Thumbnail Configuration](#))⁽³⁷⁾. For web capture and live capture assets, a default thumbnail

will be shown:



Search Movies

Start typing the name you know, or type % for the complete list available. This list is an accumulated de-duplicated list of media resources, by media type, drawn from all the resource folders on all media servers. All items with the string entered, will be listed.

Note that these are the names of the frame sequences available, not of the folders containing them.

Audio Match

Separate audio files will be detected as matched to a frame-based (e.g. 7TH, STH, or .tga) movie if they share the same filename stem.

If Live Capture or Web Page selected:

Capture Device (name) / URL

No image or thumbnail will be available for these, as nothing is stored. A placeholder image 'Live Capture' and 'Web Capture' will be displayed instead, so name these clearly by function.

UDP Output on Start / UDP Output on Finish

The start and end of a template can be used to send UDP commands to external devices.

Text Overlay

Once created, a media asset can be given a [Text Overlay](#)⁴⁰. Note the green tag **Contains Overlay** in the list shown below, where a text overlay has been added to the top item.

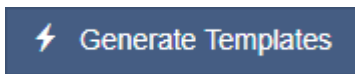
Media Assets List

We have now listed the media that our Clients have supplied, and tied them to which Screens they can be shown on:

| ID | Name | Thumbnail | Available Screens | Length | Media |
|----|------------------------|-----------|----------------------|--------|--|
| 2 | JustGo Winter Specials | | Display 1 | 10 | Media: Mountains-and-Snow, Content Overlay |
| 3 | J&D City Stickers | | Display 1, Display 2 | 10 | Media: City Stickers |
| 4 | J&D Common Scents | | Display 1, Display 2 | 10 | Media: Common Scents |
| 5 | JustGo Cross-Country | | Display 3 | 10 | Media: Cross Country SA |

We can now use **Templates** to bring Media Assets, Clients, Categories, Contracts and Screen Layouts together.

Template Wizard



You can create templates for selected assets in this list, with basic details, using the wizard as a batch process.

Select the required assets for which you want to batch create templates (or tick the header check box for all), then click the wizard button.

Generate Templates ✕

If a template has been created using this tool and not been modified, then it will be overwritten with these details

| | | | | |
|--|--|--|---|--|
| <p>JustGo Winter Specials Display 1</p> <p>J&D City Slickers Display 3</p> <p>J&D Common Scents Display 3</p> <p>JustGo Cross-Country Display 1 Display 2</p> <p>JustGo Dolomites Display 1 Display 2</p> <p>J&D Eco Fashion Display 3</p> <p>J&D Glamour Eyes Display 3</p> <p>J&D Spring Shoes Display 3</p> <p>JustGo Short Breaks Display 1 Display 2</p> <p>JustGo Mountains Display 3</p> <p>RV Go Anywhere Display 1 Display 2</p> <p>RV Leading Charge Display 1 Display 2</p> <p>RV Vantastic Display 1 Display 2</p> | <p><input checked="" type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> <p><input type="checkbox"/> Add to pool</p> | <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> JustGo Travel ▲ </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> Adsites Display Co </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px; background-color: #004a99; color: white;"> Jones & Doe </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> JustGo Travel </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 5px;"> ReVolt Electric Vehicles </div> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> <p>Select client ▼</p> | <p>Travel ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> <p>Select category ▼</p> | <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> <p>Select contract ▼</p> |
|--|--|--|---|--|

Close
Generate Templates

Assign details for each item from the drop-down lists of Clients, Categories and Contracts you have already created. Check 'Add to pool' if you want to be able to use the item in automated scheduling. Any of these can be edited later.

Templates created by batch are shown in the main *Scheduling > Templates* page where they can be edited with additional details as required. Once re-saved there, re-running the wizard will not overwrite these templates (though they may have the same auto-generated name).

7THSENSE StackSignage Dashboard Management Scheduling Reports Help

Scheduling Templates

Templates Add new Bulk Actions Apply Filters Filter Search Search

| ID | IF | Name | Client | Contract | Screen Mappings | Length | Created | Batch Created | Pool |
|----|----|-----------------------------|--------------------------|------------------|---|--------|------------|---------------|------|
| 21 | | Display 2 RV Vantastic | ReVolt Electric Vehicles | 30 evening plays | <div style="border: 1px solid #ccc; padding: 2px; background-color: #004a99; color: white; font-size: 8px;">Display 2 - RV Vantastic</div> | 10 | 09/01/2020 | ✔ | ✖ |
| 20 | | Display 1 RV Leading Charge | ReVolt Electric Vehicles | 50 plays per day | <div style="border: 1px solid #ccc; padding: 2px; background-color: #004a99; color: white; font-size: 8px;">Display 1 - RV Leading Charge</div> | 10 | 09/01/2020 | ✔ | ✔ |
| 19 | | Display 1 RV Vantastic | ReVolt Electric Vehicles | 30 evening plays | <div style="border: 1px solid #ccc; padding: 2px; background-color: #004a99; color: white; font-size: 8px;">Display 1 - RV Vantastic</div> | 10 | 09/01/2020 | ✔ | ✖ |
| 18 | | Display 2 RV Leading Charge | ReVolt Electric Vehicles | 50 plays per day | <div style="border: 1px solid #ccc; padding: 2px; background-color: #004a99; color: white; font-size: 8px;">Display 2 - RV Leading Charge</div> | 10 | 09/01/2020 | ✔ | ✔ |

➤ [Templates](#) ⁵⁰

Different Media Lengths and Avoiding Blank Screens

Media Assets are played for Clients, but due to scheduling and availability of each Screen, short gaps could occur between templates on any screen. To avoid this, create minimum-length Templates for each Screen, assigned as Pool Templates for autoscheduling, and available on all media servers. These assets may be regular announcements, graphic images or neutral movie scenes where duration does not matter.

Note that Templates are forced to a minimum of 1 second but can be increased to a custom length that is longer.

Thumbnail Configuration

By default, DeltaServer creates a thumbnail of the first frame of every movie whenever the Resource Pool is refreshed, and stores these in C:\7thSense\web\data\thumbnails. Thumbnails are used in DeltaGUI as resource pool icons and on the timeline to help identify assets.

Thumbnails of selected frames can also be created for use in scrubbing through movie clips on the StackSignage timeline. Currently-supported formats are 7th 4:2:2, 4:2:0 and YCoCg.

Registry Edits (Thumbnails)

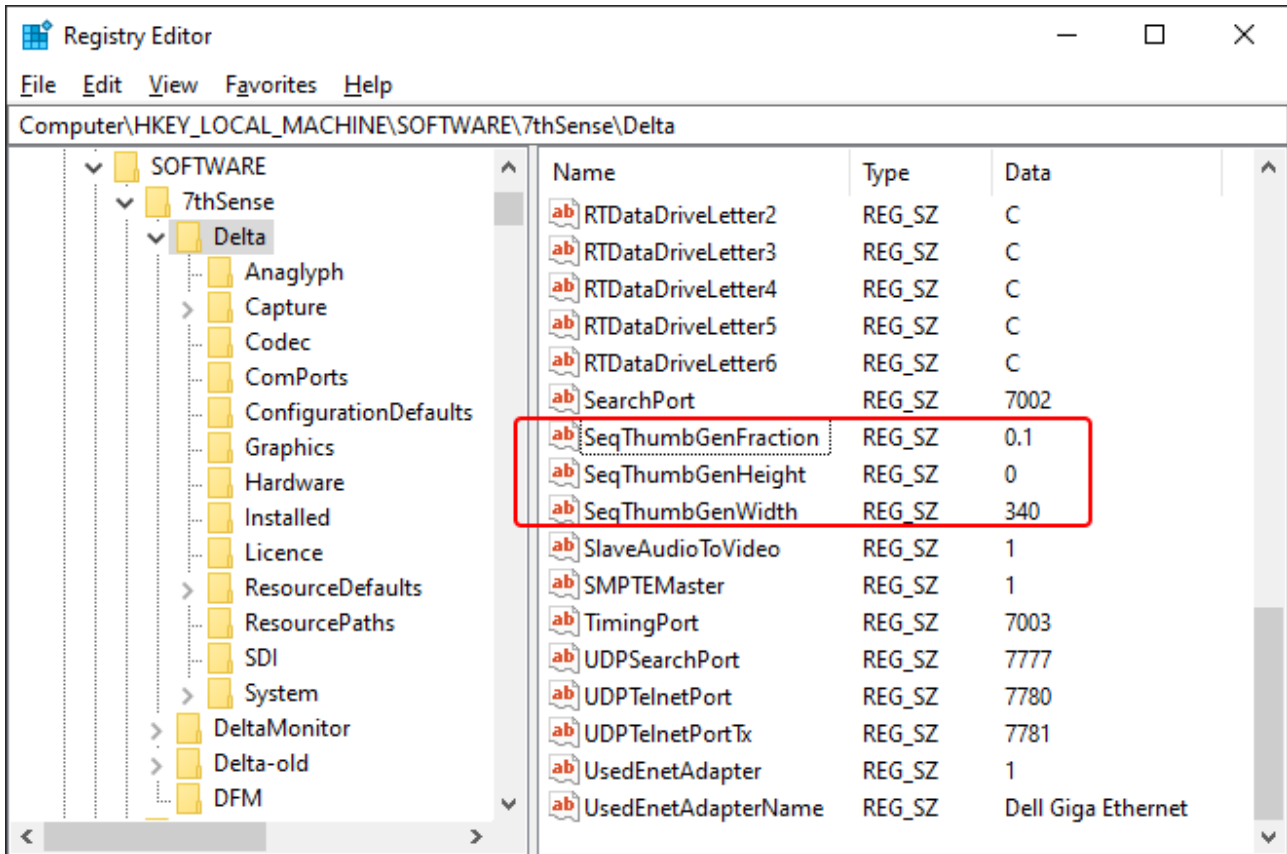
To use the thumbnails feature for the StackSignage timeline, two registry edits must be made.

Registry Edits

7thSense software uses the Windows Registry extensively, and on occasion we make recommendations for changes.

- Before making any changes, close DeltaGUI and DeltaServer.
- DeltaServer can take up to 10 seconds to fully close in the background, even if it appears that all the Windows have closed. Ensure that Delta has *fully* closed before opening and/or refreshing, and finally editing. The best way to ensure this, is to watch Windows Task Manager > Details list. You will see 'DeltaServer.exe' in this list if DeltaServer is still running. If it won't close for any reason, you can right click on it in the list and choose 'End Process Tree'.
- Make a note of any setting before you change it, in case you want to change it back.
- Only make the changes as recommended and only to those registry keys.

Make sure DeltaServer is not running and in Windows search find 'Regedit':



How many thumbnails

Double-click the name and set the value of **SeqThumbGenFraction**. For any value other than 0, when DeltaServer starts it will look for a folder: C:\7thSense\web\data\thumbnails\sequences. If this does *not* exist, it will create the folder and the required thumbnails for all movie assets on the server. If you choose a large number of thumbnails, this will take some time.



| Example | Result |
|---------|---|
| 2 | A thumbnail every second frame |
| 1 | 1 thumbnail per frame |
| 0 | No thumbnail creation |
| 0.1 | 10 thumbnails distributed evenly across all frames |
| 0.01 | 100 thumbnails distributed evenly across all frames |

Thumbnail size

For best resolution, set the value of **SeqThumbGenWidth** to 340 (the width of the resource preview window in the StackSignage web page; for height, the aspect ratio is maintained automatically if no value is added).

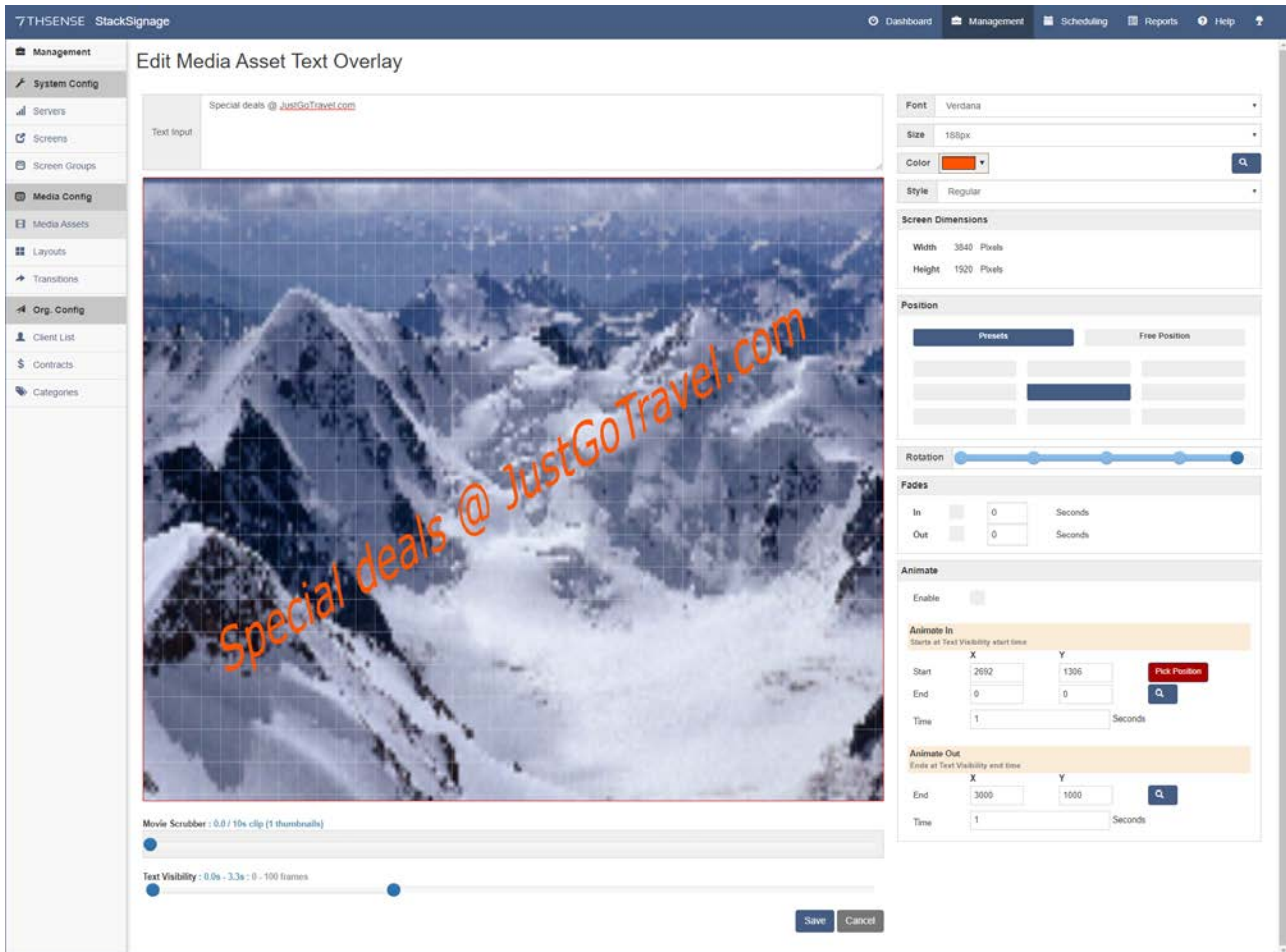
Live Capture and Web Capture

Since thumbnails or real images cannot exist for these assets, a placement image will show:

| Client | Contract | Screen Mappings | Length |
|-------------|-----------------|---|--------|
| Star Events | Preshow moments | <div data-bbox="667 488 874 517" style="border: 1px solid black; padding: 2px;">Screen 1 Capture Pico</div> <div data-bbox="667 528 956 696" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>LIVE CAPTURE</p>  </div> | 60 |
| Star Events | 6 plays per day | <div data-bbox="667 741 890 770" style="border: 1px solid black; padding: 2px;">Screen 1 Web Page Pico</div> <div data-bbox="667 781 956 949" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>WEB PAGE</p>  </div> | 30 |

Text Overlay

Add and style text in an overlay to a media asset.



Place and Animate

Screen Dimensions

These are the dimensions of the Screen assigned to the media asset.

Position

Text can be positioned freely or assigned to one of the 9 areas in a 3 × matrix by clicking on the appropriate block.

Rotation

Text can be freely rotated to a fixed angle; the markers show the 90 degree increments.

Fade In/Out

Enter the time in seconds over which to fade the text in or out.

Animate In/Out

Define the start and end coordinates. The top-left point of the text will move point to point over the time entered in seconds. Instead of entering precise numbers, click the magnifier icon and point and click in the frame.

Movie Scrubber

Scrub through the movie for the required frames.

Text Visibility

Position the markers to define the play window in which you want the text to appear.

Layouts

Any display can show more than a single full-screen image or movie. The DeltaServer timeline that runs the media schedule on the screens is layered, with images on lower-numbered layers opaque to those beneath. For example, a smaller inserted logo or animation can play over a full-screen movie or image, in any position you want.

A zone is an overlay on a background to create a picture-in-picture.

Layouts are used by schedule **Templates**.

The layout is described as a combination of zones. In this example, two zones have been defined in a layout:



JustGo logo is in Zone 1:

Layer =1

X,Y position is 0,0

Width and height define size



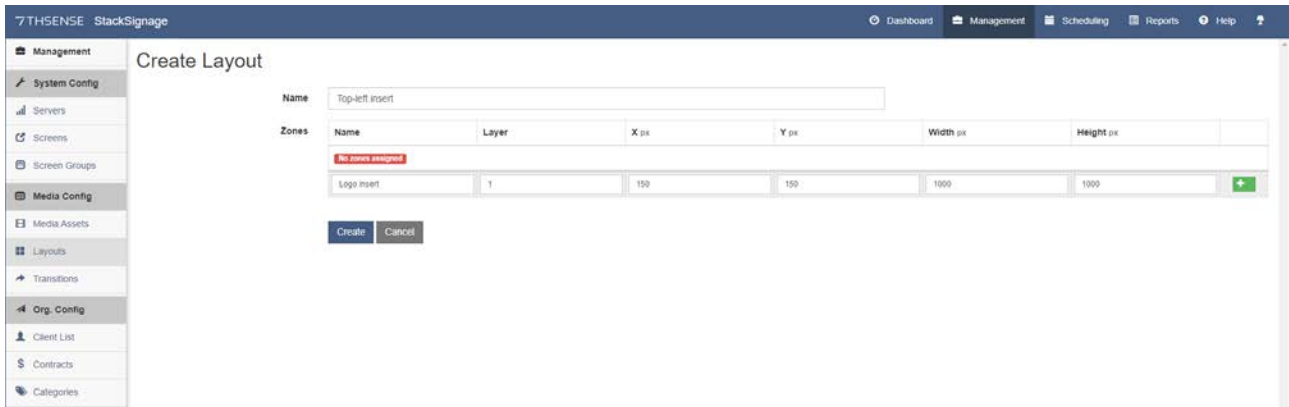
Background movie is in Zone 2:

Layer = 2

X,Y position is 0,0

Width and height are full screen dimensions

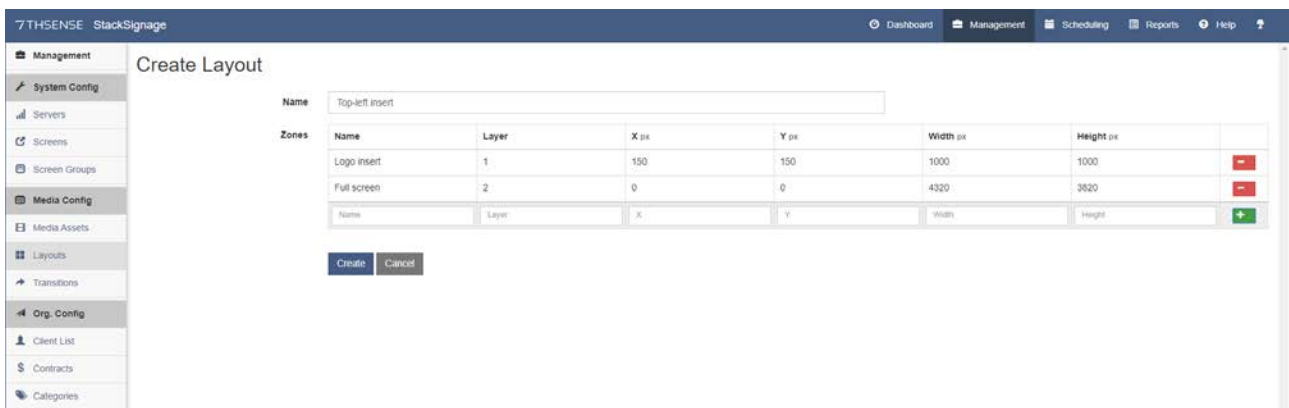
Click 'Add New' to add your first layout. First define the zones you want. Here we are adding a zone for a logo top-left in an area 1000 px square:



Save this zone by clicking the green cross button.

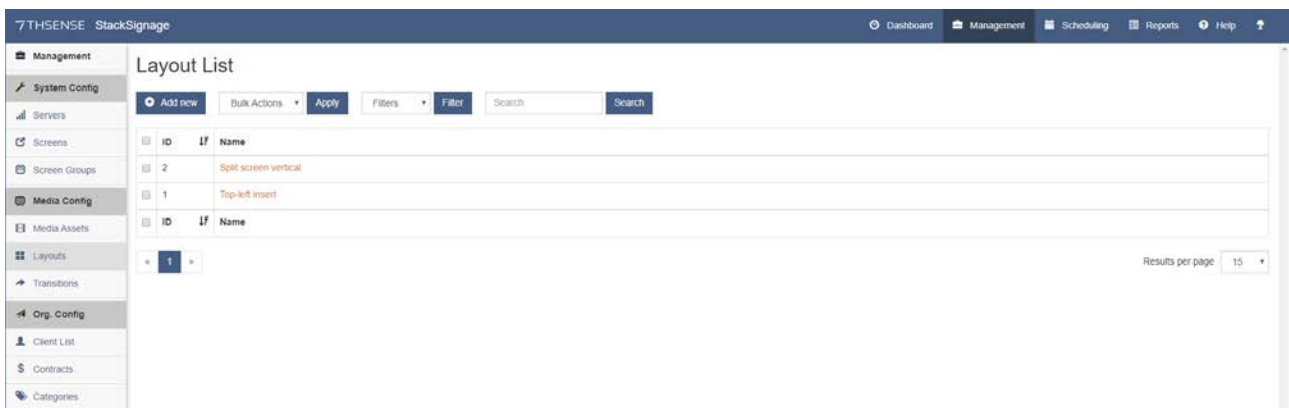
Define another zone, and again click the green cross button to save it.

Here we have added a full-screen zone for the background, underneath the logo, in layer 2, so we have two zones in this layout:



Now click 'Create' to save the Layout itself. Click 'Add New' to add more layouts, for example one that splits the screen vertically into two full-height half-width zones.

Layouts are listed and managed as all other components of StackSignage:

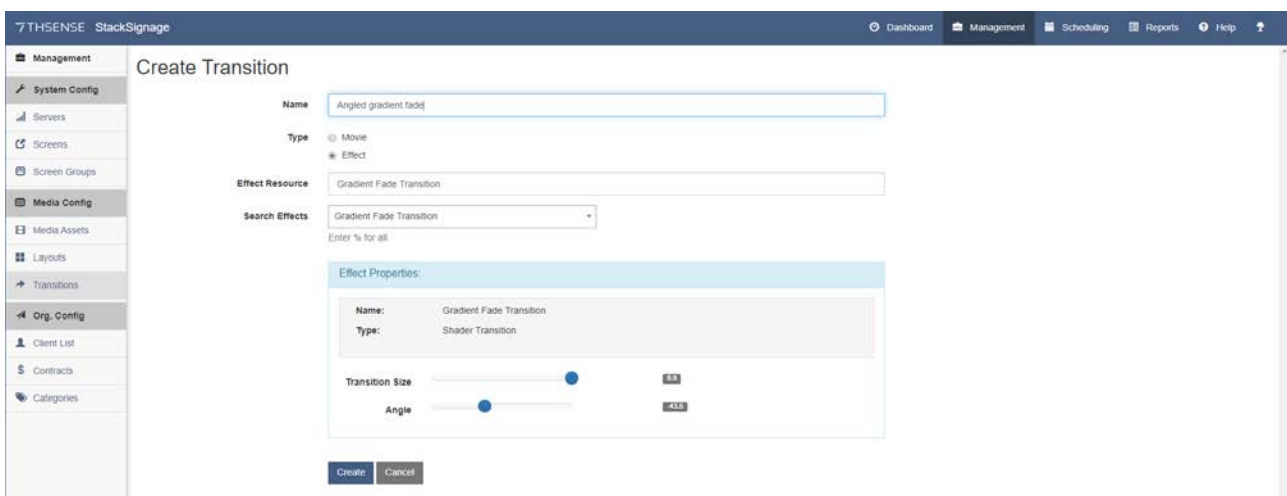


Transitions

Transitions are optional. They are what you want to happen between scheduled items. A schedule Template can have a transition in or out, or both, and Templates can overlap. For example, merging with a fade, to transparency, or with a ripple effect. These effects are stored on the media server. Alternatively a neutral movie resource (not asset) can be used.

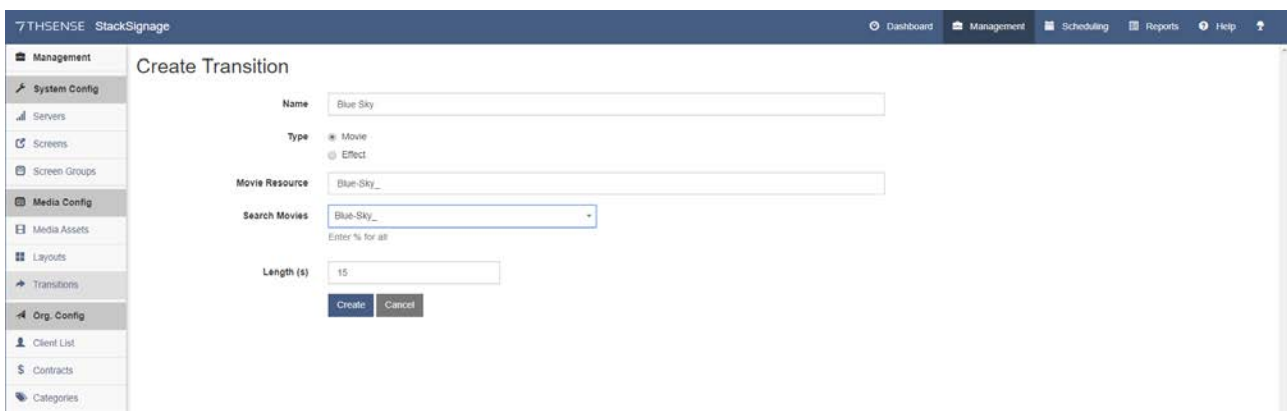
Transitions are used by schedule **Templates**.

Click 'Add New' to add a transition, name it and select an effects resource to use. The selected effect file will then offer up its relevant effect properties:



Click 'Create' to save it, and 'Add New' to create any others you want to make available for use.

If a movie is used for transition, there are no properties, but a time duration in multiples of 15 seconds is needed:



Transitions are listed, edited and managed as all other content:

The screenshot displays the '7THSENSE StackSignage' management interface. The top navigation bar includes 'Dashboard', 'Management', 'Scheduling', 'Reports', and 'Help'. The left sidebar lists various management categories: Management, System Config, Servers, Screens, Screen Groups, Media Config (highlighted), Media Assets, Layouts, Transitions, Org. Config, Client List, Contracts, and Categories. The main content area is titled 'Transitions' and features a table with columns for ID, Name, Type, and Media. Two transitions are listed: ID 1 with Name 'Blue Sky' (Type: movie) and ID 2 with Name 'Angled gradient fade' (Type: effect). The interface also includes controls for 'Add new', 'Bulk Actions', 'Apply', 'Filters', 'Filter', and 'Search'. A pagination control at the bottom right shows 'Results per page' set to 15.

| ID | Name | Type | Media |
|----|----------------------|--------|----------------------------------|
| 1 | Blue Sky | movie | Movie: Blue Sky |
| 2 | Angled gradient fade | effect | Effect: Gradient Fade Transition |

Dashboard

Dashboard is the server management page on the Scheduler server. Here is the appearance of our example setup, with two Players (media servers) running the DeltaServer software, and the Scheduler server itself. Here you can see which Server drives which Screen.

The screenshot shows the StackSignage Dashboard interface. At the top, there is a navigation bar with '7THSENSE StackSignage' on the left and 'Dashboard', 'Management', 'Scheduling', 'Reports', and 'Help' on the right. The main content area is titled 'Dashboard' and includes the following elements:

- Delta Media Servers:** A section containing two primary players.
 - Player 1 (Primary):** Status: ONLINE. Scheduler: Scheduler 1. It has 'Re-Sync' and 'Refresh Resources' buttons. Below are two displays:

| | | | |
|---|-----------|----------|-----|
| 1 | Display 1 | 14:42:37 | TL1 |
| 2 | Display 2 | 14:42:37 | TL2 |
 - Player 2 (Primary):** Status: ONLINE. Scheduler: Scheduler 1. It has 'Re-Sync' and 'Refresh Resources' buttons. Below is one display:

| | | | |
|---|-----------|----------|-----|
| 1 | Display 3 | 14:42:37 | TL1 |
|---|-----------|----------|-----|
- Schedulers:** A section containing two schedulers.
 - Scheduler 1:** Status: ONLINE.
 - Scheduler 2:** Status: OFFLINE.

Servers that are not in communication with StackSignage Scheduler are shown with a red 'Offline' indicator.

Media servers

Re-Sync

If your StackSignage system is not chasing an LTC (timecode) source, you will need to use this when starting the day or session. Any break in service may also require a timing re-sync to restore the live schedule. Re-Sync to set the realtime from the Scheduler system clock on each DeltaServer (Player) in turn.

A blue sync confirmation message will be displayed.

Refresh Resources

The DeltaServer software requires its internal lists of media to be refreshed whenever media are added or removed. To do this, press 'Refresh Resources' in Dashboard *for each media server*.

A blue refresh confirmation message will be displayed.

View Log

MicroConductor displays events as they happen (mainly useful only for troubleshooting).

Stop Service

If any server is showing red OFFLINE instead of green ONLINE, start the service here. Use this **only** for restarting: click stop and then start without refreshing the browser page between, or communication with the server will be lost.

Gear wheel: edit Server settings

This takes you to the [Servers and Roles](#) ⁽²⁰⁾ management page.

Schedulers

You might have more than one Scheduler. Different Schedulers could be driving separate media servers (effectively running two systems at once), because media servers are assigned to Schedulers individually. If a scheduler is a backup, it may be running and online, but media servers will not be listening to it until they are reassigned.

You can view the Scheduling pages from any active Scheduler by clicking its name.

Scheduling

Select Scheduling from the top right menu to start creating what will become your live schedule. The timeline shows all the screens you have set up earlier with the servers. The Templates determine which Screens are used by each Media Asset.



Scheduling uses **Templates** as its building blocks, and can take into account **Contracts** and **Categories** to distribute items through all available time slots in the **Live Schedule**.

There are two modes of scheduling: manual and automatic, normally used in combination:

- **Manual scheduling** means a Template is placed in a specific timeslot, and in as many places as required. It is up to you not to exceed any Contract. If the Template is Pooled, autoscheduling will use the remaining Contract when filling all the unallocated gaps in a day. *Example:* A Contract is for 10 plays, three manual placements are made and the autoscheduler reads the contract as 7 additional plays.
- **Automatic scheduling** selects Templates assigned as Pooled, and uses contractual weighting to distribute them proportionately within any time restrictions assigned in the Templates, around manually-scheduled Templates. If there are no Daylists and no manually scheduled Templates, the whole timeline will be filled by the autoscheduler.

To begin with you will see only the structure of an empty schedule (below), until the elements have been populated:

- **Templates** that associate Clients, Categories, Displays, Contracts and date/time play windows.
- **Fit to Fills**, which are playlists that loop continuously between a start and an end time.
- **Daylists** that are regular playlists to allocate to one or more days of the week, parts of days or specific dates.
- **Daylist Schedules** that create the rules for when each Daylist will play; any gaps in the Daylist may be filled manually or automatically scheduled by the system.
- the **Calendar**, which shows the scheduled Daylists and enables other Daylists to be manually scheduled in.

| Template Name | Media State | Length | Pool |
|---|--|--------|-------------------------------------|
| <input type="checkbox"/> Display 2 RV Vantastic | Display 2 RV Vantastic Player 1  | 10 | <input type="checkbox"/> |
| <input type="checkbox"/> Display 3 JustGo Mountains | Display 3 JustGo Mountains Player 1  | 10 | <input checked="" type="checkbox"/> |

Timeline Navigation

The upper grey bar represents hours, the lower, minutes. Click on the hour you want to locate, then the minutes, to bring that section of the timeline into view.

The scroll bar under the list of Screens allows you to track within the selected hour.

The Schedule Toolbar



Track

'Don't Track' allows the current time cursor to move left to right and off the view, but allows you to scroll anywhere to manually schedule or remove Templates. Media servers are listed so you can choose to view and track them individually, which keeps the current time in centre view.

Zoom In / Out

Zooming allows you to contract or expand the timeline view.

Goto Now

This brings the current time and playhead cursor into centre view.

Templates

Templates are the building blocks of the play Schedule.

- A Template should have a meaningful **name**, reflecting its purpose and/or to what it belongs (e.g. a campaign, or a client).
- The **Client** is named so that templates can be filtered and reported on by Client.
- The Template is assigned a **Category**, so that adjacent Templates of the same Category can be avoided in automatic scheduling.
- Media Assets are mapped to **Screens**. Remember, a Screen might be a whole video wall, or just an area in one, and that in a Screen, Zones are created within a **Layout** that can play different media resources simultaneously.
- **Transitions** and overlaps blend one Template into the next. Both are optional.
- A **Contract** determines the proportion of total plays in a day when autoscheduling.
- A Template assigned '**Pool**' status will be automatically scheduled and distributed within its date /time restrictions, according to Contract and Category. A Template taken out of the Pool can only be scheduled manually.

The screenshot shows the 'Create Template' form in the 7thSense StackSignage application. The form is titled 'Create Template' and includes a warning message: 'Editing a template created via the batching process. Template will not be editable via batching once saved.' The form fields are as follows:

- Name:** JustGo Winter Specials
- Client:** JustGo Travel (with a 'Create New' link)
- Category:** Travel (with a 'Create New' link)
- Mappings:**
 - Display 1:**
 - Media Asset:** JustGo Winter Specials (10)
 - Media Asset Thumbnail:** A thumbnail image of a snowy mountain landscape.
 - In Transition:** Checked, Angled gradient fade (reflect), Length (Seconds): 0.5, Overlap Previous Template
 - Out Transition:** Checked, Angled gradient fade (reflect), Length (Seconds): 0.5, Overlap Next Template
 - Display 2:** + Add Screen
- Contract (per hour):** 30 evening plays (12 seconds) (with a 'Create New' link)
- Pool Template:** Make available for automatic scheduling
- Pre-check URL:** (empty field)
- Proof of play every:** 5 plays
- Date Range:** Enable, 09 Jan 2020 to 08 Feb 2020
- Time Range:** Enable, 17:00 to 23:00

At the bottom of the form are 'Save' and 'Cancel' buttons.

Mapping Media Assets

Start by adding selecting a Screen from the list and clicking the green 'Add' button. (Screens can be deleted with the Red 'minus' button.)

If one Media Asset fills this Screen, select the 'Media Asset' radio button. If Media Assets will play simultaneously in separate **Zones** *within* a Screen (see: [Layouts](#)⁽⁴²⁾), select 'Layout'.

Select the required Media Asset from the drop-down list, or in the case of a Layout, for each Zone listed for the Layout. Remember, if these are layered well, an unpopulated Zone will simply be filled by any larger Zone underneath.

If desired, enable Transitions you have set up for the beginning or end of the Template *for each Screen included*. Movie Transitions have a duration of their own; effects and images need you to define how long they take.

Overlapping a preceding or following Template with a Transition means the transition duration will be shared across the end of one Template and the start of another. Choose your strategy: always to overlap the start of following templates *or* always preceding templates: do not mix them. If no overlap is selected, the transition is enacted within the scope of the Media Asset.

Using automated scheduling?

Add a **Contract**: this will provide the required weighting if this template is pooled for automatic scheduling.

Click to tick the **Pool Template** option if you want to make the media available for automated scheduling. *Fields below this choice apply only to pooled templates.*

The **Recheck URL** option allows for you to add a link to your own php script to check for conditions of playback. For example, the clip will only be played if it is raining (weather report link). For more information on this functionality see [Pre-check Template URL](#)⁽⁷⁷⁾.

Proof of Play allows you to select how many times the clip will be played before a snapshot is taken. In this example, a snapshot will be taken every 5 plays of the clip.

Date and Time ranges define when the templates will show in your template listings. Templates remain on the system, so can be reinstated and/or edited for use at a later date if required.

Click the 'Save' button to save your Template. This will return you to the Templates list, showing the template that you have created:

| ID | Name | Client | Contract | Screen Mappings | Length | Created | Batch Created | Pool |
|----|-----------------------------|--------------------------|------------------|-------------------------------|--------|------------|---------------|------|
| 21 | Display 2 RV Vanastic | ReVolt Electric Vehicles | 30 evening plays | Display 2 - RV Vanastic | 10 | 09/01/2020 | ✓ | ✗ |
| 20 | Display 1 RV Leading Charge | ReVolt Electric Vehicles | 50 plays per day | Display 1 - RV Leading Charge | 10 | 09/01/2020 | ✓ | ✓ |
| 19 | Display 1 RV Vanastic | ReVolt Electric Vehicles | 30 evening plays | Display 1 - RV Vanastic | 10 | 09/01/2020 | ✓ | ✗ |
| 15 | Display 2 RV Leading Charge | ReVolt Electric Vehicles | 50 plays per day | Display 2 - RV Leading Charge | 10 | 09/01/2020 | ✓ | ✓ |
| 17 | Display 2 RV Go Anywhere | ReVolt Electric Vehicles | 30 evening plays | Display 2 - RV Go Anywhere | 10 | 09/01/2020 | ✓ | ✓ |

Note now, that the Filter at the top allows you to separate the pooled and non-pooled templates. Non-pooled templates may simply be forward prepared, to be made pooled when you want them to be autoscheduled, or be manually scheduled at set times as required.

Managing Templates

Once created, Templates can be edited and saved. If they represent a pattern regularly required for a Client, or seasonally, you can reuse them.

- Make sure your naming conventions are clear and meaningful.
- Filter Templates to list only active, archived, pooled or unpooled.
- Remove a Template from autoscheduling by unchecking the Pool checkbox. Add it back in, in the same way.
- Archive Templates by checking them in the list and using the Archive bulk Action.
- Recover archived Templates by checking them in the list and using the Recover bulk Action.
- Add new Templates at any time.

Daylists

Daylists are used to schedule **Templates** at regular fixed times along the schedule timeline, for example, 09:00, 12:00 and 17:00 every weekday. This enables repeat sequences to be used many times by scheduling Daylists rather than individual Templates.

Daylists are a feature of manual scheduling.

Add names for your Daylists, and press 'Create' to save each. These will now be listed:



Click the name of a Daylist in order to add Templates to it, at required times. Any empty spaces will be filled by the autoscheduler.

The appearance is very similar to the Live Schedule, but is static. Select the hour to view, zoom in and out, and scroll within the selected hour.

Intervening on the Schedule: Manual Addition and Removal of Templates and Fit to Fills

Where in the day to view?

To view the part of the day you require, click on the hour (1) and minute segment (2) in the top grey bands.

What start time?

To select where you want the item to be inserted, click on the timeline (3). This segment will highlight in dark red.

Insert a Template or Fit to Fill

Now select the Template (4) or Fit to Fill you want to insert, and under 'Actions' select **Schedule** (5):

The screenshot displays the 'Edit Daylist' interface in the 7THSENSE StackSignage application. The interface is divided into several sections:

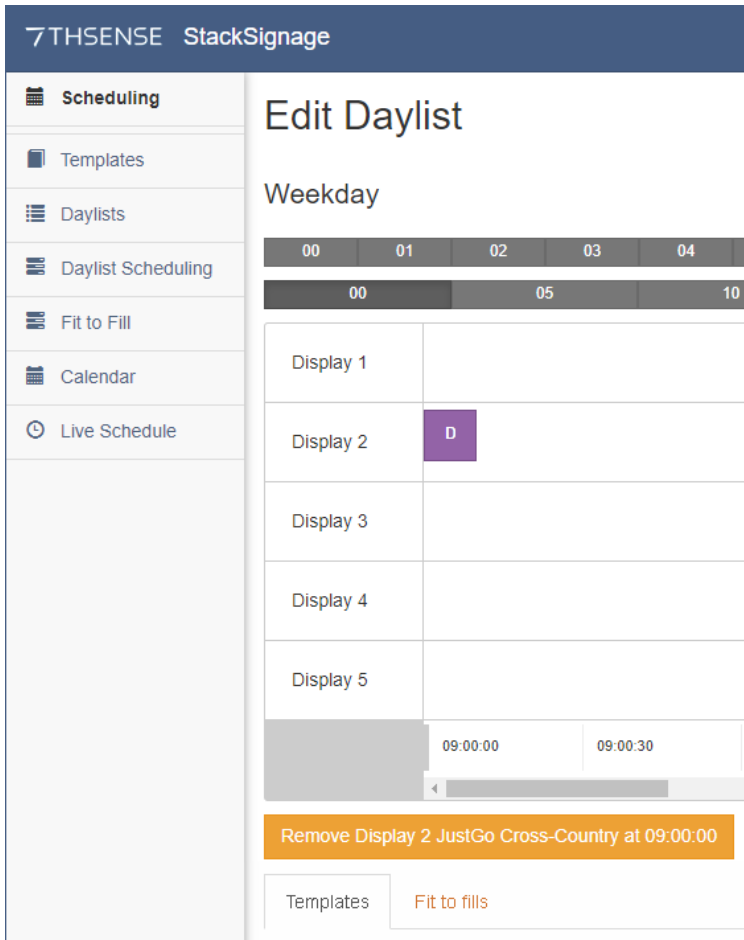
- Timeline:** A horizontal timeline at the top shows days from 00 to 23. A red box labeled '1' highlights the day '09'.
- Daylist:** Below the timeline, there are rows for 'Display 1' through 'Display 5'. A red box labeled '2' highlights a timeslot on the timeline for 'Display 1'. A red box labeled '3' highlights a specific timeslot '09:02:30' on the timeline.
- Templates:** A section below the daylist shows a list of templates. A red box labeled '4' highlights a selected template 'J&D Perfumes' in the 'Template Name' column. The 'Media State' column shows a thumbnail of a perfume bottle and the text 'J&D Perfumes (Pooled)'. The 'Length' column shows '15' and the 'Pool' column shows a green checkmark.
- Actions:** A section on the left shows actions for the selected template. A red box labeled '5' highlights the 'SCHEDULE' button. Other buttons include 'Pull future instances'.

Alternatively, double-click on a timeslot to insert selected items.

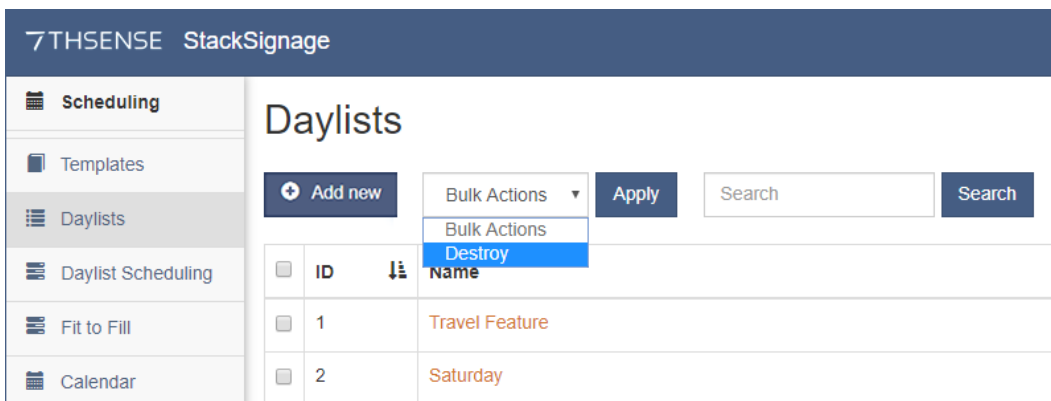
When you select one item from the list of Templates, you will see on the left, under 'Templates', available actions: either to **Schedule** the item or to **Pull** (remove all) future (scheduled) instances of selected Templates. If you choose to pull Templates, a prompt will show how many will be pulled with the option to Confirm or Cancel. A confirmation message will show how many have been pulled.

If an inserted Template is also a pooled asset, even though we ensure it plays at the given time every weekday, if there is Contract capacity left after all its manual scheduling, further plays will be distributed automatically. Its Category will ensure separation from other items of the same Category.

To delete an item, select it and use the yellow button thrown up:



Unlike asset components, Daylists and Daylist Schedules can be deleted ('Destroyed'), but whilst you can edit the content lists, you cannot edit the name:



Import Daylists from CSV

In some circumstances it may be more efficient to create Daylist allocations in a separate CSV list (e.g. in Excel, and save as: 'CSV (Comma delimited) (*.csv)'). To do this, the timeslots and Screen names (columns) and Template names (rows) must be exact, in this format:

| | A | B | C | D |
|----|----------|----------------------------|----------------------------|-------------------|
| 1 | Time | Display1 | Display2 | Display3 |
| 2 | 06:00:00 | ReVolt Main Campaign | ReVolt Main Campaign | JD Urban Campaign |
| 3 | 06:00:30 | JD Step Out | JD Step Out | ReVolt Lifestyle |
| 4 | 06:01:00 | JustGo Dolomites | JustGo Cross Country | ReVolt Lifestyle |
| 5 | 06:01:30 | JustGo Dolomites | JustGo Cross Country | JD Urban Campaign |
| 6 | 06:02:00 | ReVolt Main Campaign | ReVolt Main Campaign | JD EcoStyle |
| 7 | 06:02:30 | ReVolt Commercial Vehicles | JustGo Mountains | JustGo Cities |
| 8 | 06:03:00 | ReVolt Commercial Vehicles | JustGo Mountains | ReVolt Lifestyle |
| 9 | 06:03:30 | JD Step Out | JD Step Out | JD Urban Campaign |
| 10 | 06:04:00 | JustGo Cross Country | ReVolt Commercial Vehicles | JD EcoStyle |
| 11 | 06:04:30 | JustGo Cross Country | ReVolt Commercial Vehicles | JD EcoStyle |
| 12 | 06:05:00 | ReVolt Main Campaign | ReVolt Main Campaign | JD Urban Campaign |
| 13 | 06:05:30 | JustGo Dolomites | JustGo Cross Country | ReVolt Lifestyle |

Perhaps a block sequence is the same but at different times on different Screens. In Excel you can easily copy and paste sequences per screen or per timespan, and save the file for import and/or re-use. To save errors, start by copying and pasting template names from StackSignage into Excel.

To import your file, select the Daylist from the list to enter Edit, and use the toolbar button 'Import CSV':



Find your file, import it, and the Daylist will become populated.

Daylist Scheduling (Rules)

It is more efficient to assemble playlists in the form of Daylists, and assign them to days of the week, or to specific date ranges, than to do this day by day. As the date rolls over at day end, StackSignage looks for the Daylist assigned to the next day, according to rules.

Daylist Scheduling defines **rules** that govern which Daylist plays on a particular day. **Manual scheduling** of a template takes precedence over everything else. Wherever there is no underlying rule, the autoscheduler fills in.

The screenshot shows the 'Create Daylist Schedule Rule' form in the 7THSENSE StackSignage interface. The form is titled 'Create Daylist Schedule Rule' and is located in the 'Scheduling' section of the dashboard. The form includes the following fields and options:

- Name:** Weekday
- Rule Type:** Daily
- Days:** Sunday, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday. Monday through Friday are selected with checkboxes.
- Valid Date Range:** 09 Jan 2020 to 08 Feb 2020
- Daylist:** Weekday
- Buttons:** Create, Cancel, and Create New

Name

Name rules clearly, for example to include the day or date range. It is better to avoid generalised rules, and to create rules that cover timespans.

Rule Type

Select Daily or Monthly. Daily is typically days of the week during a calendar period, whereas Monthly is for the same date each month over a calendar period, or a holiday period (Christmas, public holiday). Day numbers above 28 will be accommodated automatically for shorter months.

Days

For Daily type rules, the day(s) of the week during the overall date range.

Date from / To

For Date type rules, the date or date range in the month, each month of the overall date range.

Valid Date Range

The calendar period during which this rule applies.

Daylist

The Daylist used by this rule. (A Daylist can be used by more than one rule.)

Daylists are listed, show what is live, highlighting weekends and their date range:

| ID | Name | Rule | Details | Daylist ID | From | To | Live |
|----|-----------------------|-------|-----------------------------|------------|------------|------------|------|
| 3 | Easter Travel Feature | Daily | Mon Tue Wed Thu Fri Sat Sun | 2 | 15/03/2020 | 30/04/2020 | ✖ |
| 2 | Saturday | Daily | Sat | 2 | 09/01/2020 | 08/02/2020 | ✔ |
| 1 | Weekday | Daily | Mon Tue Wed Thu Fri | 3 | 09/01/2020 | 08/02/2020 | ✔ |

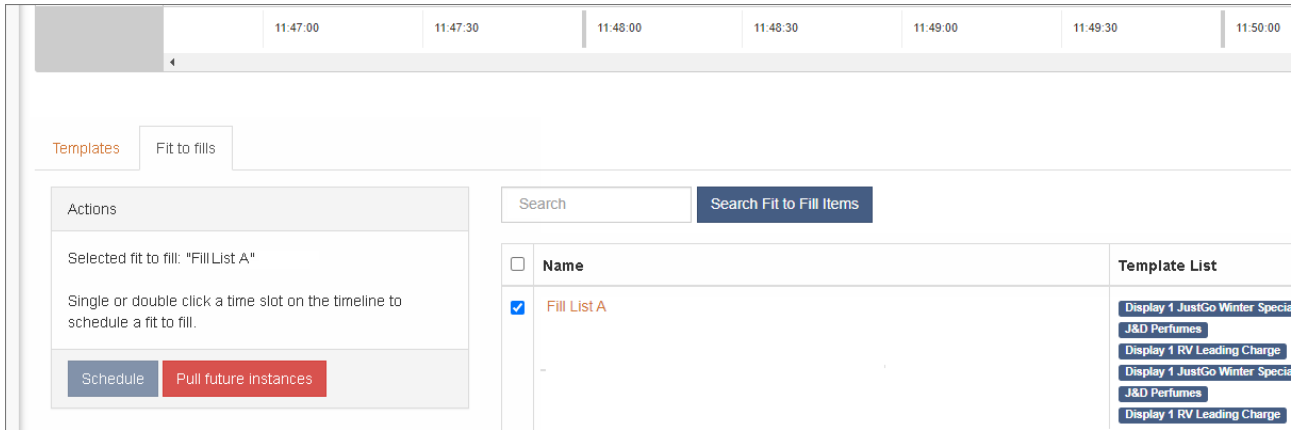
Daylist Rules Precedence

What happens if the Calendar receives two Daylist Schedules within the same date range?

- A manually-scheduled Daylist will always have precedence.
- Days in a daily schedule will have precedence over a date rule. *Example:* a daily schedule covers Mondays and Fridays. A date rule for the same period will apply only on days other than Mondays and Fridays.
- If there is no Daylist scheduled, the autoscheduler will fill all available timeslots.

Fit to Fill

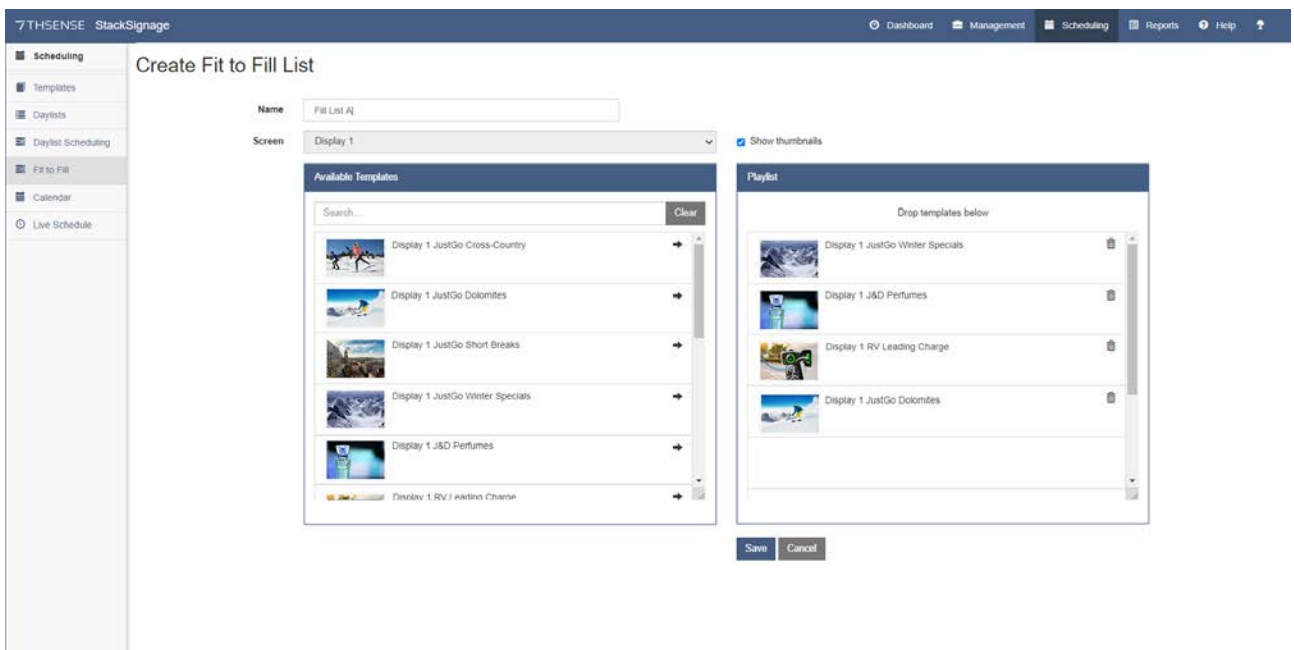
Fit to Fill is a playlist organiser for use in scheduling, creating reusable sequences of templates per display. In the [Live Schedule](#) ⁽⁶³⁾ page, choose to populate the timeline from either Templates or Fit to Fill tabs:



Fit to Fills will loop continuously from a start time to an end time in the Live Schedule.

Create a Fit to Fill List

Name the list and select which display it is for. All available templates for this display will be listed. Drag and drop each required template into the top of the box, directly below 'Playlist'. Here they can be reordered by dragging, or removed using the trashcan icon.



Save the list at the bottom of the templates list.

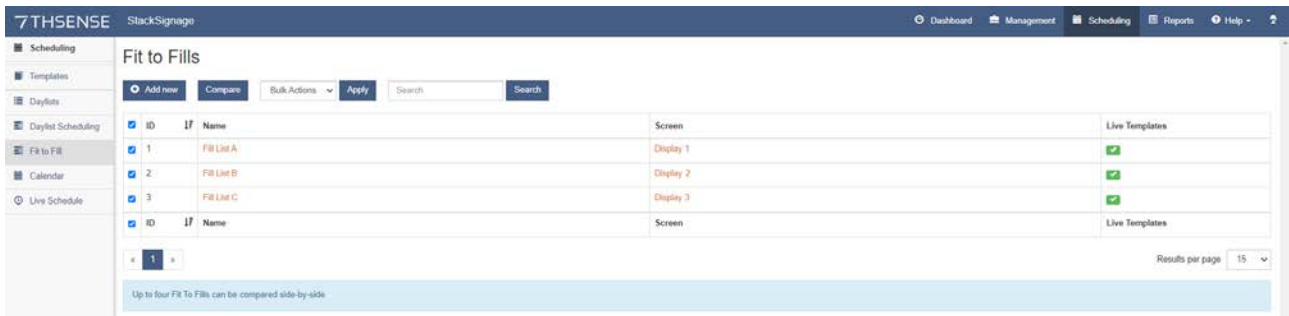
Edit a Fit to Fill playlist from the list of Fit to Fills.

Show thumbnails: uncheck this for a compact (text) list.

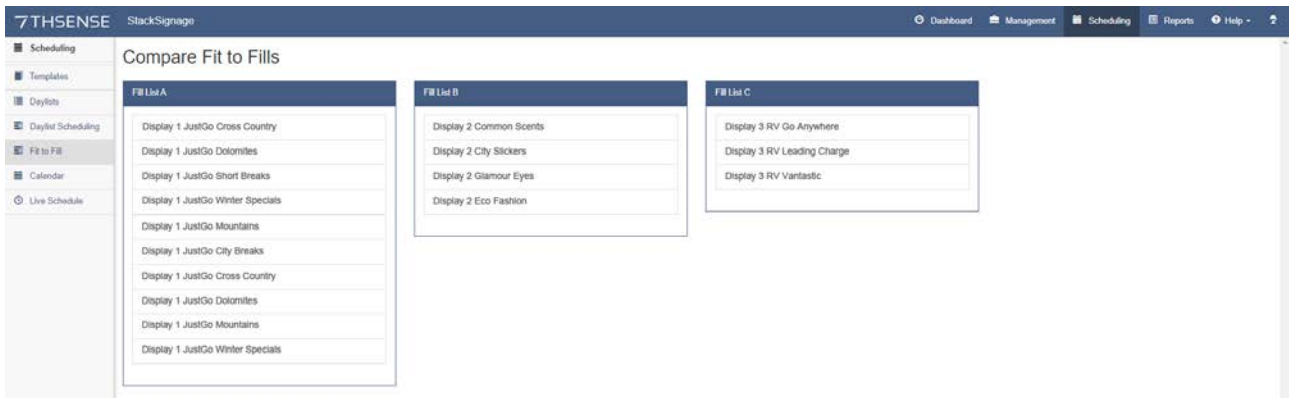
Any Template members of a Playlist that show only as red text will have been archived and should be removed since they will no longer play. See about archiving in [Management: System Config](#) ¹⁸.

List and Compare Fit to Fills

Once created, Fit to Fill playlists can be listed, sorted and selected:



Up to four selected Fit to Fills can be compared side by side:



Calendar

The Calendar shows the rules-based scheduled Daylists for one month at a time. The name of scheduled Daylists are shown, with a green 'A', manually-scheduled Daylists have a blue 'M', and unscheduled days show this in red.

The screenshot displays the 'Calendar' view in the 7THSENSE StackSignage Scheduling module for November 2018. The interface includes a navigation sidebar on the left with options like 'Scheduling', 'Templates', 'Daylists', 'Daylist Scheduling', 'Fill to Fill', 'Calendar', and 'Live Schedule'. The main calendar grid shows days from Sunday to Saturday. Each day cell contains a 'Scheduled Daylist' name, a status indicator (green 'A', blue 'M', or red text), and a 'View' button. For example, Nov 1 is 'Scheduled Daylist: Nov 5 - Dec 2' with a green 'A'. Nov 2 is 'Scheduled Daylist: (None Scheduled)' in red. Nov 5 is 'Scheduled Daylist: Nov 5 - Dec 2' with a blue 'M'. Nov 18 and 19 are 'Scheduled Daylist: (None Scheduled)' in red. A 'Daylist Scheduling' section at the bottom has a yellow box with the text 'Please select dates to manually schedule a daylist.'

Adding and Removing Daylists Manually

Daylists can be added manually to the Calendar. Select one or more days (blue, ticked, below), select a Daylist from the dropdown list, and click 'Apply':

| | | | |
|---|---|--|---|
| 11 Scheduled Daylist: Travel Feature M | 12 Scheduled Daylist: Travel Feature M | 13 Scheduled Daylist: Nov 5 - Dec 2 A | 14 Scheduled Daylist: Travel Feature M |
| 18 Scheduled Daylist: (None Scheduled) | 19 Scheduled Daylist: (None Scheduled) | 20 Scheduled Daylist: Nov 5 - Dec 2 A | 21 Scheduled Daylist: Nov 5 - Dec 2 A |
| 25 Scheduled Daylist: (None Scheduled) | 26 Scheduled Daylist: (None Scheduled) | 27 Scheduled Daylist: Nov 5 - Dec 2 A | 28 Scheduled Daylist: Nov 5 - Dec 2 A |

Daylist Scheduling

1 day(s) selected to manually schedule a daylist for.

Nov 5 - Dec 2

Apply
Remove Manual Scheduling

Manually-added Daylists can only be removed one at a time. Click to select a day that has been manually scheduled, and then Click the red 'Remove' button.

Individual Templates can also be added to, or removed from, a selected day. If a Daylist is not scheduled, click 'View' to show the Live Schedule for that day.

Warning: the next Daylist will only be loaded at the end-of-day roll-over, so the Live Schedule for tomorrow onwards will not yet be populated. When the Daylist loads, any previous manual additions will be overwritten.

Live Schedule

On the Live Schedule, you see what is playing and what is scheduled to play. This is a combination of Daylists, Manual additions and autoscheduled Pool Templates.

For the general features of this layout, see [Scheduling](#)⁴⁸. Manual interaction with the Live Schedule is the same as for [Daylists](#)⁵³.

By now you should have assembled everything to create a live schedule: Templates assembled in Daylists and Scheduled according to rules – even if you have not yet manually added anything. The Live Schedule shows you what is playing and scheduled *today*. If you select a media server to track, or click 'Goto Now', you will see what is current:

The screenshot shows the 'Live Schedule' interface for 10 Jan 2020. It features a timeline from 00 to 55 minutes. Five displays are listed: Display 1, Display 2, Display 3, Display 4, and Display 5. Display 1 has a red playhead at 15:22:00. A yellow banner at the bottom indicates 'Remove Display 1 RV Loading Charge at 15:21:30'. A key at the bottom identifies colors: Auto Scheduled (green), Manually Scheduled (blue), Played (grey), Selected Template (purple), and Selected Timecode (red). A table below shows a template 'JKD Fresh Perfumes' with a length of 10 and a red 'X' in the Pool column.

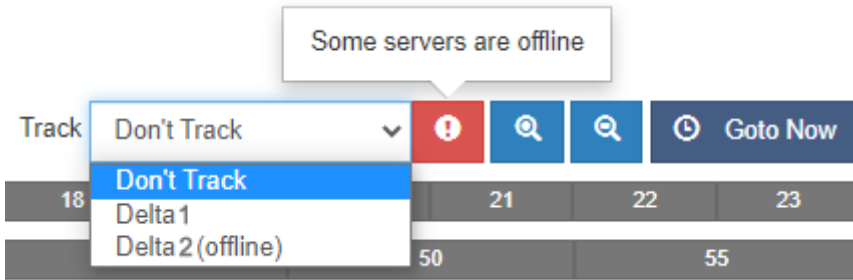
The playhead shows 'Player 1' is running, in red. Note the colour key of the scheduled items:

Key Auto Scheduled Manually Scheduled Played Selected Template Selected Timecode

and identify these on the schedule in the example above. Note the Template selected (purple) and the yellow 'Remove' button this throws up.

On Display 2 on the right, in a blue-green, is a Fit to Fill playlist that has not been 'exploded'. On Display 1 and 2 to the left a Fit to Fill has been exploded into its constituent Templates.

Note that offline servers will show in the Track dropdown, and their presence in the list indicated by a red warning. Such servers will be suffixed 'Offline' in the list:



Intervening on the Live Schedule: Manual Addition and Removal of Templates and Fit to Fills

Navigate the timeline (day)

In the same way as Templates are added to a Daylist, they can be added to the Live Schedule ahead of the current time. If you select 'Don't Track' – i.e. the playhead (top right) – you can scroll through the timeline to where you want to add or remove a Template.

Where in the day to view?

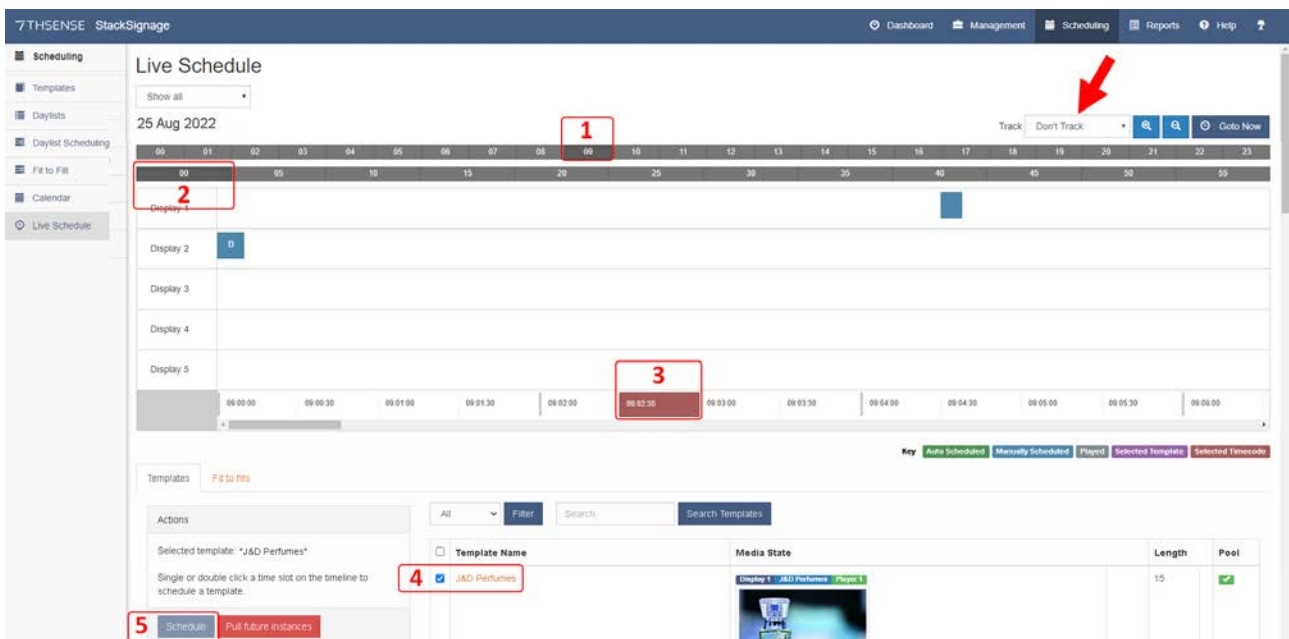
To view the part of the day you require, click on the hour (1) and minute segment (2) in the top grey bands.

What start time?

To select where you want the item to be inserted, click on the timeline (3). This segment will highlight in dark red.

Insert a Template or Fit to Fill

Now select the Template (4) or Fit to Fill you want to insert, and under 'Actions' select **Schedule** (5):



- To **remove** a Template or Fit to Fill from the Schedule, click on it in the Schedule. The item will turn purple (selected) and throw up a gold 'Remove [item] at [time]' button.
- To **pull all** future instances of the selected item, click the red 'Pull Future Instances' button.
- To **pull multiple** Templates or Fit to Fills, select them from the list then click the 'Pull Future Instances' button.

Fit to Fill is a playlist which explodes into its component Templates a *few minutes before* the playhead reaches it. For this reason a Fit to Fill cannot be revoked from the Schedule.

What happens if ...?

If by scheduling a new item there is a conflict in occupying a timeslot, there will be an error alert and the conflicting item will not be scheduled.

If a Template is added that is within the time span of a Fit to Fill playlist, the Fit to Fill will inject the Template into the playlist.

Reports

Reports enable you to filter, view and/or print lists of everything that has happened over a period of time, see what is available, what has played and what is scheduled. Reports include:

- [Template Stats](#) ⁶⁷
- [Client Reports](#) ⁶⁸
- [Delta Resources](#) ⁶⁹
- [Logs](#) ⁷⁰
- [Snapshots](#) ⁷¹

Refresh any report by using the F5 key or the browser refresh button.

Template Stats

This report lists all your templates (ID is order of creation). Hover over the heading of the Name column to sort by Template name.

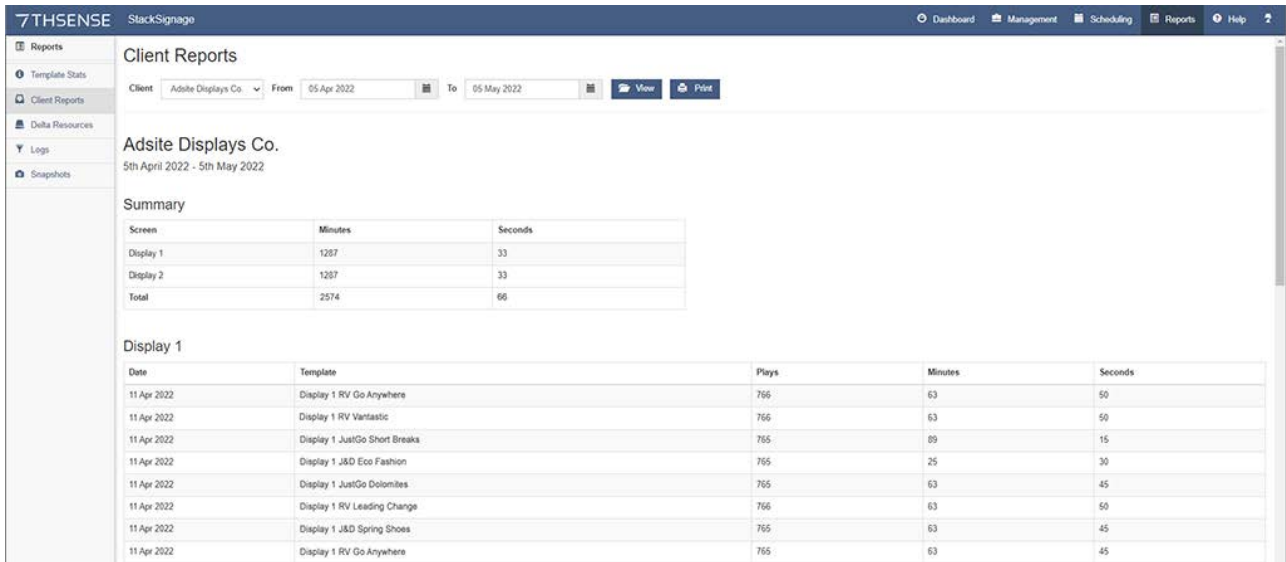
| ID | Name | Future Instances |
|----|---------------------------|----------------------|
| 16 | JD Urban Campaign | ✓ 0 Scheduled + Pool |
| 15 | JD Cosmetics | ✓ 0 Scheduled + Pool |
| 14 | ReVol Commercial Vehicles | ✓ 2 Scheduled + Pool |
| 13 | ReVol Main Campaign | ✓ 0 Scheduled + Pool |
| 12 | JD Eco Fashion | ✓ 0 Scheduled + Pool |
| 11 | JD Perfumes | ✓ 0 Scheduled + Pool |
| 10 | JustGo Short Breaks | ✓ 0 Scheduled + Pool |
| 9 | JustGo Dolomites 2 | ✓ 0 Scheduled + Pool |
| 8 | JustGo Dolomites | ✓ 0 Scheduled + Pool |
| 7 | JustGo Cross-Country | ✓ 0 Scheduled + Pool |
| 6 | JustGo Cities | ✓ 0 Scheduled + Pool |
| 5 | JustGo Mountains | ✓ 0 Scheduled + Pool |
| 4 | JustGo Alpine Cities | ✓ 0 Scheduled + Pool |
| 3 | Filer Display 3 | ✓ 0 Scheduled + Pool |
| 2 | Filer Display 2 | ✓ 0 Scheduled + Pool |

For each you can see if it is Active (i.e. in the pool for autoscheduling, or manually scheduled at some time ahead, and for how many times). Active Templates show green. An inactive Template (not in the pool and with no forward manual schedules) will show red:

| Future Instances |
|----------------------|
| ✓ 0 Scheduled + Pool |
| ✓ 0 Scheduled + Pool |
| ✓ 2 Scheduled + Pool |
| ✓ 0 Scheduled + Pool |
| ✗ 0 Scheduled |
| ✓ 0 Scheduled + Pool |

Client Reports

You can view and print Templates played by client and date range. Even without the Snapshot app, this provides a complete list of what was played, on which Screen, and when.



If you have set yourself up as a Client, you can see how much your own [filler Templates](#)⁵² have been used. Click print for the browser print dialog. If in dark mode the print page will be normal white.

Note that report data is generated nightly and may not include the current day.

Delta Resources

This report lists Media Assets, showing type, the number of future manual scheduled events, whether it is pooled, and whether its actual media are present on the media servers. Hover over the heading of 'Name' or 'Type' to sort by that column (ID is order of creation).

| ID | If | Name | Type | Future Instances | Attached to Pool Template | Assets on Players |
|----|----|----------------------|-------|------------------|---------------------------|-------------------|
| 16 | | Filer Display 3 | Image | 0 | ✓ | ✓ |
| 15 | | Filer Display 2 | Image | 0 | ✓ | ✓ |
| 14 | | Filer Display 1 | Image | 0 | ✓ | ✓ |
| 13 | | RV-Vantastic | Movie | 2 | ✓ | ✓ |
| 12 | | RV-Leading Charge | Movie | 0 | ✗ | ✓ |
| 11 | | RV-Go Anywhere | Movie | 0 | ✗ | ✓ |
| 10 | | JustGo-Mountains | Movie | 2 | ✓ | ✓ |
| 9 | | JustGo-Short Breaks | Movie | 0 | ✓ | ✓ |
| 8 | | JD-Shoes | Movie | 0 | ✗ | ✓ |
| 7 | | JD-Glamour Eyes | Movie | 0 | ✓ | ✓ |
| 6 | | JD-Eco Fashion | Movie | 0 | ✓ | ✓ |
| 5 | | JustGo-Delimites | Movie | 0 | ✓ | ✓ |
| 4 | | JustGo-Cross Country | Movie | 0 | ✓ | ✓ |
| 3 | | JD-Common Scents | Movie | 0 | ✓ | ✓ |
| 2 | | JD-City Sickers | Movie | 0 | ✓ | ✓ |

Unpooled items can only be scheduled manually and will not fill gaps via the autoscheduler.

If there is a red cross under 'Assets on Players', this indicates that a named resource in a Media Asset no longer has this file available on the media servers. Either the media needs copying back onto the media servers, or the Media Asset should be archived.

Logs

Every time a Template arrives to play, the event is recorded by MicroConductor in the system logs. Log files can become very large, so they rotate every 10 days. The files are stored in C:\7thSense\web\data\app\MicroConductor\logs, but can be displayed in Reports > Logs, where they can be also exported to a dated .csv file.

Hover over the heading of any column to sort by that column.

| ID | IF | Date | Time | Template | Screen | Server | Live |
|------|----|-------------|----------|----------------------------|----------|-------------------|------|
| 2589 | | 12 Oct 2021 | 10:44:55 | Filler Display 1 | Display1 | Player1 (primary) | ✓ |
| 2588 | | 12 Oct 2021 | 10:44:55 | Filler Display 2 | Display2 | Player1 (primary) | ✓ |
| 2587 | | 12 Oct 2021 | 10:44:50 | Filler Display 1 | Display1 | Player1 (primary) | ✓ |
| 2586 | | 12 Oct 2021 | 10:44:50 | Filler Display 2 | Display2 | Player1 (primary) | ✓ |
| 2585 | | 12 Oct 2021 | 10:44:20 | JustGo Alpine Cities | Display1 | Player1 (primary) | ✓ |
| 2584 | | 12 Oct 2021 | 10:44:20 | JustGo Cross-Country | Display2 | Player1 (primary) | ✓ |
| 2583 | | 12 Oct 2021 | 10:43:50 | ReVolt Commercial Vehicles | Display1 | Player1 (primary) | ✓ |
| 2582 | | 12 Oct 2021 | 10:43:50 | ReVolt Commercial Vehicles | Display2 | Player1 (primary) | ✓ |
| 2581 | | 12 Oct 2021 | 10:43:20 | JustGo Alpine Cities | Display1 | Player1 (primary) | ✓ |
| 2580 | | 12 Oct 2021 | 10:43:20 | JustGo Cross-Country | Display2 | Player1 (primary) | ✓ |
| 2579 | | 12 Oct 2021 | 10:42:50 | ReVolt Commercial Vehicles | Display1 | Player1 (primary) | ✓ |
| 2578 | | 12 Oct 2021 | 10:42:50 | ReVolt Commercial Vehicles | Display2 | Player1 (primary) | ✓ |
| 2577 | | 12 Oct 2021 | 10:42:50 | ReVolt Commercial Vehicles | Display2 | Player1 (primary) | ✓ |
| 2576 | | 12 Oct 2021 | 10:42:50 | ReVolt Commercial Vehicles | Display2 | Player1 (primary) | ✓ |
| 2575 | | 12 Oct 2021 | 10:42:20 | JustGo Alpine Cities | Display1 | Player1 (primary) | ✓ |

The .csv export of this list has these columns:

| | | | | | |
|------|------|----------|--------|--------|--------|
| Date | Time | Template | Screen | Server | Client |
|------|------|----------|--------|--------|--------|

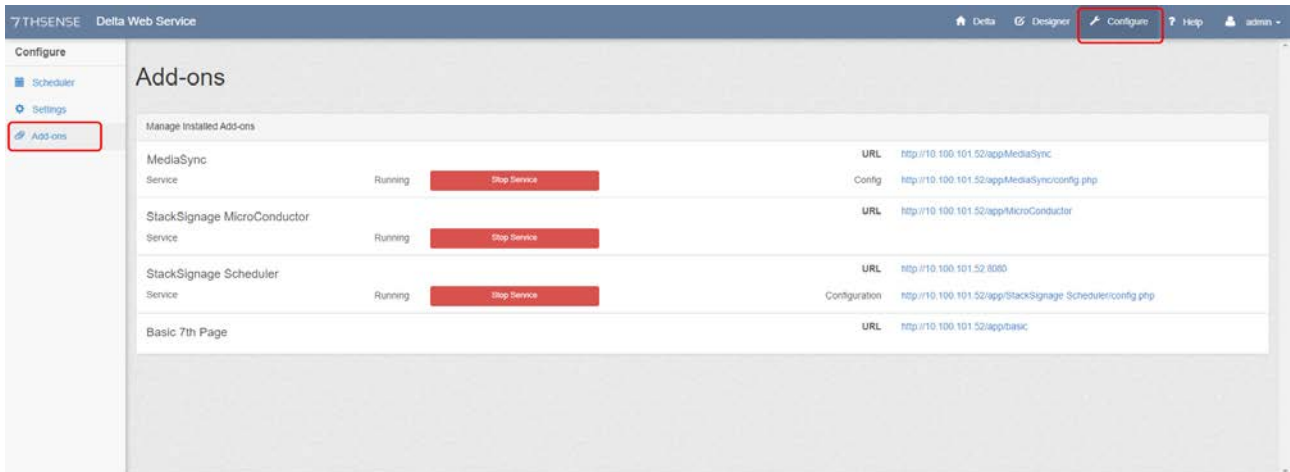
Snapshots

If you have the Snapshot app installed, this report lists all the snapshot timestamps with a link to the images taken, and which Template is matched on which Screen. Hover the column heads to sort by 'Timestamp' or 'Screen'.

➤ [Snapshot API](#) ⁸⁰

MediaSync

MediaSync is another Add-on in the Stack software, that runs on each media server. Go to the IP address of each player, under Configure, select Add-ons, find MediaSync and start it running:



On the right is a link to its Config page. Here you can add your sync targets (between a NAS and this media server):

Sync Folders

Label: MySync

From path: C:\Images

From matching directory: *-1

Clean up non-matching files:

To path: C:\Images2

[Remove](#)

[Save Changes](#)

Add New Sync Target

Label: Sync Task

From path: \\NAS\Media

From matching directory: movie_*_

Clean up non-matching files:

To path: E:/Movies

[Create Sync Target](#)

Do this for each folder you want to sync between the NAS and the media server resource folders (E:\Movies, C:\Images, C:\Effects etc.).

Player servers will check for changes on the NAS automatically at regular intervals to add or remove media as changes occur on the NAS.

Note: for complex installations the MediaSync targets are all stored in a JSON file, which for accuracy and convenience can be copied between media servers.

Verifying MediaSync status

In a browser tab, enter the URL to obtain MediaSync status page: [http://\[IP Address\]:8085/status](http://[IP Address]:8085/status).

This returns a JSON object providing from/to details between sync target directories with a "state" and corresponding "errorMessage".

States of 'idle' and 'active' are good. If either directory in a sync is unavailable, state will be 'error' followed by a message.

Use of wildcards in matching folders

The use of wildcards is a feature added in StackSignage 2.1.1. This enables matching sync folders with a certain folder name pattern, for example in a system which has a number of carves so it will only sync the carve that is relevant to each machine.

Media is only synced from folders that match the wild carding pattern. Whole folder names, or part names, can be wildcarded.

* : matches any string

: matches any numeric character once

\$: matches any alphabetical character once

? : matches any character once

[x] matches any number in the range 0-x

{{}} can be used to enclose a global Delta variable/string

Snapshot

The **Snapshot app** is a proof of display, not just the intention to play, and keeps a log of webcam images. The camera is triggered by **Templates** where the user selects how often a play is recorded.

Snapshot runs on the Scheduler PC. On the Scheduler PC, open a browser tab and type in the IP address of the Scheduler.

Go to Configure (top), the Add-ons (left) and the Snapshot add-on will probably be showing a green button 'Start Service'. Click this to start the app.

The two page links on the right allow you to configure the comms port for the camera, and go to the log page of snapshot events.

For Developers

Some StackSignage capability can be extended with a little JavaScript programming ability. The following pages are intended for developers, and if you need further help, please contact support@7thsense.one.

Framerates

For configuring timing and framerate, see the DeltaServer user guide:

➤ [Timing Configuration](#)

Pre-check Template URL

A **Template** Pre-check can be used to query an external API to remotely *reject* a Template from being scheduled.

A common use-case is querying a feed provider to check if there is content to display in a feed, before it is shown on screen, rejecting the feed Template if no content is available.

If set, the Template Pre-check URL will be called immediately prior to the Template being queued for playback. If the Pre-check fails, the Template will be rejected and another scheduled according to the normal rules for Pool Templates.

API responses

The feed provider must provide a HTTP route which returns either of the following responses:

Success response

```
{
  "scheduleTemplate": true
}
```

Fail response

```
{
  "scheduleTemplate": false
}
```

Web Page JS Events

DeltaServer has a built in Web Page media resource, which has the ability to trigger JavaScript events on timeline events.

Usage

When enabled Delta will embed a library at `window.DeltaServer` which can be used to hook into these events.

A callback is used to indicate that the library is ready, this can be triggered by creating a function at `window.onDeltaServerReady`.

It is important that this function is created at the global level outside of any typical loading callbacks/lambda's such as `window.onready` or `jQuery $(function() {});`.

Sample code

```

window.onDeltaServerReady = function () {
  DeltaServer.on('frame', function (relativeFrame, timelineFrame,
progress) {
    // called on each frame
  });
  DeltaServer.on('enterscope', function () {
    // called on resource entering scope
  });
  DeltaServer.on('leavescope', function () {
    // called on resource leaving scope
  });
}

```

On 'frame' event arguments

| Name | Type | Description |
|---------------|---------|---|
| relativeFrame | Integer | Frame number relative to the start of the Web Page resource, that is the number of frames into the current resource. |
| absoluteFrame | Integer | Frame number of the timeline of this Web Page resource. |
| progress | Float | From 0 to 1, indicates the progress through the resource. Useful for synchronising animation and events across multiple Web Pages or Delta servers. |

Development and Debugging

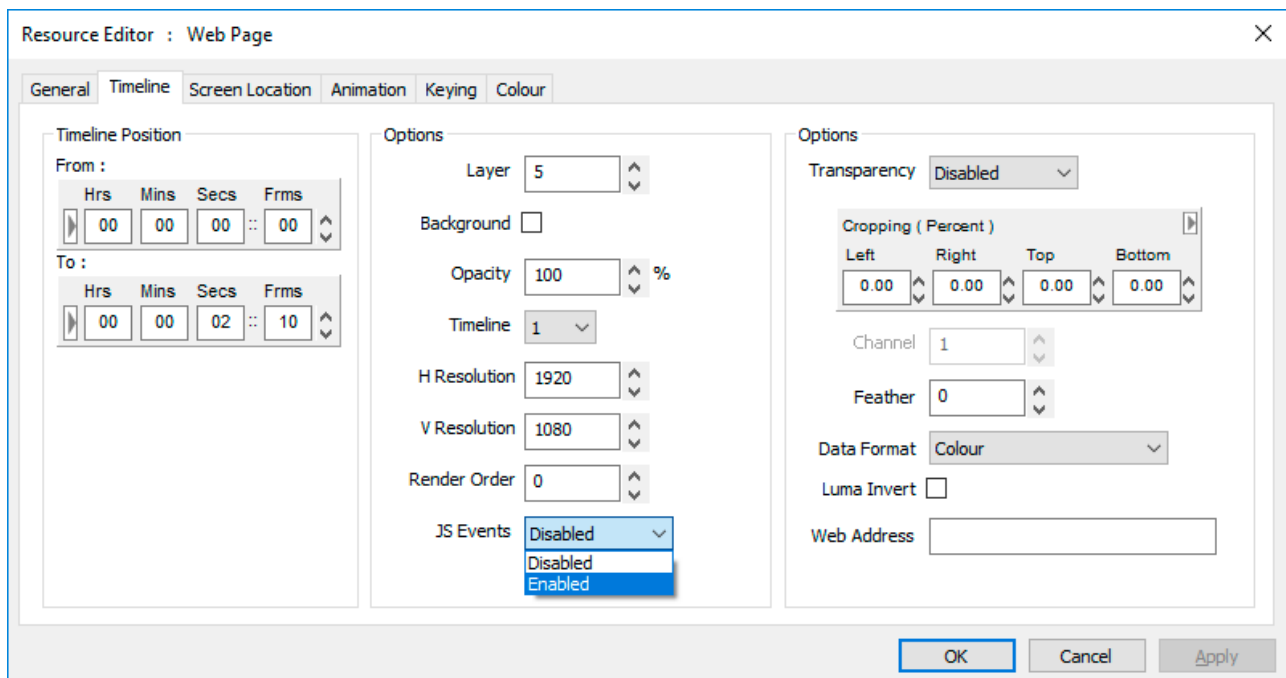
A mock DeltaServer JS library is provided for testing events from a regular web browser. The library can be downloaded with the following link and included in the webpage like a normal JS library.

➤ Download [mock-deltaserver.js](#)

Enabling JS Events

All StackSignage scheduled Web Page Templates have JavaScript events enabled.

To manually enable for testing/development, the 'JS Events' checkbox in the Web Page Resource Editor dialog must be ticked:



Snapshot API

The Snapshot API allows images to be taken from a remote webcam location and saved to a network or local path.

config.json

A config file is used to set the following settings and can be found in the app directory.

Settings

| Name | Type | Description |
|----------|--------|---|
| httpPort | number | Port used to control the application by HTTP requests |

Example

```
{
  "httpPort": 8084
}
```

cameras/cameras.json

The camera definition file is used to define URL and login details for camera instances.

The key of each definition is used to identify the preset name used when requesting snapshots.

Post-processing can be applied, available options are `rotate: 0-360` and `quality: 0-100`.

`type` must be specified as a camera type implemented in **camera-interfaces.js**. Currently only the Panasonic WV range of cameras is supported.

The file is located at `C:/7thsense/web/data/app/dss-snapshot/app/cameras`.

Example

```
{
  "cameraOne": {
    "type": "WV",
    "hostname": "192.168.0.100",
    "port": 5000,
    "auth": {
      "username": "Username",
      "password": "Password"
    }
  },
}
```



```

    "resolution": 1920,
    "postProcessing": {
      "rotate": 90,
      "quality": 50
    }
  }
}

```

/snapshot

Requests and saves an image from a webcam to a destination relative to the dss-snapshot host machine.

Request

<http://127.0.0.1:8084/snapshot?camera=cameraOne&preset=1&path=c:/&filename=image.jpg>

Query Parameters

| Name | Type | Description |
|----------|--------|--|
| camera | string | The unique camera identifier as configured in cameras.json |
| preset | number | The preset camera position, note there is a 2 second delay for moving the preset |
| path | string | Absolute path to save image to, this can be a network or local path and will be created if it does not exist |
| filename | string | Filename to save the new file as, must include extension |

Response

ContentType: application/json

```

{
  "status": "success",
  "data": {
    "path": "c:/",
    "filename": "image.jpg",
    "camera": "cameraOne",
    "preset": "1"
  }
}

```

/cameras

Lists all cameras in cameras.json

Unique cameras are identified by object key, in this example "cameraOne"

Request

http://127.0.0.1:8084/cameras

Response

ContentType: application/json

```
{
  "status": "success",
  "data": {
    "cameraOne": {
      "type": "WV",
      "hostname": "192.168.0.100",
      "port": 5000,
      "auth": {
        "username": "Username",
        "password": "Password"
      },
      "resolution": 1920
    }
  }
}
```

/log**Request**

http://127.0.0.1:8084/log

Response

ContentType: text/html

The response is a web page which lists a rolling log of the last 1000 messages processed by the snapshot server.

System Backup and Switching

MySQL database

In order to preserve your records and your content, the MySQL database should be backed up on a regular basis, even if you are not running backup systems. How you achieve this is an IT systems decision, but we could recommend MySQL Workbench as a tool for exporting and recovery.

Switching to a backup media server

If a media server fails, or you want to take it out for maintenance, set the display switcher to the backup. If this is online and running, display is immediate: the Scheduler is addressing both. Reassign the role of the Backup to Primary, and if still online, assign the Primary to Backup. This ensures the reports and logs relate to what is going to the displays.

Switching to a backup scheduler

If a Scheduler fails, or you want to swap it out, your main concern is the database. If it is being shared, simply reassign the Scheduler for each media server (in Dashboard, click the gear wheel for each in turn). If the database is not shared, but copied onto the backup – perhaps on a daily basis – all you will lose is the day's manual scheduling changes.

Document Information

| Date | Document edition | Software version | Revision Details | Author/Editor |
|----------------|------------------|--|---|----------------|
| October 2015 | M166-1 | StackSignage 1.0 | First release as M166 | Andy Briggs |
| October 2018 | M166-2 | StackSignage 2.0.6 | Rewritten, re-illustrated and updated as M166 | Andie Davidson |
| January 2020 | M531-1 | StackSignage 2.1.0 | Version 2.1 new release | Andie Davidson |
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| November 2022 | M727-1 | StackSignage 2.2.2 MicroConductor 1.2.1 | Introduction of MicroConductor app on scheduler PC replacing Player app on media servers. Fixes and enhancements. | Andie Davidson |

A

add 18
archive 18

B

backup 83
backup servers 20
blending Templates 44

C

calendar view of schedules 61
camera 74
categories 28
clients 26
components of StackSignage 11
conditional scheduling 77
configure Snapshot webcams 80
contracts 27

D

dashboard 46
daylist rules 57
daylists
 create and edit 53
 csv 53
 import 53
delete 18
Delta Web Service
 browser support 9
DeltaGUI 10
DeltaServer 10
digital signage 5
display configuration 10
display inside a display 42
display locations 23
displays 22
document information 84

E

edit 18

F

filter 18
fit to fill 59
framerate 10

framerates, changing 76

G

generate templates 32
glossary of terms 11

L

layouts 42
live schedule
 conflicts 63
 insert item 63
 manual changes 63
 remove all instances of an item 63
 remove item 63
load media into players 29
log report of played items 70
login 14
logs 46
LTC chasing 14

M

media assets 32
media lists 29
media loading 29
media workflow 29, 31
MediaSync 29, 72
menus 17

N

navigation 17

O

org. config 25
overlays 40, 42

P

picture-in-picture 42
player server 20
playlists 59

R

recover 18
refresh media 29
refresh resources 46
reports 66

- reports 66
 - client 68
 - played events 68
 - templates 67
- re-sync 46
- running the Signage apps 14

S

- schedule rules 57
- Scheduler server 20
- scheduling
 - automatic 48
 - manual 48
 - timeline navigation 48
 - timeline view 48
 - toolbar 48
- scheduling, manual 53
- scheduling, manual and automatic 57
- screen groups 23
- screens 22
- search 18
- server control 46
- servers and roles 20
- signage 5
- Snapshot API 80
- Snapshot API (config) 74
- Snapshot report
 - image links 71
 - snapshots by screen 71
- software agreement 6
- sort 18
- StackSignage
 - architecture 7
 - browser recommendation 9
 - media servers 7
 - MediaSync 7
 - MicroConductor 7
 - Scheduler 7
 - server requirements 9
 - Snapshot 7
- starting the Signage apps 14
- stop and start a service 46
- switching to backups 83
- system config 18

T

- templates
 - creating 50
 - managing 50
 - naming 50

- pooled 50
- scheduling 50
- zones 50
- templates wizard 32
- terminology 11
- text effects 40
- text overlay 40
- thumbnail configuration 37
- transitions and overlaps 44

W

- web pages, enabling js events 78
- web view 78
- webcam 74

Z

- zones (layouts) 42

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