Enterprise System

User Guide

2017

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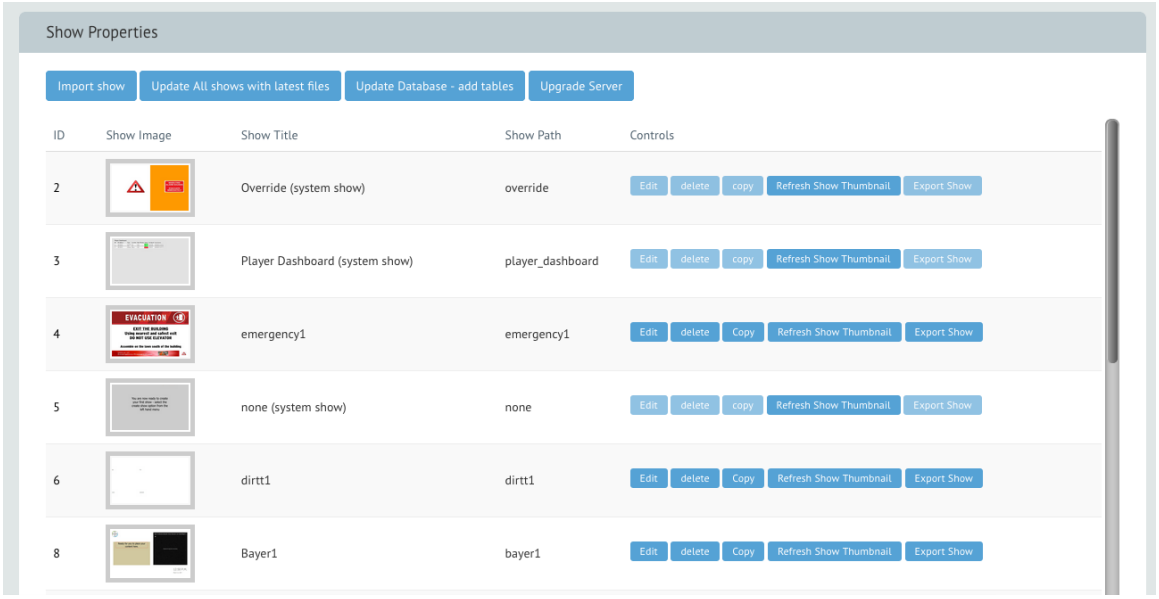
Show Management

Edit Show Config

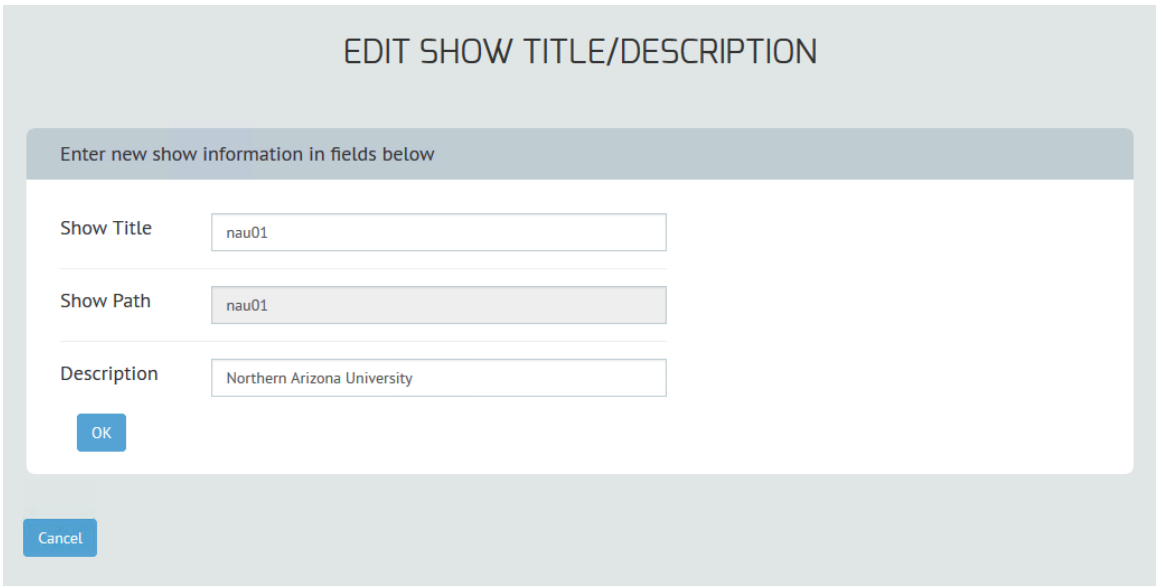
In Display5 you are able to use the Edit Shows button to make changes to show properties, copy and delete shows and to refresh the image icon representation of the show if you have made cumulative changes to the show. Hit the 'Edit Shows' option in the menu on the left hand side and you will be presented with a screen similar to this:



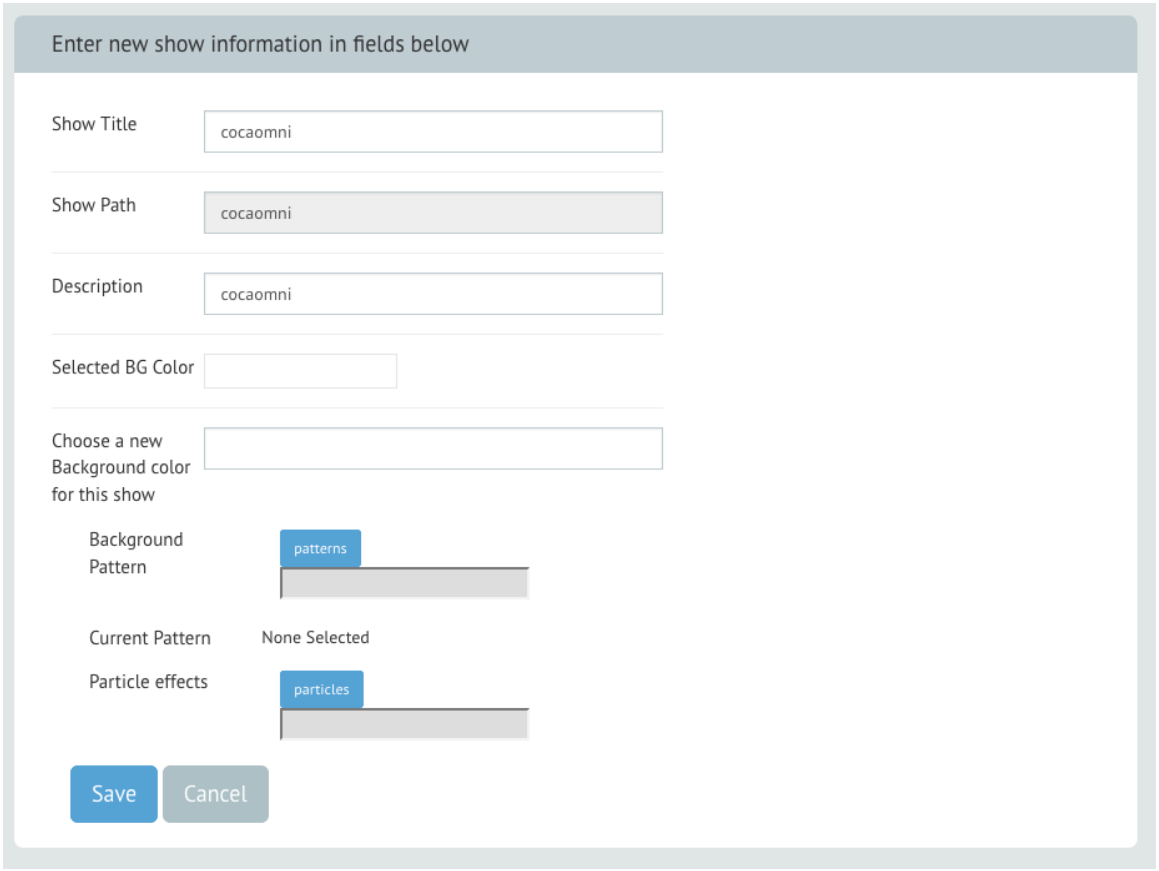
To the left of the list is the image icon representation of the show that is used to show you the show playing on Players dashboards as well as in Sequences and other places in the Display 5 admin. There is also the show name , the path of the show , which is the path to the file system location where the show data is stored, and a selection of buttons to the right of each show.

Edit Button

When you create a new show in Display5 you are asked to enter information such as the show title , Show description. The Edit button allows you to edit the show information such as the show name and description.



Enter the new information in the input fields and then hit the OK button to save the changes. Note that you cannot change the show path for the show. In the case of Free Design Shows and video wall shows you will also see additional options related to the backgrounds for the show .



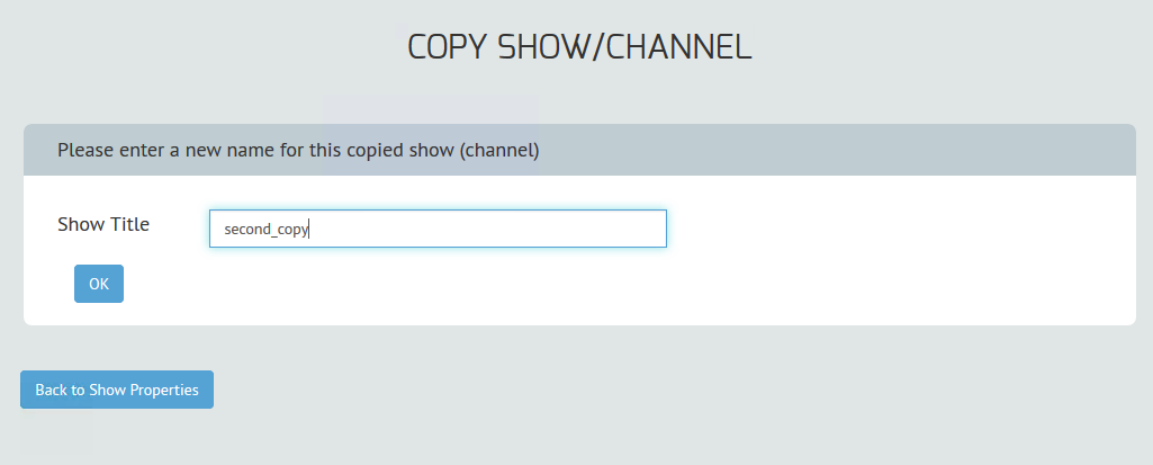
If you had previously selected a solid color, a pattern or an animated particle effect, then you will be given the options to select an alternate background for the show, the patterns and particles buttons will pop up a new screen allowing you to choose.

Delete Button

Delete will completely remove the show from the Display 5 server – all content will also be removed from the drive, use this option only if you are certain that you do not want the content any more as deletion is permanent. The Delete button removes tickers, slides in the slide schedule, all items related to a show

Copy Button

Display5 offers the unique capability to be able to make a complete copy of any show that you have previously created. All content, designs for layout, screen size and so on is copied to the new show. You will need to provide a name for the new show in the input field that will appear on the copy screen



Enter any name you would like – the description will end up being a standard message saying – Copy of the show XXX – where xxx is the name of the original show.

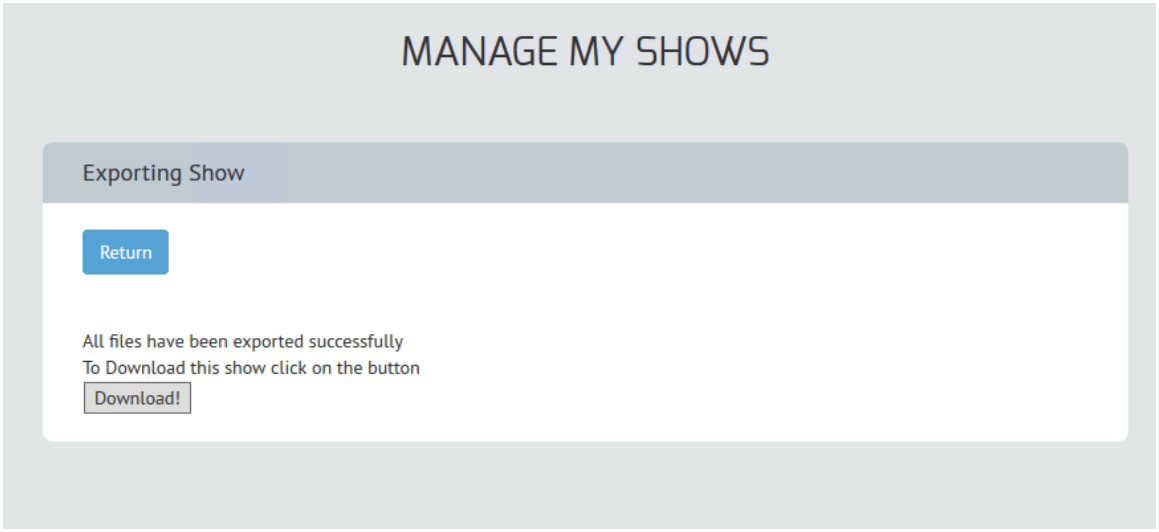
Refresh Button

Display5 has a built-in frame grabber to make a snapshot of your shows, this frame grabber is not deployed all the time as it is resource intensive and essentially requires launching a separate browser session to take a snapshot of the show. The Refresh button will trigger this frame grabber and update the show image for you on-demand. Refresh the Edit Shows screen if you do not see the updated image right away.

Export Show

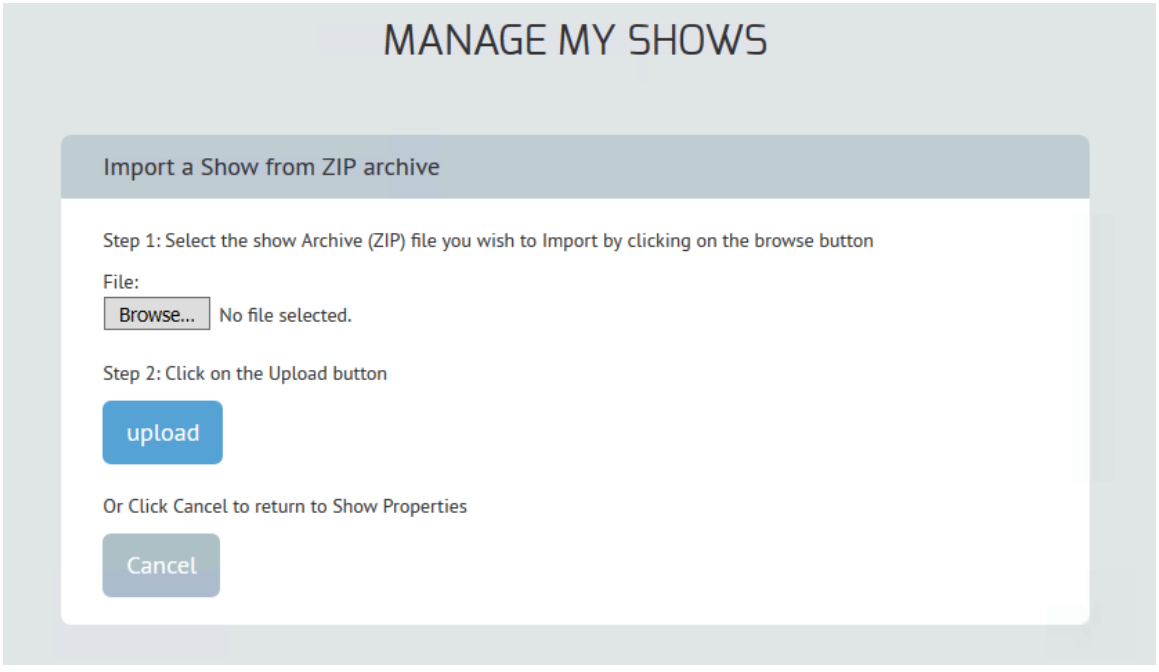
The Export Show button will allow you to create a ZIP file containing all of the show content, show settings, and slides. This feature is coupled with the Import Show

option outlined below. To export a Show, click the export button, and then select where you wish to download the Show.



Import Show

The Import Show option allows you to take an exported show (as outlined above) and import directly into your current Display5 instance, all slides, videos, images, and configuration files. Click on the browse button to locate the ZIP file that was exported from Display5, then hit the 'Upload' button in order to bring the Show into the system. The imported Show will appear at the end of the list of Shows.

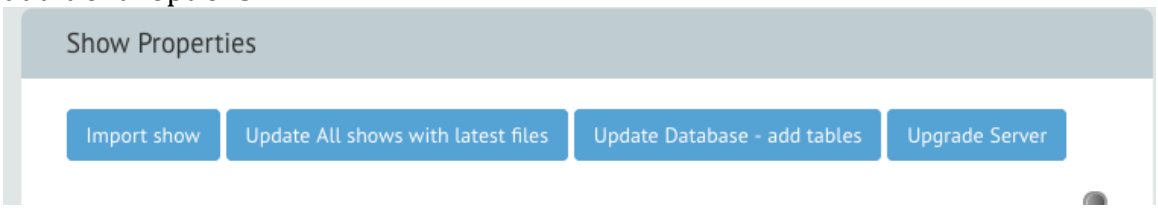


Refresh Thumbnail

When you first build a show in Display5 you will notice that a thumbnail of the show is created first time around, this thumbnail is used only to give you a rough idea of the layout and content of the show and will need to be updated from time to time, as you modify the content. By clicking on the refresh thumbnail button next to each show you will actually instruct the Display5 platform to open the show in an internal browser (based on PhantomJS) and take a snapshot of the actual show, which is then rendered for use in the Player dashboard and other player related screens as well as the show properties list.

Additional Platform Options

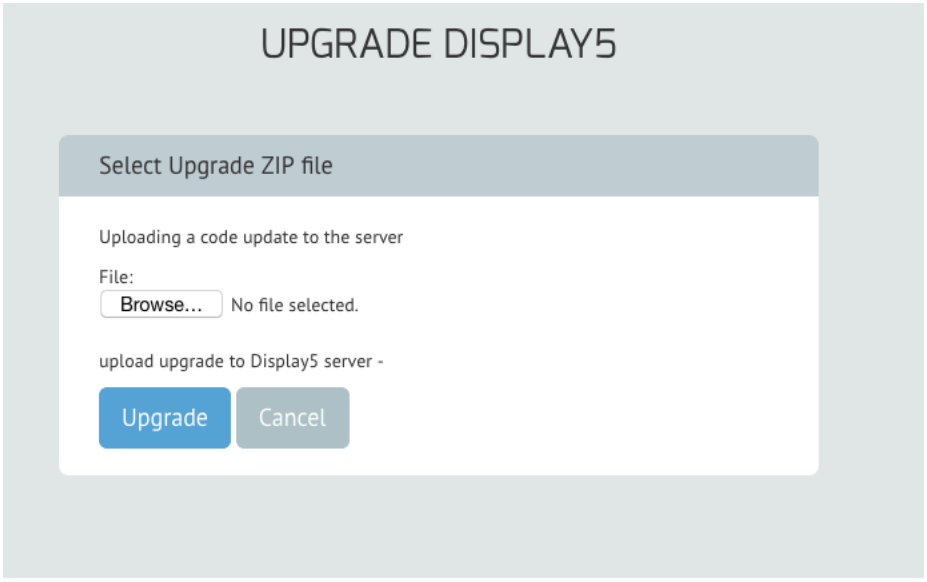
You will also notice that at the top of the show properties screen there are some additional options



These are for updating shows to the latest widget files (new lists of live TV feeds, RSS feeds etc.) and an option to update the current database to the latest specification including any new fields or tables that have been added to add more features

Upgrade Server

The upgrade Server button is used to upload a new update code ZIP file to the Display5 server, this is used when you download or are sent a new platform code base file:

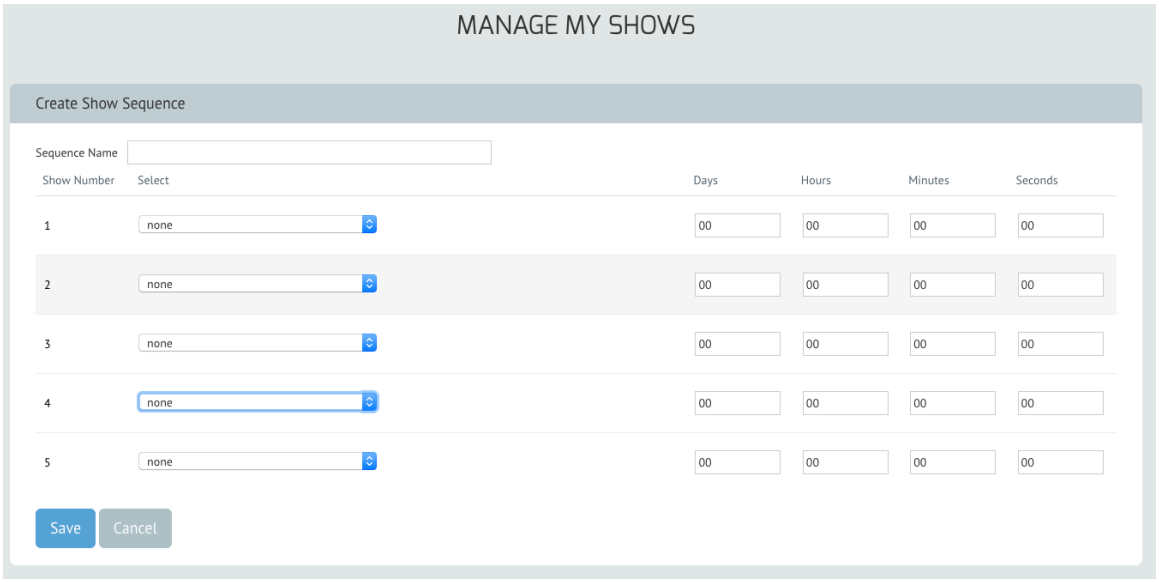


Use this screen to select the upgrade file from your local drive and then upload to the server where the upgrade will be automatically completed.

Show Sequences

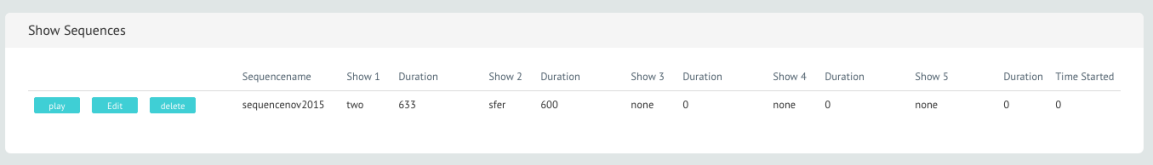
Introduction

Display 5 has the advantage of being able to play shows one after another in a series or sequence. This applies to any show that you have created and you can add up to 5 shows to a sequence. Launch the Show Sequence screen by clicking on the 'Create Show Sequence' menu item on the left-hand side. You will then be presented with the following screen:



You are required to enter a name for the sequence first (mandatory) and then beneath the show name field you will see a series of drop down boxes that should contain a list of all the shows that you have created. Select the appropriate show from the list for the sequence item 1. Then to the right of the show drop down you will see a series of duration boxes divided into days, hours, minutes and seconds. This is a cumulative set of input fields and so all values are added together. You can specify a duration of only 10 seconds for each show – or you can specify 10 days between each show being played. For example if you wanted to have 3 shows that rotate each day and then back to the first show again on the 4th days, you would select the 3 shows from the drop down list, and then enter 1 in each of the day duration fields. And then hit save. This sequence will now be 3 shows played in a 3-day period with each day playing a different show.

Show sequences are always displayed on the Dashboard page.



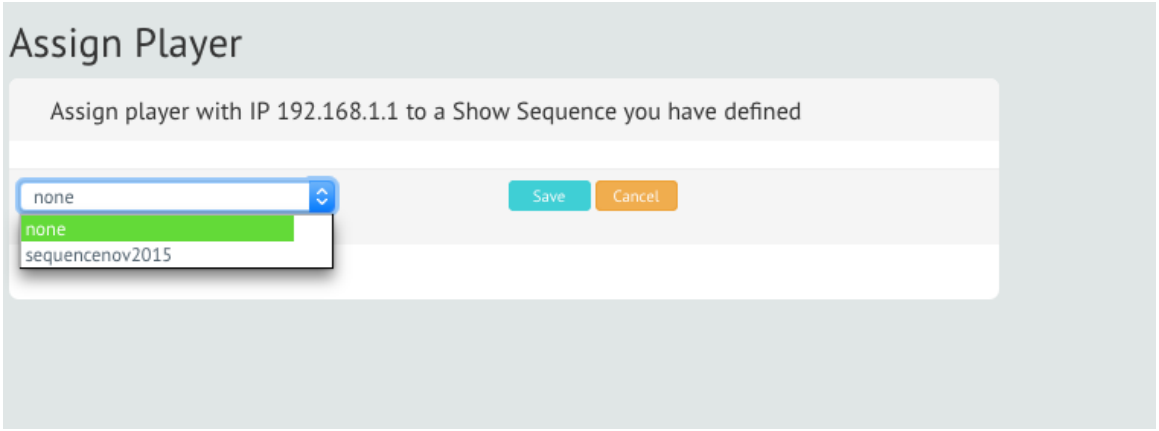
The sequence above is for two shows that are to play for 10 mins 33 secs and 10 mins one after the other, the sequence will restart again. You will notice that the Time started field at the far right is showing zero, this will only get updated once a player is launched to play that sequence. The time stamp will then be used to precisely time the shows from the start date and time.

You will also notice that you can edit the sequence by clicking on the 'edit' button to the left which will take you to the same screen as creating a sequence. You can also delete the sequence using the 'delete' button and you can also preview the sequence by hitting the 'play' button.

Launching Sequences on Player

The player management menu item on the left hand side has an option called 'Player Assign Group/Zone', select this option from the left hand menu and you will be presented with a screen similar to this:

To the right of each player entry row you will see a group of buttons that apply to each player. The button labeled 'to Sequence' in the ASSIGN column will allow you to assign a player to start playing a sequence instead of an individual show. Select this button next to the relevant player and then you will see a new screen with a drop-down list of sequences that you have created.



From the drop down list select the sequence name and hit the 'save' button to the right. This will now force the player into Sequence mode – it may take a couple of seconds for the player to respond however the player should then join the playback of the sequence of shows you have created. You can then repeat the same procedure for other players or player groups that you want to join the how sequence.

Setting up the Show Sequences on the player

As mentioned above the Display5 program supports show sequences, i.e. playing 1 show after another in a specified sequence. If you want to play a show sequence then you will need to specify the following URL on the player itself as the default at startup (see the sections below on how to set up players to auto start the browser)

http://www.display5.com/SHOW_NAME/sequence.php?sequencename=*sequencename*

as your startup up URL. The *sequencename* after the = sign is the name that you provided when creating the sequence (which is covered in the previous section above) again adding the -k or whichever command to put the browser into full screen mode will allow the entire screen to be used.

Example Start Scripts:

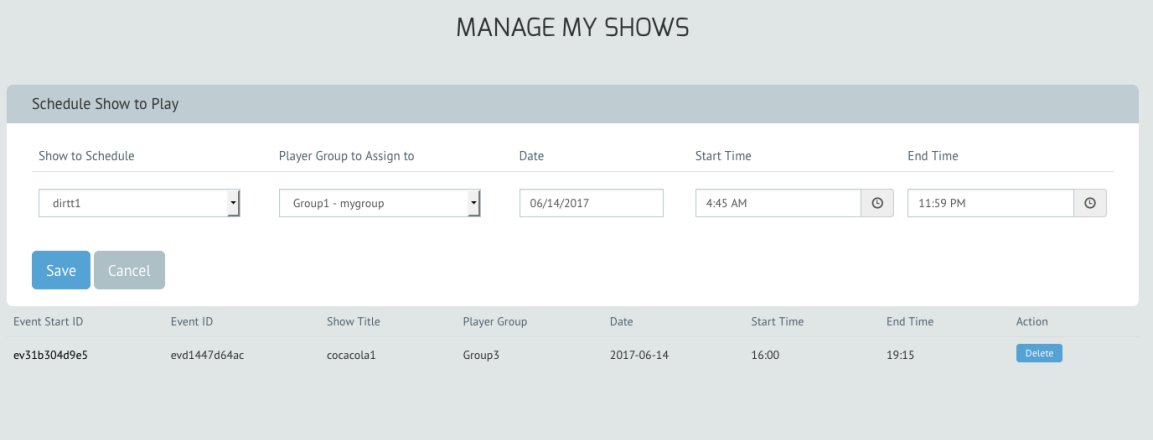
```
Playing a Show Sequence:  ie.exe -k
http://www.display5.com/show_name/sequence.php?sequencename=myseq

Playing a Single Show:  chrome.exe --kiosk
http://www.display5.com/show_name/d5.php
```

If you need more detailed instructions for creating Linux start scripts, or Windows start scripts we can provide further details if you **Contact Us** for further information.

Scheduled Shows

Scheduling shows in the Display5 program allows you to set up a show to play on a group of players to be played at a particular time in the future. This feature works with the event management system built into the SQL database and adds a timed event to the server side database.



The scheduled shows page – shown above – allows you to name the show sequence, assign the player group to the event and then select the start time and end time of the show using the calendar entry or popup boxes. Beneath the entry boxes you will then see that the event will be listed (you can create as many events as you require), and the ID in the database of the event, the event name and show to be played, along with a button on the right to be able to delete the event in advance. Any past or already executed events will still be shown in the list below, until you manually delete it.

To create a scheduled show, select the name of the show from the drop down list, pick the player group that you want to have play the show, click on the “Calendar “ link to open the standard Display5 calendar, and then specify the start time and date and the end time and date for the show to play. When the time stamp for the start is reached on the server, the server will automatically switch all the players in the group to start playing the main show you have chosen (Note an emergency will override any settings that you add here) and then revert back to the default show once the time ending point is reached.

Players & Player Management

Introduction

Display 5 supports a wide range of players for use with the shows that you create. You essentially only need a browser on the player in order to play back Display 5 content. Players supported include Windows based, Mac, Linux based, Android based etc. This includes, Raspberry Pi , CuBox , Cenique, Intel NUC, Dell , Lenovo and many others. The software will even work with many of the Smart TV platforms such as NEC, Samsung, LG and others.

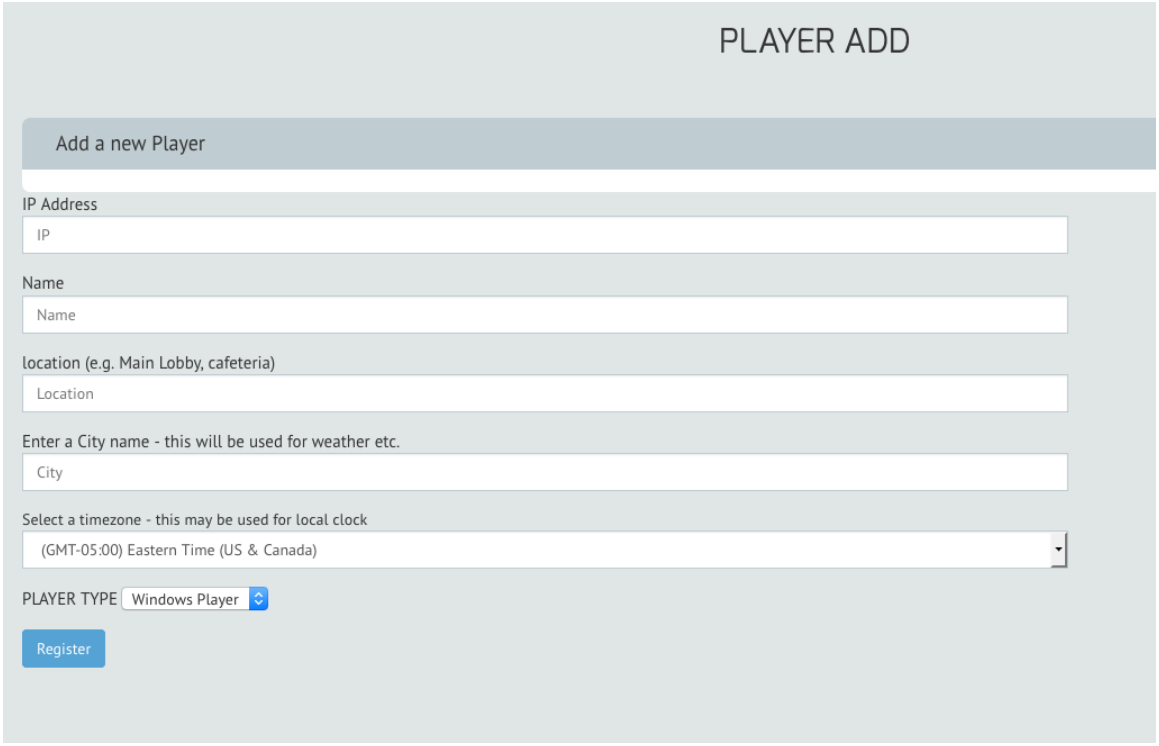
Registering a player

Understanding how Display 5 works with players will help you to understand how to ensure that you add a player correctly to the Display 5 system. Display 5 depends on a unique cookie being added to any player browser that is connected to the D5 server. This cookie is used to uniquely identify each player to the server so that information on the player can be easily tracked. The cookie itself contains the IP address information of the player, which should always be unique and should always be associated with the player. If you change the IP Address dynamically through DHCP then you should ALWAYS use DHCP reservations to ensure that the player will always get the same IP if it is powered off or restarted. If the network is not configured this way then you will need to remove the existing cookie and replace with a new one by re-registering the player with the new IP on the actual player itself.

Every player connected to the Display 5 server (if you intend to remotely manage or monitor the players) should be registered. It is not mandatory to register the players if you do not wish to allow cookies, but you will need to manage the devices yourself and implement monitoring yourself if this is your preference. This will still allow you to play shows on the player but you won't be able to change content and push emergencies without the cookie.

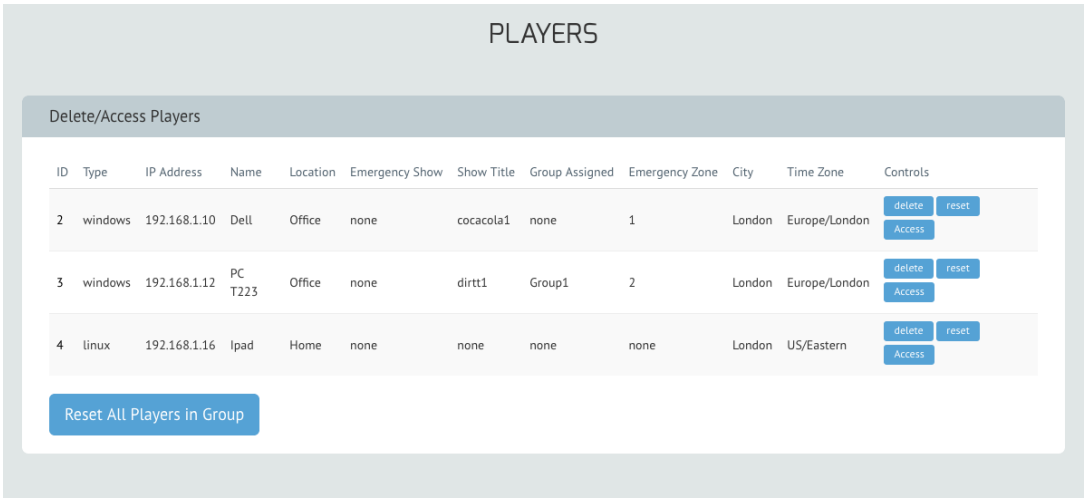
Registration process

On the player itself you will need to open the browser and locate the following PHP file – http://yourservername/player.php - this will bring up a screen that you can now enter the information about the player into.



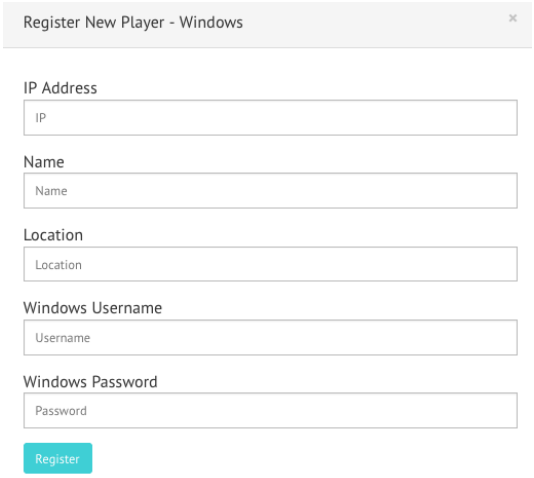
You can now enter the IP address (which should be unique) the name for the player and its location (any text or numeric), the location and city (this is used for location specific clocks and weather) and finally the player type from the drop-down list. Once you hit register the player will be added to the player database in Display 5.

To check if the player was registered, on your administration computer you can navigate to the menu option “Delete/Access Player” on the left hand side and open the list of players and ensure that your player information has been added.



You can also add a player to the Display 5 system by accessing the “Add a Player” option from the left-hand side menu and entering the identical information as

above. However, this should only be used in conjunction with registering on the player itself as you still need the cookie to be installed in the player to be able to track and monitor the player. This is useful only if you are going to update information through the registration process on the player itself.



Viewing player information

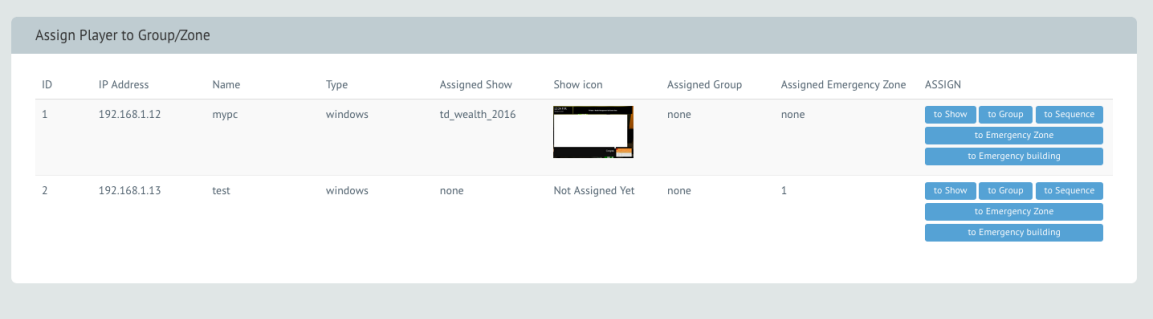
The "Delete/Access Player" option on the left-hand side menu will open the screen that lists all players on the network and allow you to delete a player, reboot or access the player directly over the network. You can also send a reset command to all players in a group to restart a show, or to send a new show to play on the player immediately

You can connect directly to the player by using the VNC client to access the player to see what is actually playing on screen on the player. To use VNC you will need to install the VNC server on each of your players that you wish to access. VNC is a common program available for many operating systems. UltraVNC is available for Windows and is open source, while many of the Linux implementations such as UBUNTU have VNC already installed and available for use. VNC is also available for Mac OS and RealVNC is available for Android. Please consult the documentation for your Own player OS for more information.

Assigning Players to Groups, Shows, Sequences and Emergencies

Display 5 allows you to group players into categories. To add players to emergency zones, to assign a default show to a player or to set up a player to play a sequence of shows

To configure the players, you will need to click on the menu option 'Assign Player to Group/Zone' on the left hand side menu. Once you have selected this you will open a screen like this:



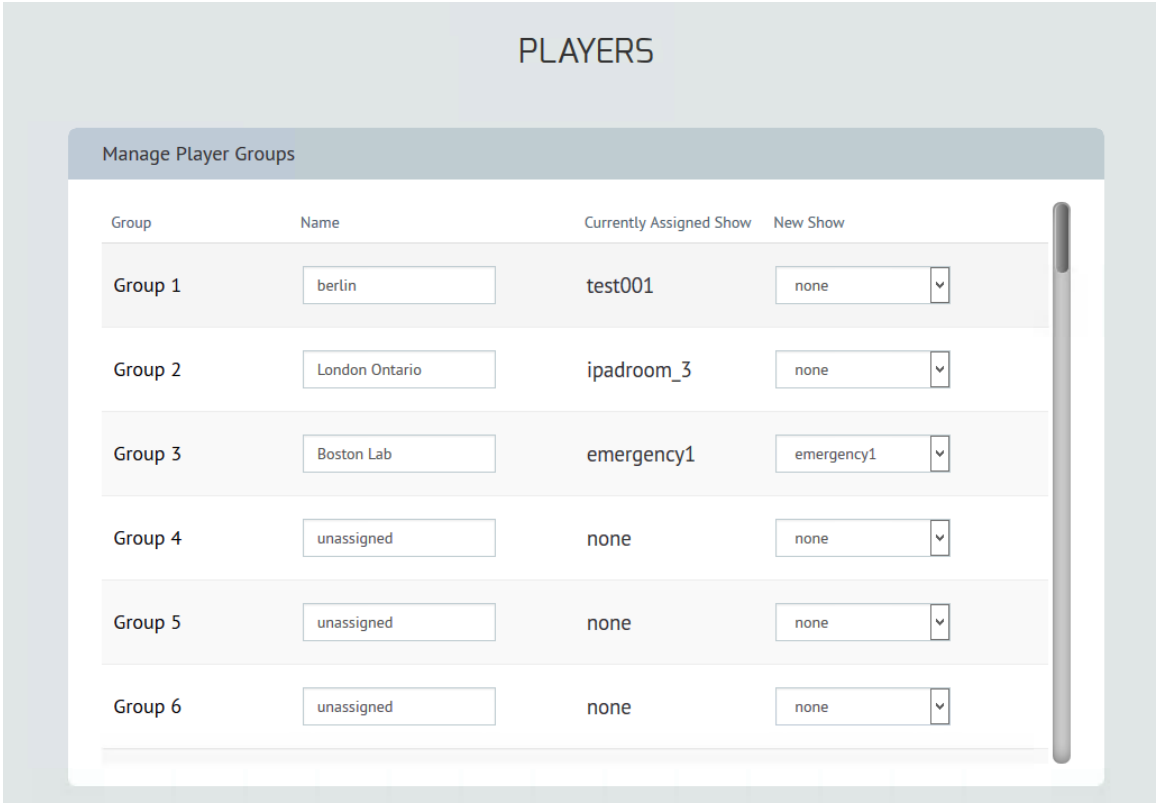
On the right of each player listed is a set of buttons. We have already covered configuring a player to play a sequence in the section above. Assigning a show to a player is similar to assigning a sequence, once you click on the button you will be taken to a screen with a pull-down list of shows that you can assign. Pick the one that will be the default for this player and then select save.

If you wish to assign a player to a group then the player will automatically inherit the show that is the default that group (see "Creating Player Groups" below) and any previous assigned show you have entered will be ignored (the Group settings always override the individual settings)

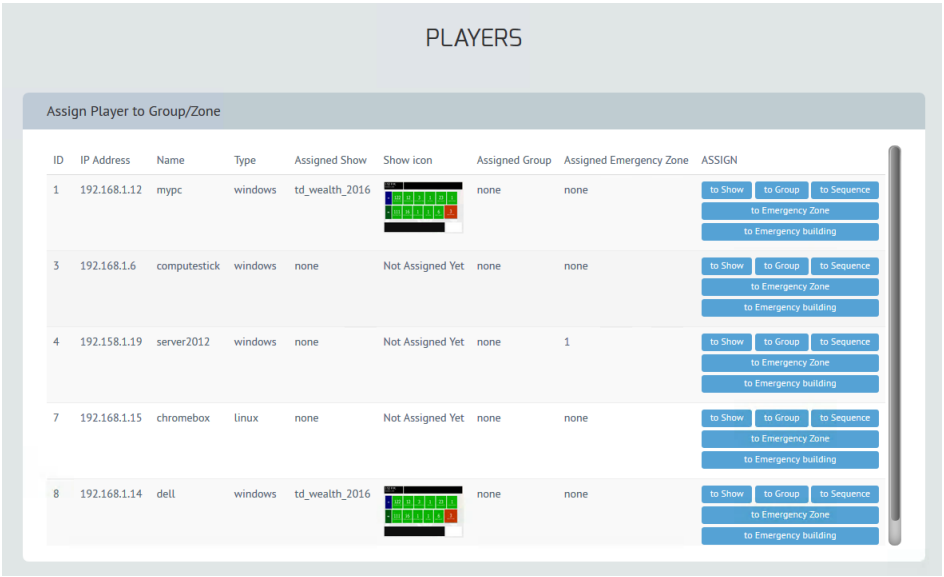
Assigning a player to an Emergency Zone or Emergency Location is covered in the Emergencies Section below.

Creating Player Groups.

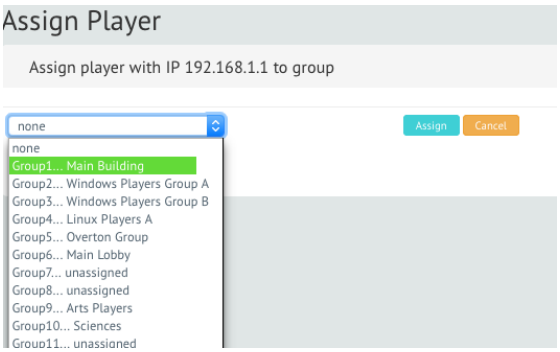
Setting up group defaults is very simple in Display 5. Navigate to the "Manage Player Groups" option in the left-hand side menu. You will then open a screen that has a list of 50 potential Player groups that you can define. In the image below you will see that each group has a number (pre-defined) listed on the left-hand side and a name that you can define for the group. There is a drop-down list of the shows in the Display 5 System that you can assign as the default show.



Once you have defined the names and shows for the groups the last task is to go to the player management screen and assign the players to a group. To do this click on the 'Assign Player to Group/Zone' option in the left hand side menu, now you can click on the assign to group button on the right hand side of all of the players listed.



And now you will see a full listing of all the groups that you have edited and created to which you can assign the player



Once assigned the player will now inherit the default show that you defined for that group as the one that will always play. This show will also be reverted to after an emergency broadcast has been played out

Connecting a Player to your Show

The Display5 program is designed to play your Show using a browser on a Windows, Linux or Apple player. All you need is a browser - Firefox, Internet Explorer (IE), Chrome, Opera, Safari etc.

Windows Players

The recommended way to run Display5 on a Windows player is the following:

1. Create a startup script or batch file on your Windows Operating system (see this link) That will automatically start the browser and your show on a Windows player
2. You will want your Show to play in full screen mode so the Show takes up the whole screen. For Windows this is called kiosk mode, e.g. hitting the F11 key.

a. To start Internet Explorer in kiosk mode

Type "ie.exe -k" right before the URL, e.g. ie.exe -k http://myserver/display5showname/d5.php

b. To start Mozilla Firefox in kiosk mode Firefox always resumes in the mode in which it was last set, and so you simply need to hit F11 once Firefox has started. Alternatively the use of **R-kiosk 0.9.0 extension** by Kimmo Heinaaro works like a charm. Real Kiosk is a Firefox extension that defaults to full screen, disables all menus, toolbars, key commands and right button menus. Alt+Home still takes you home.

c. To Start Chrome in Kiosk mode

Type "Chrome.exe -kiosk" right before the URL, e.g. chrome.exe -kiosk http://myserver/display5showname/d5.php

d. To start Opera browser in kiosk mode:

Type "opera.exe /KioskMode" right before the URL, e.g. opera.exe /KioskMode http://myserver/display5showname/d5.php

3. Connect the browser to **http://YOURSERVER/SHOW_NAME/d5.php** - where you replace SHOW_NAME with the path to the show that you created. If you used spaces in the name the spaces will be replaced with the underscore, it will be for example "my_show_1_test". You can look up the path to your show by going to "Manage My Shows > Edit Show Config" and then select the edit button next to your show, to see the show path. Replace "SHOW_NAME" with the actual show path in the URL above.

Linux Players / Android Players

1. Create a start script on your Linux Player, to load a browser, this is usually done slightly differently for each Linux OS - read this guide for an example on UBUNTU

2. You will want your Show to play in full screen mode so the Show takes up the whole screen. For a Linux player, adding --k or --kiosk to the command that starts the browser will make the Show play on the full screen.

a. To start Chrome in kiosk mode:

Type "chromium-browser --kiosk http://myserver/display5showname/d5.php "

Or type "google-chrome --kiosk http://myserver/display5showname/d5.php "

b. To start Firefox in kiosk mode (firefox is also known as iceweasel on Linux): Iceweasel will remember last settings and so if you open the browser then go to tools and make full screen, it will automatically open in that mode in the future. c. To start Opera in kiosk mode:

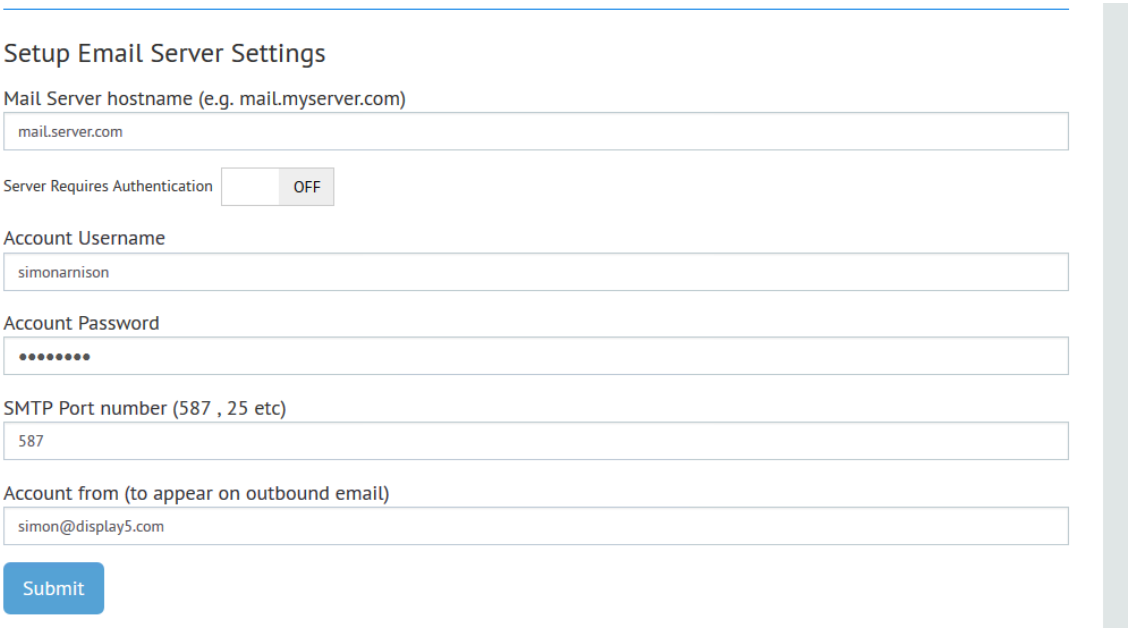
opera -fullscreen http://myserver/display5showname/d5.php

3. Connect the browser to **http://YOURSERVER/SHOW_NAME/d5.php** - where you replace SHOW_NAME with the path to the show that you created. If you used spaces in the name of your show, the spaces will be replaced with the underscore, it will be for example 'my_show_1_test'. You can look up the path to your show by going to "Manage My Shows > Edit Show Config" and then select the edit button next to your show, to see the show path. Replace "SHOW_NAME" with the actual show path in the URL above.

Platform Config - Configuring Email Alerts

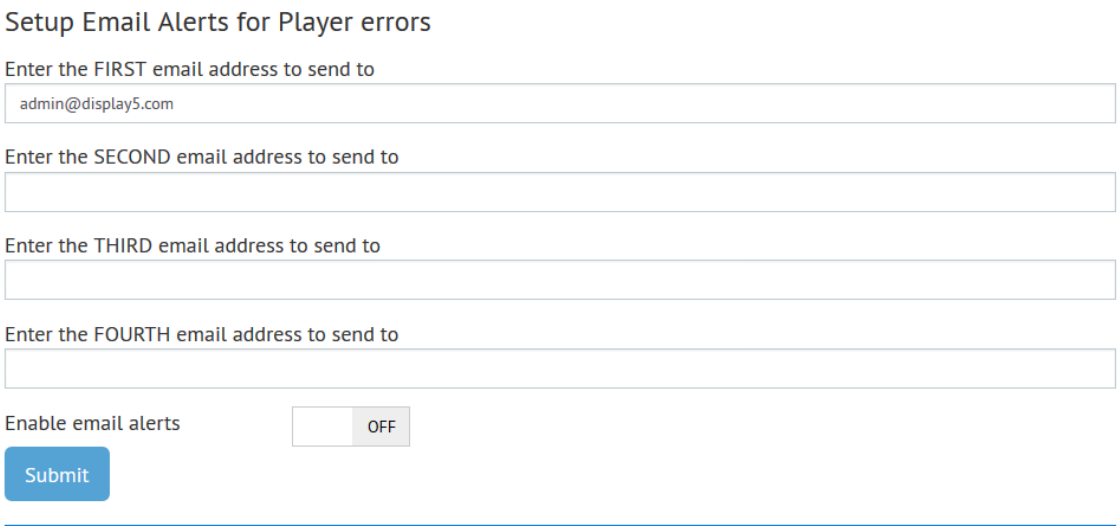
Setting up the parameters first

Display5 uses a simple PHP Mailer library in order to be able to send out emails to a list of designated users when a player goes off line for more than 30 seconds. In order to set up email account information you will need an SMTP server that either does or does not have authentication enabled.



Enter the information in the fields you see above, if your server requires authentication then select this option on and add the user name and password. In addition, you can specify the outbound SMTP port. If you need to enable TLS or SSL authentication then please contact Display5 support.

Display5 has the built-in capability to send email notifications to one or more administrators if any player in the network is experiencing network connection issues or has gone off line for any reason. The configuration of the emails is managed through the left-hand menu option under “Admin -> Additional Items -> Platform Config “. In this screen, you can enter up to 4 separate email addresses for administrators who will be notified of any player problems in an escalating fashion

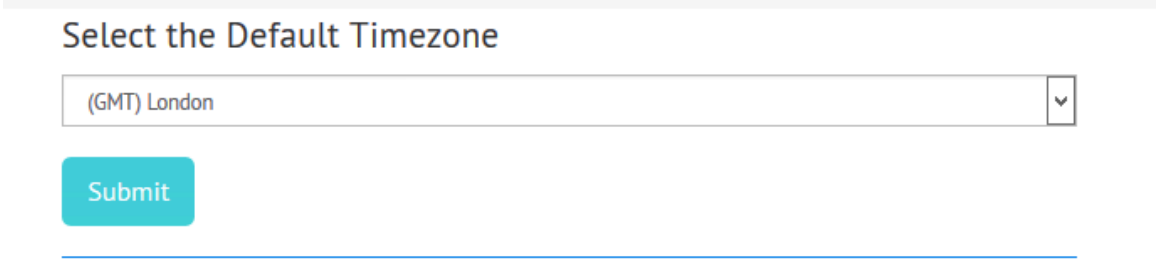


Use the toggle switch to enable and disable email alerts in the system. Email Alert 1 will be sent if a player is offline for more than 30 seconds. There are additional alerts that can be configured for network failures or significant drops in network throughput. For more information on these and how to configure them please contact support@display5.com. If you wish to take advantage of these email alerts please contact support at Display5 to assist you with configuring the mail server services in your PHP and Apache environment.

Platform Config – other options

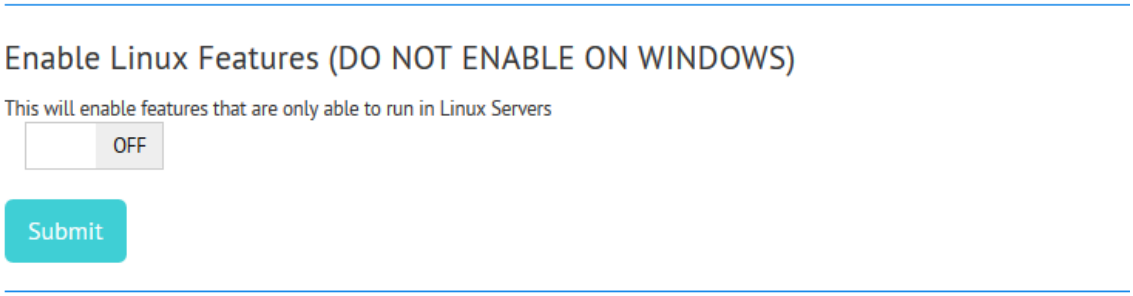
The Platform Config page provides some system specific settings that can be changed for the deployment model of the Display5 server.

Set the Default Timezone for the Display5 server install



This will then ensure that all shows default to this selected time zone on creation of any content. You can change it manually when creating the shows later if you wish

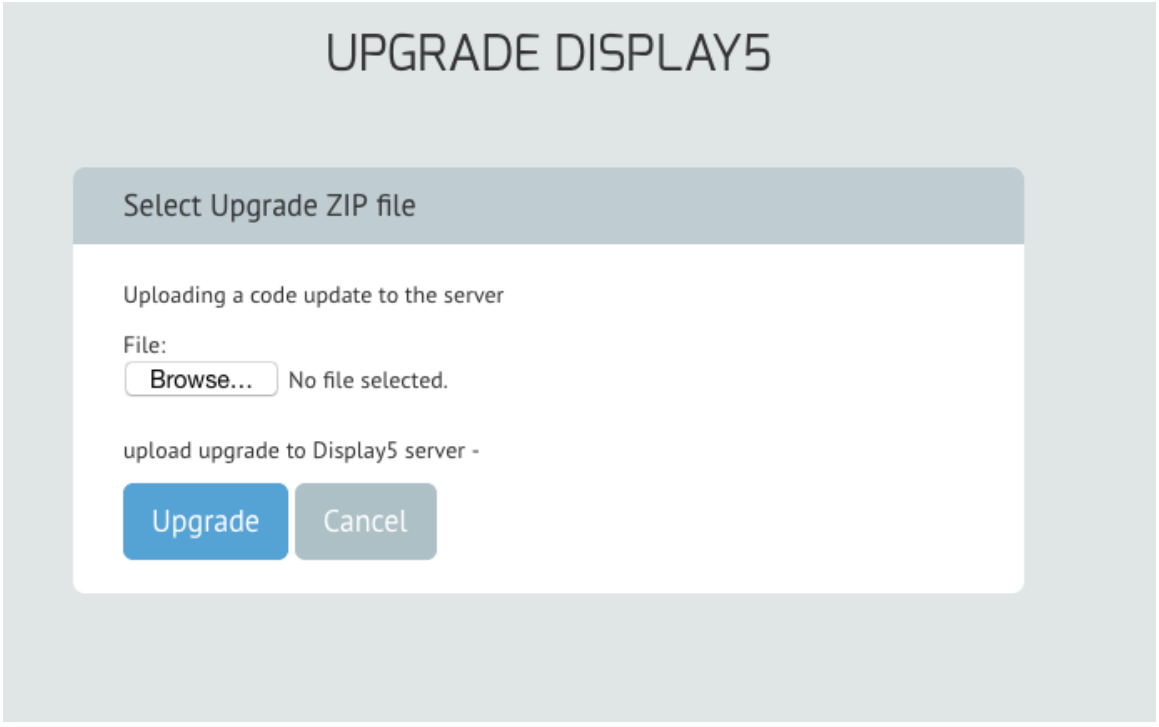
Enable Linux Platform Features



If you are running or have installed the Display5 server in a Linux environment then this switch should remain on at all times.

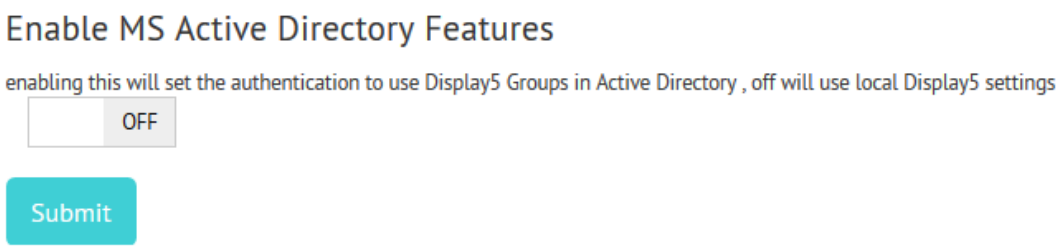
Upgrade Display5 Platform

The upgrade Server button is used to upload a new update code ZIP file to the Display5 server, this is used when you download or are sent a new platform code base file:



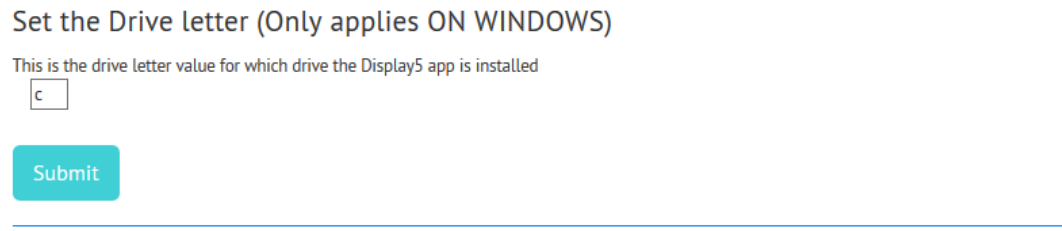
Use this screen to select the upgrade file from your local drive and then upload to the server where the upgrade will be automatically completed.

Enable Active Directory Authentication



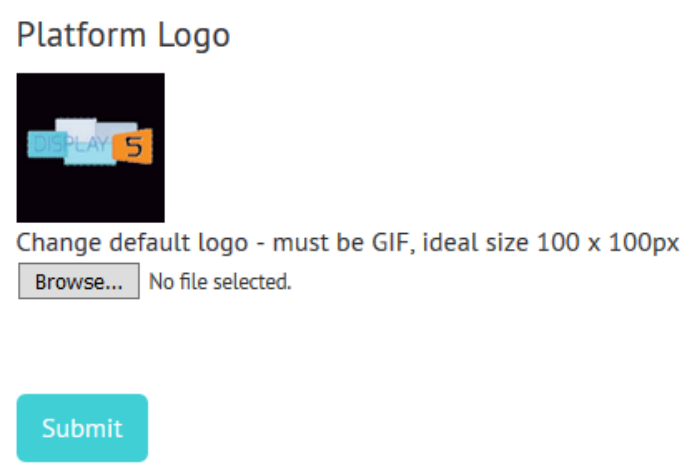
Turning this on will enable the authentication through Active directory groups, as defined in the LDAP configuration later in this manual. Leaving this off when LDAP is configured will switch to local Display5 based authentication levels. When setting up Active Directory you are given the option to set the user permissions level to Supervisor, Content level 1 or Content level 2, when this option is turned on it will look for these access levels in Active Directory as defined by the user being in a pre-defined group.

Set the Drive Letter



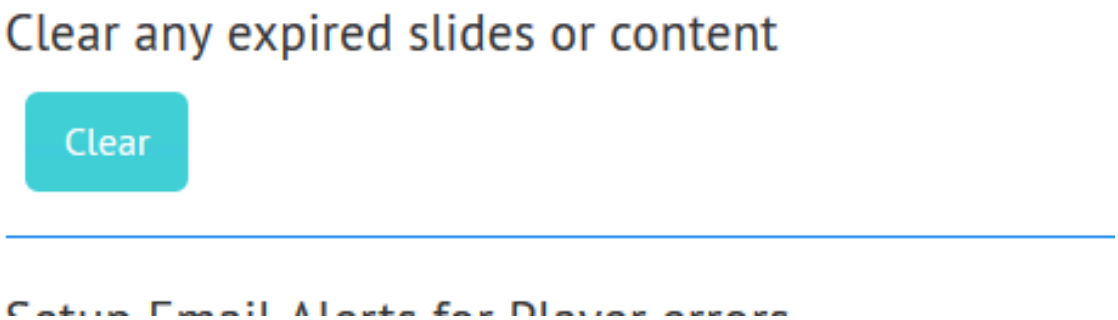
On Windows systems, the drive letter corresponds to where the Display5 server has been installed.

Set the Platform Logo



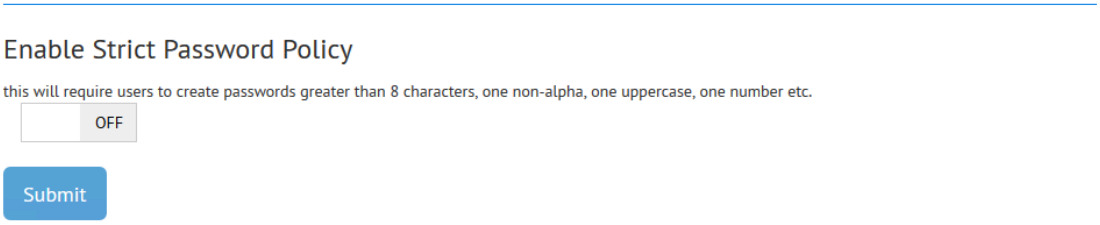
You can select your own custom logo to brand the application for your own organization. The logo appears at top left of the menu in Display5, upload a new GIF file of approximately 100-200 px square.

Clearing Expired Content



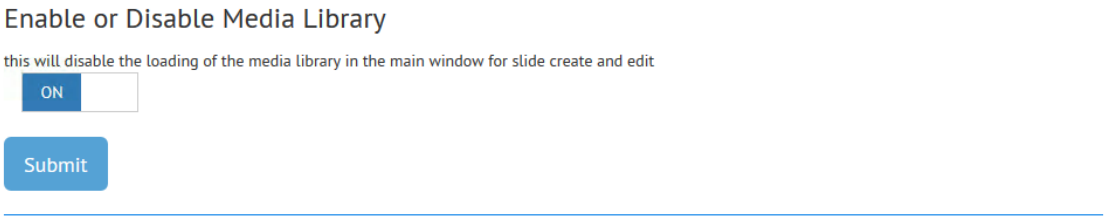
Any slides or media items that you have selected an Expiry date for are purged from display5 using this 'clear' button. The slide and any media in the slide will be removed permanently based on the expiry date. Expiry dates are added when you first create slides, from the Media library in the Dashboard home page, or when you are in the slide list for the panel and open the 'More' menu.

Enable Strict password policy on the server



Turn this feature on if you would like to ensure that users only use and create passwords that are more than 8 characters long, contain non alpha and one numeric and one uppercase value at the least.

Enable or Disable the Media Library

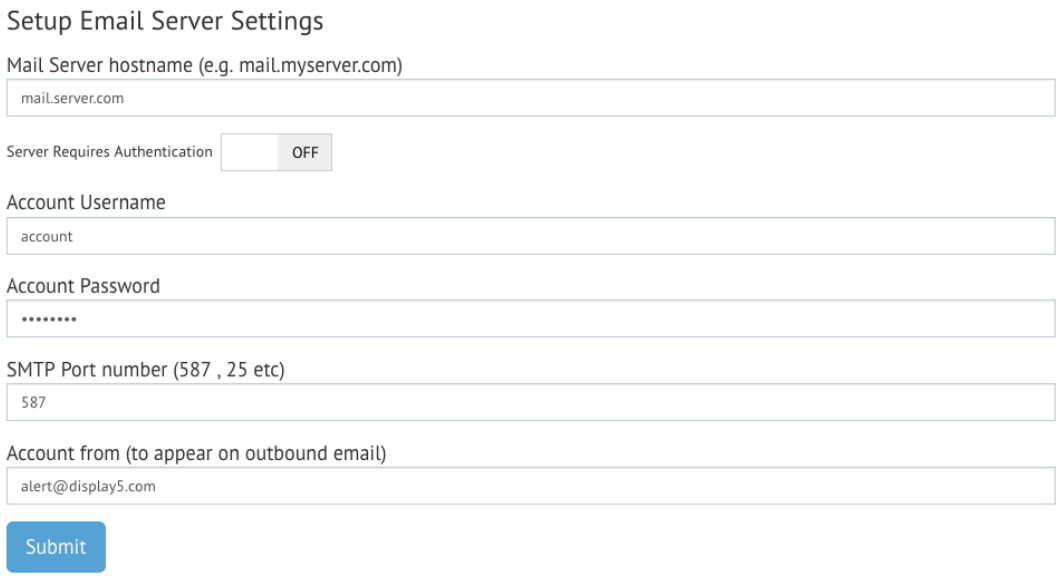


One of the newer features in Display5 is the new Media Library. This is a

comprehensive video, audio and image management solution that is available for the Display content management system. Turning this feature on and off may save on resources when loading slide creation tools as it is possible for the media library to become extremely large, we would suggest however that the feature should be left turned on as it provides significant additional value for the user

Configuring Mail Settings

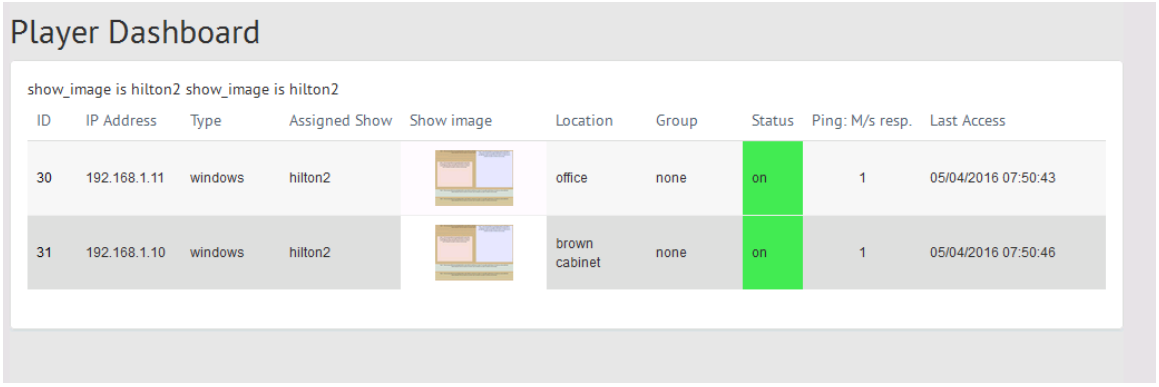
To set up email alerts from the Display5 player dashboard you will need to provide mail server information in order to be able to send messages. Typically, Display5 requires an SMTP Account to be provided so that emails can be relayed



Please provide the mail server address, the email account to be used in the form of an email address (test@send.com) as well as the account password and the port number that the SMTP Server requires. In addition, you can also set the outbound mail account identity as well that will appear in each email. If the server requires authentication then please turn the radio button on, if not then leave this in the off position and do not enter any of the account login information.

The Player Dashboard

Display 5 comes with a Player Dashboard which provides a snapshot of the health of any players that are connected and registered in the Display5 network. The summary dashboard shows the IP Address, Location , network and status of the player in a single screen . The color-coded box on the line shows the health of an individual player based on the last connection time. The Dashboard can be loaded from the left-hand side menu under the “Player Management” item.



As you can see from the fictitious dashboard above there are two windows players active and their status is online or green. If a disconnection of the player occurs the color coding of the status will change from Green to Orange to Red (if the player is off line for more than 30 seconds). The last access time stamp on the right-hand side indicates the last time that the player was connected to Display5 and retrieving content.

You will also noticed that the player shows an assigned show (what it is playing) plus an image miniature of the show, along with location , Group and the speed (PING round robin) of the network connection to the player.

Emergency Management

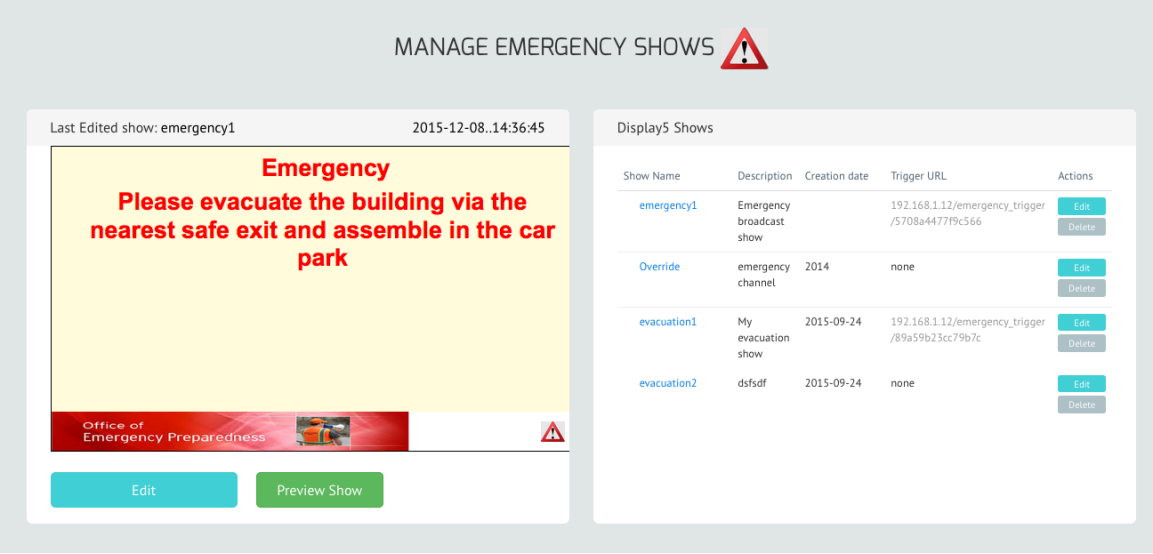
Introduction

Display5 offers a rich and powerful Emergency channel management solution that accompanies and integrates with the Digital Signage capabilities of the product. Emergency shows are essentially identical to the normal digital signage shows except for the fact that they are tagged specifically for emergency use only and are not accessible to non-administrative users. Emergency Shows are designed to 'take over' all or some of the digital signage players that you have connected to the Display 5 server, and can continue to play until the emergency is rescinded or removed. Multiple different emergency shows can be played at one time and they can be turned on and off using the Emergency dashboard in Display 5.

To create an emergency show in Display5 you will click on the "Create Emergency Show" menu option on the left hand side menu, which is under the "Emergency Messages" category in this menu.

Exactly as before for the general digital signage creation process you will be presented with the 3 template methods for creating a show and this is already covered in the User guide for the Display 5 product. The procedure for adding content is exactly the same as for the general digital signage part, which means that your emergency broadcasts can contain mixed media and be any style.

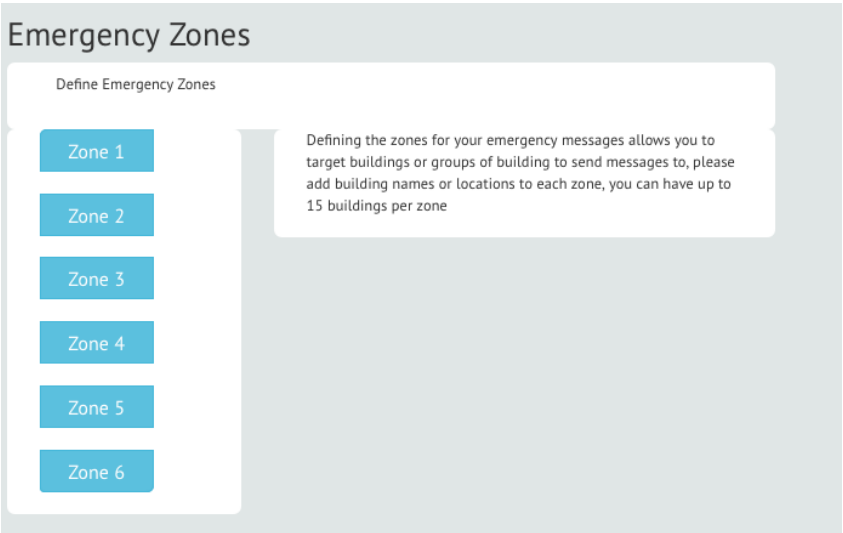
Once you have completed the design of the Emergency show and saved the changes the show will be listed in the Manage Emergency Shows screen which is accessed from the left-hand side menu.



All shows that are designated as emergency will be listed on this screen and from here you can delete or go to edit the properties or content of any emergency show you have created.

Emergency Zones

Display 5 supports the designation or creation of emergency zones that can correlate to buildings groups or geographical areas in your organization. For example, a university campus may be divided into 5 or 6 zones (sciences, campus admin, parking, residences etc) that can contain separate buildings in each zone. To create the zones select the “Define Emergency Zones” from the left hand side menu and you will be taken to a screen similar to this:

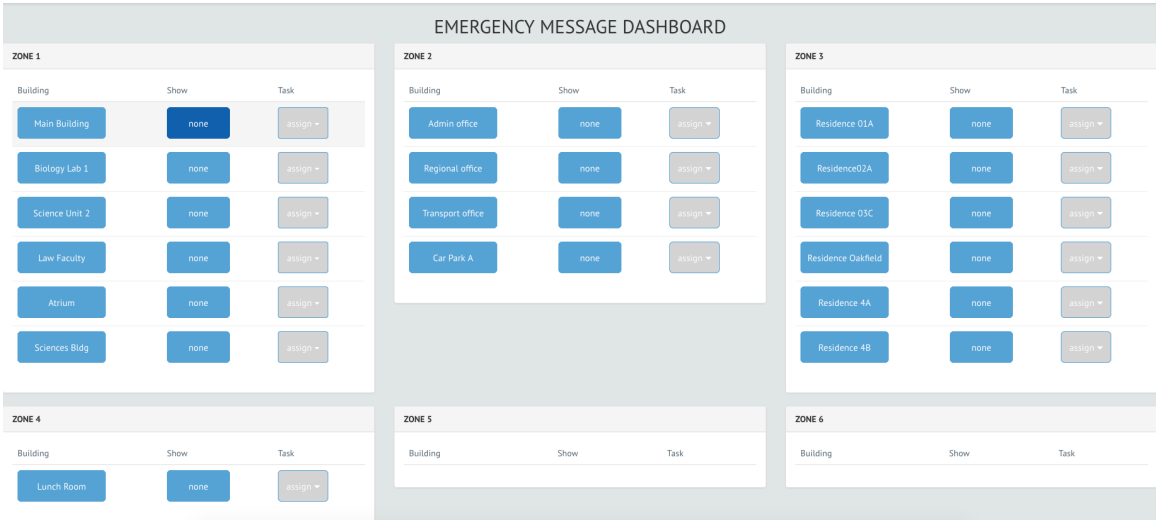


Each of the six zones listed can contain up to 15 buildings or sub locations. To add a new building set to a zone simply click on the zone number and replace the word ‘none’ with the new building name that you would like. Add the buildings starting with location1 and working down to number 15. You can leave the extra fields with the word ‘none’ if you only want to define a smaller number than 15 for each zone.

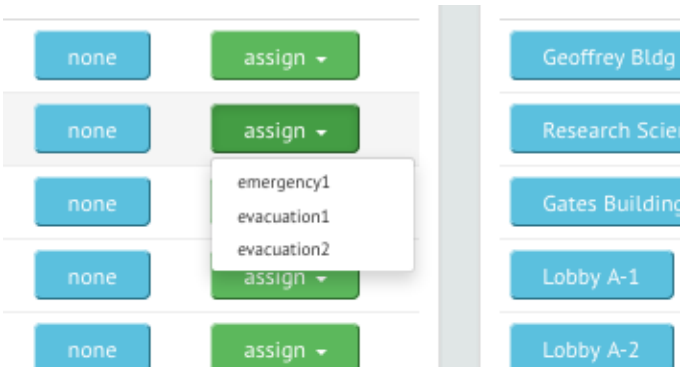
Repeat the same process for Zones 2 – 6 entering the location names for each of the buildings in that zone. It is not mandatory to fill out all of the fields or to define all six zones if you do not have the additional locations. You can always add information later.

Emergency Dashboard

Once you have created all the locations and zones you will now be able to see the complete campus in the dashboard of the Emergency messages, click on the “Emergency Dashboard” option from the left-hand side menu.
You will then see a screen that lays out the 6 defined zones and lists each of the buildings or locations beneath each zone heading



In the example above you will see that there are around six buildings in each zone. The description you entered will appear on the left-hand column, followed by the status of the emergency or emergency show playing – and an Assign button next to each location. The Assign button allows you to directly push an emergency show to ONE location at a time – clicking in this button will open a drop-down list that contains all the emergency shows that you have created:

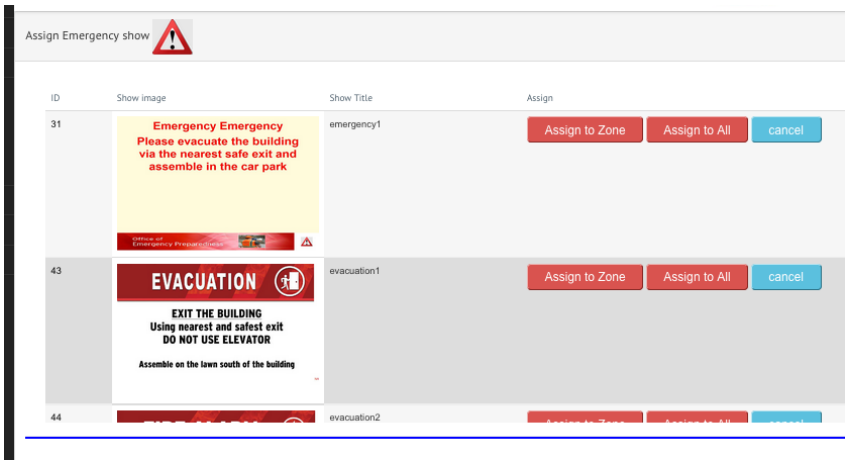


In the example above there are 3 emergency Shows available to push to the location specified. Once you select a show the status or show playing button to the left will change color to red and display the Show that is now playing. The moment that you select this emergency show ALL players that are assigned to that location will now start to display that emergency Show, the change from normal digital signage content to emergency show display only takes a few seconds.

As you can see from the image above the show 'evacuation1' is now playing on the assigned location and its players. To turn off the show simply click on the 'Reset All' button at the bottom of the Emergency Dashboard screen and the button will return to blue again, and all the players will go back to playing the normal assigned or group assigned show.

Sending Emergencies to Zones

If you need to send an emergency show to more than one location then you can click on the "Send Alert" button at the bottom of the screen. This will take you to a new screen that shows all the emergency shows that you have created – with an image of the screen for reference. Alongside each emergency show there are 3 buttons, Assign to Zone, Assign to All and Cancel.



You can now pick the appropriate show and choose to send it to all locations in a zone (or a single zone) or to every player on the Display5 system. If you want to send to more than one zone but not all zones then you can simply repeat the process for each zone that you wish to show the emergency on. Cancel will exit you back to the main Emergency Dashboard.

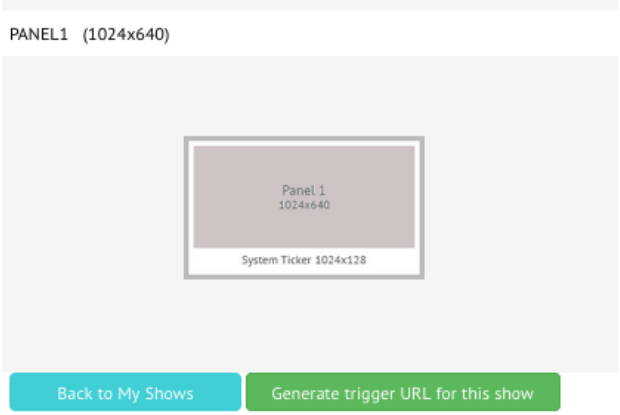
Override Channel

There is a special show in the Display5 program that is built for being broadcast universally on every device, including any administration consoles. This Override show can be edited and altered by you to contain any content you prefer. The Emergency Dashboard screen has a toggle button which will turn this channel on and off when you need. The only difference between this and an emergency show is that this channel will also play on the editor screens as well as the players.

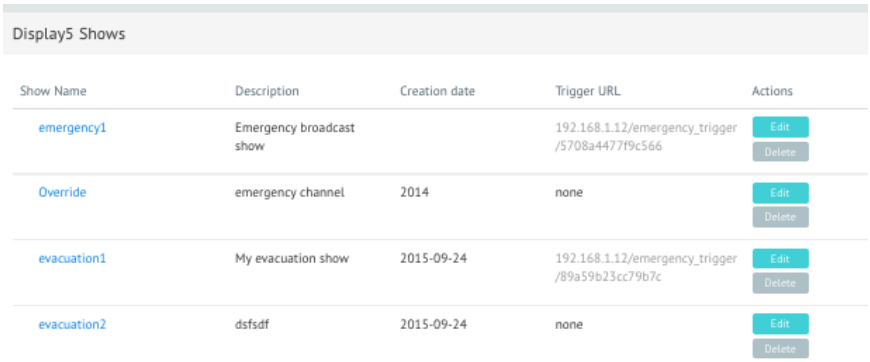
The Override channel is accessible from the Emergency Show Management screen and is listed in the show names

Emergency Channel API

Each emergency channel that you create has the added capability to be triggered by an external application. When you create an emergency Show, you will notice a green button at the lower left below the layout image with the label ‘Generate Trigger URL for this Show‘.



Clicking on this button will generate a random URL path that is uniquely associated to this show. Once you click on this button you will see a pop up which will identify the URL path. The path is also added to the Manage Emergency Shows dashboard. The URL appears in the 4th column and is a link to a further help page.



Emergency Triggers

The Display 5 Program supports external Triggering of Emergencies, you can use this capability to trigger any pre-defined or designed Emergency channel to play on defined players. This feature allows you to use a common HTTP POST/GET method to send commands to Display5 to start and stop emergencies being broadcast. This feature offers flexibility to external developers or equipment manufacturers to trigger alerts within the Display 5 System.

HTTP Post Methods

Display5 allows you to trigger emergencies within the program using common

HTTP POST Methods:

You can force an emergency to play by specifying the Zone or Location in a URL POST to the Display 5 Server. You will have already set up the path to the Emergency trigger , which will be something like

http://yourservername/emeregency_trigger/2734h427234re/index.php

This is the exact URL path that you need to POST the request to , to set the emergency channels on or off.

For example if you wish to target a specific building that you have set up in the Display 5 emergency zone management then you would post the location number to the server along with the zone - for example location=2 zone=1 will set the specified emergency channel playing in location 2 in zone 1 that you have defined.

To send an emergency to an entire zone - you would simple post zone=1 and location = all - and that will switch ALL buildings or sub locations in zone 1 to play the selected emergency message. If you wish to send an emergency to zone 2 - simply send an HTTP POST to zone = 2 and Location = all. If you want to send an emregency to ALL LOCATIONS then simply POST to the URL location = all and Zone = all to the URL provided.

To turn off Emergency channels on the Display 5 Server - you simply need to POST location = none and zone = none and all the Emergencies will then be reset and the players will resume playing their default shows that have been assigned.

Here is an example Page that will send HTTP POST to URL for an emergency channel

```
<form action="emergency_trigger/5708a4477f9c566/index.php"
method="post" >

<div>
<input name="location" value="" type="text" id="location"
required></input>
</div>

<div>
<input name="zone" value="" type="text" id="zone" required ></input>
</div>

<button type="submit" name="submit" value="submit" >Set
Emergency</button>
</form>
```

HTTP Get Methods

Display5 allows you to trigger emergencies within the program using common HTTP GET Methods:

You can force an emergency to play by specifying the Zone or Location in a URL POST to the Display 5 Server. You will have already set up the path to the Emergency trigger, which will be something like

http://yourservername/emeregency_trigger/2734h427234re/index.php

This is the exact URL path that you need to send the GET request to , to set the emergency channels on or off.

For example if you wish to target a specific building that you have set up in the Display 5 emergency zone management then you would construct the URL to specify the location number to the server along with the zone - for example to trigger the Emergency Channel in location 1 , zone 2 you would construct your URL request as follows:

http://mydisplay5server.com/emergency_trigger/5708a4477f9c566/index.php?location=1&zone=2

If you want to set an emergency playing in all locations in a zone you would construct the URL as follows

http://mydisplay5server.com/emergency_trigger/5708a4477f9c566/index.php?location=all&zone=2

To broadcast the message to all zones and all locations you would construct as follows:

http://mydisplay5server.com/emergency_trigger/5708a4477f9c566/index.php?location=all&zone=all

If you want to reset the emergency then use the following URL

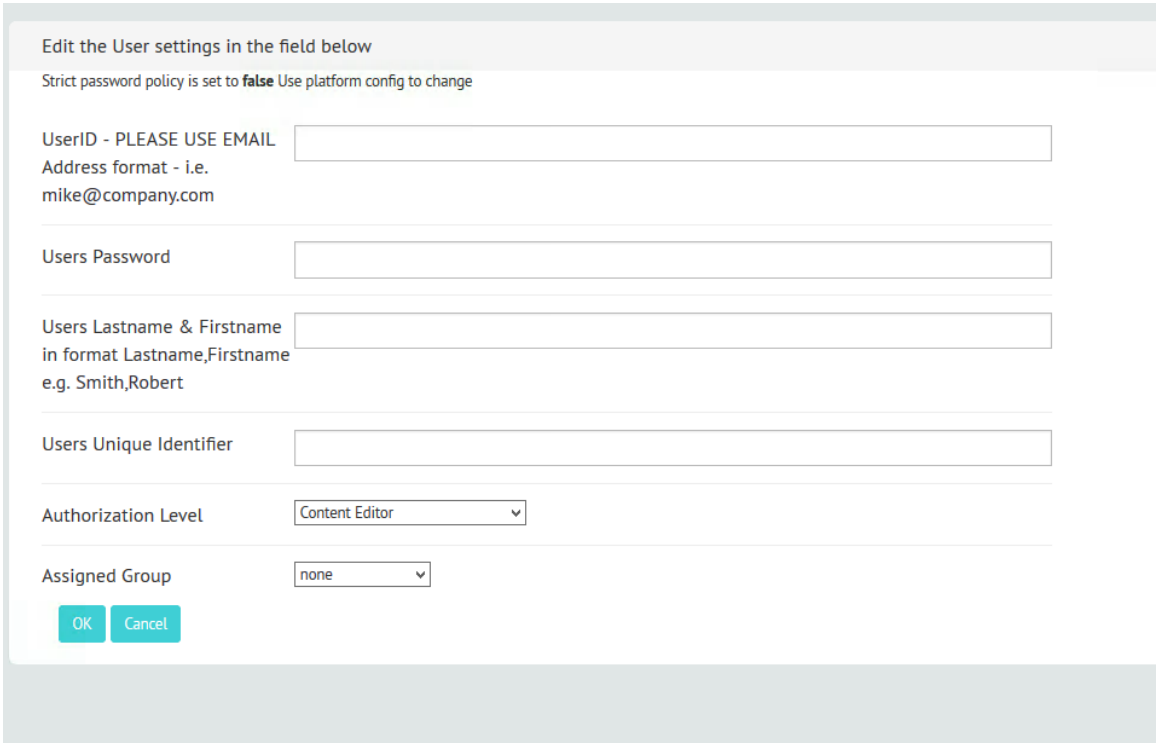
http://mydisplay5server.com/emergency_trigger/5708a4477f9c566/index.php?location=none&zone=none

Users and Groups

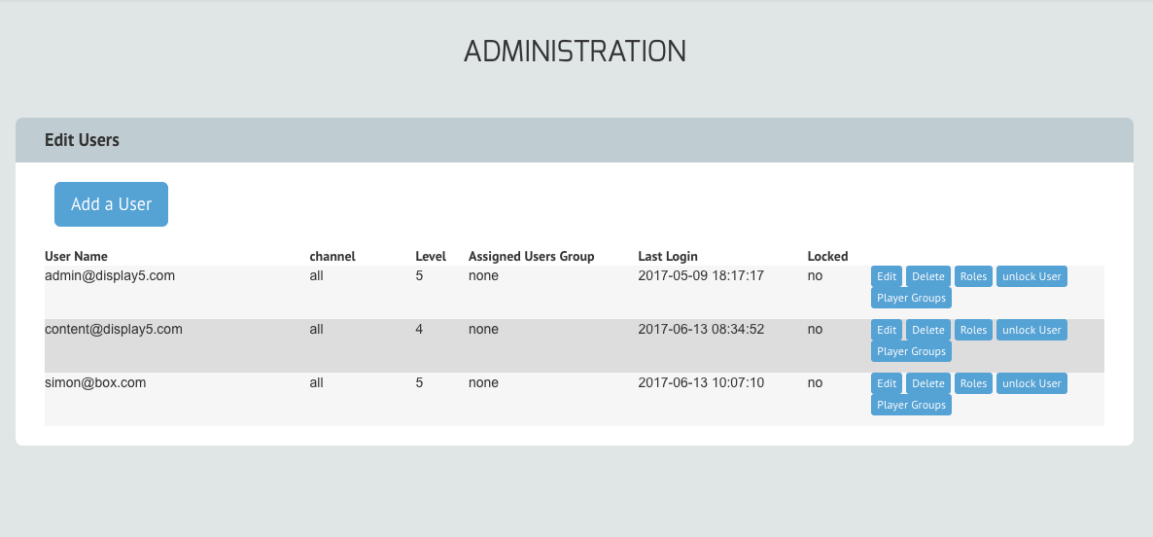
Groups and users in Display 5 can each have editing and publishing rights to show and content within the Display 5 server. In addition to this you can create Administration accounts that are able to access players, emergency messages and integration options such as LDAP

Add a user

To add a new user, click on the 'Edit Users' option under the admin heading on the left-hand side menu. From the top of the screen that loads click on the 'Add a User' button, and you will be taken to a screen similar to this.



Enter the information for the new user id, unique identifier, first and last name and password and then select if the user is to be a content editor only, someone who can edit content and create new shows , or a sys admin who can do everything on the system. If you wish to assign the user to a group then select the group name from the drop-down list (Groups are covered in the next section) and all permissions will be inherited from that group and will be the default for the user. Click OK to save the user information and you should then see the user details appear in the main user screen.

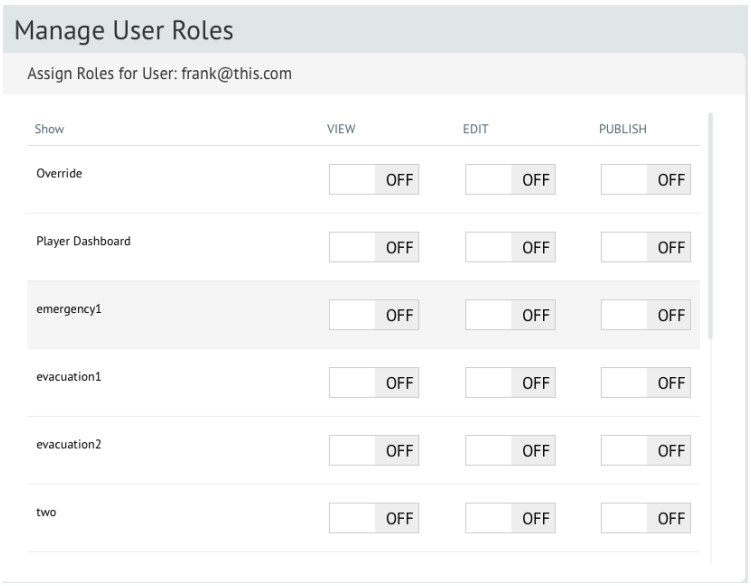


From this main user screen, you can delete the user, change the user's settings or manage the roles that the user has in the system. If you did not assign the user to a group you can now assign the roles for the user. You can also assign Player Groups to the user as well.

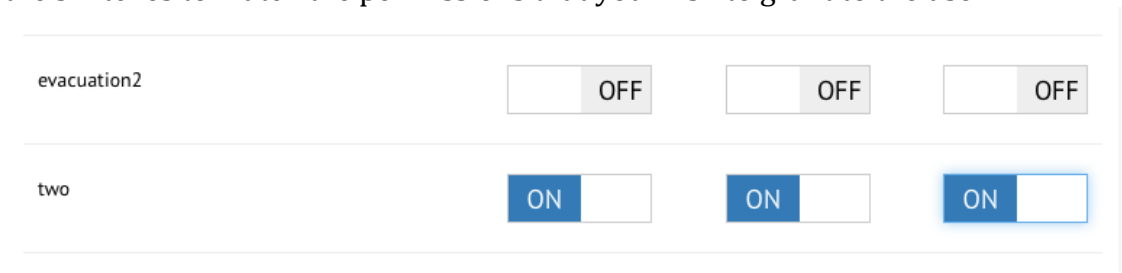
Additionally, display5 includes a lockout capability for users that attempt to login in more than 4 times in a 3-minute period (if you wish to change this option please contact Display5 support). If there has been a repeated login attempt using the wrong password then the user will appear as locked = yes in this listing. To unlock the user, you need to be logged in as an administrator and then select the unlock the user option and the locked status will be revoked.

User Roles (MANAGED BY SYSADMIN)

Click on the "Roles" button on the right of the user details and you will see a screen similar to the following:



You will see a listing of all of the shows that you have created and alongside a set of radio switches that allow you to turn on and off the roles or permissions for each show. The three roles are view only, edit but not publish, and publish. You can flip the switches to match the permissions that you wish to grant to the user.



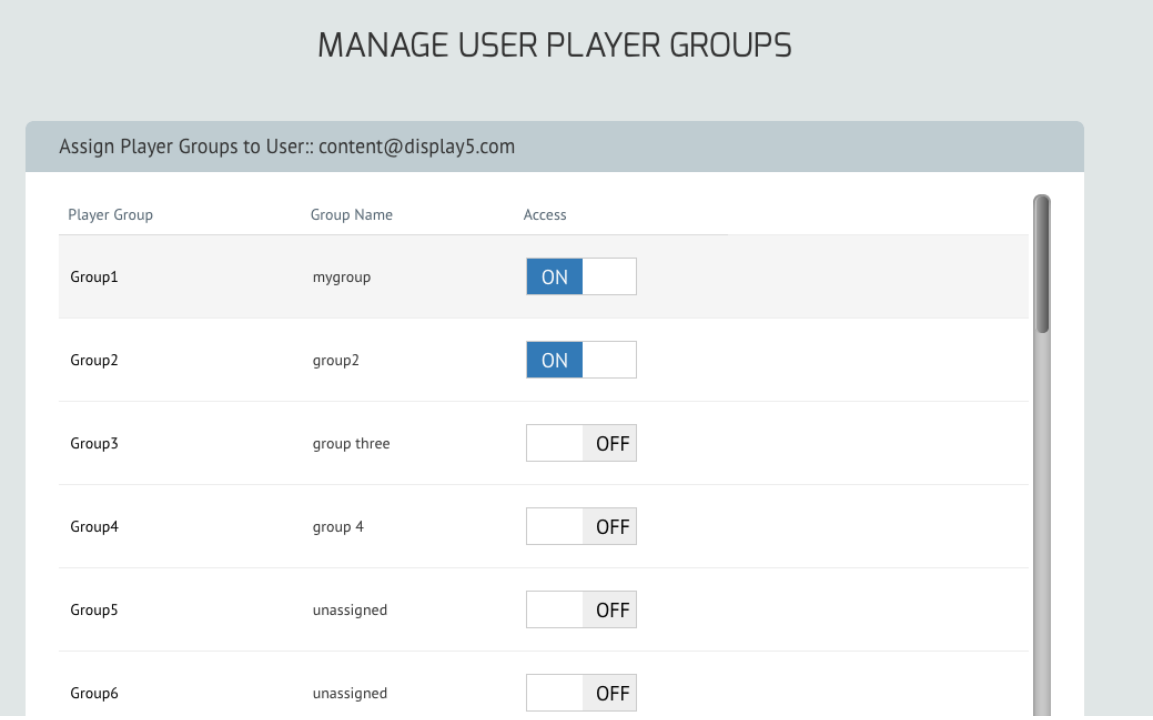
In the example above the user frank is being given the rights to view, edit and publish content in the Show called 'two'. You can change and update the roles for any user in the system using this approach and can make changes at any time within the permissions table. Each user will have their own permissions settings for the shows that you have created.

Note: if you select publish or edit permissions for a user for a particular show , then the system will automatically grant the view permission to the user.

Note: if you create a user that is not a supervisor level then the shows that the user will see will be confined either to those that they have created (If they are content/editor show creator) or if they have been granted view and edit and publish privileges by a supervisor

User Player Groups

In Display5 the administrator can allocate player groups to a particular user so that they can update content onto the players that are assigned to them. Similar to the roles screen the administrator can turn on and off the player groups that are matched to the user.

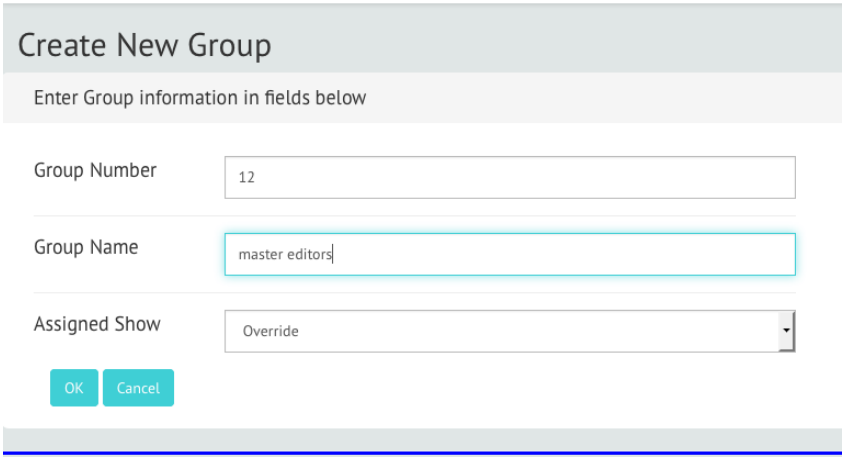


Once a group of players is enabled for the user a button at the bottom of the main playlist screen for each of their shows will appear that will allow the user to go and push or allocate the show to an assigned player group – note – ONLY the player groups that are assigned to them will appear in the list.

Group management

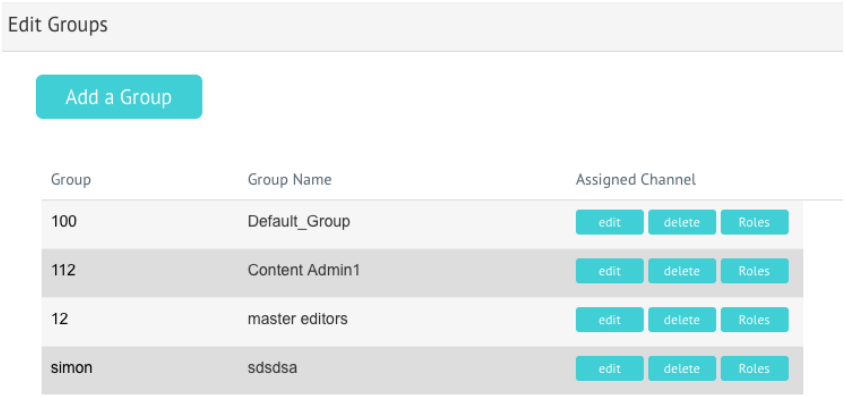
Add a Group

Creating groups is fundamentally the same as creating a new user. Click on the Manage Groups menu option from the left-hand side menu, and at the top of the window click on the “Create a Group” button.

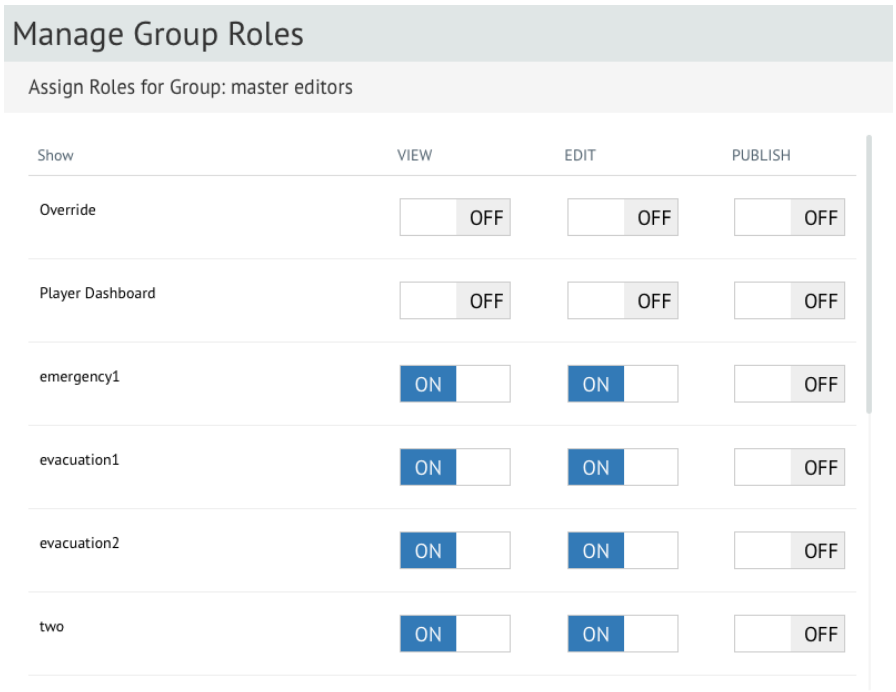


In the screen shown above, enter the number of the group you are creating (for your reference only) and the name of the group, and then select from the list of channels below which is the default channel for the group.

Once you have entered the information click on the “OK” button to save the changes and your new group will then appear in the main groups window.



You will now see the group in the list and you can now go ahead and assign roles for the entire group, by clicking on the “Roles” button to the right of the group name. You will then be presented with a similar screen as for the user roles, the only difference being that you are now assigning permissions for all users in a group or group based permissions.



As illustrated in the image above the group has been view and edit permissions for the emergency shows selected and the show named two. Any user now assigned this group will automatically have access to these shows of the Display5 service.

Deleting a group is achieved by clicking on the delete button on the right-hand side of the group name, if you do delete a group then you will also need to reassign the users that are in that group to other permissions, otherwise the users will no longer be granted access to the content and shows on the Display5 system.

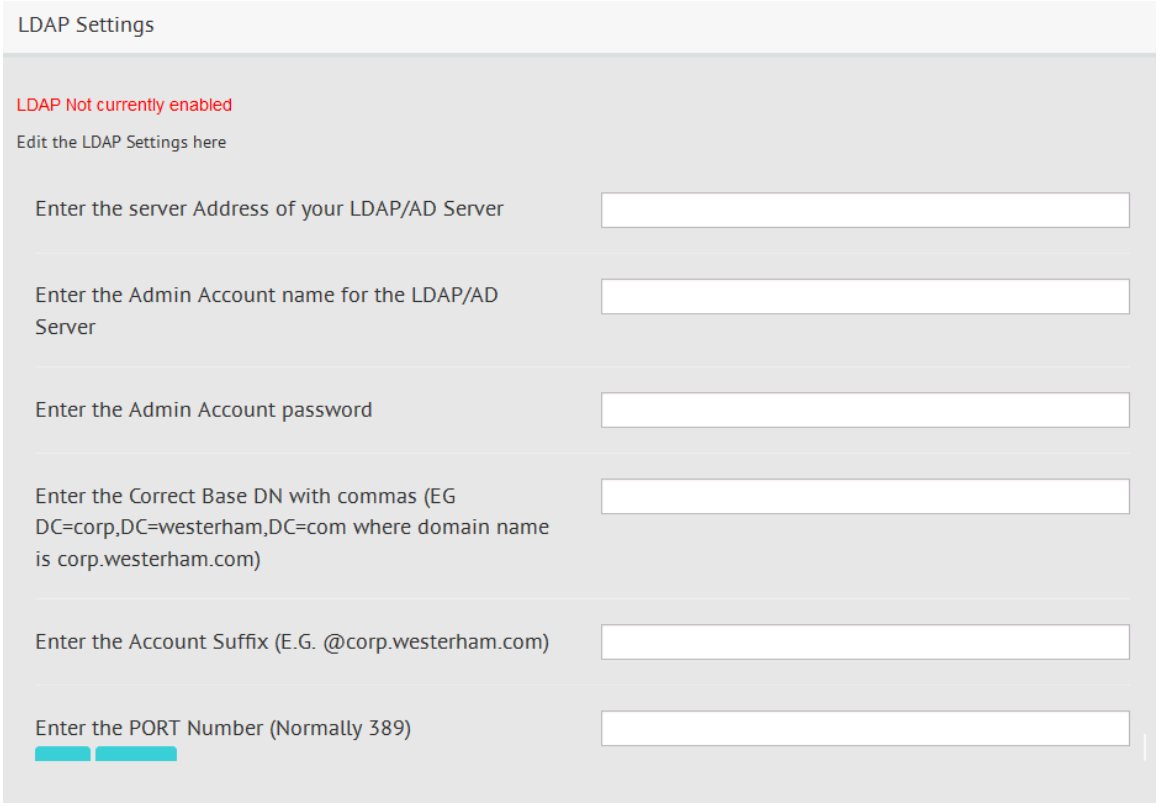
Additional Enterprise Features

In the on premise or enterprise version of Display5 you will find additional playback widgets or integrations. This includes LDAP, QUMU, OMNILERT, Kaltura, JWPLayer and FlowPlayer widgets and more. The following provides guides for these additional features.

LDAP integration

Display5 allows you to integrate the authentication modules with an active Directory system (Microsoft) for authentication of the users. This allows you to maintain a single directory of users and externally manage your policies for authentication and passwords, etc.

To set up an LDAP server you will need to have the credentials available for an administration account.



Enter the address and account profile for the admin user and then enter the Base DN, Account suffix, and port number to be used for authentication.

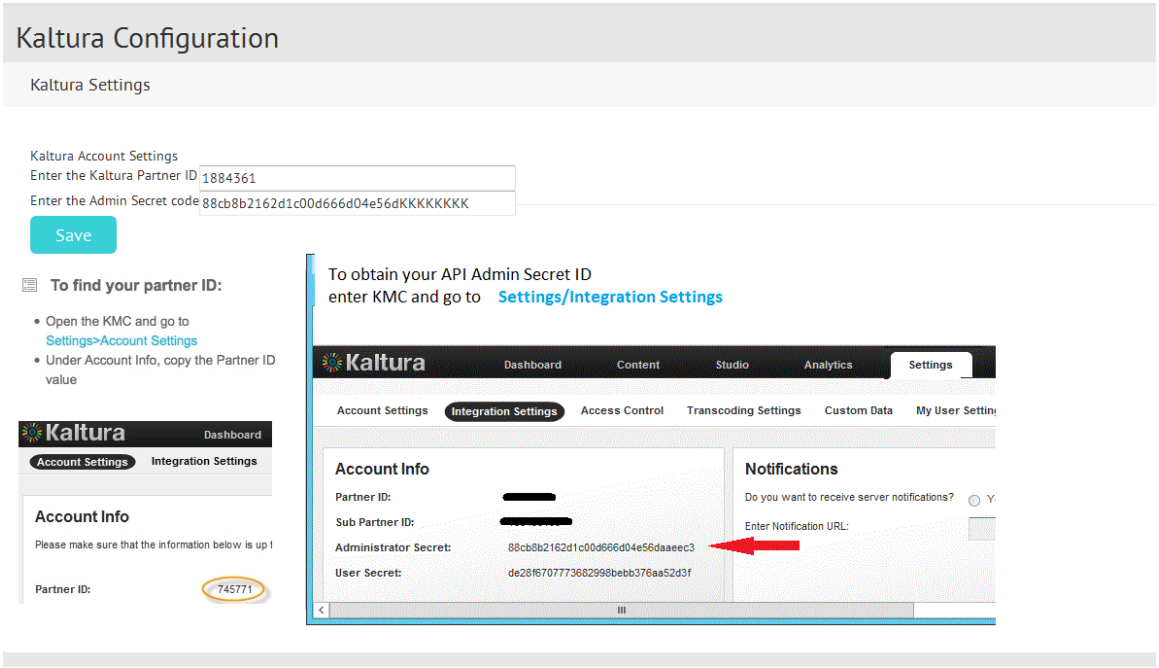
Display5 does also support the group option within the Active Directory. This is used to distinguish between general users, and the system administration users. You will need to create a group called 'display5admin' in your active directory and a group called 'display5content' and then when you connect a user to the Display5 system you will need to assign them to one of the two groups inside the active directory system. Currently Display5 uses the common port 389 – if you have a requirement for the secure port of LDAP (*ports* 636 or 3269) then please contact the Display5 support team for additional modules required to support this.

Widgets

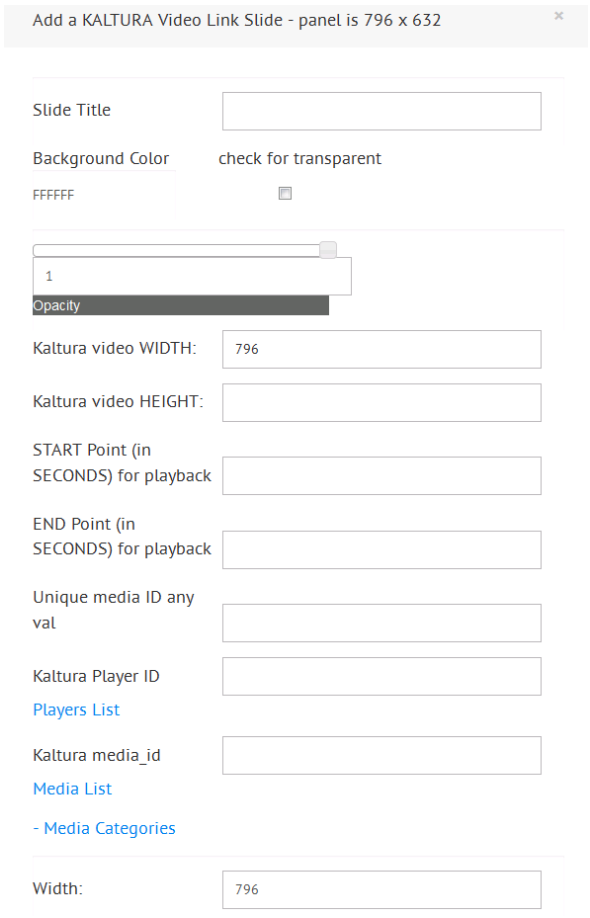
Kaltura integration

Kaltura (www.kaltura.com) is a widely-used Video on Demand (VoD) platform for hosting and managing videos and other media assets. Display5 provides an integration with the Kaltura platform to allow for media browsing, media selection, category browsing and access to the wide variety of players (player styles and skins) for playback in a Display5 panel.

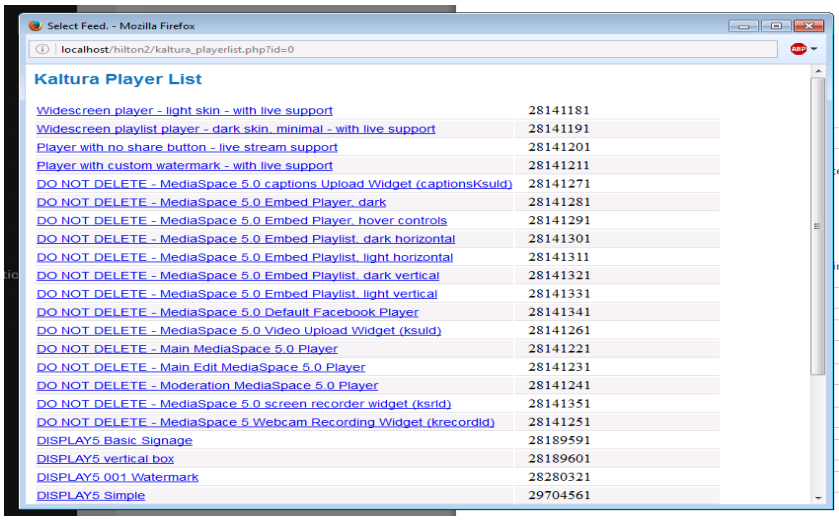
Server configuration – in order to be able to access the Kaltura media you will need to obtain your partner ID and the admin secret code string from within your Kaltura account. Once you have obtained these two values simply enter them into the Kaltura integration form and click on the "save" button to store the information. You will only need to do this once. These credentials will then be used to access your account (there are screen shots to show you where to get this information from the Kaltura Dashboard)

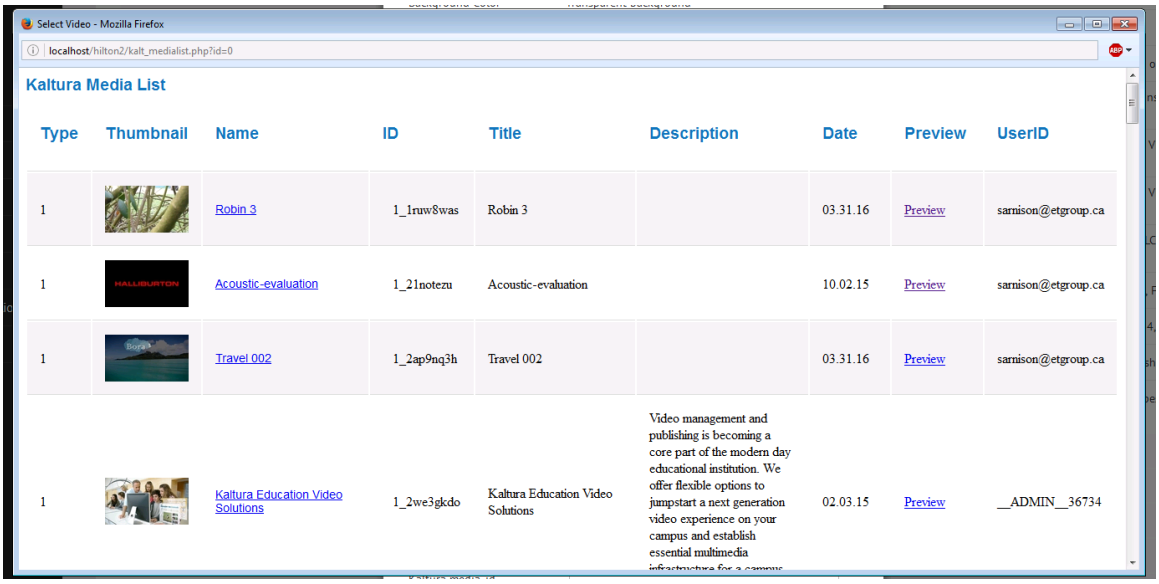


Once these credentials are added you will be able to click on the slide add Kaltura button to add a Kaltura media slide.



The Kaltura slide creation panel provides you with several pop-up windows for browsing the media library, accessing your player lists and accessing the categories for your media. Click on the links to open these windows. Below you can see the players list and the media list below.





click on the media item from the list and the unique ID will be copied to the pop up panel. You will need to enter a unique ID of some kind (random string) so that the Kaltura platform can track the playback or use of the media item. You can enter any string you like for this. Now you can set the playback start and end point, the media size, the duration, background color etc.

JWplayer Widget

Display5 provides an integration with the open source JWPlayer system that is a very versatile media player (www.jwplayer.com). JW Player is a full-featured HTML5 video player that uses on-the-fly media provider selection to render online video. Full functionality (playlists, skinning, scripting, etc.) is supported on all the popular desktop browsers and mobile devices. JW Player is tested on the world's most popular desktop browsers to ensure the best playback experience for viewers. From IE9 to the latest version of Chrome, on Windows and OS X ensure that any user can watch content. JW Player always selects the best playback mode for media behind the scenes.

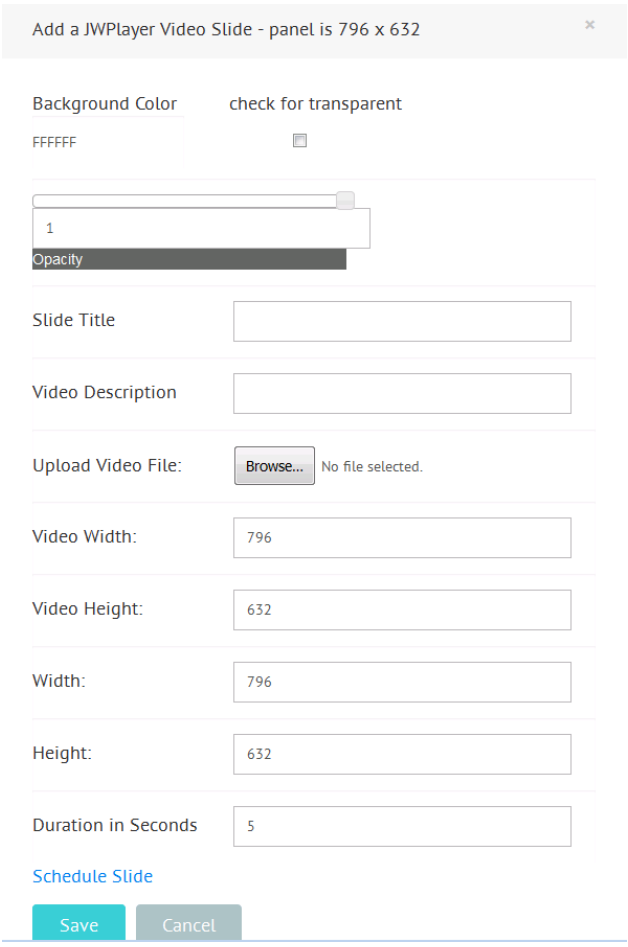
JWPlayer is a GitHUB based open source player and the implementation within the Display5 program is the open source version. For more advanced features you will have the option to purchase a site license for the commercial version of the player. The Opensource version does not support Live streaming and limits the range of supported files that are able to playback. However the implementation within Display5 will allow for MP4, WebM and Flash video playback. The more advanced versions can also support the following audio and live streaming formats:

Desktop Browser Support

Browser	Video	Audio	Flash Streaming	HTML 5 Streaming
Chrome	MP4, FLV [4], WebM	AAC, MP3, Vorbis	HLS [1,4], RTMP [4]	DASH [2]
Internet Explorer [3]	MP4, FLV [4]	AAC, MP3	HLS [1,4], RTMP [4]	DASH [2]
Firefox	MP4, FLV [4], WebM	AAC, MP3, Vorbis	HLS [1,4], RTMP [4]	-
Safari	MP4, FLV [4]	AAC, MP3	HLS [1], RTMP [4]	DASH [2], HLS

1. HLS on desktops requires **JW Player Premium**
2. DASH supported on Chrome 23+, Internet Explorer 11+, Safari 8+
3. Requires Internet Explorer 9 or higher
4. Flash 11.2 or higher required

To add a JWPlayer widget to your show click on the JWPlayer slide create option



Then enter the slide name, choose the video file (supported formats are webM, MP4 and Flash) and then ever the video dimensions and select the save button to store the slide and add to the playback list.

Note: One big advantage of the JWPlayer widget is that it does NOT require a plugin to be added to the browser, making the solution able to support a wide variety of browser versions and not imposing additional requirements on IT security

FlowPlayer widget

Display5 Enterprise version includes the additional widget from FlowPlayer. Flowplayer offers an Open Source media player that does not require a plugin to be added to the browser. The FlowPlayer implementation in Display 5 is the non-commercial open source version, there is also a commercial version available that provides additional features and may be used with Display5 as well.

Video formats

Flowplayer supports playback of the following video formats:

format	type	delivery protocol	flowplayer engine
HLS	application/x-mpegurl	HTTP	html5
HLS	application/x-mpegurl	HTTP	flash
WebM	video/webm	HTTP	html5
MP4	video/mp4	HTTP	html5
MP4	video/flash	RTMP	flash
OGG	video/ogg	HTTP	html5
FLV	video/flash	RTMP	flash
MP4	video/mp4	HTTP	flash
FLV	video/flash	HTTP	flash

The `type` column shows the source `type` property to be used in the configuration of sources. It is the same as the mime type the server should use for delivery of this format, except for video/flash which flags the source for the flash engine.

Discouraged format and delivery combinations are marked in red.

- OGG format: Its video codec has a low quality/bitrate ratio because development has stalled since years. In the extremely unlikely case a legacy browser not supporting WebM but OGG is encountered, chances are that its HTML5 video implementation is still buggy and it is better to fail over to the Flash engine.
- FLV format: By definition (**Fl**ash **V**ideo) can only be played in Flash mode. Use MP4 instead, which gives a much higher quality/bitrate ratio.
- HTTP delivery of MP4 (or FLV) to the Flash engine: Seeking until the end of the video is not possible before the complete video is buffered (progressive download). See also the section on server side setup.

NOTE: the FlowPlayer implementation in Display 5 is ONLY for Live streams and not file playback.

You can use the FlowPlayer widget with a wide variety of browsers as there is no plugin required. This includes Safari, IE, Firefox, Opera and Chrome. FlowPlayer includes a Flash engine fallback as well – which does require you to have Flash installed on the browser.

The Flash engine is chosen to play a source if

1. the tested video source cannot be played as HTML5 video by the browser and
2. the tested video type can be played by the Flash engine and
3. the `engine` source option for this source is not set to a value other than "flash" and
4. the Flash plugin is enabled in the browser

or if

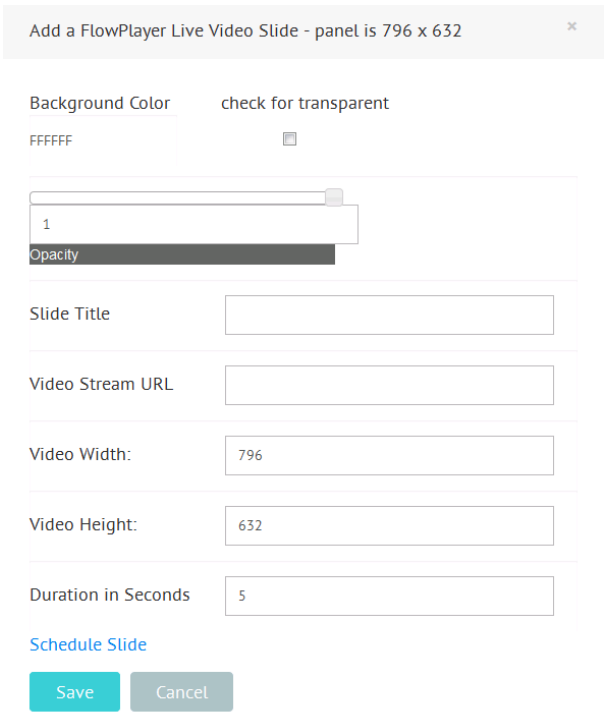
1. the `engine` source option for this source is set to "flash" and
2. the Flash plugin is enabled in the browser

The Flowplayer Flash component requires Flash version 9.0.0. Flash supports playback of the MP4 format since version 9.0.115. Consider it safe to neglect offering a FLV source as fallback for ancient Flash.

The Flash engine supports playback of the following video formats:

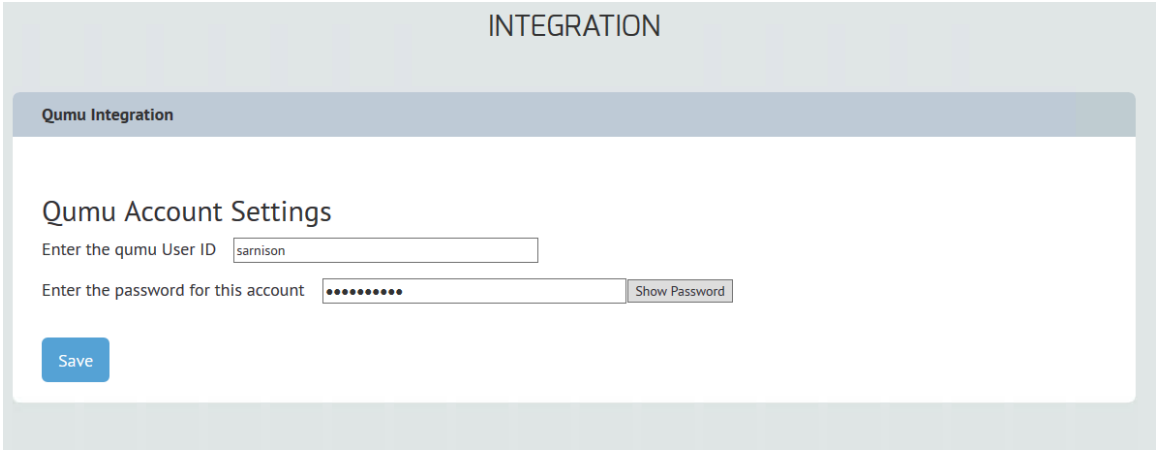
- HLS
- MP4
- FLV

To add a live stream FlowPlayer slide to your Display5 show simply enter the Video Stream URL in the input field (e.g. http://static.france24.com/live/F24_EN_LO_HLS/live_web.m3u8). Set the size and BG Color etc. and then click save to store the slide in the playback list.

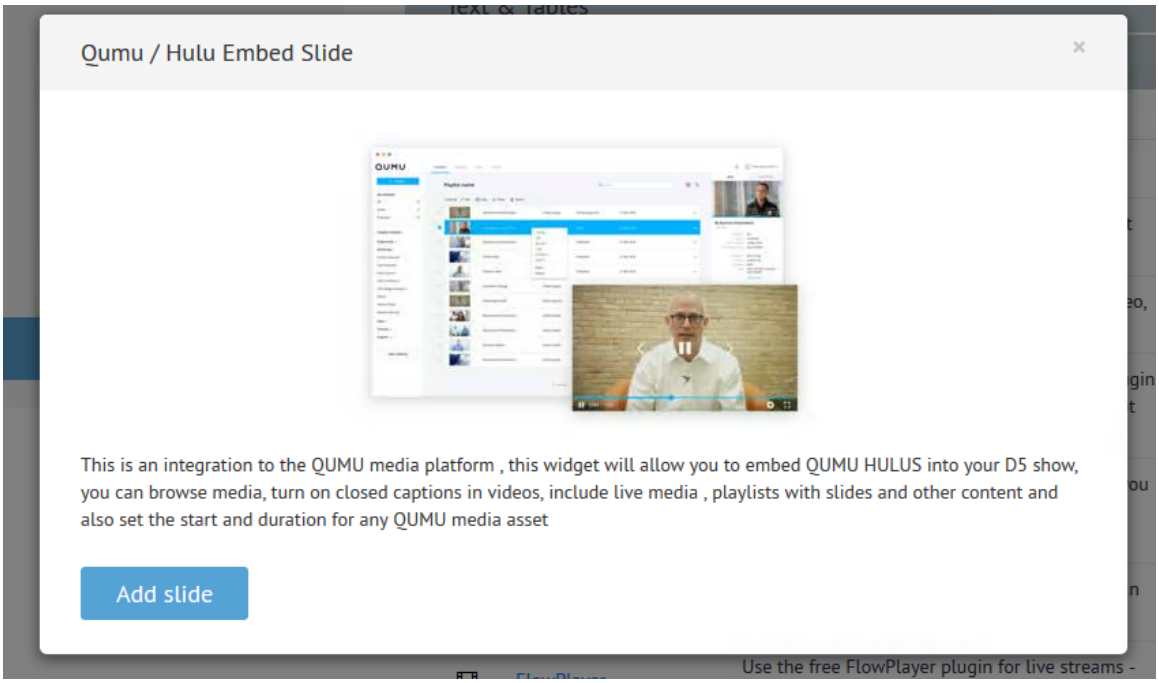


Qumu Integration

Display5 supports complete integration with the Qumu video on demand (VoD) platform. You can play videos, live events, audio and other media assets in the Qumu library on the Display5 screens.

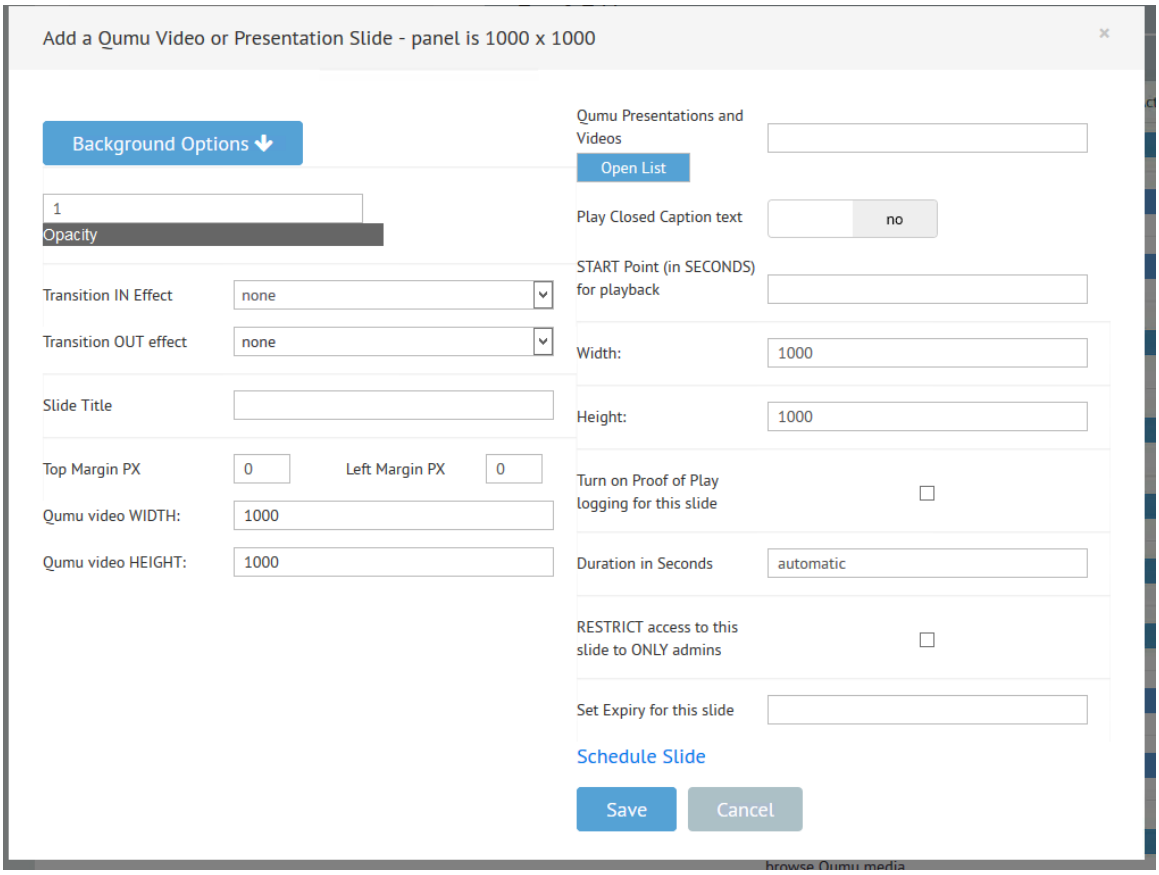


Obtaining a username and password for your Qumu account all you need to do is enter these values in the Qumu Integration interface and from that point on all Qumu video assets will be available to import into the Display5 shows.



You will be able to browser all your Qumu assets, search by metatags, and embed the Qumu item into a Display5 playlist.

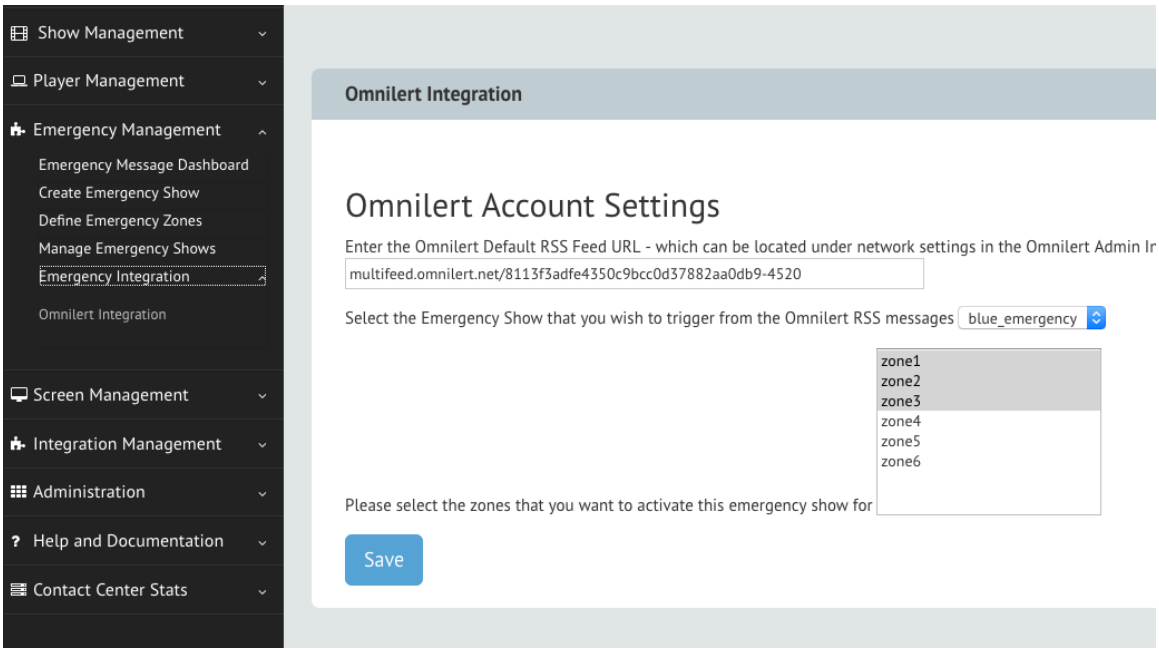
You will be able to enter a start point in the video from which it will play, you can select if you would like to see closed captioning in the video, enter a duration to play, and set up proof of play



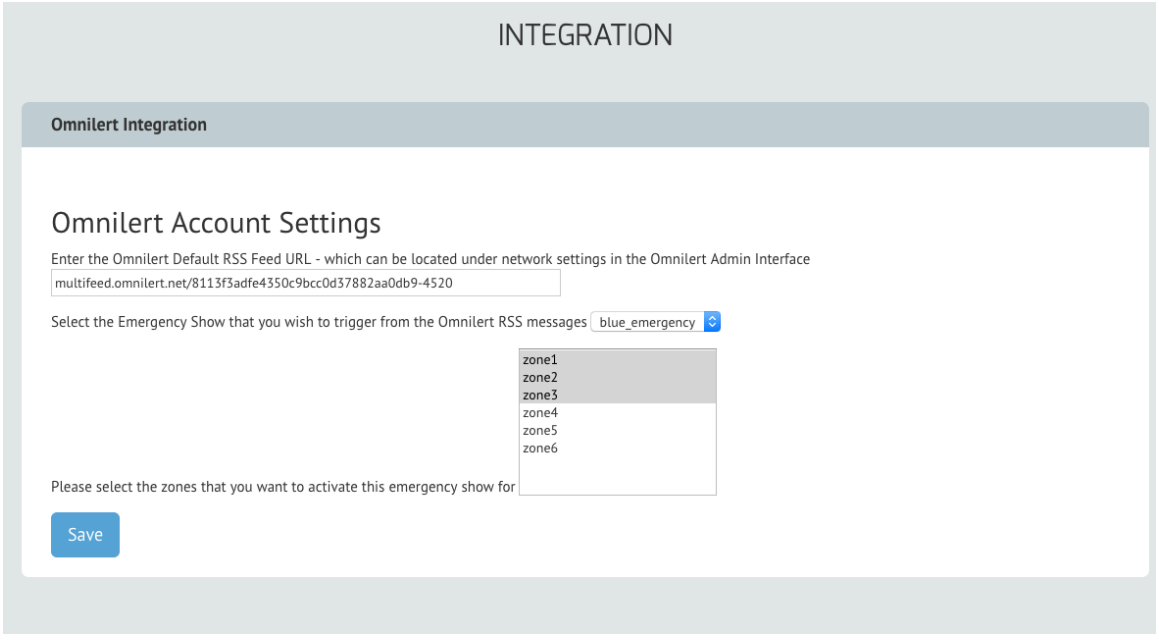
The duration of the video is automatically calculated for you and rounded up to the nearest second. You can also set transitions, backgrounds, sizes and expiry dates for the content.

Omnilert Widget

Omnilert is a new addition to the Display5 platform and offers a powerful way to add emergency messaging to a Display5 show. www.ominlert.com you can find more information here on the solution. Select the Emergency options in the left-hand menu of Display5 and then navigate to 'Emergency Integration' in the menu in order to open the configuration screen

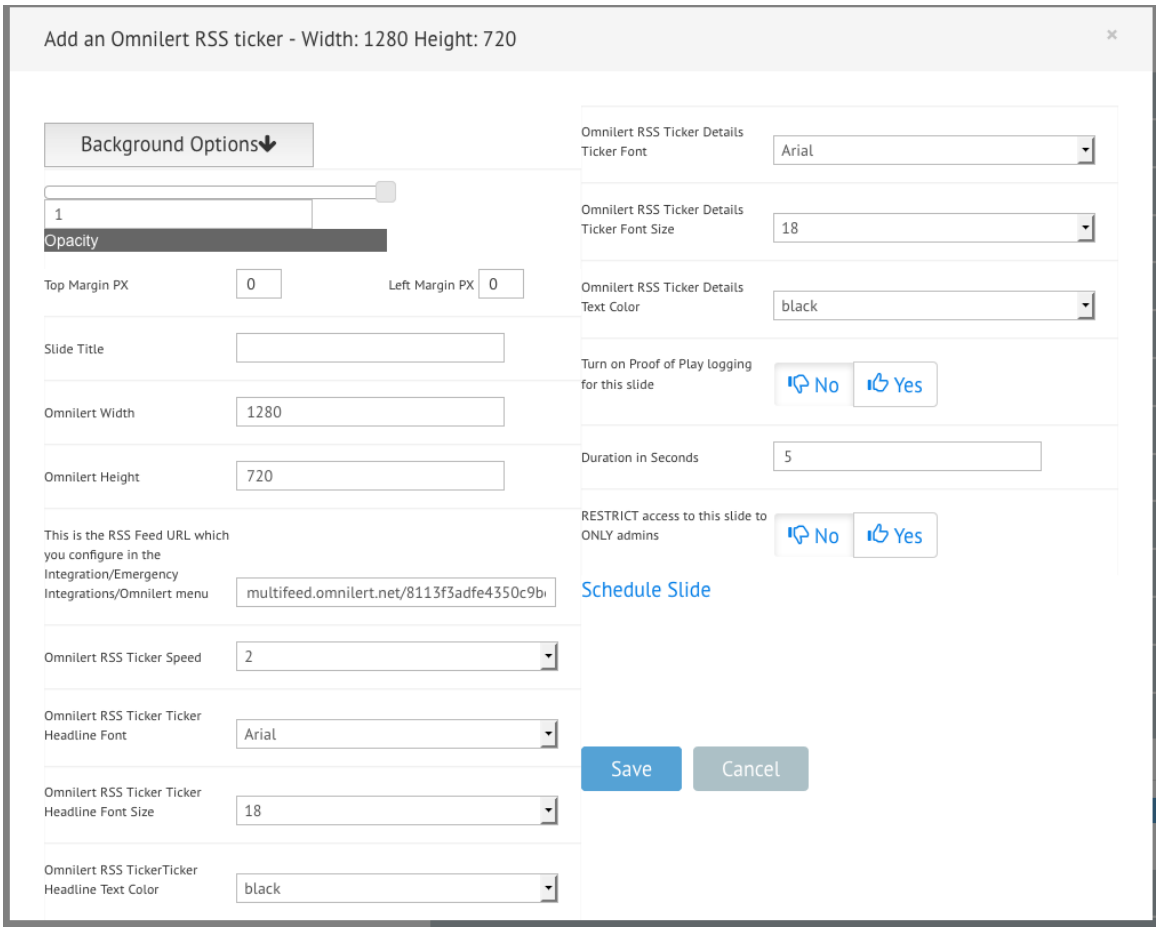


To configure Omnilert you will need an Omnilert account and you will need to obtain the RSS feed URL for your message services to add to the Display system. In the screen above and below you can see the RSS feed URL has been entered and then the show that will be triggered when an Omnilert Emergency occurs, and below that the zones (emergency) that will be activated when that emergency occurs.



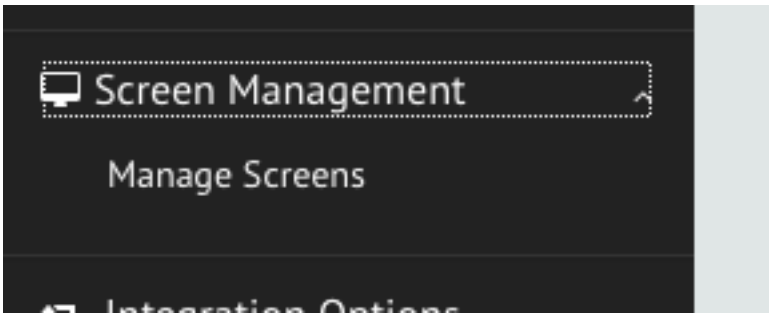
The widget for the Omnilert messages is added like all the other Display5 widgets. The user can enter the font size, color, family etc., for the message for both the headline and the contents of the emergency message. The background for the

Omnilert message is transparent by default allowing you to place the emergency messaging on top of other content when an emergency occurs. Note that the URL for the RSS feed is automatically added to the widget settings based on the properties you entered above.

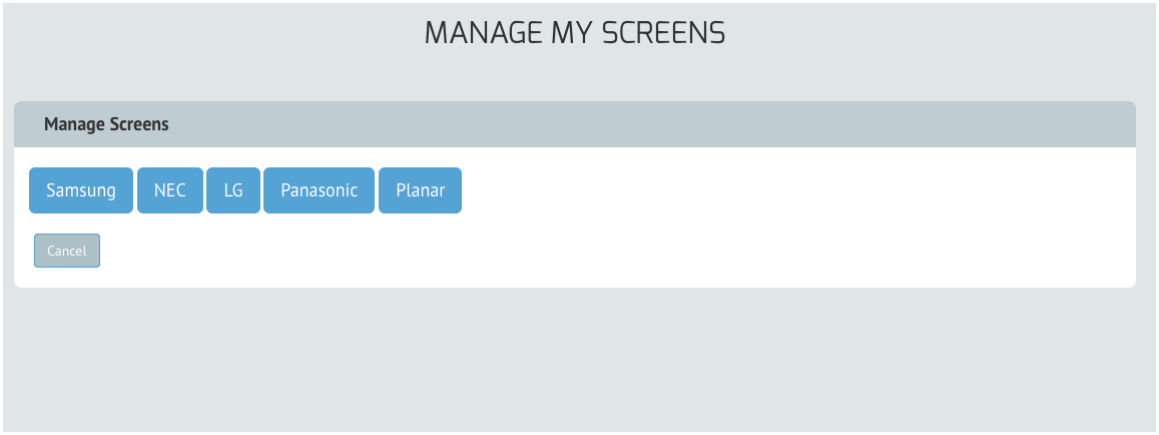


Screen Control

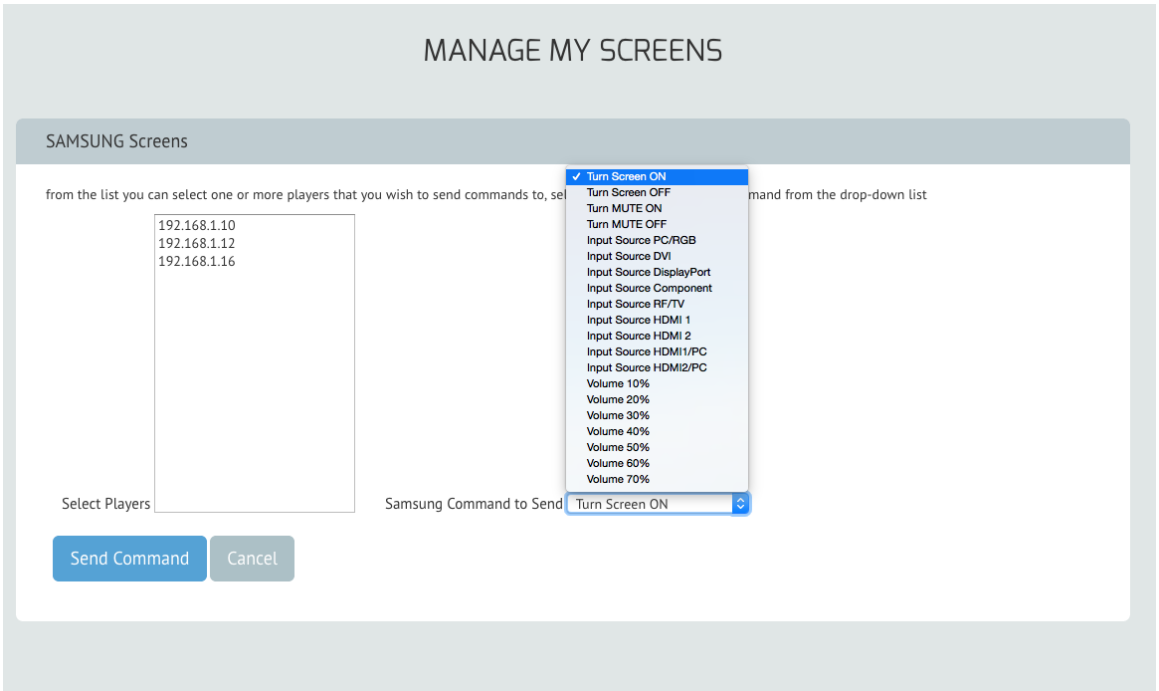
Display5 includes a module to be able to manage screens that are attached to a player in the network. From the left-hand menu select the Screen Management - > Manage Screens option.



This will then open a screen showing the vendors screen models that Display5 currently supports.



Once you select a manufacturer you will be presented with a list of all the players that are connected to your network. This is a multi-select list that will allow you to highlight the players that you want to control that have that type of screen attached. Then from the menu to the right you can select the HEXADECIMAL command to send to the player to relay to the screen via serial.



In the example above you can see a list of commands that can be sent to the player for controlling a Samsung Screen.

Configuring the player to receive commands

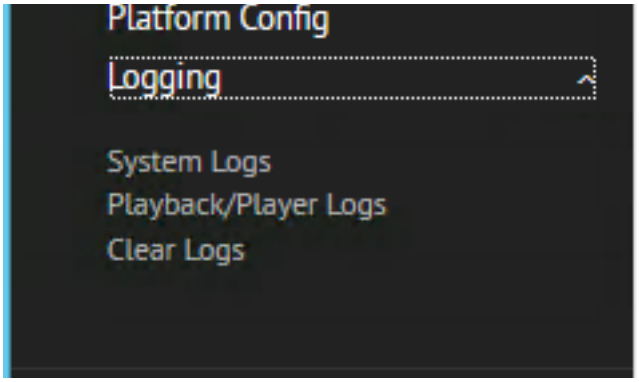
In order to make the screen control commands work on the player you will need to install an application on the player that supports the translation of a command (HEX) sent over the network to a TELNET service running on the player, into a command that can be sent via a Serial or USB cable to the actual screen.

We have tested on Windows an application called PIracom (http://pira.cz/show.asp?art=piracom) this is a FREE opensource program that allows for Telnet received commands to be sent to a serial device attached to the PC. This has been tested on Windows 7,8 10, Server and Vista and works well. You can set the program to run in the background on the PC if required. Documentation is provide in the link in this paragraph.

For Linux based players there are applications such as the serial Server that can achieve the same thing (http://www.serial-server.net/serial-over-ip/)… There is also the freeware project called PySerial (https://github.com/pyserial/pyserial) which is a similar solution to piracom.

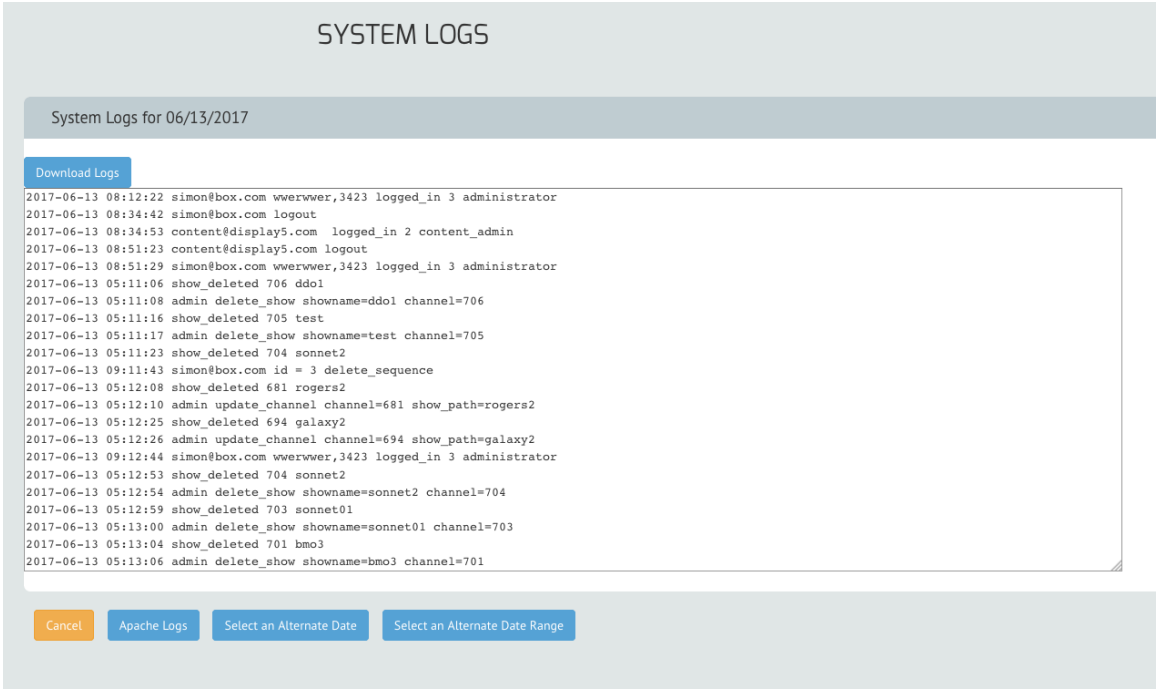
Display5 Logs

Display5 comes with a range of logging services to track the access and activity on the Display5 server and to also track the playback of slides or media items through the proof of play option for each slide. From the menu you can select system logs, playback logs or log purging.



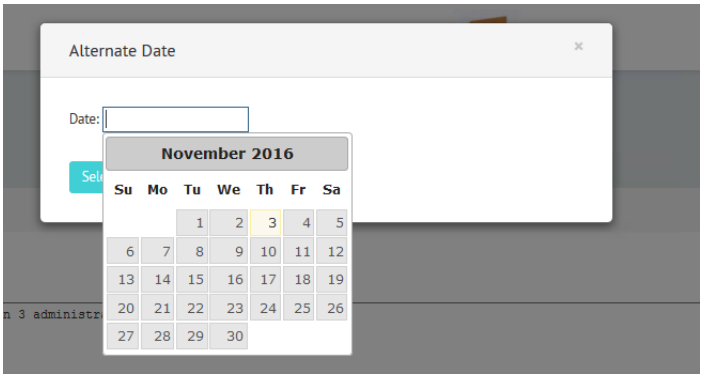
System Logs

Selecting System Logs will open a new window like this:

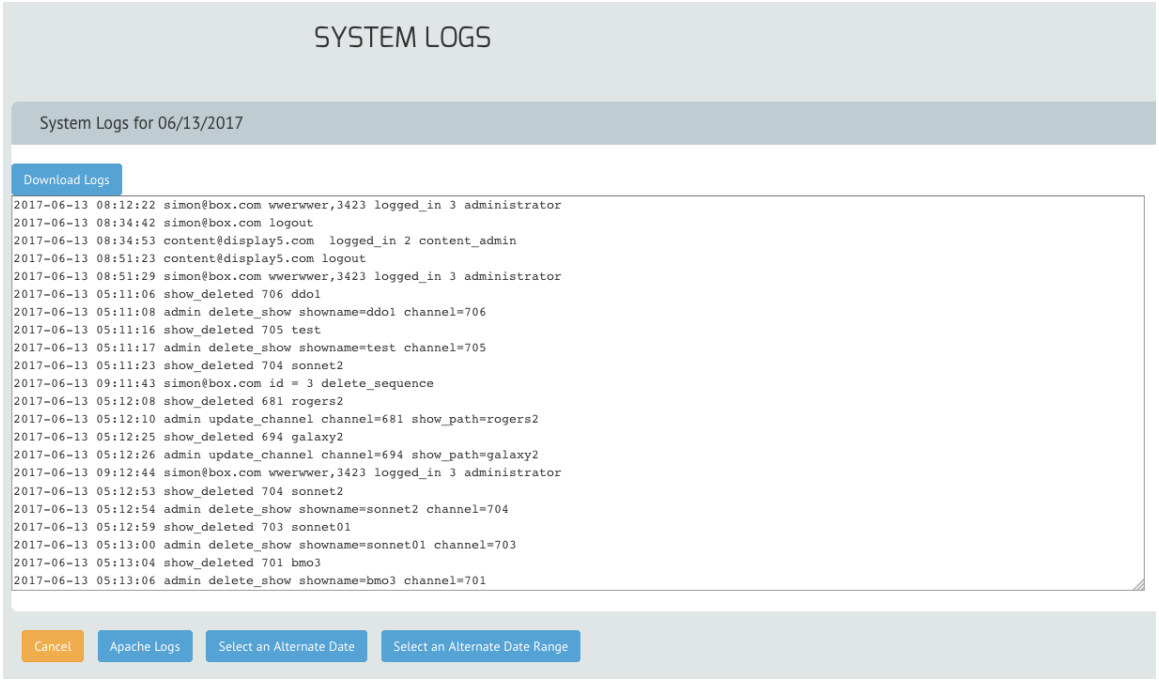


You will notice that the log listing shows any logins, show changes, updates, or any other administration activity for the actual day you are in. At the bottom of the log window you will see 3 options to view logs for a specific day, logs for a date range, or you can open the Apache activity log for the current day to view all activity in the web server listed by Date and IP Address.

Selecting the 'Alternate date' option will open a calendar.

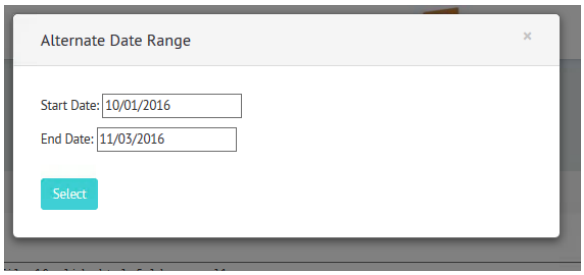


From which you can now select a date in the past to view the logs for that specific day. See image below.

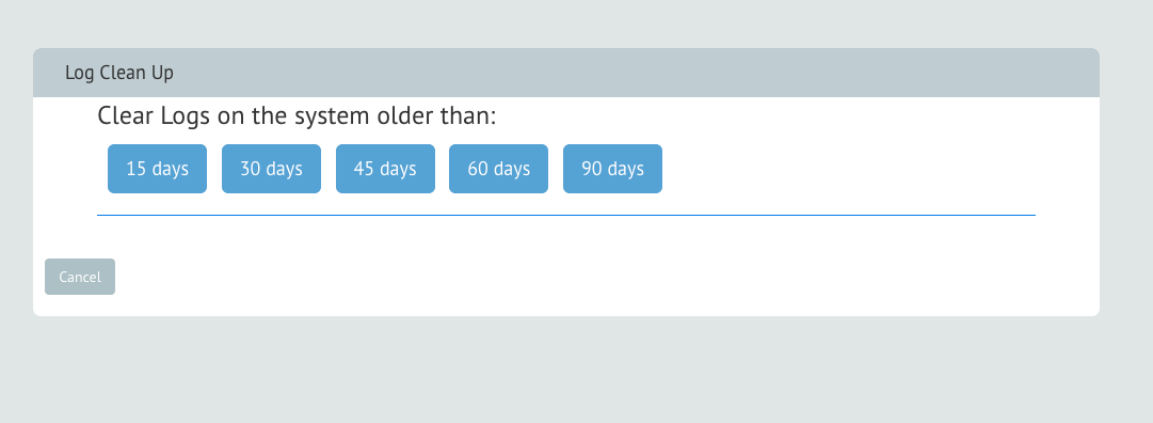


Note that at the top of the logs window there is a download logs button, you can then save a copy of the log file to your local hard drive. You will also see the date for the logs at the top of the list as well.

Selecting a date range will then load all the cumulative logs for the period that you identify



The “Clear Logs” option in the menu will open a window that will allow you to remove logs older than a certain age from the platform:



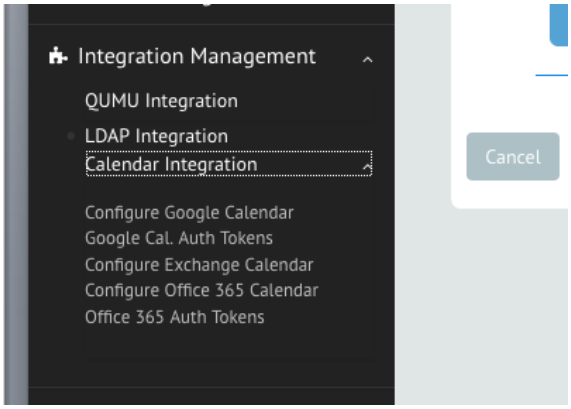
You can click on any of the buttons and all log files older than the specified days will be deleted from Display5 server. The location of the log files in Display5 is at \wamp\www\admin\logs on Windows and on Linux typically located at /var/www/html/admin/logs or /var/www/admin/logs

Room Scheduling Features

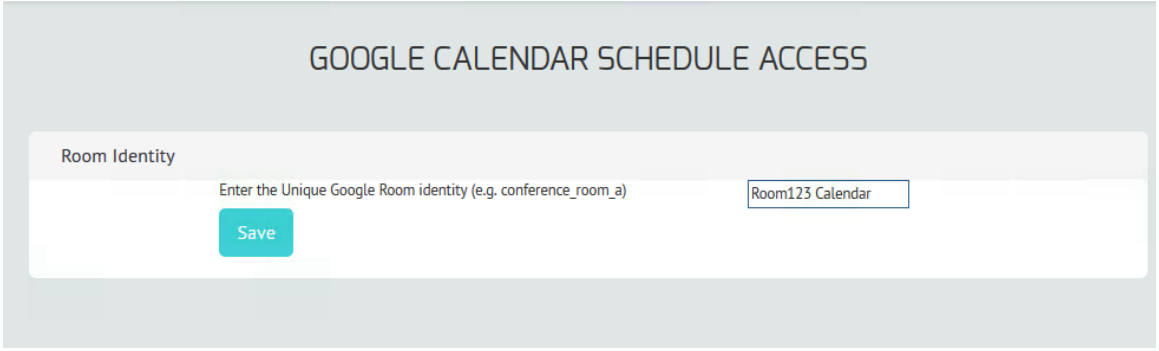
Display5 now supports Room Scheduling integration with Exchange, Google Calendar and Office 365 Calendar. In order to access the Google and Office 365 calendars some platform configuration and integration is required. If you intend to integrate with Exchange Server then please request the Exchange Integration Guide Document from Display5 support.

Google Calendar

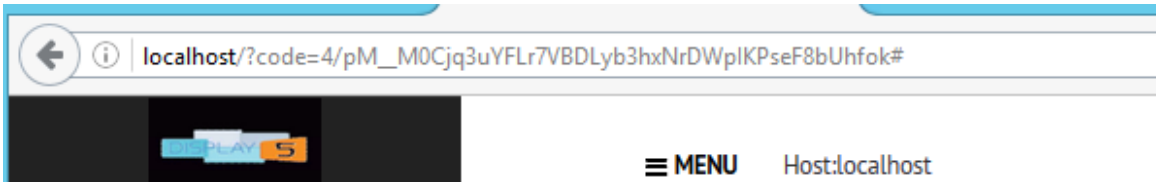
To set up the integration with Google Calendar you need to follow these steps. Select 'Configure Google Calendar' from the Integration Management menu



You will then be presented with a screen into which you need to enter a unique name for the google Calendar that you will be accessing

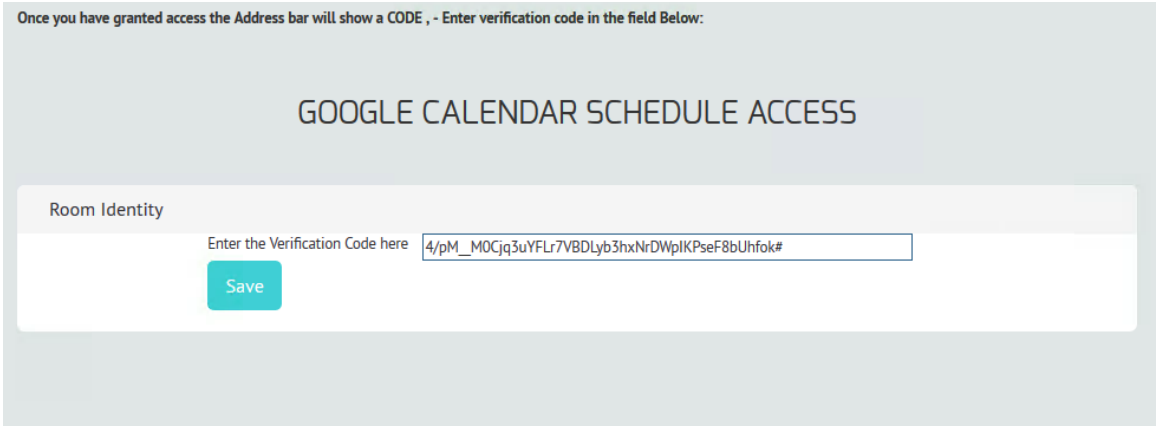


Enter the name and then select the 'Save' button.
Next will appear a window that contains some detailed instructions in order to integrate with the Google Account. Follow these instructions carefully and then enter the code in the address bar that you see. You will be taken to the Google account login page… Login with your normal credentials and then after that you will be redirected to the home page for Display5. At the top in the address bar you will see a link like this.



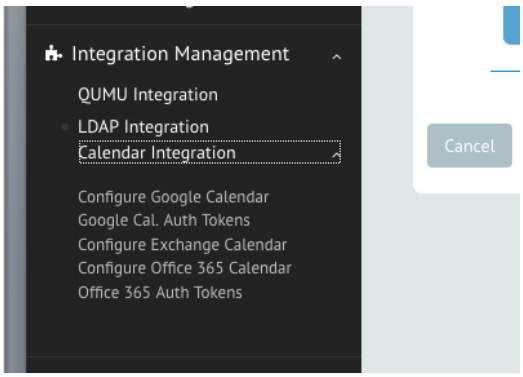
You need to copy all the text that comes AFTER the code= in the address., in this case it would be 4/pM__M0Cjq3uYFLr7VBDLyb3hxNrDWpIKPseF8bUhfok#..

Copy this information into the previous screen in another tab:

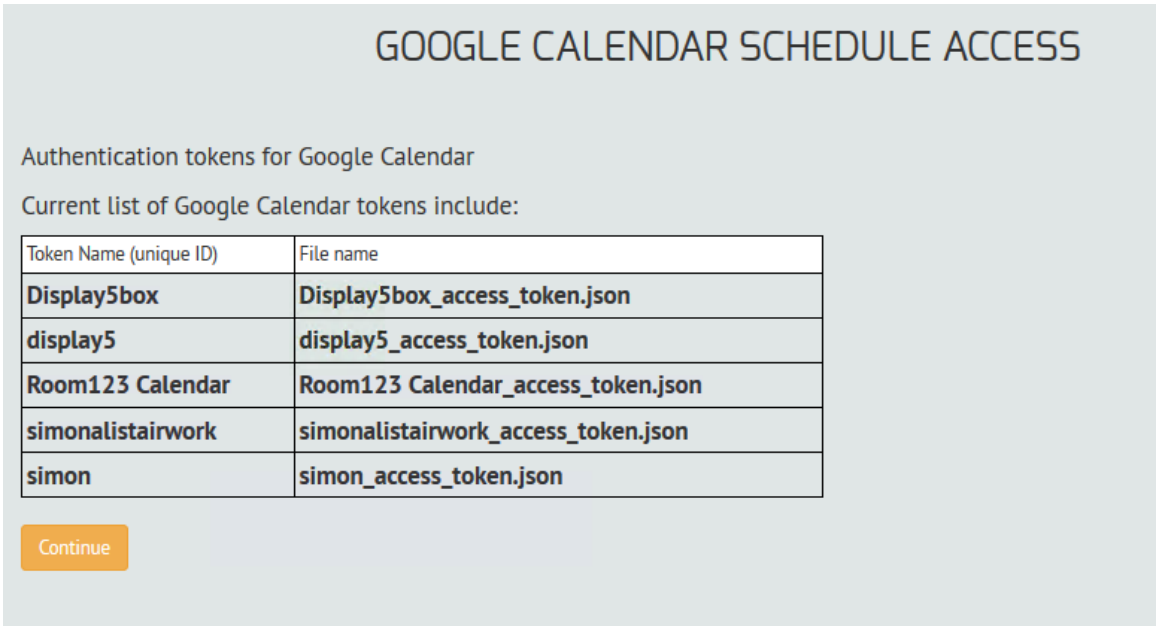


Now save and you will have then successfully integrated with the chosen account and you will be able to read calendar entries and calendars for that account.

To validate that the integration has worked , select the “Configure Google Calendar Auth Tokens” from the menu



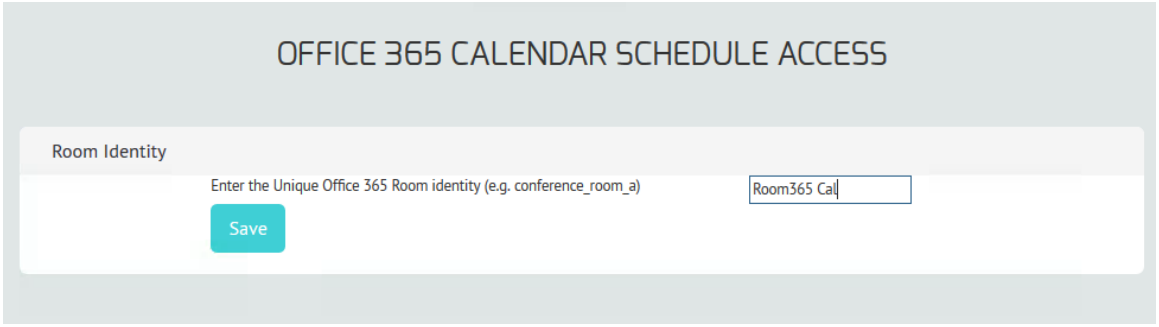
You will then see a screen like this:



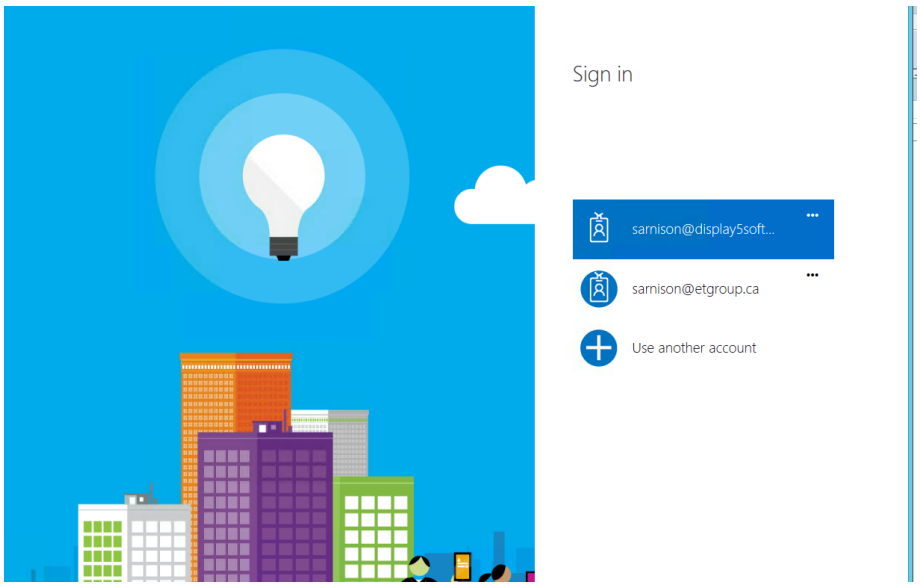
It should contain the token that you named in the previous steps, note the item in the list above reflects the name that was chosen.

Office365 Calendar

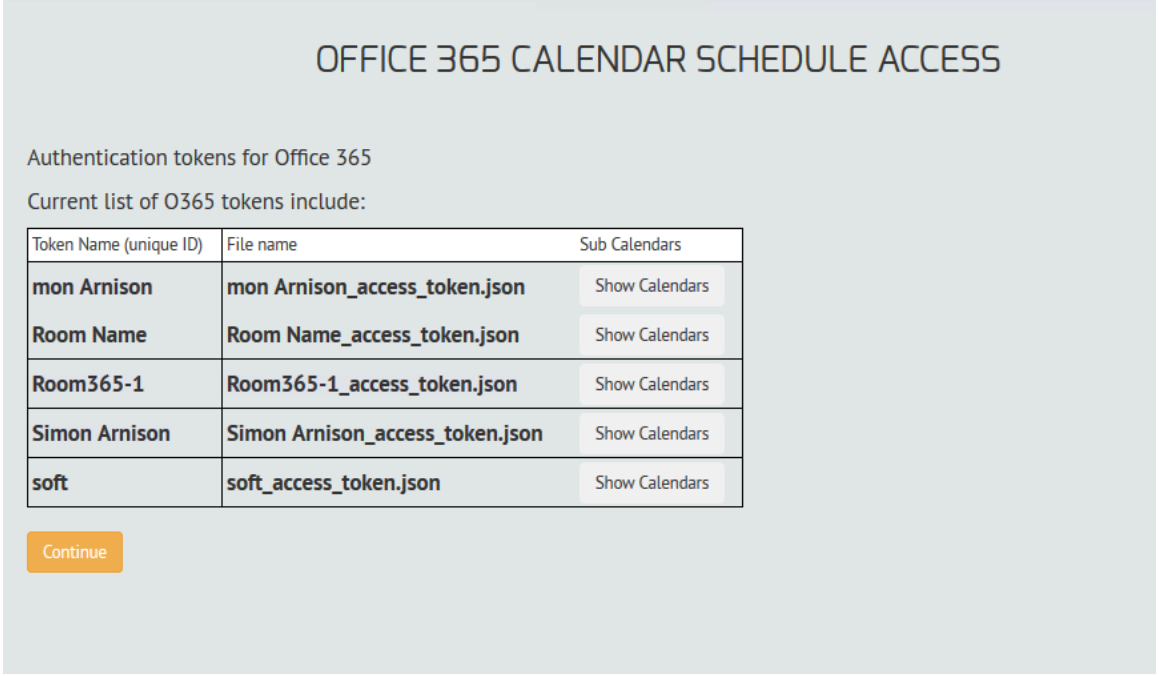
In order to set up integration with an Office365 Account you will need to again obtain an access token for the account by logging into the actual account. From the menu select the “Configure Office365 Calendar” option. You will then be presented with a screen as follows:



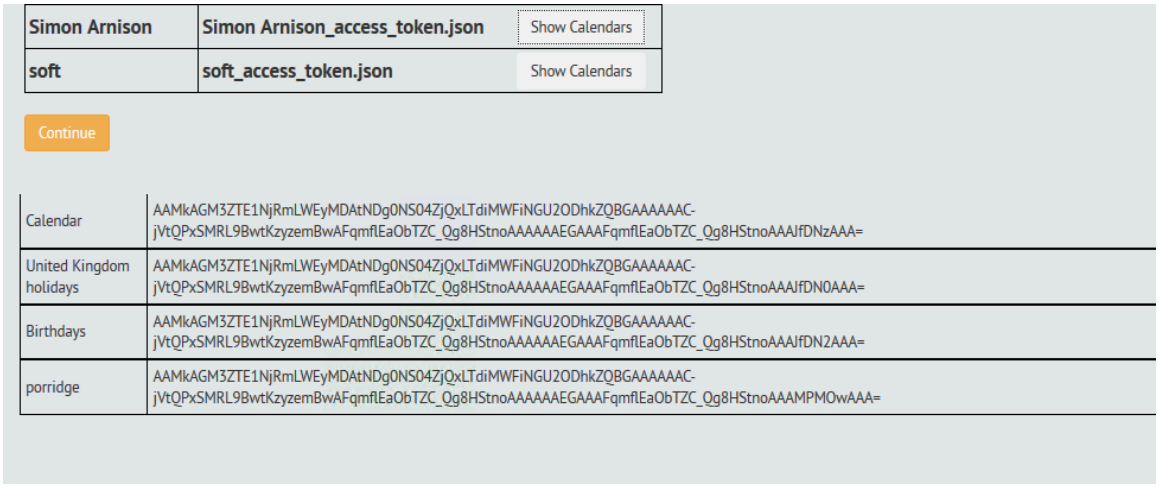
Enter the unique name for Display5 to reference the Calendar. This can be any unique name you choose. Click on the Save button and you will be taken to the default Office365 login screen.



Login in the normal way and then you will be then automatically returned to the Display5 screen and your chosen Calendar name will appear



From this screen you will also be able to query any SUB calendars (besides the primary) so that you can obtain the unique ID for that calendar, which is used when adding Office365 calendar widgets later on:



You will need to be able to copy and paste the calendar unique identifier from this page to be able to access these specific calendars.

For Exchange Calendar Integration please see separate guide.