Arts Alliance Media

Screenwriter

Version 2.3.0

User Manual

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Screenwriter
Simplified theatre
management

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Abbreviations

AAM	Arts Alliance Media
CC	Closed Caption
CPL	Composition Playlist
DCM	Digital Cinema Media
DCP	Digital Cinema Package
FTP	File Transfer Protocol
HFR	High Frame Rate
HI	Hearing Impaired
HOH	Hard of Hearing
IP	Internet Protocol
KDM	Key Delivery Message
LMS	Library Management Server
NOC	Network Operations Centre
POS	Point of Sale
RAID	Redundant Array of Independent Disks
SMPTE	Society of Motion Picture and Television Engineers
SPL	Show Playlist
TMS	Theatre Management System
URL	Uniform Resource Locator
VI	Vision Impaired
XML	Extensible Markup Language

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Chapter

1

Introduction

Overview:

Screenwriter is a Theatre Management System (TMS) that supports the administration of content and playback of digital cinema shows on each digital screen at the cinema in an efficient manner.

This document is intended as a user manual for the Arts Alliance Media Screenwriter software application. Through a powerful set of principles and functionalities, discussed in this document, the user will learn all the elements of theatre management using the Screenwriter application.

This chapter covers the following aspects of Screenwriter:

- Functionality overview, core concepts and access to the application.
- General user interface.
- Chat method.

1.1. Getting Started

1.1.1. How to Use this Document

- This document consists of a number of chapters, with subsections, that discuss specific areas of theatre management using Screenwriter.
- Screenshots are provided to explain several aspects of Screenwriter's user interface and to build an understanding of the workflows required to achieve various actions from a user perspective.
- Body text marked in bold and black generally emphasises an element of the user interface that is referenced in a figure.
- Text marked in bold and turquoise identifies a cross-reference to a figure or to an existing section of the user manual.
- There is a list of abbreviations that is available as there are numerous abbreviations that are used throughout the user manual (See **Abbreviations on page xi**).
- Screenwriter uses several special concepts and terms that are central to theatre management. These concepts and terms are broadly defined in the glossary section (See **Appendix C: Glossary on page 129**). Some are also introduced in this chapter. Further explanation of these special concepts and terms is also given as they occur in the document.

1.1.2. Functionality Overview

Screenwriter targets five main areas where vital theatre management principles and functionalities are exploited for the successful delivery of digital cinema operation capability at the theatre. **Figure 1-1** illustrates the key areas discussed in this user manual:

- Screen management is concerned with the administration of the playback of shows occurring on individual screens at the theatre (See **Screen Management on page 13**).
- Content management includes an umbrella of principles, concepts and tools necessary to manage the interaction with content items as well as their application in various forms such as playlists, pre-show items and automation (See **Content Management on page 21**).
- Scheduling management is about the effective programming of playlists on individual screens at the theatre (See **Schedule Management on page 61**).
- Reporting is the ability for the application to monitor several sets of data to present the user with summarised information, which is useful for cinema planning purposes (See **Reporting on page 77**).
- Configuration management involves the setup requirements and related tools for enabling participating functionalities, used in parts of the application, to work (See **Configuration Management on page 83**).

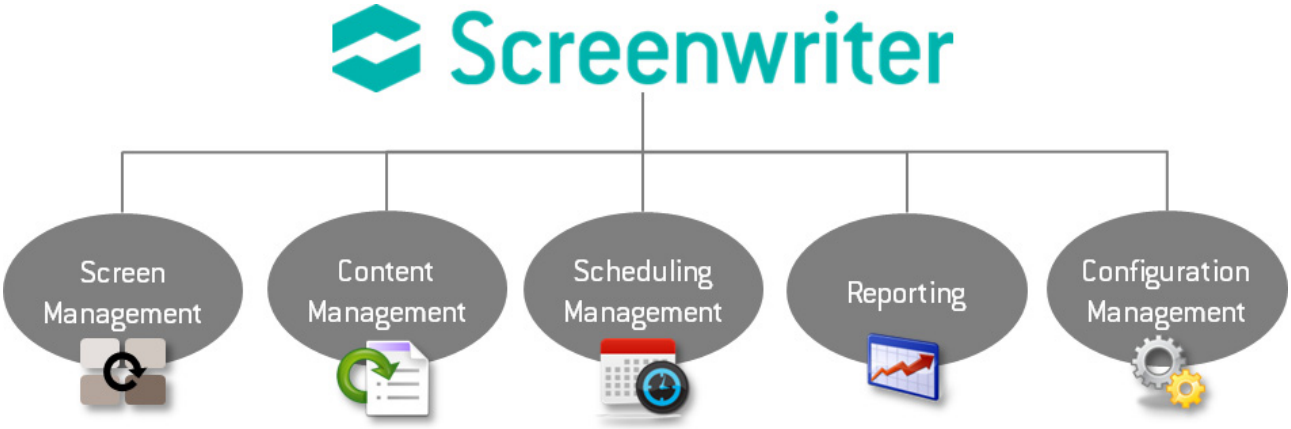


Figure 1-1: Functionality Overview in Screenwriter

1.1.3. Overview of Core Concepts

A number of core concepts exist in Screenwriter. The concepts are used throughout the sections of the application and are also referenced across various chapters in this document. Figure 1-2 depicts some of these fundamental concepts and the items that serve as inputs to the concepts. Brief explanations are also provided in Table 1-1.

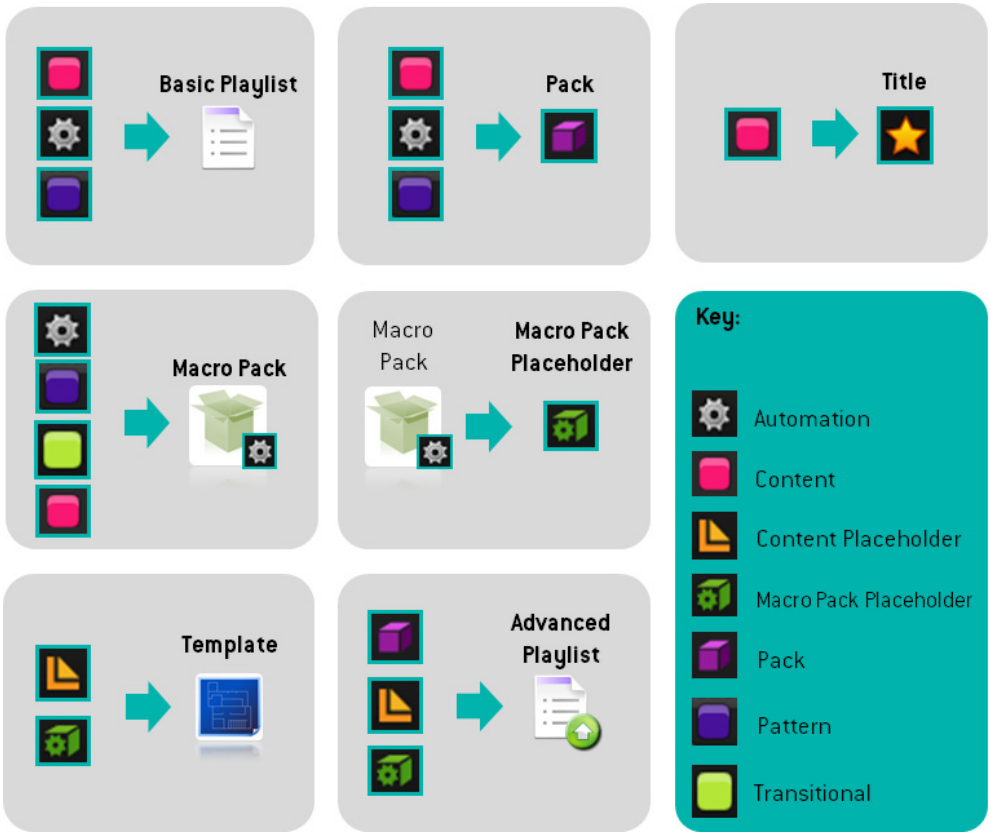


Figure 1-2: Overview of Core Concepts and Related Inputs

Table 1-1: Description of Concepts, their Inputs and Usage

Concept	Description	Inputs	Used in	Screen Specific?
Content	Specific items of media held on library server, screen server or plugged-in device	None. If content items exist on one or more devices they will be visible in the content lists	Playlists, packs and macro packs	No, though KDM required per screen for encrypted content
Content placeholder	Method of automatically allocating content items at time of schedule	None.	Templates and advanced playlists	No
Automation	Command that can instruct an action based on screen server setup	None. Default on servers	Playlists, packs and macro packs	Yes
Pattern	Server specific way of displaying a black screen for a certain duration.	None. Default on servers	Playlists, packs and macro packs	No, but currently supported for Sony and Doremi servers
Transitional	CPL that displays a black screen for a certain duration. An alternative to a black pattern to show a black screen	None	Macro packs	Yes
Playlist (basic)	Chronological list of items to be scheduled for playback.	Content, automation and patterns	Cinema schedule which can either be created or imported from POS	Yes, when scheduled for playback. However, playlist can be transferred across screens
Pack	Reusable group of content, automation and patterns. Can also be assigned a content placeholder and metadata to determine when and what content to play against.	Content, automation and patterns	Inserted directly into playlists or called by content placeholders	Yes, pack can apply to individual or multiple screens

Table 1-1: Description of Concepts, their Inputs and Usage

Concept	Description	Inputs	Used in	Screen Specific?
Title	Term referring to a feature. Used for inserting pre-show packs to content groups rather than to individual content items	All types of content	Matching of advertisements to the right content	No
Macro pack	Group of automation instructions to achieve a desired outcome, e.g. transition from pre-show to feature, show start, show end.	Automation, patterns, transitionals and content	Macro pack placeholders	Yes
Macro pack placeholder	Method of allocating macro packs to playlists. Playlists can be transferred across screens	Macro packs	Templates and advanced playlists	No
Template	Outline of a playlist made up of placeholders for content and macro packs	Macro pack placeholders and content placeholders	Scheduling via POS	No
Playlist (advanced)	Chronological list of items to be scheduled for playback.	Packs, content placeholders and macro pack placeholders. Placeholders are substituted by actual content items, automations, etc., at time of scheduling	Cinema schedule which can either be created or imported from POS	Yes, when scheduled for playback. However, playlist can be transferred across screens

1.1.4. Accessing Screenwriter

Screenwriter is accessed through a web browser by navigating to the correct URL or IP address. A login screen is initially presented, as shown in Figure 1-3. On access, it will be required to enter a suitable **Username** and **Password**, which generally default to **admin** and **admin**, respectively. Click on the Login button to access the application.

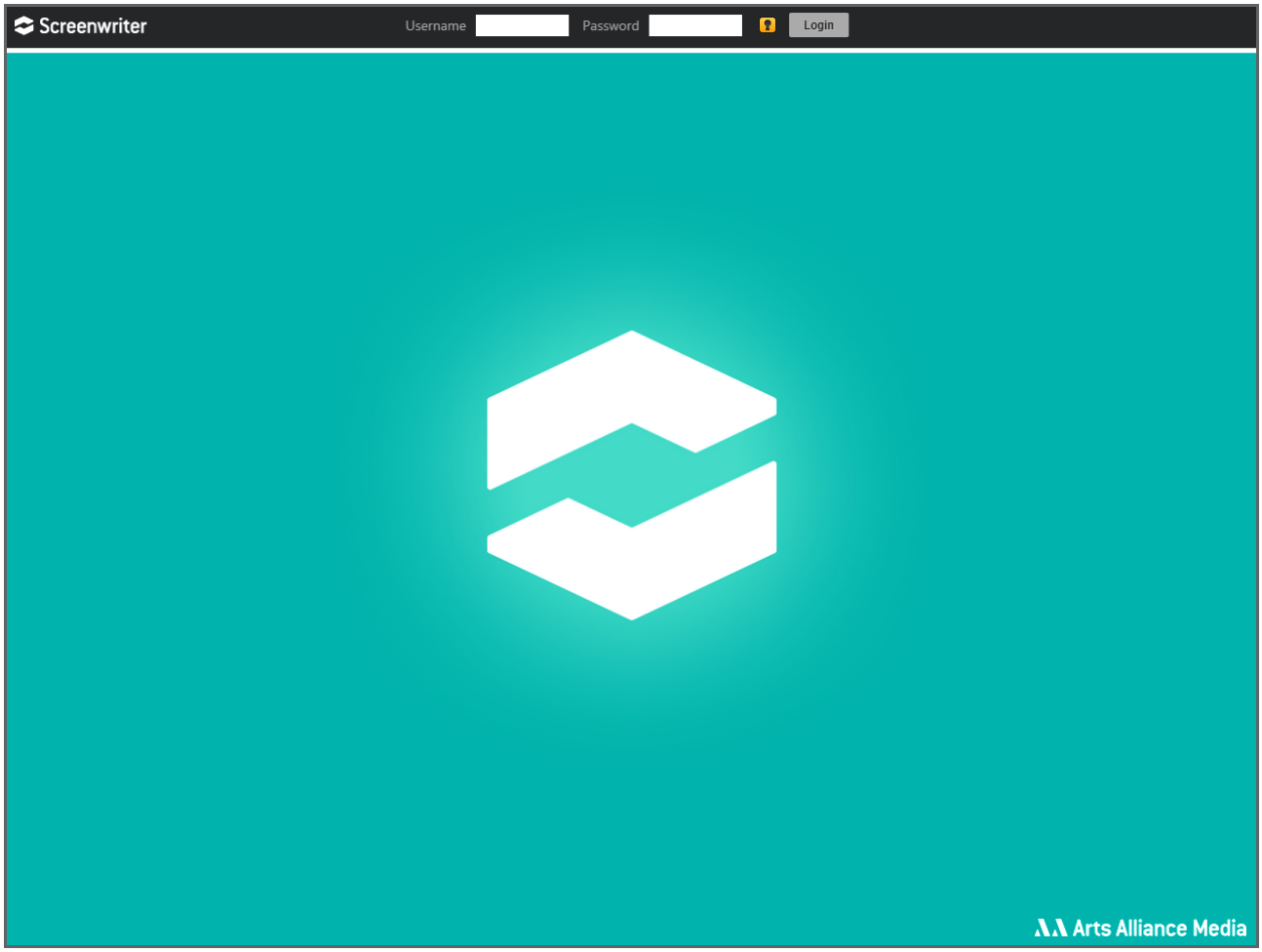


Figure 1-3: Login Screen

Note:

- Contact the AAM NOC team if the Screenwriter URL or IP address is not known or cannot be reached.

1.2. General User Interface

After logging in the **default monitor page** is displayed (Figure 1-4). Although every page of the application generally varies in look and feel depending on what information and actions are supported, certain key features of the user interface remain unchanged from page to page.

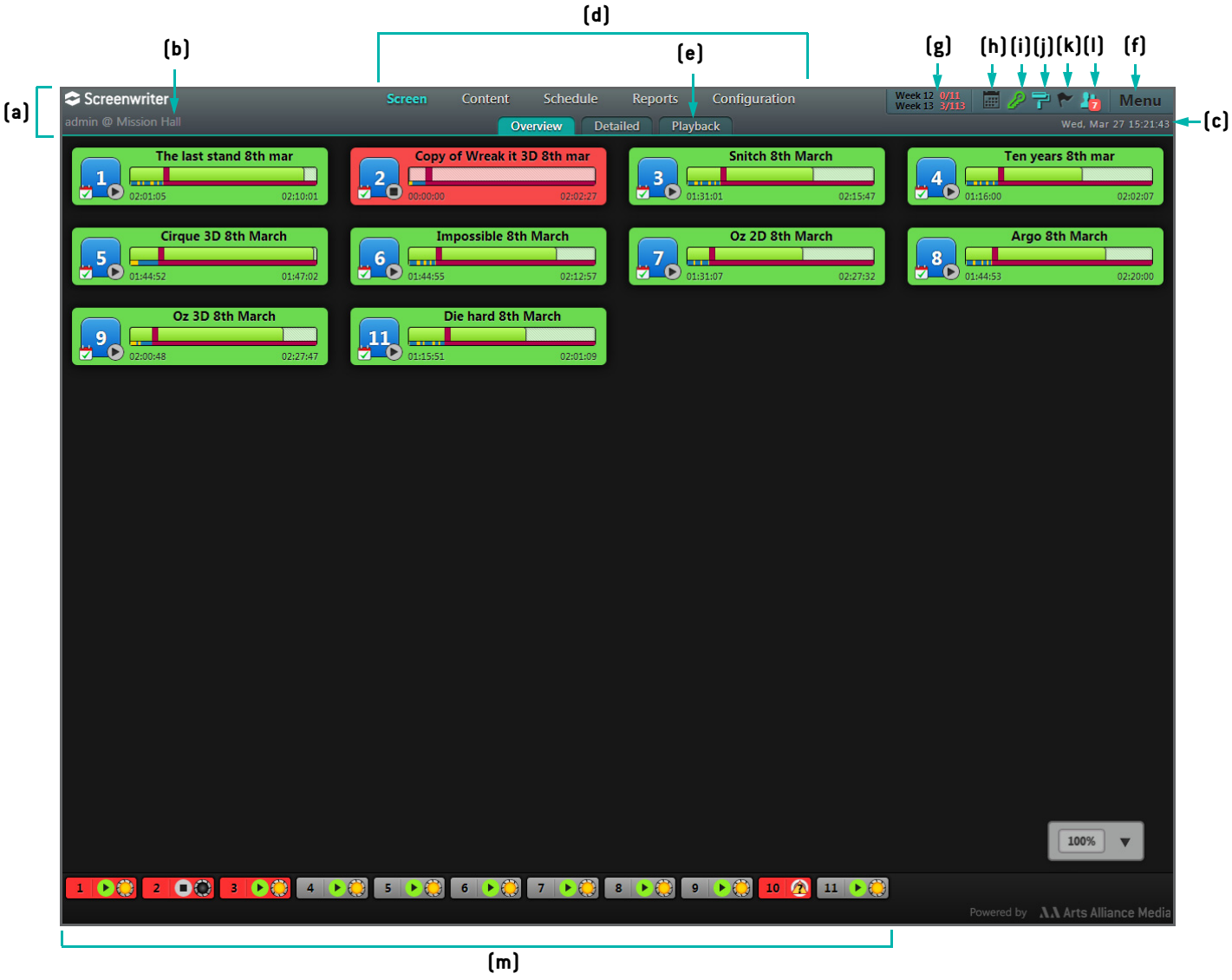


Figure 1-4: General User Interface

1.2.1. Header Bar

The header bar is found at the top of every page in Screenwriter (**Figure 1-4a**). This area of the page displays the following:

- User identification and site name (**Figure 1-4b**).
- Local date/time (**Figure 1-4c**).
- Navigation options which provide links to each of the main components of Screenwriter (**Figure 1-4d**).
- Tab navigation options which provide links to pages within each navigation option (**Figure 1-4e**).
- Menu options (**Figure 1-4f**). Mouse over the menu icon to display a dropdown list from which several options can be chosen.
- Point of Sale (POS) mapping overview (**Figure 1-4g**). Click on a week number to open the POS page for that week (See **Point of Sale on page 66**).
- Schedule sync status (**Figure 1-4h**). Hover over this icon to view details regarding the syncing of schedules.
- Connection to a KDM email account (**Figure 1-4i**). The icon becomes visible when a KDM email account is configured (See **KDM Email on page 104**). Click on the icon to view the KDM email history.
- Toggle content type colours (**Figure 1-4j**). This button is used for the easy identification of content items based on their types, e.g. advertisements, trailers, etc. The effect of clicking on this button is only seen on pages that display content items.
- Notifications (**Figure 1-4k**). Click on the icon to open a window which allows the user to view notifications and alerts.
- Chat (**Figure 1-4l**). Click on this icon to open the TMS chat functionality (See **Chat on page 11**).

1.2.2. Menu Options

Figure 1-5 illustrates the options that are made available when accessing the menu option from the header bar.

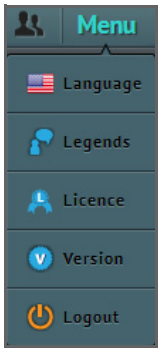


Figure 1-5: Menu Options

From the dropdown menu:

- Select the Language option to open a window from which the user is able to switch to a different language (Figure 1-6).

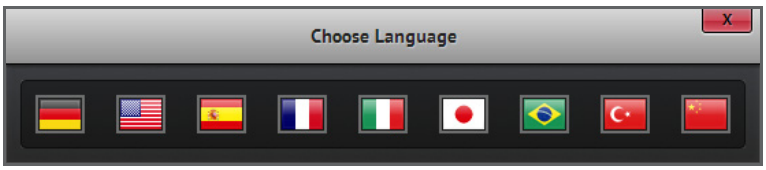


Figure 1-6: Choose Language Dialog Box

- Select the Legends option to open a window to view the legend of icons used throughout the application (Figure 1-7). The icons are classified according to four main categories namely general icons, screen icons, CPL types and action buttons.

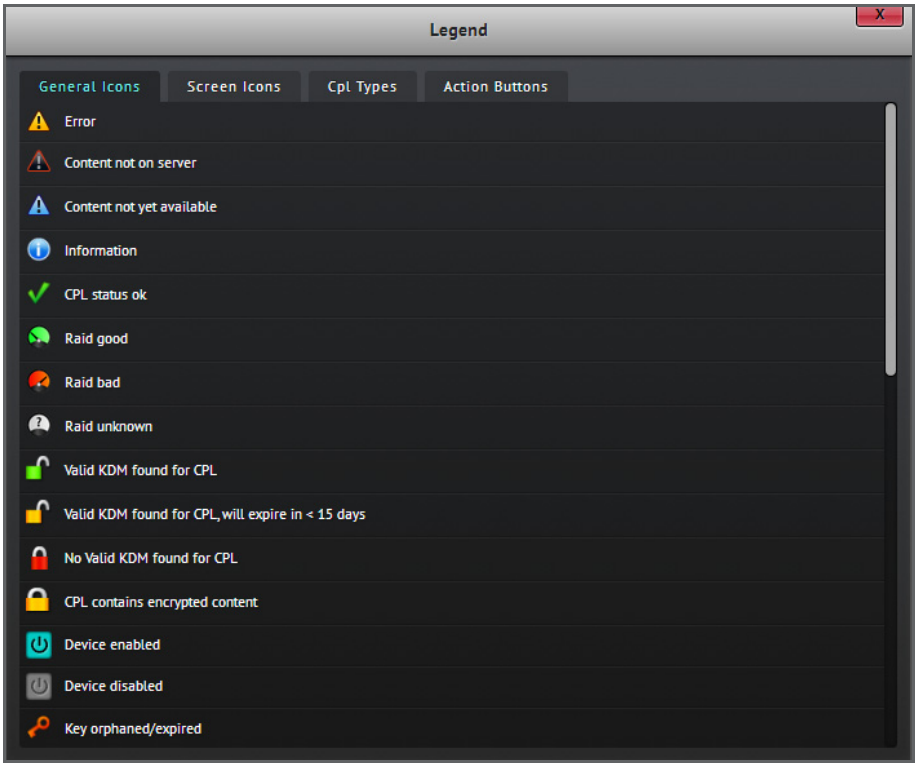


Figure 1-7: Legend Dialog Box

- Select the Licence option to open a window to access Screenwriter license information (Figure 1-8). The dialog box lists the main features of the application that are covered under the license and also provides the ability to update with new licenses.

Figure 1-8: License Information Dialog Box

- Select the Version option to view Screenwriter version number details.
- Select the Logout option to securely log out of the application.

Note:

- When the Screenwriter license is close to expiry, a warning icon will appear in the header bar showing relevant details during mouse over (Figure 1-9).

Figure 1-9: License Expiry Warning

1.2.3. Screen Bar

The screen bar is found at the bottom of every page in Screenwriter (Figure 1-4m). This area of the page displays all the screens and their current state that are under the control of the TMS. Each screen button takes the user to the playback controls for that screen (See Playback on page 18).

1.3. Chat

Screenwriter provides an integrated chat system that allows sending and receiving messages to and from support staff. This functionality should be used in instances where, e.g. it is required to ask questions, request assistance or provide feedback.

To launch the chat feature, click on the chat button (marked as) in the header bar. This will open the **TMS Chat** dialog box (Figure 1-10a) which can be used for the purposes identified next.

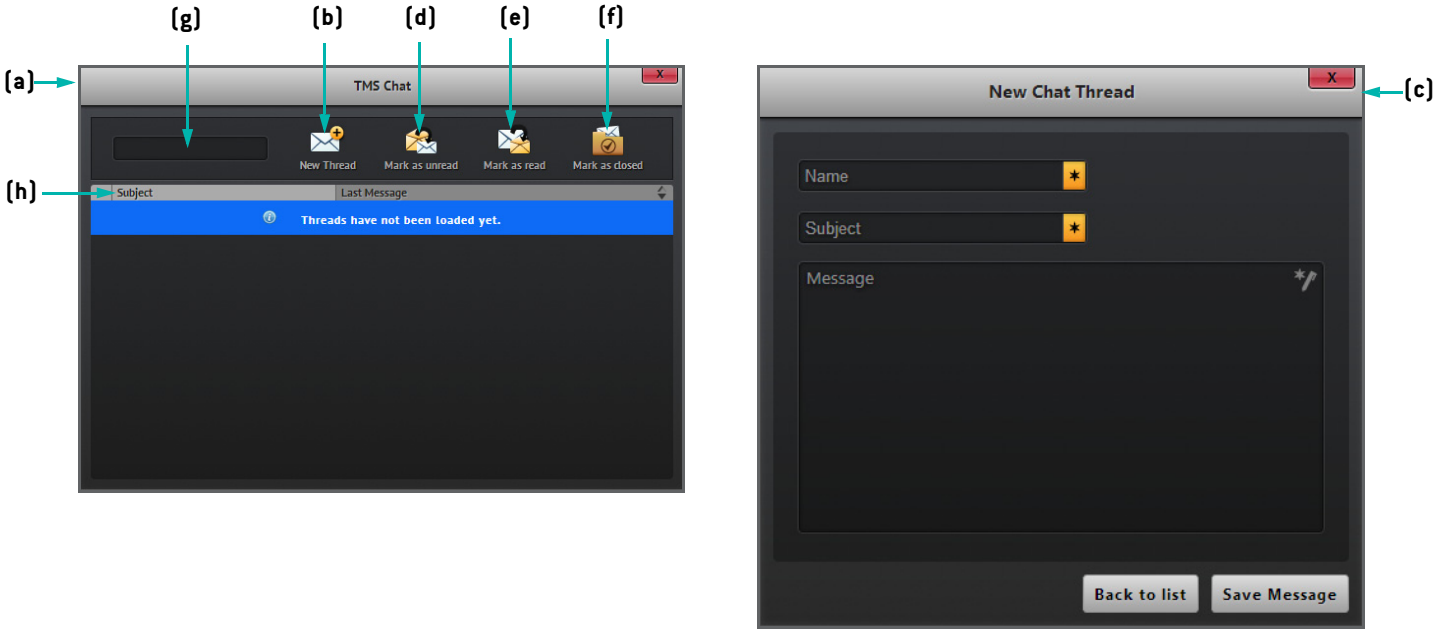


Figure 1-10: TMS Chat Feature

- To view existing chat threads, open the **TMS Chat** dialog box by clicking on the button. Clicking on a thread displays the various messages within the selected chat thread.
- To reply to an open chat thread, click on an entry in the **TMS Chat** dialog box. This will open a new dialog box for replying to the thread. In the dialog box click on the Reply button, complete the details of the message and finish off by clicking on the Send button.
- To create a new chat thread, click on the **New Thread** button (Figure 1-10b) in the **TMS Chat** dialog box. This will then open the **New Chat Thread** dialog box (Figure 1-10c). Complete the necessary details and click on the Save Message button to save the new chat thread. To exit the **New Chat Thread** dialog box, click on the Back to list button.
- To mark a chat thread as unread, select the thread from the **TMS Chat** dialog box and click on the **Mark as unread** button (Figure 1-10d).
- To mark a chat thread as read, select the thread from the **TMS Chat** dialog box and click on the **Mark as read** button (Figure 1-10e).

- To mark a chat thread as closed, select the thread from the **TMS Chat** dialog box and click on the **Mark as closed** button (**Figure 1-10f**).
- To search for a particular chat thread, use the provided search box (**Figure 1-10g**).
- To sort a list of chat threads, click on the **Subject** column once (**Figure 1-10h**).

Note:

- Chat threads can only be closed by support staff and users with admin credentials.

Chapter

2

Screen Management

Overview:

Screenwriter provides a comprehensive way of managing theatre screens. This chapter highlights how the application provides different views and functions related to the playback of content on the screen servers configured at a theatre.

2.1. General Screen Information

The **screen overview page**, also called the **default monitor page** (Figure 2-1), is accessed through the Overview tab under the Screen option in the header bar. The page provides an overview of playbacks and the statuses of screen servers at a theatre.

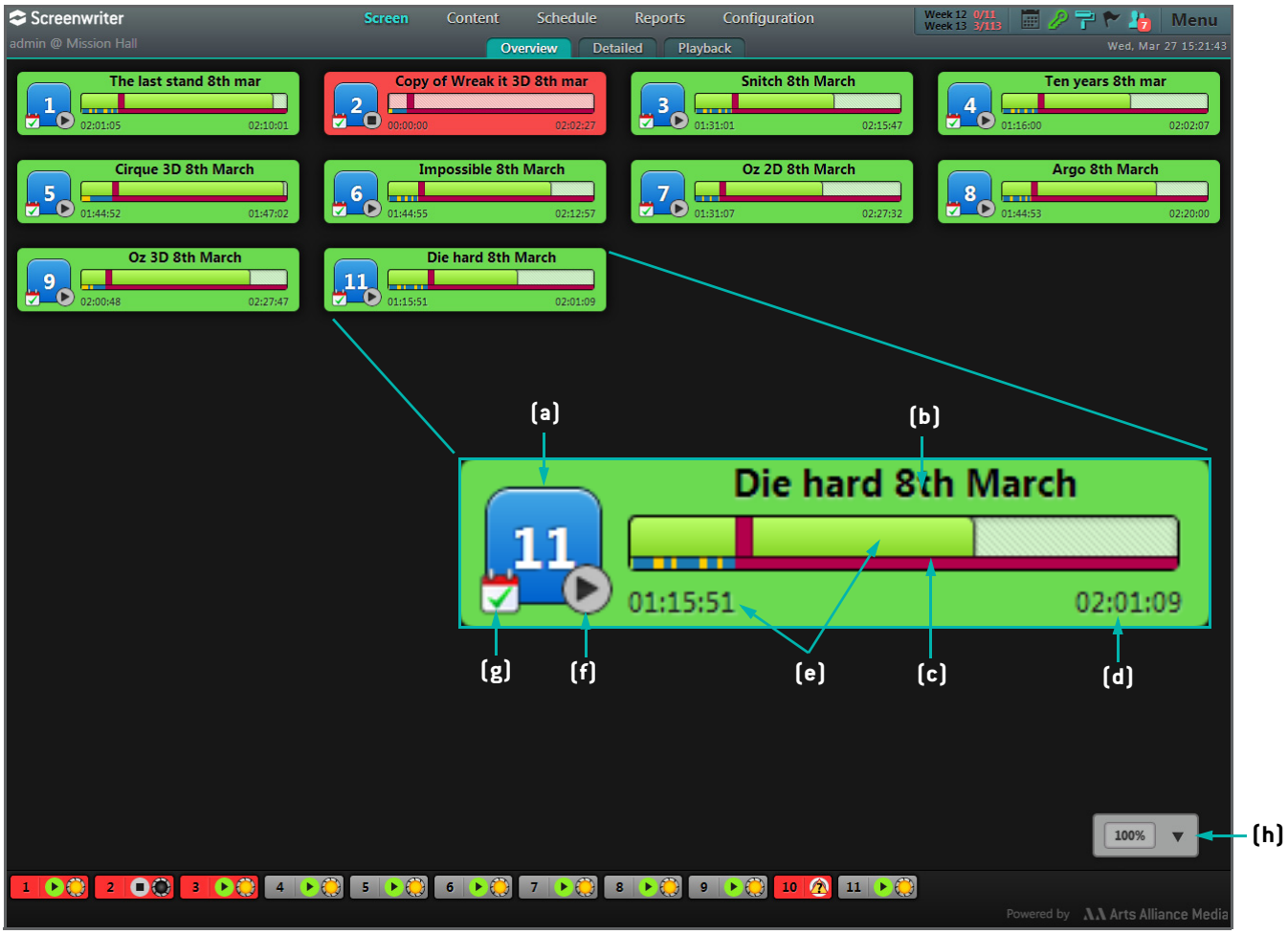


Figure 2-1: Default Monitor Page

The following key points are relevant to general screen information on this page:

- **Screen number** (Figure 2-1a). Clicking on this icon or anywhere within a screen section in the main area of the page opens the playback page for that screen (See **Playback on page 18**).
- **Name** of the loaded playlist (Figure 2-1b).
- **Contents** of the playlist (Figure 2-1c). These are colour coded to identify, e.g. advertisements, trailers, features, etc.
- **Duration** of the playlist (Figure 2-1d).
- **Progress bar** and **progress time** for the playlist (Figure 2-1e).

- **Playback status** of the playlist (Figure 2-1f).
- **Schedule mode** of the screen where the playlist is loaded (Figure 2-1g). The schedule mode is a special state of a screen that dictates whether playback can take place on it.

Note:

- Screen sections on the page are colour coded according to the playback status of the scheduled playlists. The basic colours are: **Green** = schedule OK; **Red** = schedule error; **Grey** = schedule disabled.
- To magnify/decrease screen sections on the default monitor page use the zoom bar provided (Figure 2-1h).

2.1.1. Projector Status

When a projector has been suitably configured for a screen server (See Add Screen on page 89), the screen bar at the bottom of the page will show the **projector status icon** (Figure 2-2a). Other icons for identifying **errors and warnings**, **sync** and **playlist playback status** (Figure 2-2b) are also shown, as applicable.

Figure 2-2: Viewing Projector Status

By hovering the cursor over a particular screen number in the screen bar it becomes possible to view information regarding notifications, lamp life, dowser status and power status, amongst others. When that information becomes viewable, the ⚙ icon can then be clicked in order to view device details in the complex configuration section of the application.

On the other hand, if there is an error in syncing with either a screen server or projector, then the corresponding screen button in the screen bar will be shown in **Red**. However, this does not imply that the error is significant. This could, for example, be linked with communication to the device being timed out.

Note:

- Projector information will only be available once a projector has been configured for a particular screen. This is done in the screen configuration section of Screenwriter (See Add Screen on page 89).

2.2. Detailed Screen Information

Screen information can be listed in a detailed mode by clicking on the Detailed tab under the Screen option in the header bar. This will open the **detailed monitor page**, where more explicit screen sections will become visible on the page. An example of a detailed screen section is identified in Figure 2-3.

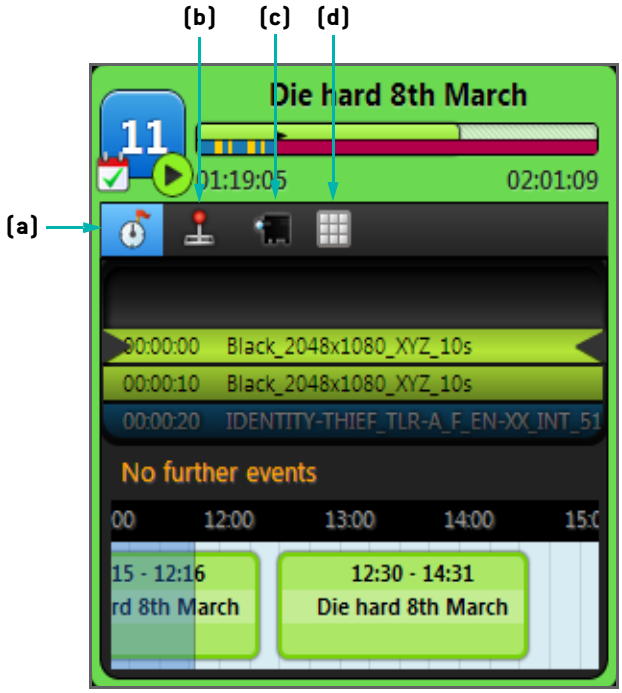


Figure 2-3: Example of a Detailed Screen View

In addition to the elements shown in the default monitor page, the detailed screen section also shows the following:

- **Timeline** view (Figure 2-3a). This is the default view for every detailed screen section and indicates the playback point in a given playlist. If the playlist is in schedule mode, then this will also be visible in the timeline view.
- **Control** view (Figure 2-3b). This provides options for (1) directly loading and ejecting a playlist, (2) turning the schedule mode on and off, (3) using available modes which may include loop, auto playback and manual modes depending on the loaded playlist, and (4) using playback buttons.
- **Projector** information (Figure 2-3c). For the **Projector** button to be visible in a detailed screen section, this requires that a projector be added to the screen in the configuration section of the application. Clicking on the **Projector** button will reveal projector details such as type, version, dowser status and lamp status.
- **Quick Cue** view (Figure 2-3d). This provides the ability to use quick cues, for example, to trigger various actions on servers depending on what model is being used. This will only be possible provided that cues have already been set up (See Quick Cues on page 100).

Note:

- Detailed screen sections on the page are colour coded according to the playback status of their respective loaded playlists.
- If a screen is in schedule mode and has a loaded playlist, then a new playlist cannot be loaded by using the control view on in the detailed screen section.

Warning:

If the schedule mode for a screen is turned off, the screen will not play.

2.3. Playback

Playback of Show Playlists[1] (SPLs) on screens is a central aspect of screen management. To perform actions related to playback on a screen, click on the Playback tab under the Screen option in the header bar. This will open the **playback page** (Figure 2-4).

Note:

- Selecting a screen section on the page or clicking on a screen button in the screen bar also takes the user to the playback page.

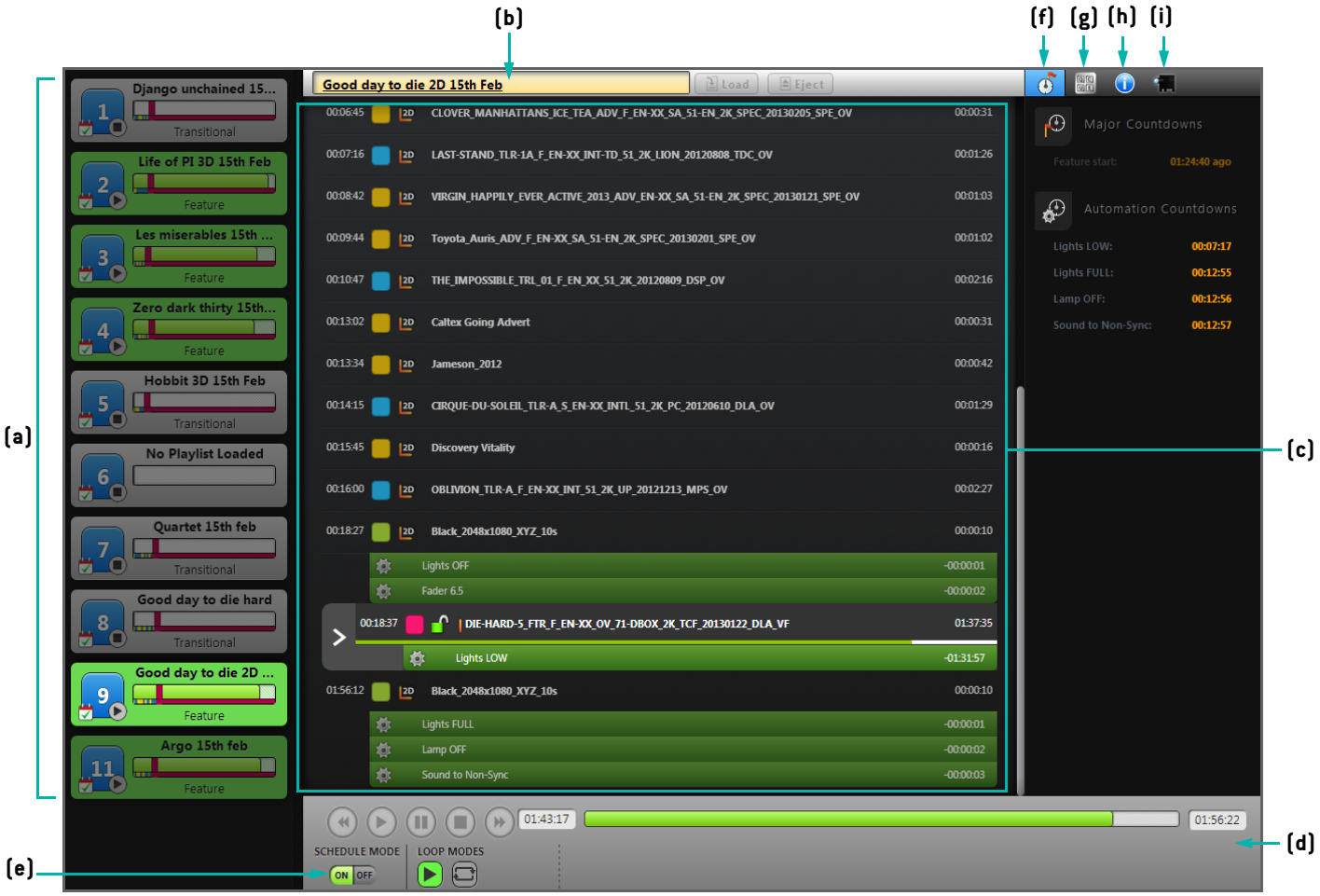


Figure 2-4: Playback Page

1. A SPL is a playlist that has been scheduled for playback.

2.3.1. Playback Information

Screen sections are listed on the left hand side of the page (**Figure 2-4a**). Clicking on a screen section displays playback information for that particular screen. It is possible to switch to another screen by clicking on the desired screen section.

Note:

- Any current playlist loaded onto the screen server is identifiable on the page (**Figure 2-4b**). Details of the contents of the playlist are also listed, together with the progress through the playback of the playlist (**Figure 2-4c**).

2.3.2. Use Playback Controls

From the playback page, it is possible to control all aspects of the playback of a playlist by using the playback control bar located at the bottom of the page (**Figure 2-4d**). The playback control bar allows the user to play, pause, stop, skip forwards and skip backwards.

2.3.3. Switch to Schedule Mode

A screen can be switched to schedule mode in order to have it display what is in the Screenwriter schedule (See **Scheduler on page 62**). To place a screen in schedule mode, toggle its switch (**Figure 2-4e**).

Note:

- When a screen is in schedule mode, manual playback and playlist functionality are disabled.

Warning:

If the schedule mode for a screen is turned off, the screen will not play.

2.3.4. Load Playlist

Screenwriter allows playlists to be loaded on demand. To load a playlist, click on the Load button and identify the required playlist. When the playlist has been loaded onto the server ready for playback, a number of items will become visible such as global triggers and CPLs.

2.3.5. Eject Playlist

Playlists can be ejected on demand. To eject a playlist, click on the Eject button.

2.3.6. Display Overview Details

The overview details in this section of the application relate to the display of: (1) major countdowns, which are the durations that have elapsed since the occurrence of key markers within a playlist e.g. show start and feature start markers, and (2) automation countdowns, which are the durations that have elapsed since the occurrence of automation cues applied to the screen on which playback is taking place. To display an overview of major countdowns and automation countdowns, switch to the **Overview** tab (Figure 2-4f).

2.3.7. Display Quick Cues

Quick cues are rapidly accessible cues that are configured for a screen (See Quick Cues on page 100). To display details of quick cues, switch to the **Quick cues** tab (Figure 2-4g).

2.3.8. Display Further Details

Further details regarding server disk usage and raid status information are also made available from the playback page. To view the information, switch to the **Details** tab (Figure 2-4h).

2.3.9. Display Projector Details

A summary of projector details for a given screen can be accessed from the playback page. These details include, for example, the type of projector, version, dowser and lamp status. To view projector details, switch to the **Projector** tab (Figure 2-4i).

Chapter

3

Content Management

Overview:

Screenwriter supports the effective management of content. This chapter focuses on the content section of Screenwriter, covering the specifics of interacting with content and the user actions involved in the management of playlists, titles, packs, templates and content transfer.

3.1. Content

The **content page** (Figure 3-1) is accessed through the Content tab under the Content option in the header bar. The page provides an overview of all types of content that are known to the TMS. The elements of the content page that are relevant from a user perspective are highlighted next.

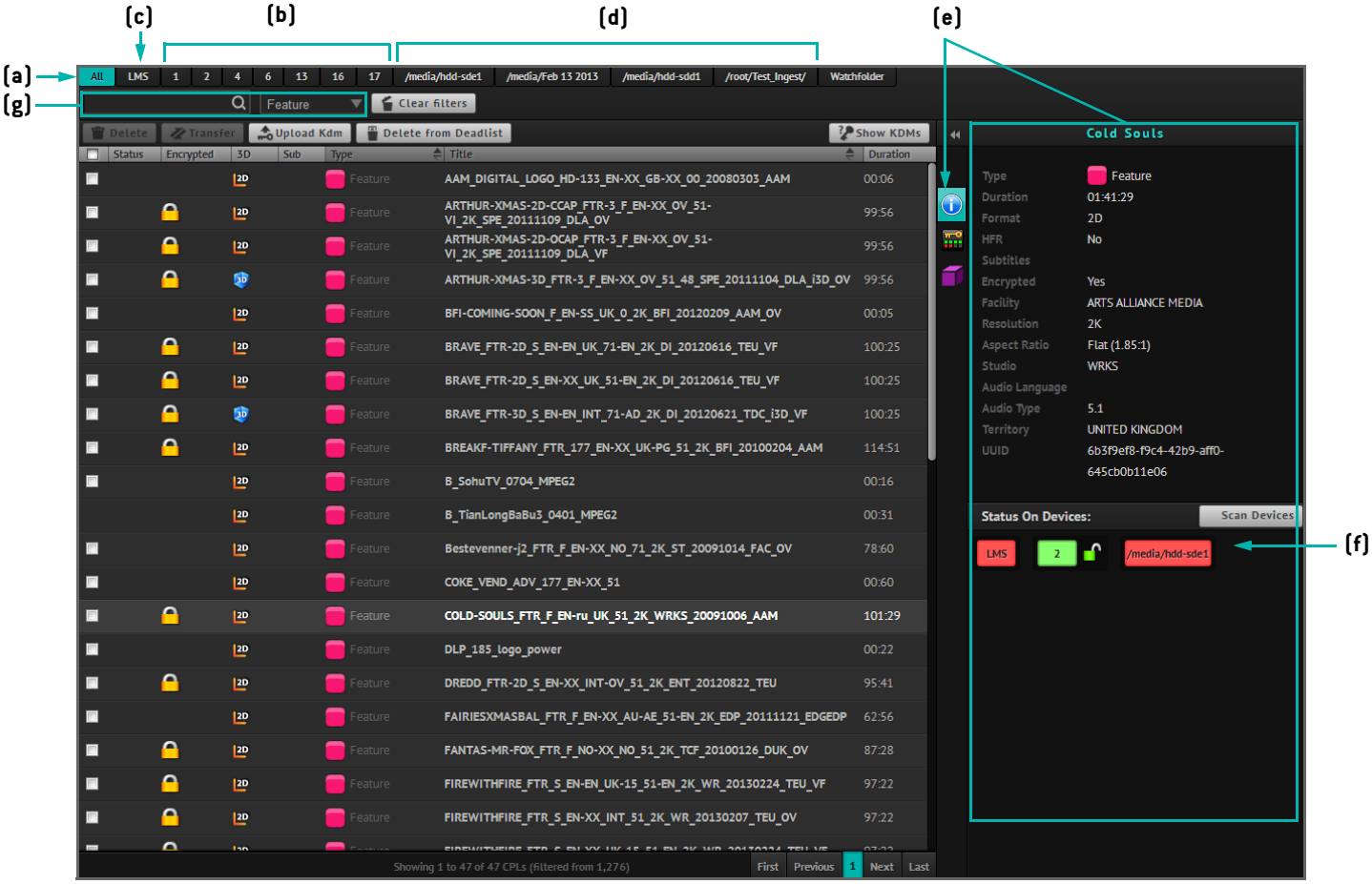


Figure 3-1: Content Page

3.1.1. View Stored Content

By default, the page lists all the content items[1] on all screens as well as those that are on the TMS and connected devices (Figure 3-1a). The content items are generally held in the following:

- The individual screen servers, in which case the relevant screen buttons can be used to filter the CPLs by screen (Figure 3-1b).

1. In the context of this document, the terms “content item” and “CPL” are used interchangeably.

- The AAM Library Management Server (LMS), which allows the filtering of CPLs by LMS (**Figure 3-1c**).
- External media, which allows the filtering of CPLs by other attached media, if any (**Figure 3-1d**).

Note:

- Use pagination buttons at the bottom of the page to sift through multiple CPL listings.
- When a server tab is selected at the top of the page, server disk space status is displayed at the top left hand corner of the same page (**Figure 3-2**).

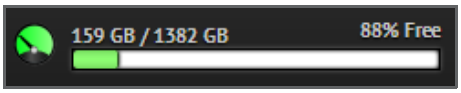


Figure 3-2: Server Disk Space Status

Figure 3-3 illustrates the display of content items for a particular screen server when chosen from the available screen buttons. Content status is shown with specific icons used to reference the status, such as the ✓ symbol which indicates that there are no issues with the content item. If the content item is encrypted, then a suitable padlock symbol accompanies the content item entry on the page. Padlock symbols designate the state of the KDMs for content items.

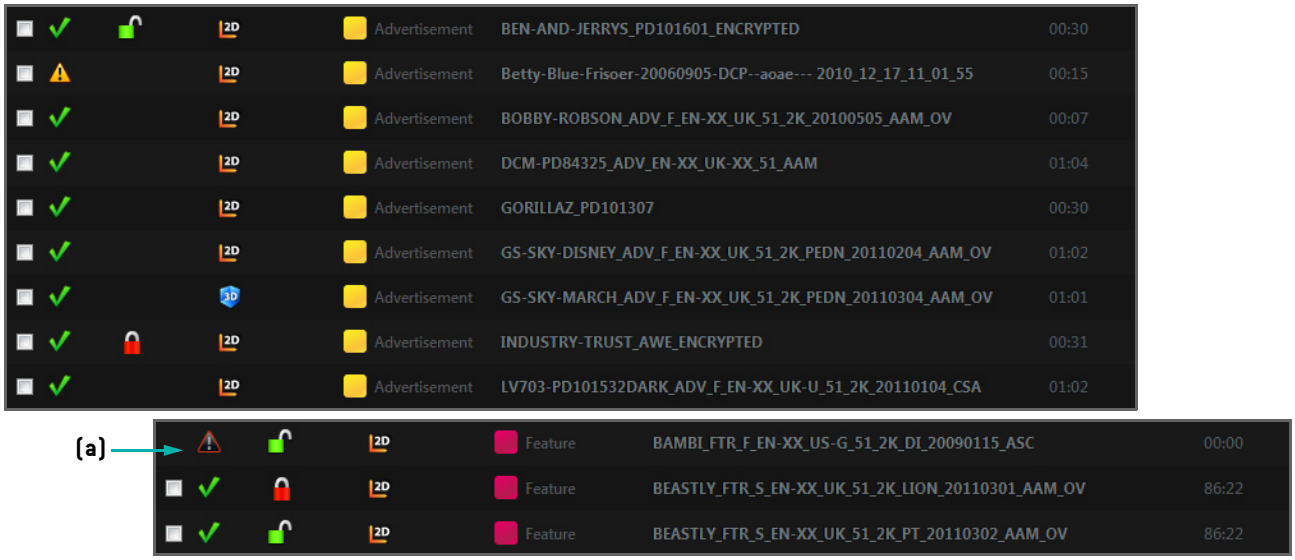


Figure 3-3: Viewing Content Stored on a Screen Server

3.1.2. Interpreting Padlock Icons on the Content Page

CPLs listed on the content page carry information, including their playability status based on KDM information. Hovering the cursor over the padlock icons (e.g.) reveals KDM validity details related to a particular CPL. This is illustrated in Figure 3-4.

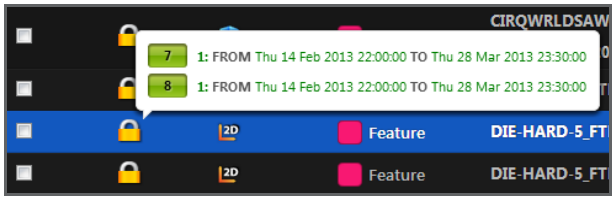
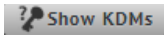


Figure 3-4: Screen Tips Explaining Playability Status

For encrypted content items, padlock icons are used to indicate KDM status:

- **Green and unlocked** icon (i.e.) indicates that KDM is present and valid for at least the next 24 hours.
- **Orange and unlocked** icon (i.e.) indicates current validity of the KDM but it will become invalid within 24 hours.
- **Orange and locked** icon (i.e.) indicates current invalidity of the KDM which will become valid within the next 24 hours.
- **Red and locked** icon (i.e.) indicates that the KDM is either not present or currently invalid and will remain so over the next 24 hours.

Note:

- The content page shows entries corresponding to all content items, even though a content item might not be present on a server. Figure 3-3a illustrates an example where there is a reference made to a content item that does not exist on any server. Content items that do not exist on any servers cannot be deleted.
- To show content items that are not present on any server but being reported by Screenwriter, use the 

button on the content page.

3.1.3. View Details of Content

To view details of a CPL, click on the CPL on the page. The **Information** view will then be displayed on the right hand side of the page (Figure 3-1e), where it is possible to view general CPL information, the status of the CPL on the relevant devices such as the LMS and screen servers. The following can be observed and achieved using the content page:

- The status of content on devices is colour coded (Figure 3-1f). **Green** indicates that there are no issues with the content item, while **Red** shows that there is some issue, e.g. related to corrupt content. **Yellow** implies that the content item is missing assets and **Blue** indicates that the content item is currently ingesting. To interpret the status of content items on devices, mouse over for more details.

- To view KDM availability associated with a content item, click on the tab.
- If there are any packs that reference the content item, then the tab will be visible for that item.
- Double-clicking on either the **Information** tab (Figure 3-1e) or other tabs found below it will collapse the right hand side of the page leaving more space to view CPLs.

3.1.4. Filter Content

It is possible to filter content by search term and type of CPL. In order to do this, use the provided search box and dropdown menu (Figure 3-1g).

Note:

- To clear a filter at any time click on the Clear filters button.

3.1.5. Delete Content

Content can be deleted on demand. To delete content:

1. Select the required entries from their corresponding checkboxes.
2. Click on the Delete button and confirm the deletion of the selected items.

3.1.6. Transfer Content

Screenwriter allows content to be transferred across screen servers and library servers so that content items can be made available for use on other servers that do not hold these items. To transfer a content item from one server to another with the intention of reusing it, carry out the following:

1. Search or filter for the required content item on the content page.
2. Select the content item by using its corresponding checkbox.
3. Click on the Transfer button. This will then open the **Transfer Content** dialog box (Figure 3-5), which provides the necessary parameters for controlling transfer settings.

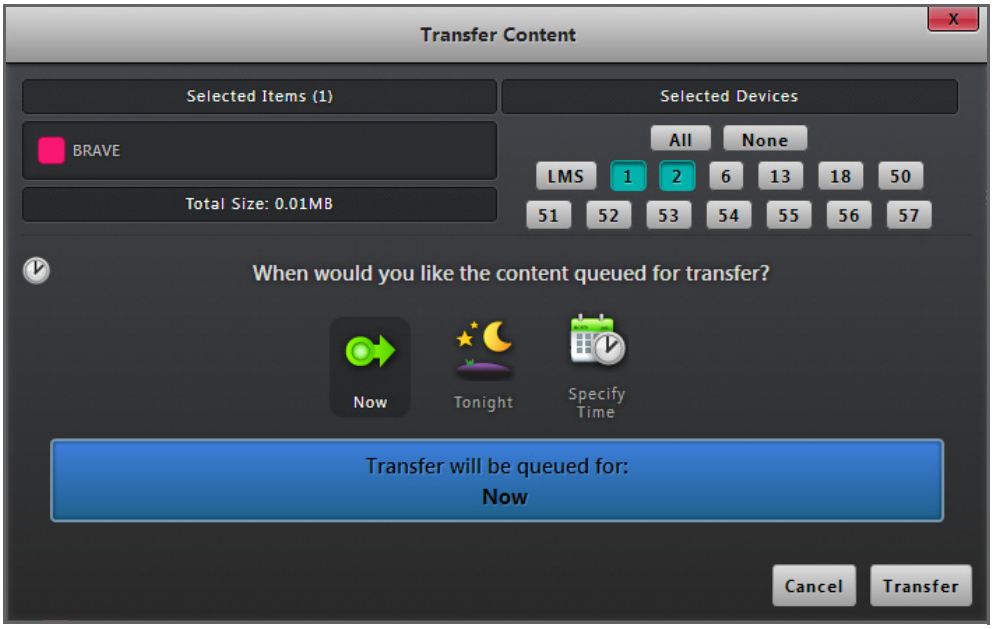


Figure 3-5: Transfer Content Dialog Box

4. Select the required screen(s) and/or LMS to which the selected content item is to be transferred. An optional time for performing the transfer can also be specified.
5. Click on the Transfer button to proceed with the transfer. The selected content item will then be queued in the transfer page and the completion status of the transfer will also be identified on that page (See **Transfer Status on page 31**).

3.1.7. Ingest Content

Content ingestion is a similar process to the transfer of content except that the process applies to plugged-in devices. To ingest a content item from a plugged-in device:

1. Select the required plugged-in device by choosing it on the page, e.g. /media/Feb 13 2013. Content available on the device will then be listed.
2. Select the required content item by using its corresponding checkbox.
3. Click on the Ingest button. This will then open the **Ingest Content** dialog box (**Figure 3-6**), which provides the necessary parameters for controlling transfer settings.

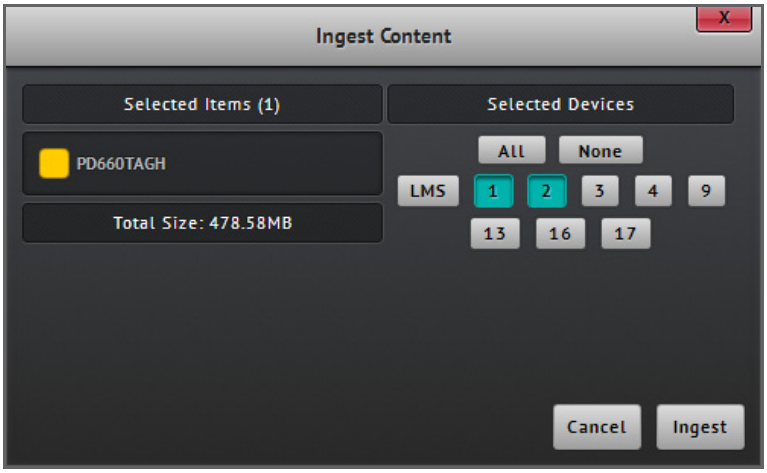


Figure 3-6: Ingest Content Dialog Box

4. Select the required screen(s) and/or LMS to which the selected content item is to be ingested.
5. Click on the Ingest button to proceed with the transfer. The selected content item will then be queued in the transfer page and the completion status of the transfer will also be identified on that page (See **Transfer Status on page 31**).

3.1.8. Scan Content on Devices

Screenwriter provides the ability to quickly depict the status of a content item present on a device in order to identify its validity or any issues related to the content item for that device. To scan a content item present on a device:

1. Search or filter for the required content item on the content page.
2. Select the content item by clicking on it.
3. Click on the Scan devices button within the information view on the right hand side of the page. This will open the **Scan Content on Devices** dialog box (**Figure 3-7**). The window displays all the devices which reference the content item.

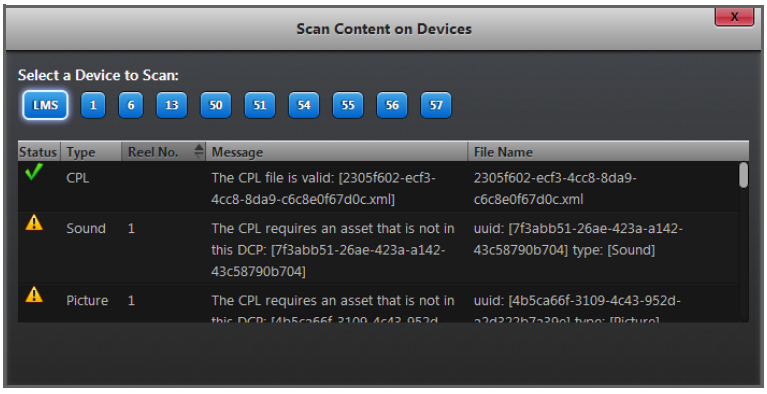


Figure 3-7: Scan Content on Devices Dialog Box

4. The scan can be initiated by clicking on a listed device at the top of the dialog box. The results of the scan will be summarised in the dialog box, identifying the validity or problem associated with the content item.

3.1.9. Upload KDM

The Screenwriter user interface can be used to upload KDMs for unlocking content. KDM XML files, zip files containing KDMs and KDM tar bundles can be uploaded. To upload KDMs:

1. Click on the Upload Kdm button from the content page. This will open the **Upload KDM** dialog box (Figure 3-8).

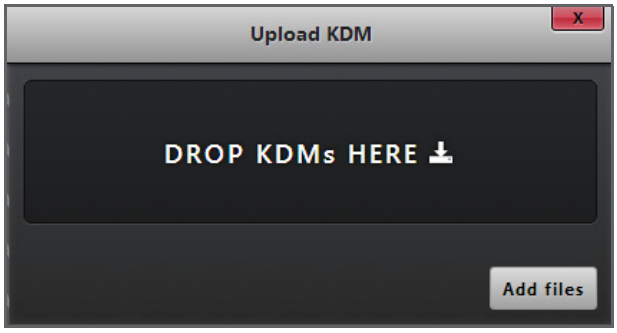


Figure 3-8: Upload KDM Dialog Box

2. It becomes possible to drag and drop the necessary KDM files to the dialog box. Zip files and KDM bundles can also be dragged to this space to upload KDMs. Alternatively, use the Add files button in the dialog box to upload the KDM files from a known location.

Note:

- This will upload the KDMs to the LMS and then to the respective server if the system is able to find a suitable match based on the server thumbprint in the KDMs. Otherwise, the TMS will report that a matching server cannot be found.
- KDM upload will fail if the KDMs are out of date, the XML is invalid, the KDMs do not have a ".xml" extension or if there are connectivity issues at the point of KDM upload.

3.1.10. Delete from Deadlist

A deadlist is a list of dead content, usually consisting of advertisements that are no longer in use. The deadlist is generally provided by the advertisement provider.

Screenwriter provides the ability to automatically remove dead advertisements from the system. To delete content from the deadlist:

1. Click on the Delete from Deadlist button from the content page. This will open the **Delete from Deadlist** dialog box (Figure 3-9).

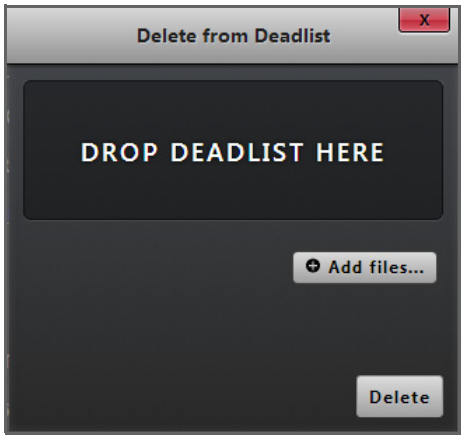


Figure 3-9: Delete from Deadlist Dialog Box

2. Drag and drop the deadlist to the dialog box. Alternatively, use the Add files button in the dialog box to upload the deadlist.
3. Click on the Delete button to complete the procedure.

Note:

- Current supported deadlists are Val Morgan deadlists.

3.1.11. Force Re-Upload KDM

In situations where there is some unknown valid KDM (i.e. one that is not assigned to a specific screen) associated with a particular content item, it might be necessary to force re-upload that KDM to a screen. This is carried out from the content page in the following way:

1. Select a given content item, e.g. a feature, from the content page.
2. KDM details for the content item can be displayed on the right hand side of the page by selecting the KDM availability tab ( ). The information will be displayed showing the unknown valid KDMs. An example is illustrated in Figure 3-10.

Figure 3-10: KDM Availability for a Content Item

3. Select the unknown valid KDM that needs to be force re-uploaded. This will open a window that lists the KDM details and provides options to download the KDM XML file or select a screen number to then force re-upload the KDM (Figure 3-11).

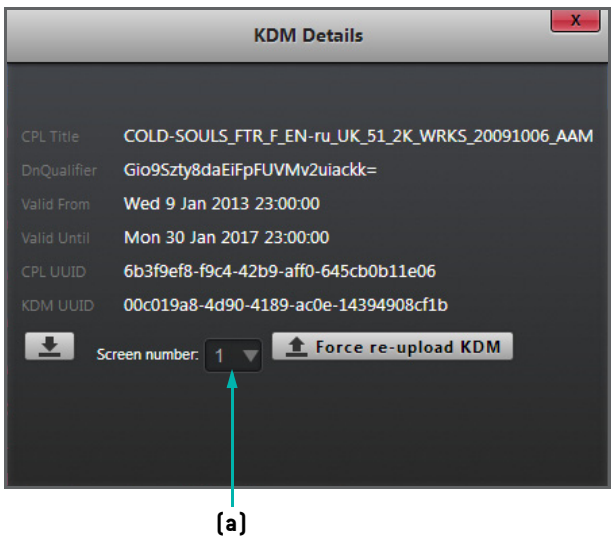


Figure 3-11: KDM Details Dialog Box

4. To force re-upload the KDM, select the appropriate screen number from the dropdown list in the dialog box (Figure 3-11a) and click on the Force re-upload KDM button.

3.2. Transfer Status

Content transfer status is managed from the **transfer page** (Figure 3-12), which is accessed through the Transfer Status tab under the Content option in the header bar.

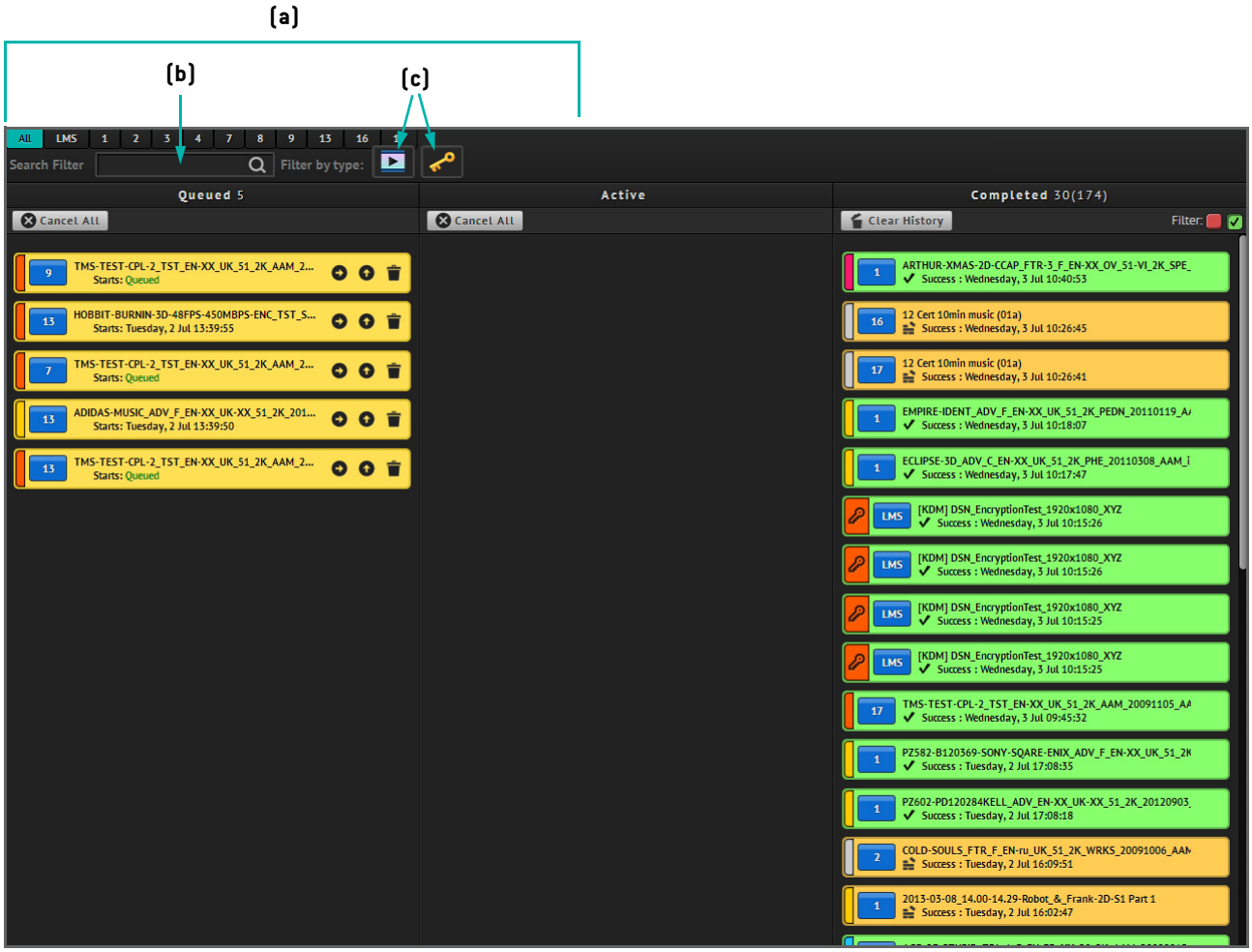


Figure 3-12: Transfer Page

The page lists content items as queued, active and completed, i.e. historical, transfers. It is possible to achieve the following using the transfer page:

- To view the details of a transfer, click on a listed item on the page. This will open the **Transfer Details** dialog box which displays information related to the transfer of a content item (Figure 3-13).

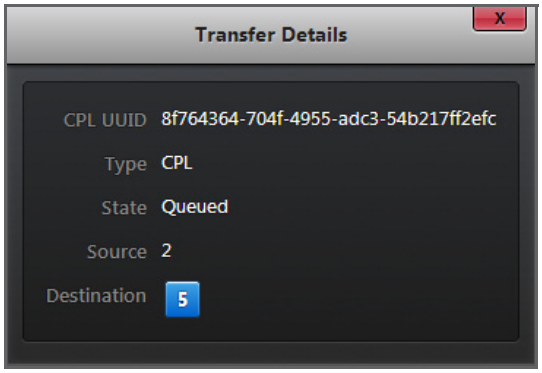


Figure 3-13: Transfer Details Dialog Box

- To filter transfers by location, use the server tabs provided (**Figure 3-12a**). By default, all transfers are listed on the page.
- To filter transfers by search term, use the provided search box (**Figure 3-12b**).
- To filter transfers by CPL or KDM, use the **CPL** and **KDM** buttons respectively (**Figure 3-12c**).
- To cancel all active and/or queued transfers, click on the Cancel All button.
- To cancel single active transfers, click on the button for the transfer entry.
- To sort completed transfers based on their success and failure criteria during transfer, toggle Filter:.
- If there are queued transfers awaiting to be started later during the day, a number of actions can be performed, namely: (1) move the priority of a transfer one level up (**Figure 3-14a**), (2) cancel a queued transfer (**Figure 3-14b**), and (3) attempt an immediate transfer of a content item(**Figure 3-14c**).

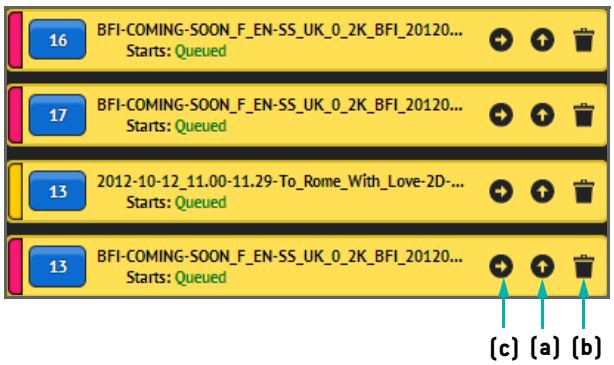


Figure 3-14: Example of Queued Transfers

3.3. Playlists

The content section of Screenwriter supports the comprehensive management of playlists, which can later be scheduled for playback. The **playlist page** (Figure 3-15) is accessed through the Playlists tab under the Content option in the header bar.

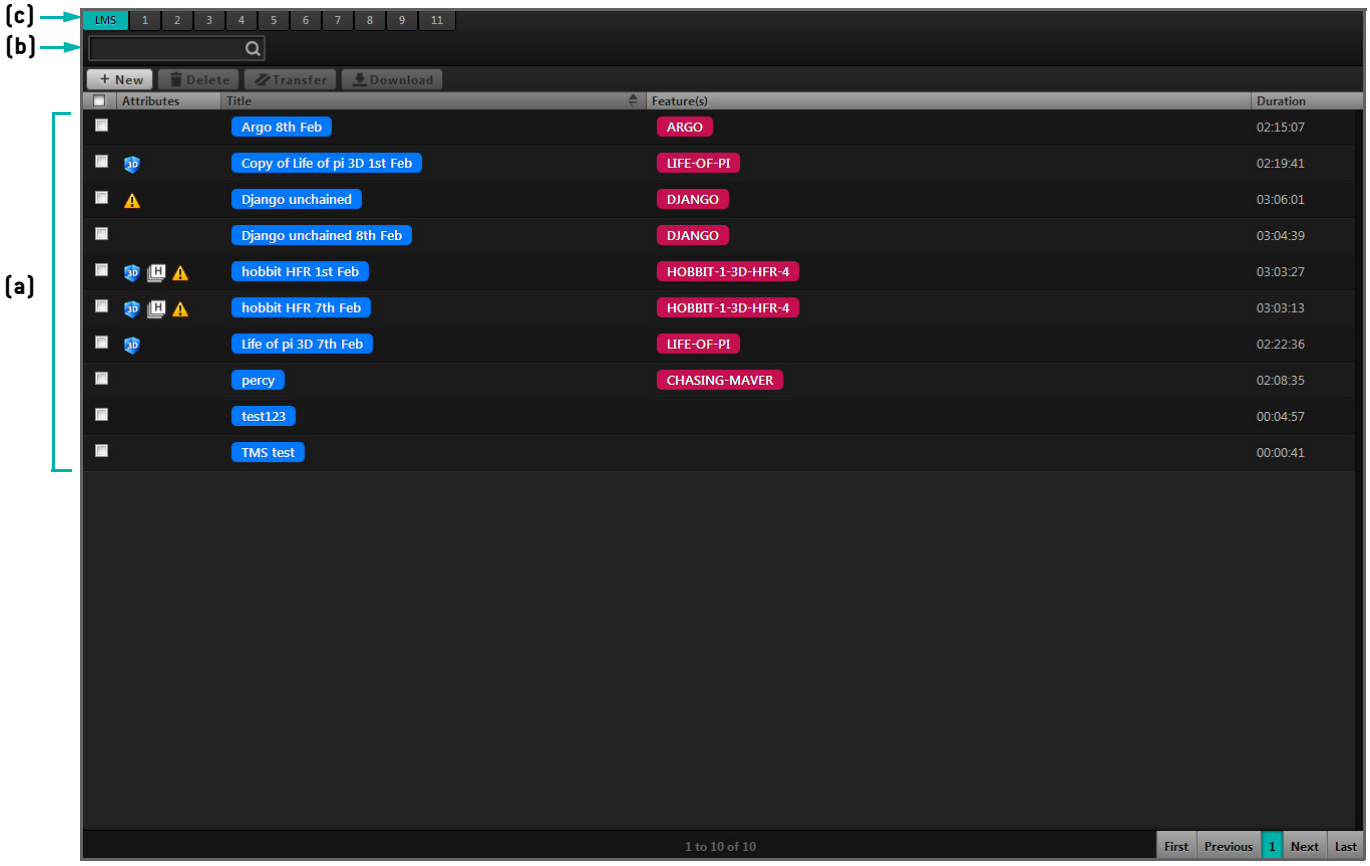


Figure 3-15: Playlist Page

3.3.1. View Playlist Details

All playlists are listed on the playlist page (Figure 3-15a), with information about their attributes, titles, any features accompanying the playlists and their duration. Using the page, it is possible to achieve the following:

- To search for playlists, type suitable search terms in the search box provided (Figure 3-15b).
- To view the playlists on specific screen servers or the LMS, use the appropriate tabs (Figure 3-15c).
- To view the elements of a playlist, click on a playlist entry on the page. This will open the playlist edit page to view the components of the playlist (See Figure 3-16 on page 34).

3.3.2. Create Playlist

Playlists can be built on demand. To build a new playlist for a selected screen server or LMS, perform the following actions:

1. Click on the New button on the page. This will open a dialog box requesting the addition of a suitable title for the playlist.
2. Using the dialog box, enter the title of the playlist and click on the New Playlist button. This opens the **playlist edit page** for adding content item to the playlist (Figure 3-16).

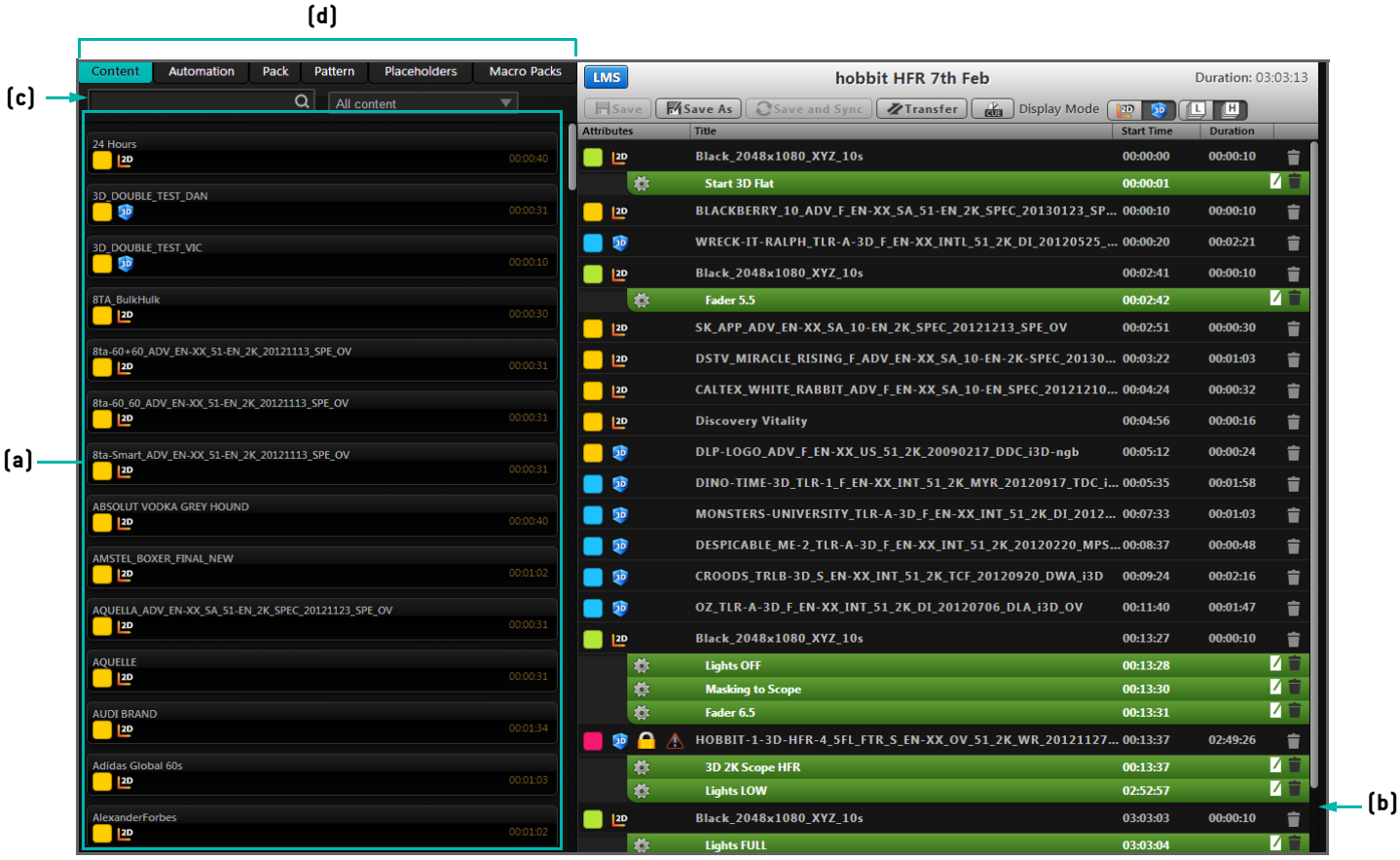


Figure 3-16: Playlist Edit Page

3. Using the item picker (Figure 3-16a), drag and drop the required content item to the right hand side of the page (Figure 3-16b). It is also possible to double click the content item in the item picker to add it to the playlist.

Note:

- To filter content by search term or content type use the provided search and dropdown boxes, respectively (Figure 3-16c).
- To reorder items in a playlist, click-hold one item at a time and drag the content item either up or down depending on the position that it should sit in the playlist.

4. Various other types of items can be included within a playlist, ranging from automation cues to packs, titles, placeholders and macro packs. To include any of these items, switch to the appropriate tab and use the item picker to add the required items to the playlist (**Figure 3-16d**). For more information about the types of items that can be included in playlists: See **Packs on page 44**; See **Titles on page 37**; See **Macro Packs and Macro Pack Placeholders on page 53**.
5. Once the playlist has been built, click on the Save button to store the playlist. The playlist will then become viewable on the playlist page.

Note:

- To modify an existing playlist, click on the playlist from the playlist page. This will then open the playlist edit page, from which it is possible to edit the playlist.
- To delete an item within a playlist, click on the button adjacent to the item within the playlist on the playlist edit page.
- To store a playlist under a new name, click on the Save As button on the playlist edit page. This will open a dialog box for inputting and saving the new playlist name.
- To toggle the cue offset function, click on the CUE button on the playlist edit page.

3.3.3. Delete Playlist

Playlists can be deleted when they are no more required. To delete a playlist:

1. Search for the required playlist.
2. Select the playlist by using its corresponding checkbox on the playlist page.
3. Click on the Delete button and confirm deletion of the playlist.

Note:

- It is not possible to directly delete a playlist that has been mapped to a POS session. See **Manually Assign a Playlist to a POS Session on page 69** for more details.

3.3.4. Transfer Playlist

Playlists can be transferred from one device to another in order to make them available for use throughout a complex. To transfer a playlist from its actual destination to a screen server or LMS:

1. Search for the required playlist.
2. Select the playlist by using its corresponding checkbox on the playlist page.
3. Click on the Transfer button. This will then open the **Transfer Playlists** dialog box, which is very similar in appearance to the dialog box shown in **Figure 3-5**.

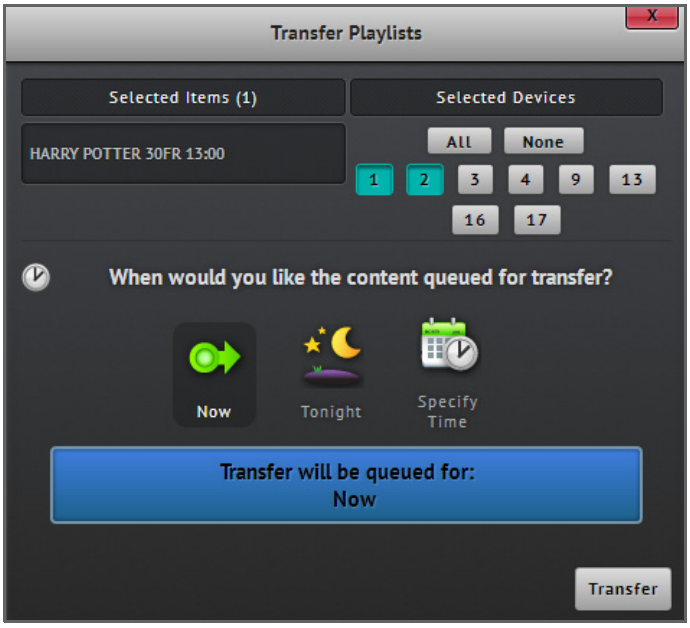


Figure 3-17: Transfer Playlists Dialog Box

4. Select the required screen(s) and/or LMS to which the selected playlist is to be transferred. An optional time for performing the transfer can also be specified.
5. Click on the Transfer button to proceed with the transfer. The selected playlist will then be queued in the transfer page and the completion status of the transfer will also be identified on that page (See **Transfer Status on page 31**).

Note:

- A playlist can also be transferred, after it has been saved, by clicking on the Transfer button whilst on the playlist edit page.

3.3.5. Download Playlist Information

Playlist information, in the form of the metadata for a playlist, can be downloaded on demand. To download playlist information:

1. Search for the required playlist.
2. Select the playlist by using its corresponding checkbox on the playlist page.
3. Click on the Download button to download the playlist in ".csv" format. The file can readily be opened with the Microsoft Office Excel application.

3.4. Titles

3.4.1. Preview

Screenwriter integrates with multiple sources of information coming from advertising service providers, POS systems and screen servers. These sources typically acknowledge, in one way or another, details linked to the titles of features, for example, in:

- Pre-show items, i.e. advertisements and trailers, that should be placed in front of the features.
- Actual CPLs that are present on the screen servers.
- Shows for movies that have been booked through POS systems.

Titles are, therefore, abstractions of a given feature that represent the names that various things, such as content, are tied to. In Screenwriter titles are normally used for assigning pre-show packs to content groups rather than to individual content items, for example, when creating a pack, the user is able to select a title to run the pack against.

As a consequence of the multiple provenances of title information, it becomes necessary for Screenwriter to support the simple association of various titles into one title so that all systems can refer to the same feature effortlessly. **Figure 3-18** exemplifies sources of titles that typically go through the Screenwriter environment, where the application aims at providing the options necessary for managing titles for improved show management.

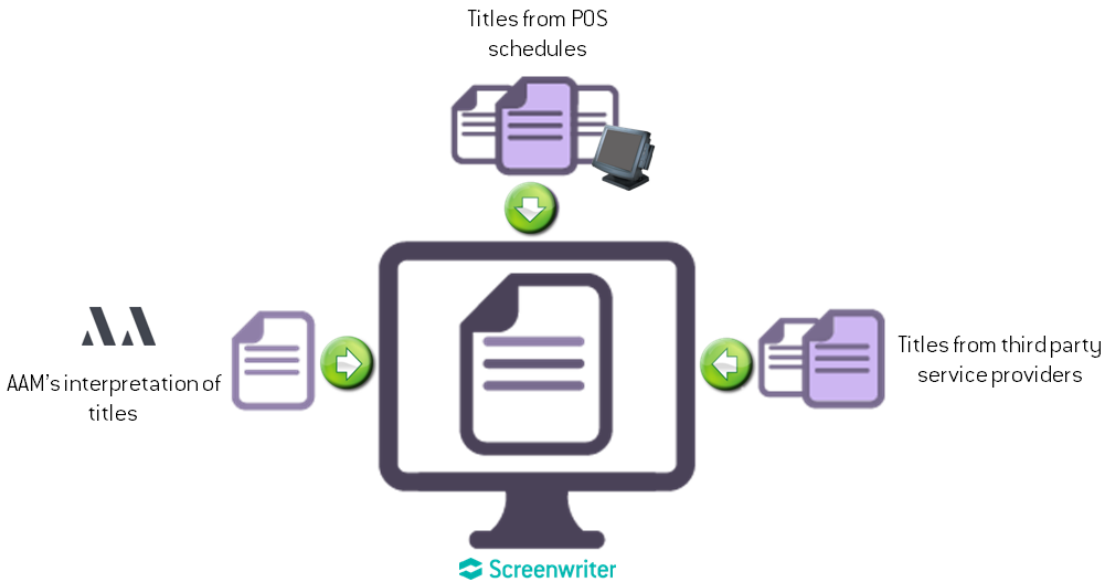


Figure 3-18: Understanding Titles

3.4.2. Title Page

The **title page** (Figure 3-19) is accessed through the Titles tab under the Content option in the header bar. The page lists all the titles that have been created by the user (See Create Title on page 39), imported from POS integration (See POS Page on page 67) or other sources.

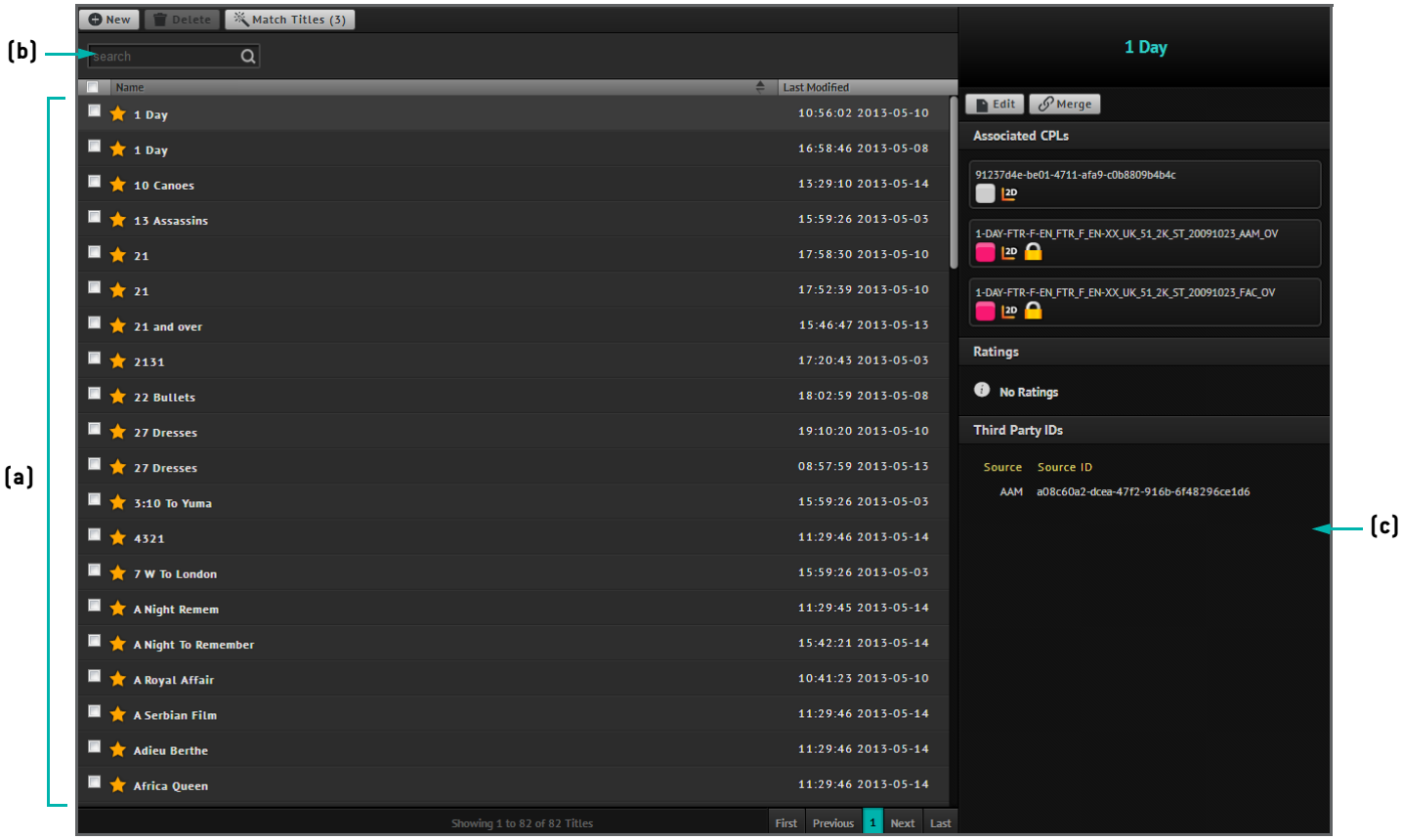


Figure 3-19: Title Page

3.4.3. View Title Details

Titles are alphabetically ordered and listed on the title page (Figure 3-19a). The page allows the following to be achieved:

- To search for existing titles, type suitable search terms in the search box provided (Figure 3-19b).
- To view the details of a given title, click on the title on the page. The relevant details are displayed on the right hand side of the title page with information such as the CPLs associated with the title, ratings and the matching third party IDs (Figure 3-19c).

Note:

- A third party ID is the identifier that a third party uses to refer to a title. Screenwriter lists the source and source ID details. It is possible from the source name to depict where a title comes from, e.g. val_morgan, rentrak, etc.

3.4.4. Create Title

Titles can be created on demand using the Screenwriter user interface. To create a new title:

1. On the title page, click on the New button. This will open the **title edit page**, which allows a name to be assigned to the title as well as CPLs to be associated with it (Figure 3-20).

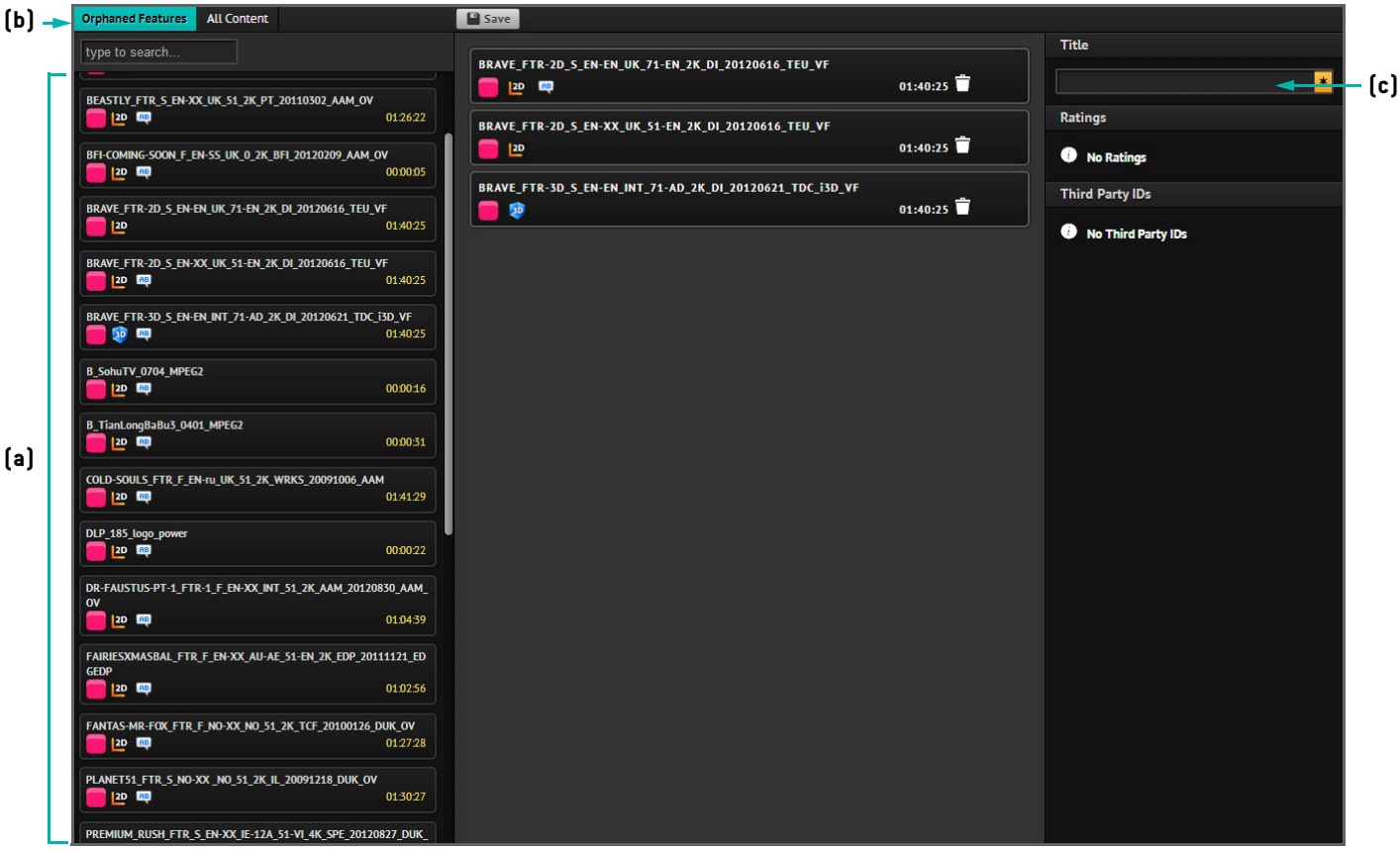


Figure 3-20: Title Edit Page

2. Use the item picker on the left hand side of the page to drag and drop content items to associate them with the title (Figure 3-20a). Different types of content like advertisements, trailers and features can be added using the **All Content** tab. On the other hand, **orphaned features** can also be browsed through and selected (Figure 3-20b). Orphaned features are feature content that do not have prior association with another title.
3. To add the name of the title, use the field on the right hand side of the page (Figure 3-20c).

4. Click on the Save button to complete the procedure. This will then create the new title which is made visible on the title page.

3.4.5. Edit Title

Titles can be edited on demand so as to review their details and associated CPLs. To edit a title:

1. Search for the title from the title page.
2. Select the title by clicking on it.
3. Click on the Edit button on the title page. This will open the title edit page.
4. Make the necessary modifications to the title.
5. Click on the Save button to complete the procedure.

3.4.6. Match Title

Titles coming from the POS system that feed into Screenwriter, but have not been matched with a Screenwriter interpretation of the titles, are classed as unmatched titles. In Screenwriter, unmatched POS groupings need to be matched to titles in order to be able to, subsequently, perform tasks related to scheduling via POS integration (See **Point of Sale on page 66**). Unmatched titles can be manually matched using the Screenwriter user interface. To match these titles:

1. Click on the Match Titles (3) button on the title page. This will then open the **Match Titles** dialog box which lists all the unmatched titles (**Figure 3-21**).

Note:

- The number displayed in the button reveals the number of unmatched titles known to the system.
- The **Match Titles** dialog box, in addition to displaying the unmatched titles, also identifies the source of the titles as well as an indication of the number of associated items, such as schedules, that the titles participates in.

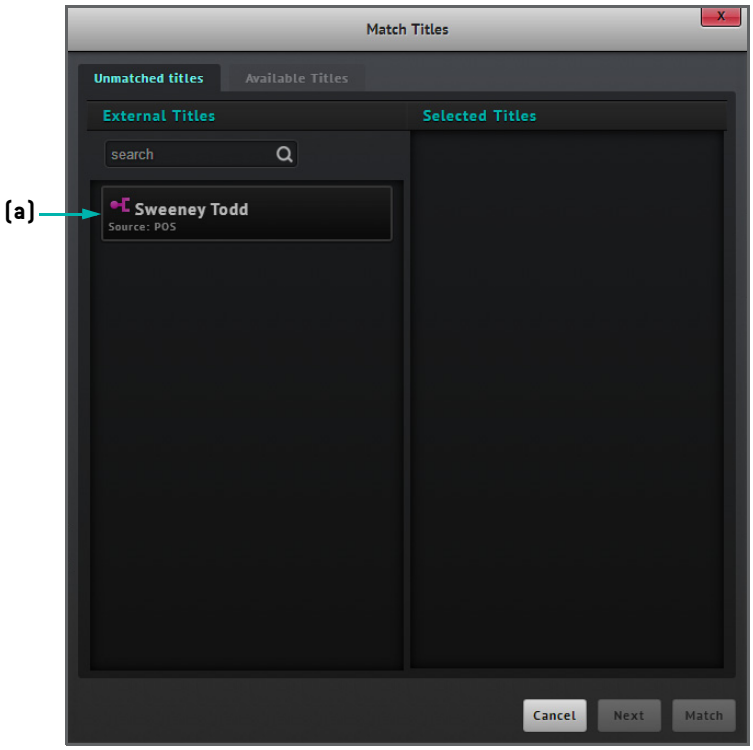


Figure 3-21: Match Titles Dialog Box

2. To start matching a title, select it from the list present on the left hand side of the dialog box (**Figure 3-21a**). This action will move the selected title to the right hand side under the **Selected Titles** column.
3. Click on the Next button to continue. This will open the **Available Titles** tab from which a matching title can be selected from existing titles that have been created in Screenwriter (**Figure 3-22**).
4. Assign a target title by selecting an existing one from the available list (**Figure 3-22a**).
5. Click on the Match button to complete the procedure.

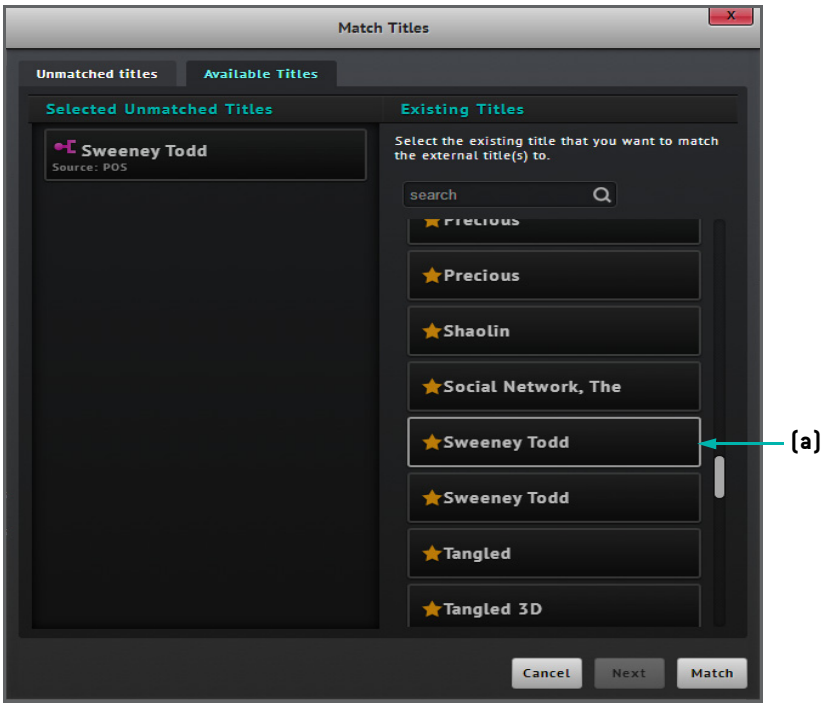


Figure 3-22: Specifying a Target Title to Match

3.4.7. Merge Titles

Screenwriter allows the user to merge pairs of titles to create a single instance of a title. This can be particularly handy in situations where multiple titles need to be combined. To merge titles:

1. Search or filter for the required source title (i.e. title that needs to be corrected) on the title page.
2. Select the source title by clicking on it in the list on the page.
3. Click on the Merge button on the title page. This will open the **Merge Titles** dialog box (Figure 3-23).

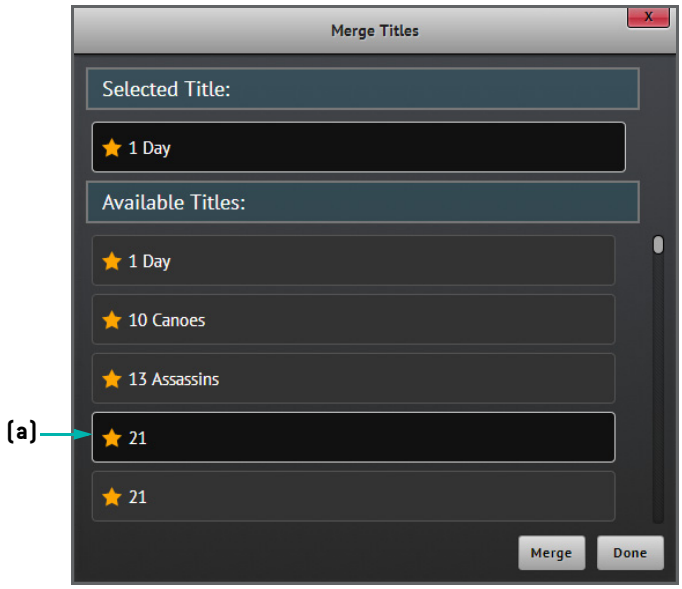


Figure 3-23: Merge Titles Dialog Box

4. Select the destination title from the available list (Figure 3-23a).
5. Click on the Merge button to complete the procedure.

3.4.8. Delete Title

Titles can be deleted when they are no longer required. To delete a title:

1. Search for the title from the title page.
2. Select the title by using the corresponding checkbox.
3. Click on the Delete button and confirm deletion of the title.

3.5. Packs

3.5.1. Preview

At the early stages of digital cinema, playlist management was largely a manual process that included reading advertising sheets combined with determining the correct trailers and main feature for each playlist. Playlists would generally not change for individual features over the course of a week as this would involve too much manual work and be quite error prone. This sparked a desire from projectionists to be able to reuse sections of a playlists (e.g. the trailers or the adverts) across multiple playlists to shorten the amount of time spent on creating playlists. Advertisers on the other hand were looking to be more flexible with their advertising schedule and started pushing to be able to have finer control of their advertisement sections, such as the ability to change them across individual screenings.

Packs generally represent the advertisement or trailer sections in playlists and are aimed to address both of these points. Rather than inserting the content directly into each playlist, with packs, users are encouraged to place the content into the packs. The packs are then assigned to the playlists making the bundle of content reusable across playlists.

Figure 3-24 illustrates the essence and purpose of a pack. The following summarises the key points related to the definition of packs:

- A pack is a special kind of pre-show item that serves as a container for referencing content of various types such as advertisements and trailers.
- Packs serve two purposes, namely: (1) as reusable grouping of content and (2) as inputs to content placeholders for dynamic matching (See **Dynamic Pack Matching on page 50**). In the latter case, pack metadata become vital for describing the attributes of the packs.
- A pack can be reused multiple times from playlist to playlist, thereby making it easy for the user to allocate the same content to various shows in an effective way.
- Packs can be created within the Screenwriter environment or can be delivered by third parties such as advertising providers.

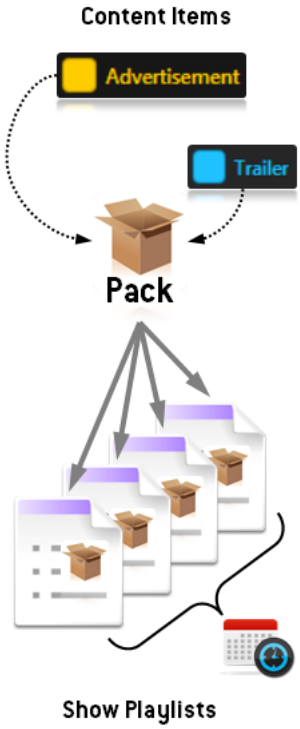


Figure 3-24: Understanding Packs

3.5.2. Pack Metadata

Packs have metadata associated with them to determine under which circumstances they are applicable. Pack metadata is required in order to drive dynamic pack matching (See **Dynamic Pack Matching on page 50**). This metadata needs to be flexible enough to have a pack that covers all features at a cinema, but also specific enough to target single scheduled playbacks. For that purpose, Screenwriter provides an intentionally open selection of metadata which serve as pack attributes. Not every attribute has or should be filled out but it is advised to only use subsections of the metadata. The attributes work with each other, so it is possible to add multiple matching criteria (e.g. must be a certain movie at a certain day at a certain cinema). Pack metadata includes the following:

- Pack type (mandatory). This is used to identify the nature and purpose of the pack. For example, an advertisement pack, trailer pack, gold spot advertisement, etc.
- Complex. This is used for packs that only apply to a given complex.
- Complex Group. This is used for packs that only apply to a given complex grouping.
- Specific screens (complex must be specified). This is used for packs that only apply to a selection of screens.
- Date range. This is used for packs that only apply to playbacks starting between the specified dates.
- Time range. This is intended for packs that only apply to playbacks starting between the specified times, e.g. it is possible to have packs that are only valid during the morning.
- Title. This is intended for packs that only need to apply when a specific title is played.

3.5.3. Pack Page

Packs that are known to the system are listed on the **pack page** (Figure 3-25). This page is accessed through the Packs tab under the Content option in the header bar.

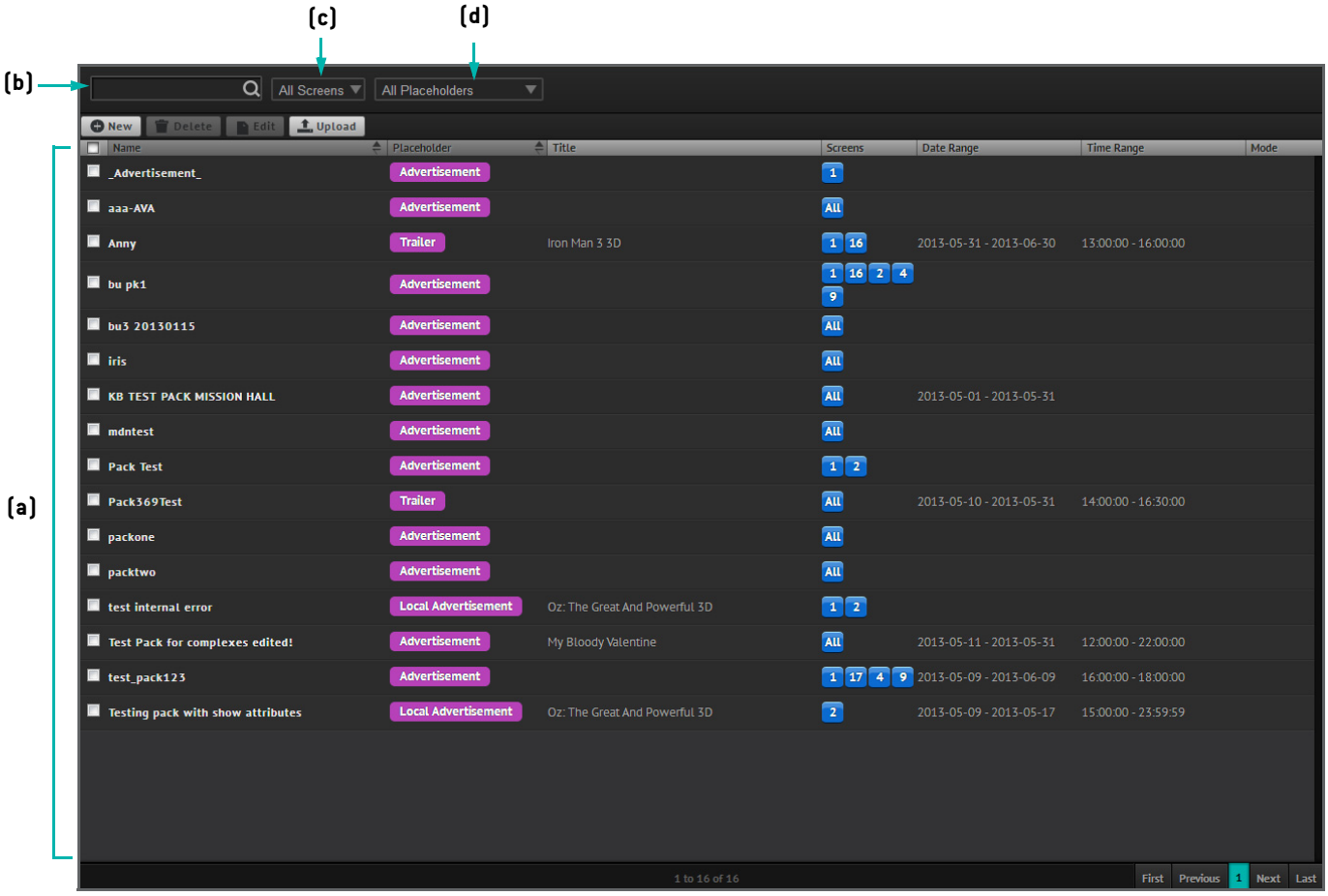


Figure 3-25: Pack Page

3.5.4. View Pack Details

All packs are listed on the pack page (Figure 3-25a), with information about their names, placeholder types, titles, screens, date and time ranges, ratings, priority and modes. Using the page, it is possible to achieve the following:

- To search for packs, type suitable search terms in the search box provided (Figure 3-25b).
- To filter packs by screen or type of placeholders, use the provided drop down menus (Figure 3-25c and Figure 3-25d).
- To view the elements of a pack, click on a pack entry on the page.

3.5.5. Create Basic Pack

Screenwriter supports the on-demand creation of packs for use within the application. To build a simple pack for the purpose of creating a reusable grouping of content, perform the following actions:

1. Click on the New button on the page. This opens the **pack edit page** for adding items to the pack (Figure 3-26).

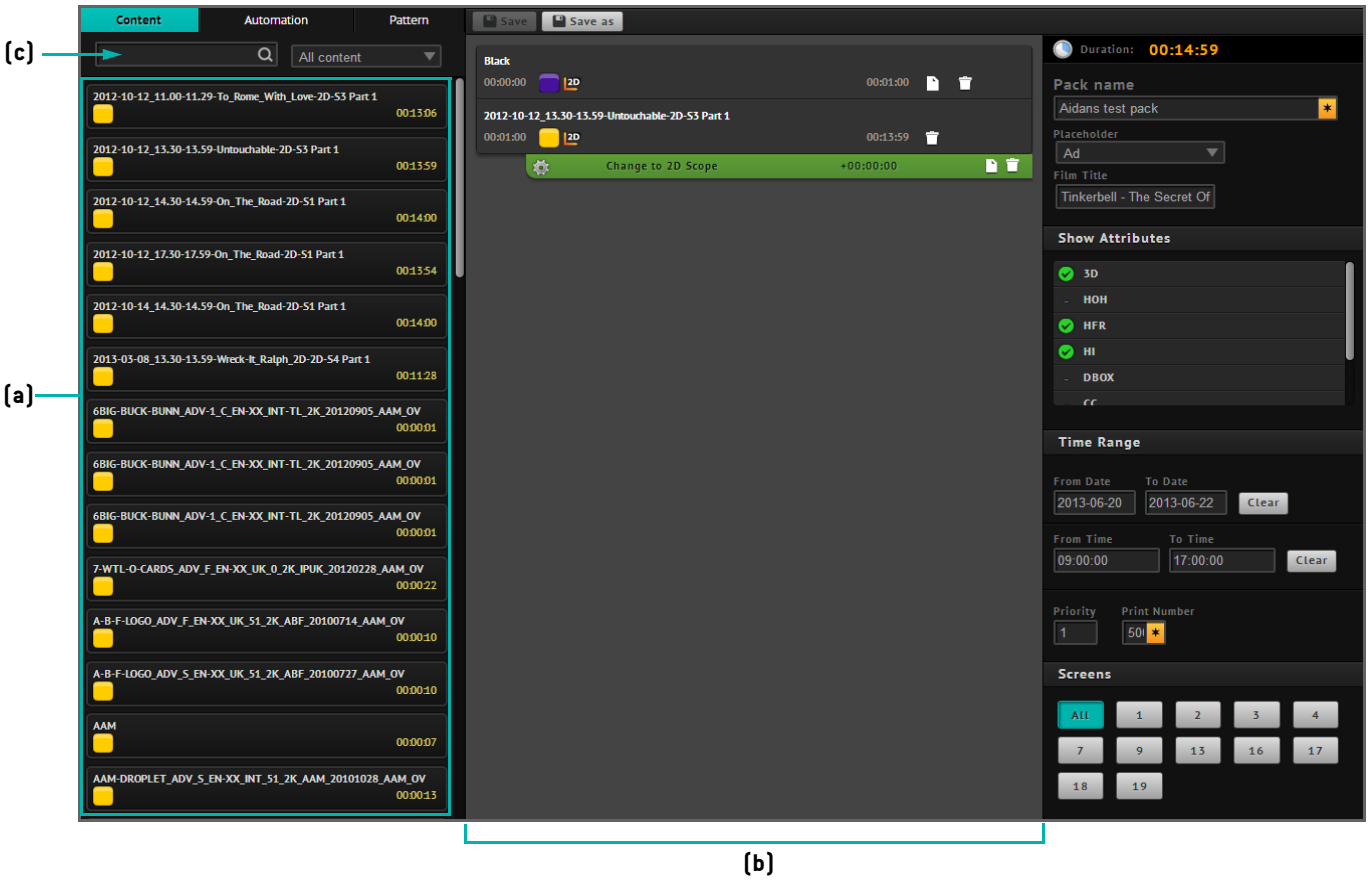


Figure 3-26: Pack Edit Page

2. Using the item picker (Figure 3-26a), drag and drop the required content items into the middle area of the page (Figure 3-26b).
3. If necessary, switch to the **Automation** tab to add automation cues. Automation cues must be added to either a pattern or a content item as they cannot be added in isolation. Also switch to the **Pattern** tab to add any patterns to the pack.

Note:

- To filter content by search term or content type use the provided search and dropdown boxes respectively (Figure 3-26c).
- To reorder items in a pack, click-hold one item at a time and drag the content item either up or down depending on the position that it should sit in the pack.

4. Complete essential details by adding basic details of the pack, including the name of the pack and its associated type of placeholder.
5. Once the pack has been built, click on the Save button to store the pack. The pack will then become viewable on the pack page.

Note:

- A pack can also be created for the purpose of dynamic pack matching by completing further attributes of the pack (See **Dynamic Pack Matching and Scheduling via POS on page 71**).
- To modify an existing pack, click on the pack from the pack page. This will then open the pack edit page, from which it is possible to edit the pack.
- It is also possible to edit basic attributes of a pack by selecting it from the pack page and clicking on the Edit button. A dialog box will open to allow altering the screen number and/or placeholder for the pack.
- To delete an item within a pack, click on the button adjacent to the item within the pack on the pack edit page.
- To store a pack under a new name, click on the Save As button on the pack edit page. This will open a dialog box for inputting and saving the new pack title.

3.5.6. Mass Edit Packs

In certain situations it may be required to perform edits to multiple packs at the same time. Instead of having to make those edits one by one by going through each pack that requires modification, Screenwriter provides a handy functionality which supports the mass editing of packs. To edit the basic attributes of multiple packs simultaneously:

1. Select the packs from the pack page using their corresponding checkboxes.
2. Click on the Edit button. This will open the **Edit Packs** dialog box which provides options for altering the screen number and/or placeholder for the selected packs (**Figure 3-27**).

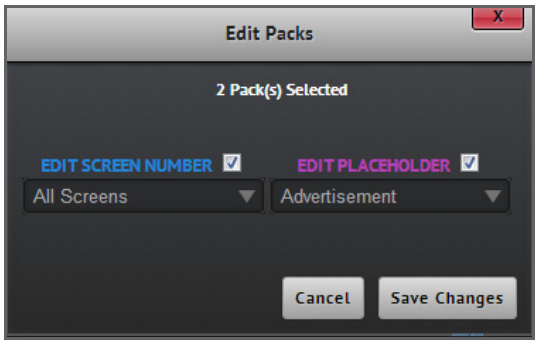


Figure 3-27: Edit Packs Dialog Box

3. Make the necessary modifications.
4. Click on the Save Changes button to complete the procedure.

3.5.7. Delete Pack

Packs can be deleted on demand when they are no longer required. To delete a pack:

1. Search for the required pack.
2. Select the pack by using its corresponding checkbox on the pack page.
3. Click on the Delete button and confirm deletion of the pack.

3.5.8. Upload Pack

Packs can be created by third parties and either uploaded manually or sent directly to the TMS, depending on how a site is set up. To manually upload a third party pack:

1. Click on the Upload button whilst on the pack page. This will open a new dialog box.

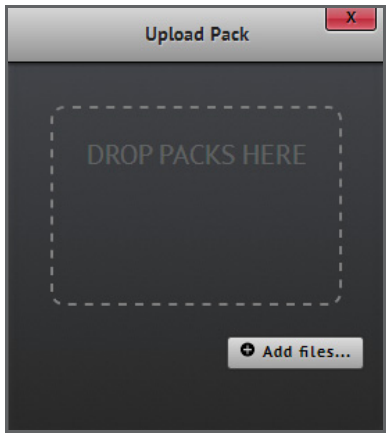


Figure 3-28: Upload Pack Dialog Box

2. Drag and drop the pack file into the dialog box. Alternatively, use the Add files button in the dialog box to upload files from a known location.

Note:

- Current supported third party packs are DCM and Val Morgan.
- See **Appendix B: Supported File Formats on page 123** for examples of an XML and tab-separated text file formats for uploading packs.

3.5.9. Add Pack to Playlist

Packs can be efficiently added to playlists in order to have the content referenced by these packs reused across different playlists, thereby offering greater flexibility in the way content is reused across playlists. To add an existing pack to a playlist, carry out the following:

1. Open the playlist from the playlist page. This will open the playlist edit page. Adding a pack to a playlist can also be done while the playlist is under construction.
2. Switch to the Pack tab on the playlist edit page.
3. From the item picker, select the required pack and add it to the playlist by dragging and dropping it to the playlist items. This will open the **Add Pack** dialog box for confirming the addition of the pack.
4. Click on the Add button in the dialog box to include the pack into the playlist. On adding the pack, it collapses into its constituent content items which are then shown in the playlist.
5. Once the pack has been added to the playlist, click on the Save button to store the playlist.

3.5.10. Dynamic Pack Matching

Depending on the configurations made in Screenwriter, it is possible to have the application integrate with many different sources such as Point of Sale (POS) systems and advertisement feeds that may come from third party systems. The ability to match the various content items together ensures that all the feeds are talking about the same things when required.

Screenwriter exploits matching mechanisms to deliver a powerful advertising integration functionality known as the concept of "dynamic pack matching". Dynamic pack matching is an aspect of semi-automated pre-show management which makes it possible for the user to have packs automatically inserted into SPLs based on a set of metadata-driven rules associated with the packs. The fundamentals of dynamic pack matching are illustrated in **Figure 3-29**.

Example:

Feeds coming from a POS system could be referring to the feature "Batman" which is scheduled to play at 15:00 on screen 2 at London Cinemas. Other feeds coming from advertising service providers could be referencing packs for advertisement purposes as "Batman Returns". In this situation, it would be desirable to match the concepts together, i.e.

"Batman" and "Batman Returns". Once this done, whenever the POS system has a reference made to "Batman", the system is then able to know exactly what this means for the other systems that Screenwriter communicates with.

Screenwriter enables the data coming from various sources (e.g. titles in the case of advertisement feeds and screen and playback times from POS systems) to be associated with the correct CPLs. When the information is combined it becomes possible to support the automatic creation of playlists, schedules and content transfers without further human intervention.

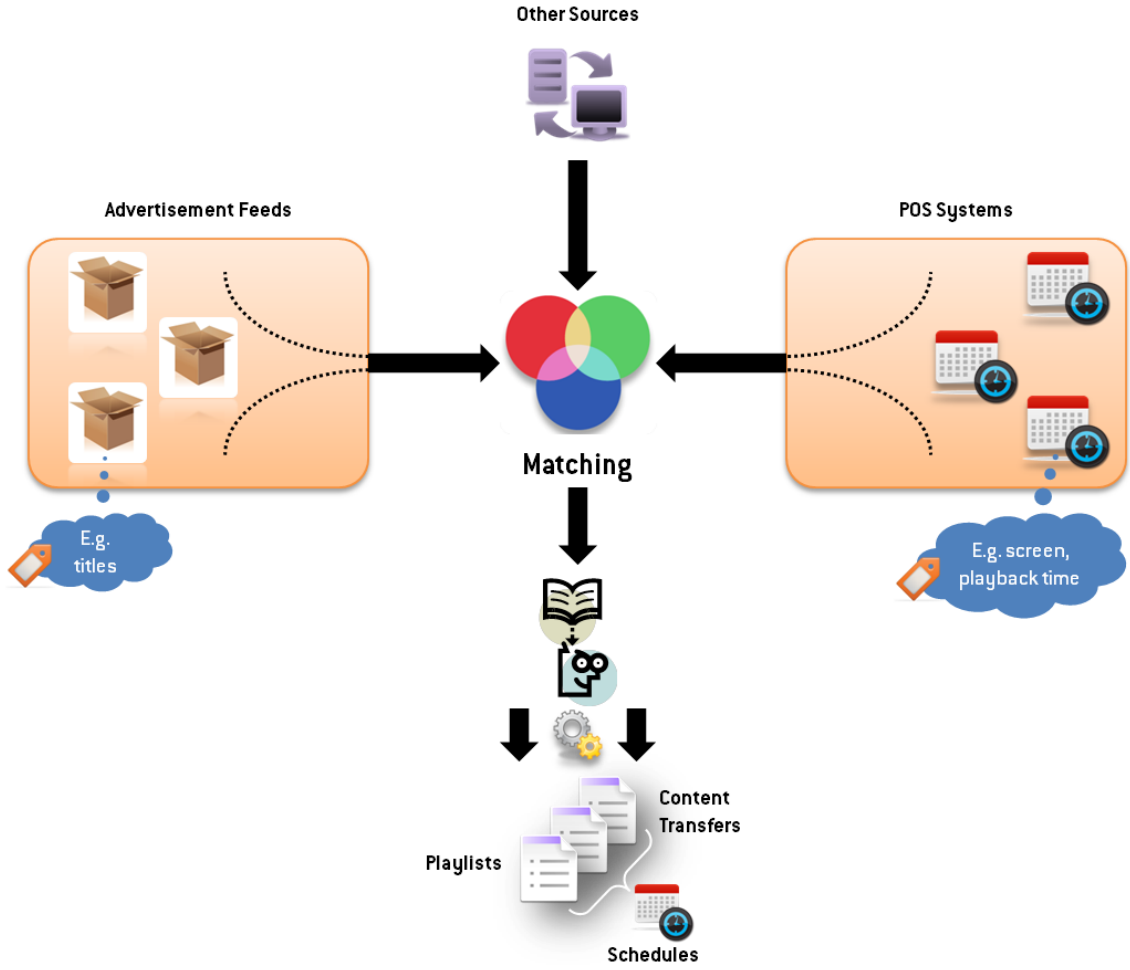


Figure 3-29: Understanding Dynamic Pack Matching in Screenwriter

A detailed walk-through example of using this aspect of pre-show management is explained in the next chapter as it relies on an understanding of playlists, scheduling and POS components of Screenwriter (See **Dynamic Pack Matching and Scheduling via POS on page 71**).

3.5.11. Create Pack for Dynamic Matching

In order to create a pack for dynamic matching purposes, it is essential to follow the same procedure as creating a basic pack (See **Create Basic Pack on page 47**). However, as the dynamic matching mechanism requires the specification of pack metadata, further pack attributes are generally required.

During the creation of the pack, perform the following:

1. In addition to the pack name and placeholder, complete film title information for the pack. The available film titles come from the titles that have been created in the TMS (See **Titles on page 37**).
2. Additional metadata can be added depending on the desired matching criteria. Values for show attributes, date and time ranges, priority, print number as well as the screens to which the pack is to be made applicable to, can be specified.
3. Once the necessary pack attributes have been completed, save the pack. The pack will then be shown on the pack page.

Note:

- Show attributes are set up in the configuration section of Screenwriter (See **Show Attributes on page 110**). The available show attributes normally include 3D, CC (Closed Caption), HOH (Hard of Hearing), DBOX (screen and CPL capability for motion effects), HI (Hearing Impaired), HFR (High Frame Rate) and VI (Vision Impaired).
- A value specified in the “priority” field is used to differentiate between packs that have the same date and time ranges as well as film title details. This makes it easy for sites to override pack matching. For example, if there are two identical packs but one has a higher priority number, then the pack with the higher priority number is the one that gets selected.
- The “print number” field refers to the print number of the feature. Sites normally have a few features which carry different print numbers.

3.6. Macro Packs and Macro Pack Placeholders

3.6.1. Preview

The ability to include automation within playlists is an important part of pre-show management. Automation may, for example, be required to instruct when to turn on a lamp, open dowser and set house lights to mid. To aid the management of automation in playlists, Screenwriter utilises the concepts of “macro pack” and “macro pack placeholder”. The understanding behind macro packs and macro pack placeholders is captured in **Figure 3-30**.

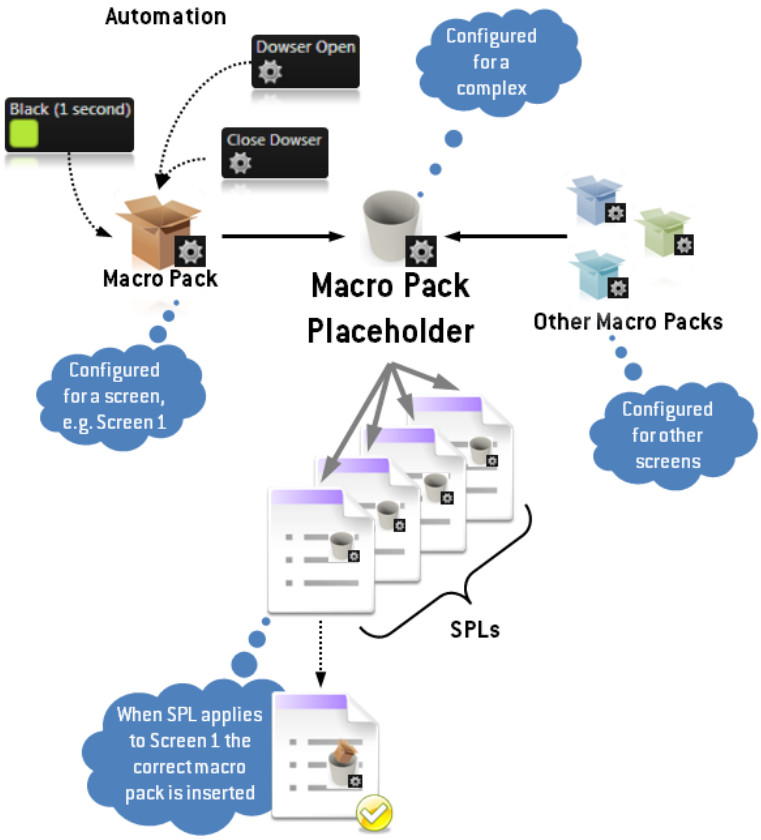
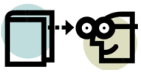


Figure 3-30: Understanding Macro Packs and Macro Pack Placeholders

The following summarises the key points behind the definition of macro packs and macro pack placeholders:

- A macro pack is a type of grouping for which the constituent items generally remain unchanged from show to show. A macro pack is configured for each screen and usually contains all the automation needed for playlists. A macro pack fits into a type of placeholder called “macro pack placeholder”.
- A macro pack placeholder, on the other hand, is a configured item that provides a method of allocating macro packs within playlists. A macro pack placeholder can be reused multiple times from playlist to playlist and also in templates (See **Templates on page 56**).

- Macro pack placeholders ensure that playlists can be easily switched across screens without the user having to worry about whether the automation is compatible, as the system will place the appropriate macro packs with the required automation for a given screen into the macro pack placeholders already present in the playlists.

 **Example:**

An example of a macro pack placeholder would be “show start”. The macro pack for “show start” could contain a transitional CPL called, e.g. “10 minutes of pre-show music”, with automation cues at set intervals to turn on the lamp, open the dowser, set the house lights to mid and then set the volume to an appropriate level. Rather than adding this “10 minutes of pre-show music” CPL to each playlist with all the automation, which can be a repetitive task, a macro pack placeholder can be used instead.

Since automation cues can differ from screen server to screen server (e.g. “lights up” versus “on lights” for two different screen servers), macro packs are set up for each screen per macro pack placeholder. The library server playlist containing the placeholder can be transferred to each screen without the user worrying about whether the automation is compatible.

Screenwriter allows the user to create macro packs for any of the screens at a theatre. Screenwriter also attempts to see if a macro pack can be used on another screen (based on the automation used) allowing the user to save that macro pack to all the matching screens. Additional macro pack placeholders can also be defined for use in playlists.

3.6.2. Default Macro Pack Placeholders

Screenwriter defines 8 default macro pack placeholders for which macro packs can be made:

- Credit offset.
- Main-feature volume.
- Pre-show volume.
- Show end.
- Show start.
- To 2D.
- To 3D.
- To flat.
- To scope.

Note:

- The “credit offset” is a special type of macro pack placeholder. It represents the automation that should be applied to a feature content item at the time the credits appear. This automation will change if the playlist is moved to a different screen server with different automation.

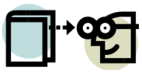
3.6.3. Method

Macro packs are managed in the macro pack configuration section of the application (See **Macro Pack Configuration on page 113**). Screenwriter provides a number of predefined blank macro packs and more can be added as necessary. Each screen has its own set of events assigned to a macro pack: different server/IMB models can use specific automation cues within a pack, and an auditorium with specific requirements (e.g. opening curtains) can have customised packs.

On the **macro pack edit page** (See **Figure 6-34 on page 114**), patterns, automation cues and CPLs can be placed in the screen's macro pack. When building a playlist (See **Create Playlist on page 34**), the Macro Packs tab can be selected and macro pack placeholders can be added to the playlist. When a playlist is transferred to a screen, the screen-specific macro pack replaces the placeholder.

3.6.4. Automation

Macro packs are vital to Screenwriter's ability to manage automation cues within playlists. Furthermore, when a templated playlist is built, macro packs provide the only means to safely add automation cues and patterns to the playlist as the playlist may be scheduled on any screen within a complex.



Example:

In this basic example a macro pack is set up and the corresponding macro pack placeholder is used within a playlist.

1. Go to the macro pack section by clicking on the Macro Pack tab under the Configuration option in the header bar.
2. Follow the stages to set up the macro pack (See **Set up Macro Pack on page 114**).

Note:

- Automation cues must be added to either a pattern or a content item as they cannot be added in isolation.

3. To use the macro pack, go to the playlists page and create a new playlist (See **Create Playlist on page 34**) or select an existing one. Select the Macro Packs tab in the item picker. The macro pack placeholder for the created macro pack can then be dragged and dropped into the playlist, as required.

3.7. Templates

3.7.1. Preview

A template is an outline of a playlist made entirely of placeholders for content and automation. The concept has been developed to support efficient playlist creation by moving away from manual methods of scheduling playlists in favour of virtually completely automated methods of creating playlists and have them scheduled for playback.

Figure 3-31 conceptually depicts the essence of a template. A template consists of a number of content and macro pack placeholders which define an outline or "blueprint" for SPLs. This "blueprint" uses POS information to allow the auto-generation of SPLs, with all their required content items and automation cues, to be achieved (See **Automatically Assign a Playlist to a POS Session on page 69**). Several templates can be built in Screenwriter, however, there can only be one active template at a particular site.

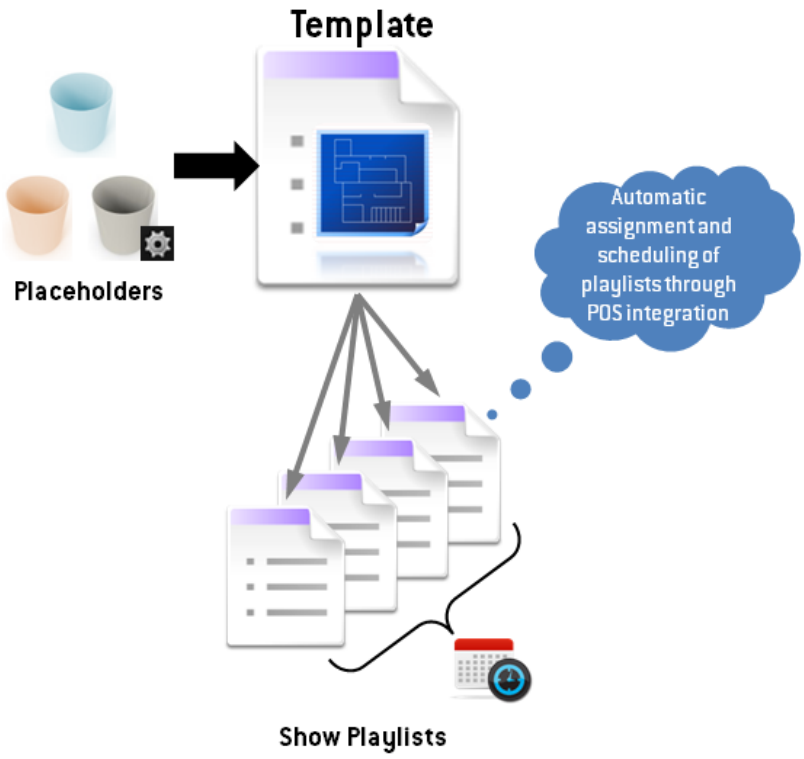


Figure 3-31: Understanding Templates

3.7.2. Template Page

The **template page** (Figure 3-32) is accessed through the Templates tab under the Content option in the header bar. The page displays an overview of existing templates that have been configured in the Screenwriter environment.

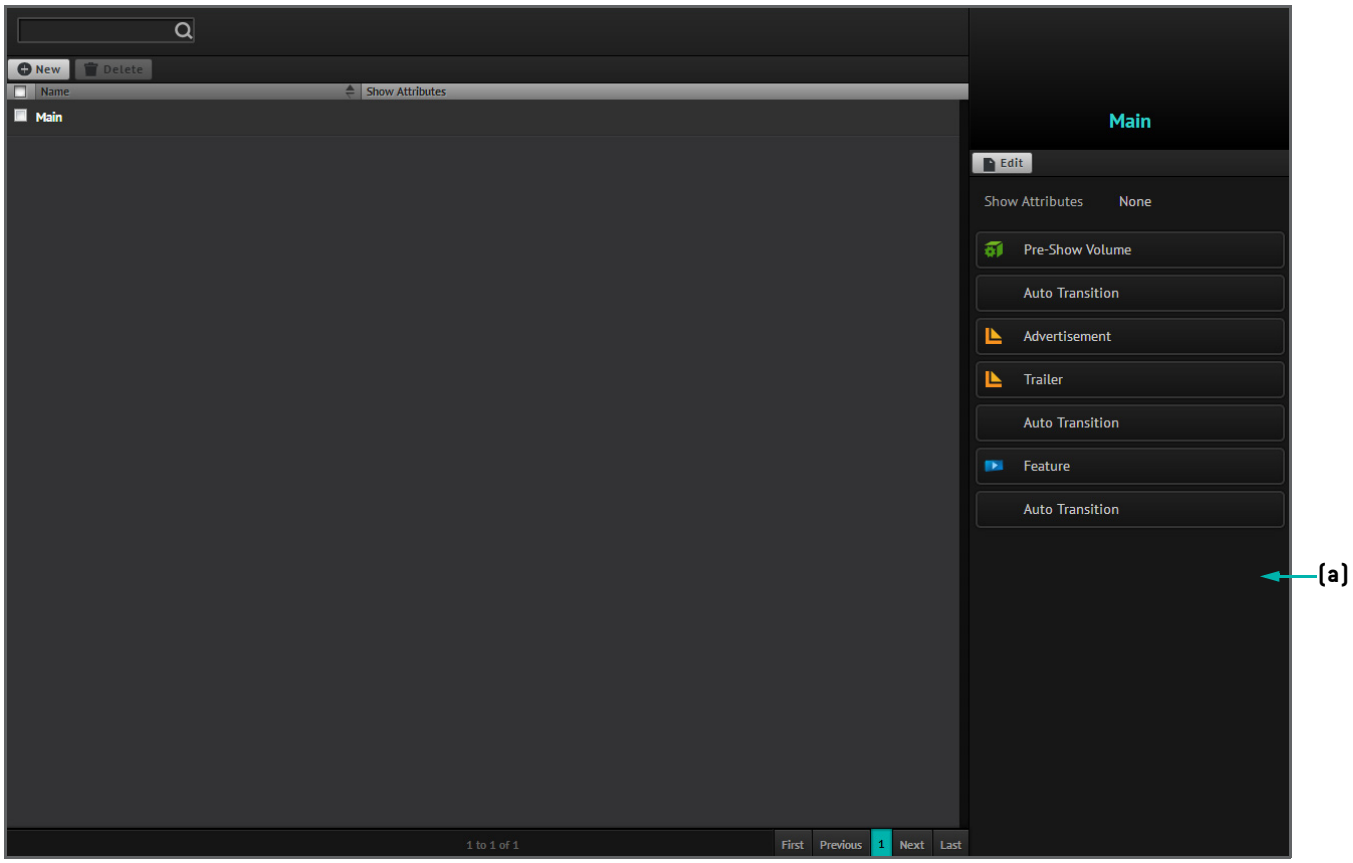


Figure 3-32: Template Page

For a particular template on the page, additional information is given on the right hand side including the placeholders present within the template (Figure 3-32a).

3.7.3. Create Template

Screenwriter allows templates to be created on demand. To create a new template:

1. From the template page, click on the New button. This will open the **template edit page** (Figure 3-33), which offers options to input the name of the template as well as to add various content placeholders and macro pack placeholders.

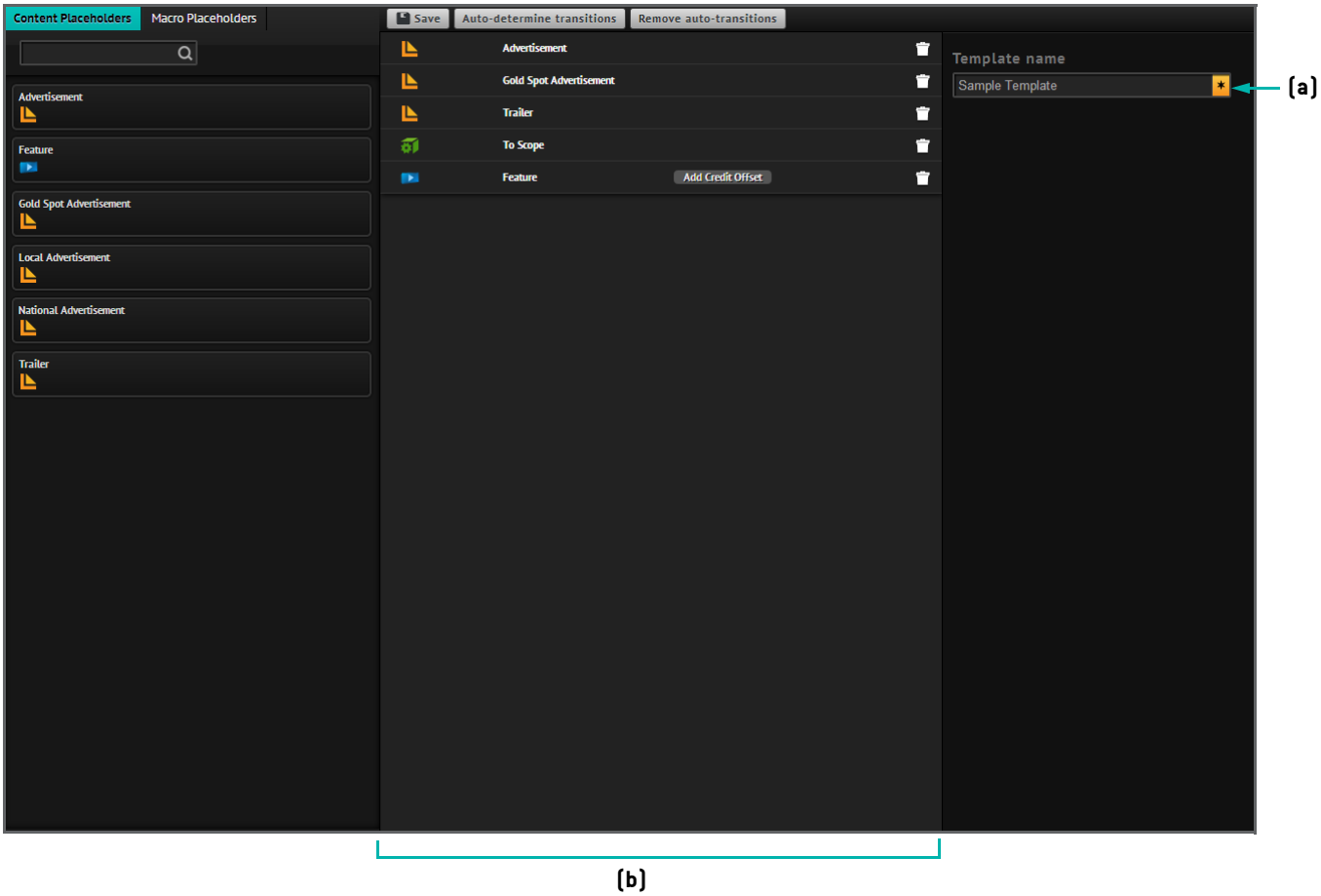


Figure 3-33: Template Edit Page

2. Input a suitable name for the template in the field present on the right hand side portion of the page (Figure 3-33a).
3. Drag and drop the required content and macro pack placeholders from the item picker to the middle portion of the page (Figure 3-33b).
4. If necessary, click on the Auto-determine transitions button in order to include transitional placeholders at allowable places in the template. This action will result in the addition of the transitional placeholders as shown in Figure 3-34. Screenwriter uses these placeholders to later slot in the required automation. Additionally, existing macro pack placeholders can be dragged and dropped into the auto transitional placeholders as appropriate.

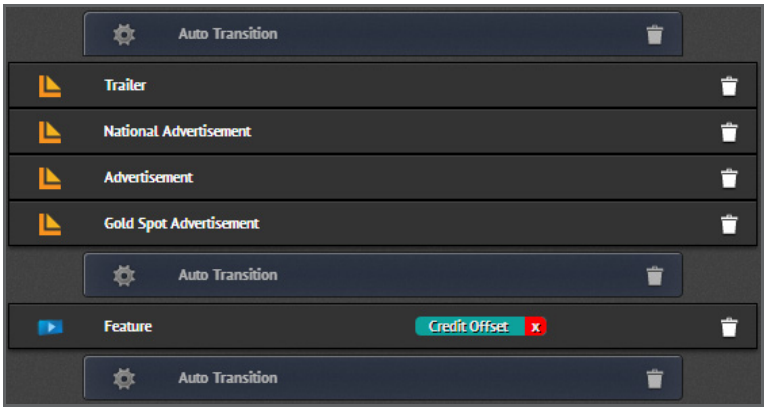


Figure 3-34: Template with Transitional Placeholders

5. Click on the Save button to save the new template. The template will be made visible on the template page.

Note:

- Auto-transitional placeholders that have been added to a template can be removed by clicking on the Remove auto-transitions button.

3.7.4. Edit Template

Template structure and information can be edited. To edit a template:

1. Search for and identify the required template on the template page.
2. Select the template by clicking on it.
3. Click on the Edit button. This will open the template edit page.
4. Make the necessary modifications to the template and click on the Save button to acknowledge the changes made.

3.7.5. Delete Template

Templates can be deleted when they are no longer required. To delete a template:

1. Select the template to be removed from the template page by using the checkbox adjacent to it.
2. Click on the Delete button on the page. This will open the **Delete Templates** dialog box, which provides options to proceed with the deletion or to cancel it (Figure 3-35).

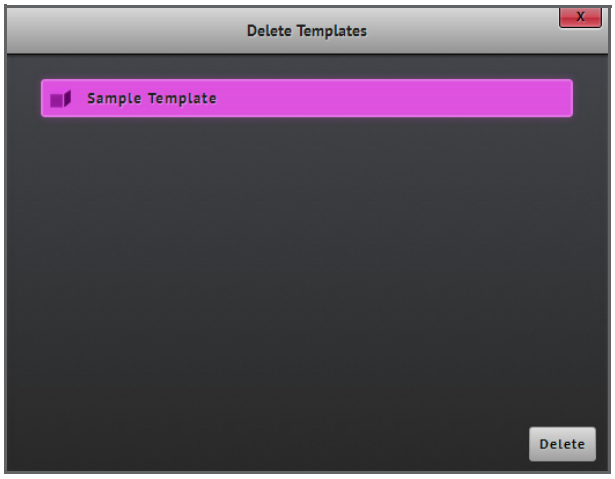


Figure 3-35: Delete Templates Dialog Box

Chapter

4

Schedule Management

Overview:

After playlists are built, it becomes possible to have them scheduled for playback using Screenwriter's powerful scheduling functionality. There are two main modes in which the programming of shows can be done, namely by (1) manually adding playlists to the scheduler (See **Use Schedule Controls on page 64**) and (2) automatically via POS integration (See **Point of Sale on page 66**). This chapter documents usage of the scheduler and POS integration to support the programming of Show Playlists.

4.1. Scheduler

In order to use the scheduler, the **schedule page** (Figure 4-1) has to be accessed through the Schedule tab under the Schedule option in the header bar. The page provides all the options necessary in order to perform the programming of playlists.

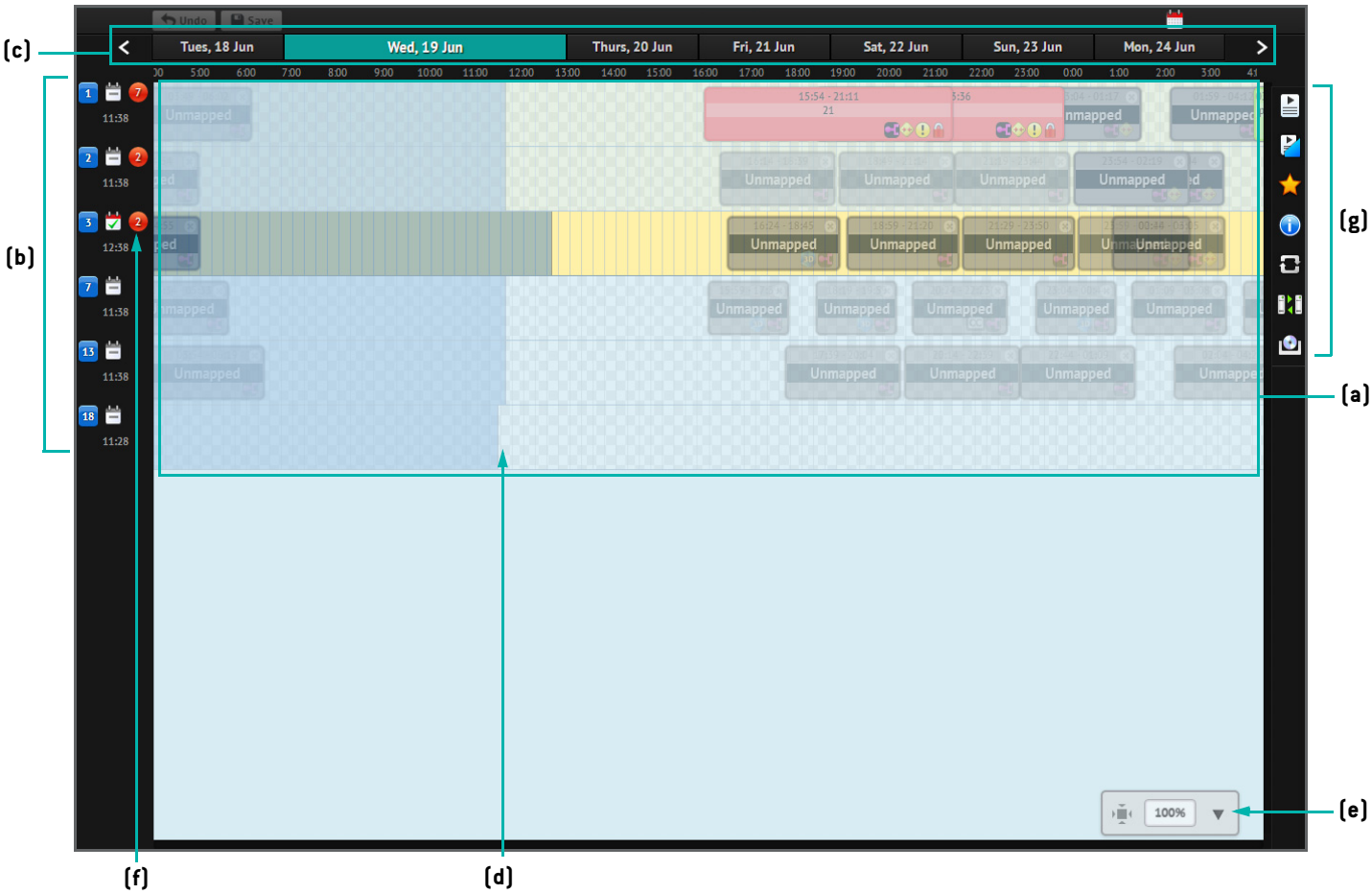


Figure 4-1: Schedule Page

4.1.1. Scheduled Shows

The scheduler provides a daily timeline view (Figure 4-1a) of all shows that have been scheduled for playback on all screens at the theatre (Figure 4-1b). The following points highlight the basics of using the scheduling functionality:

- It is possible to use the **timeline bar** to view the schedule for different days of the week (Figure 4-1c). Notice that the current time is indicated in the scheduler as well (Figure 4-1d).
- To change the view date of the scheduler, click on the button on the top right hand side of the page. This will open a calendar from which it becomes possible to select an alternative date as the desired view date.

- To change the view mode of the scheduler, use the zoom bar (**Figure 4-1e**). The zoom bar enables (1) toggling between large and small scheduler views, (2) zooming in, and (3) provides an option for hiding the zoom bar.
- The notification of issues related to a scheduled show for a screen will be identifiable on the left hand side of the page (**Figure 4-1f**).
- The schedule mode for a screen can be toggled on or off by using the button on the left hand side of the schedule page. If the schedule mode is enabled (green tick shows in the calendar icon), it becomes possible to edit the schedules in the scheduler for that screen. However, if the schedule mode is disabled (dash shows in calendar icon), then it is only possible to control schedules via the POS page (See **POS Page on page 67**).
- Show playlists in the scheduler are colour coded to indicate their status, e.g. **Green** = no issues, **Red** = problem, **Orange** = no issues but unsaved.

The details of a show can be revealed on demand. To view the particular details of a show in a schedule, click on the show in the daily timeline view. This will open a dialog box which lists the related details such as the scheduled date and time of the show as well as any associated problems. An example of a similar dialog box is illustrated in **Figure 4-2** for a show playlist with issues. From the dialog box:

- Use the **Problems** and **Playlist** tabs in the dialog box (**Figure 4-2a**) to toggle between viewing playlist problems and playlist items.
- It is possible to attempt a transfer of unavailable content items in a show playlist from the dialog box itself, by using the button.
- It is also possible to change the scheduled time of a playlist. This can be achieved by entering a new time in the **Scheduled Time** field in the dialog box and clicking on the Apply button to save the changes. Alternatively, use the timeline to drag and drop the playlist in the daily timeline view at the desired point in time.

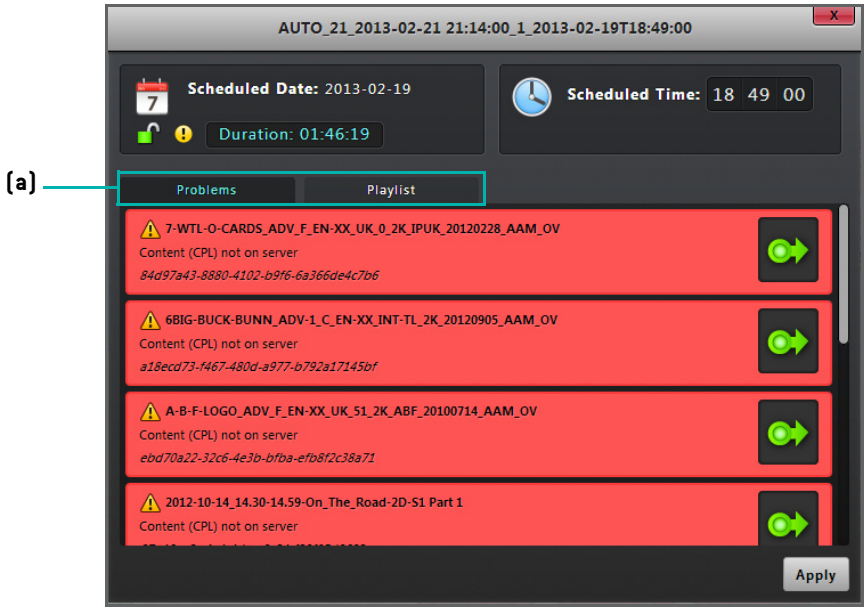


Figure 4-2: Show Playlist Details

4.1.2. Use Schedule Controls

Schedule controls are accessible on the right hand side of the schedule page (**Figure 4-1g**). Schedule controls can be used for carrying out a wide range of actions, notably:

- To manually add a playlist to the scheduler, click on the button from the schedule controls. This will open the **Schedule Controls** section from which it is possible to look for playlists stored on individual screen servers and the LMS. Drag and drop the required playlists to the scheduler.
- To manually add a templated playlist to the scheduler, click on the button from the schedule controls. This will open the **Schedule Controls** section from which it is possible to look for templated playlists. Drag and drop the required templated playlist to the scheduler.
- To add a title to the scheduler, click on the button from the schedule controls. This will open the **Schedule Controls** section from which it is possible to look for the required titles. Drag and drop the required title to the scheduler.
- To view schedule issues, click on the button from the schedule controls. This will open the **Schedule Controls** section. By default, an overview of schedule information will be displayed with a summary of the number of conflicts, problems and unsaved schedules. To individually view each category of schedule information, select the respective tab in the **Schedule Controls** section.
- To repeat a schedule, click on the button from the schedule controls. This will open the **Schedule Controls** section. From there, select the screen server for which schedules are to be repeated. Also use the provided calendar to select the days for repeating the schedule and then click on the Repeat button.
- To swap a schedule across screens, click on the button from the schedule controls. This will open the **Schedule Controls** section. From there, select the screens for which schedules are to be swapped and click on the Swap Screens button to finalise the action.
- To add a DVD/Blu-Ray, 35mm or event placeholder to the scheduler, click on the button from the schedule controls. This will open the **Schedule Controls** section. It will then be required to drag and drop a suitable option consisting of either DVD / BLU-RAY, 35MM or EVENT from the **Schedule Controls** section to the scheduler.

4.1.3. Undo Schedule Changes

Unwanted changes that have been made to schedules can be cancelled. To undo changes made to the schedule, click on the Undo button. This will undo all changes performed since the previous save action was carried out.

4.1.4. Save Schedule Changes

Changes made to schedules can be saved on demand. To save changes made to a schedule:

1. Click on the Save button. This will open the **Save Schedule Changes** dialog box, which by default displays a summary view of the number of participating playlists to be transferred as well as the number of schedules being created (Figure 4-3).
2. At this point, it is possible to specify when the content item should be queued for transfer. Additionally, use the tabs in the dialog box in order to view any participating playlists and schedules (Figure 4-3a).
3. Click on the Save Changes button in the dialog box to complete the procedure.

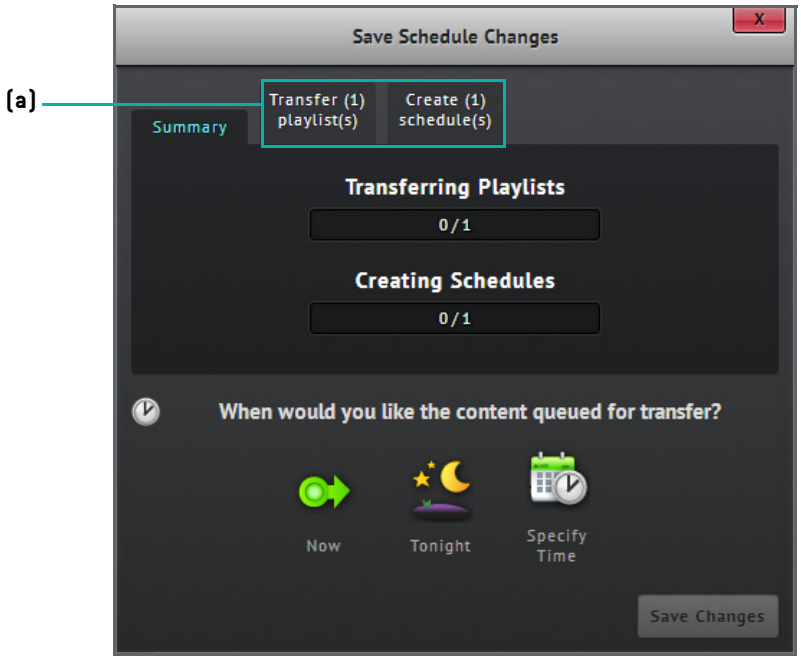


Figure 4-3: Save Schedule Changes Dialog Box

4.2. Point of Sale

4.2.1. Preview

Screenwriter can be configured to support POS integration. By integrating with POS systems, Screenwriter is able to synchronise the information about the schedules coming from these systems and lets the TMS application/user decide which playlists should be assigned, i.e. mapped, to the retrieved schedules for playback. The understanding behind POS integration is captured in **Figure 4-4**.

Screenwriter pulls information from the POS system through background syncing jobs. This is only possible when the TMS is properly configured to communicate with the POS system (See **POS Setup on page 102**). When information is synced between the POS system and Screenwriter, details regarding POS groupings and POS schedules become available for use.

Note:

- A POS grouping is a collection of POS schedules that share a single title, where the title generally designates the feature film to be played at these schedules.
- A POS schedule, also known as a POS session, is a schedule retrieved from the communication process between a TMS and a POS system and carries key attributes of the schedule such as title and intended time of projection.

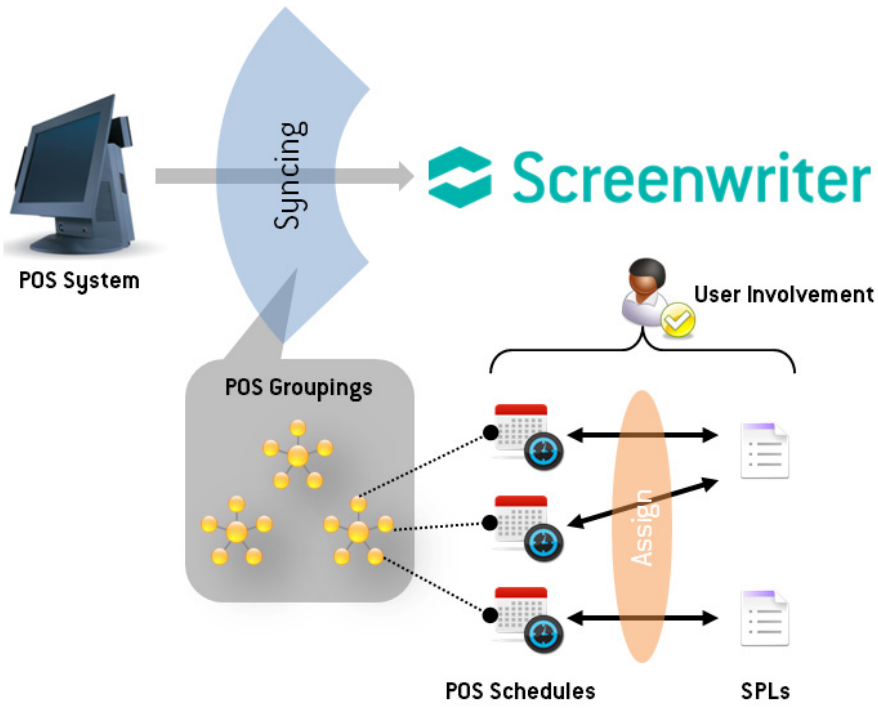


Figure 4-4: Understanding POS Integration

4.2.2. POS Page

The **POS page** (Figure 4-5) is accessed through the POS tab under the Schedule option in the header bar. The page displays a range of details, including:

- A **POS grouping** area which lists the available POS groupings (Figure 4-5a). POS groupings that have a corresponding matched title are identifiable through the ★ icon. See Titles on page 37 for more information about titles and how they are matched.
- Tabs for viewing the POS groupings for different weeks (Figure 4-5b). Screenwriter polls for 3 weeks of POS sessions.
- POS sessions within a POS grouping. To view POS sessions within a grouping, click on an entry in the **POS Grouping** area. All the associated information is then listed on the page (Figure 4-5c). The POS sessions are organised based on whether they have already had playlists assigned to them, are still unassigned, have been deleted or are expired.
- Existing playlists are listed on the right hand side of the POS page together with options to facilitate the assignment of playlists to POS sessions (Figure 4-5d).

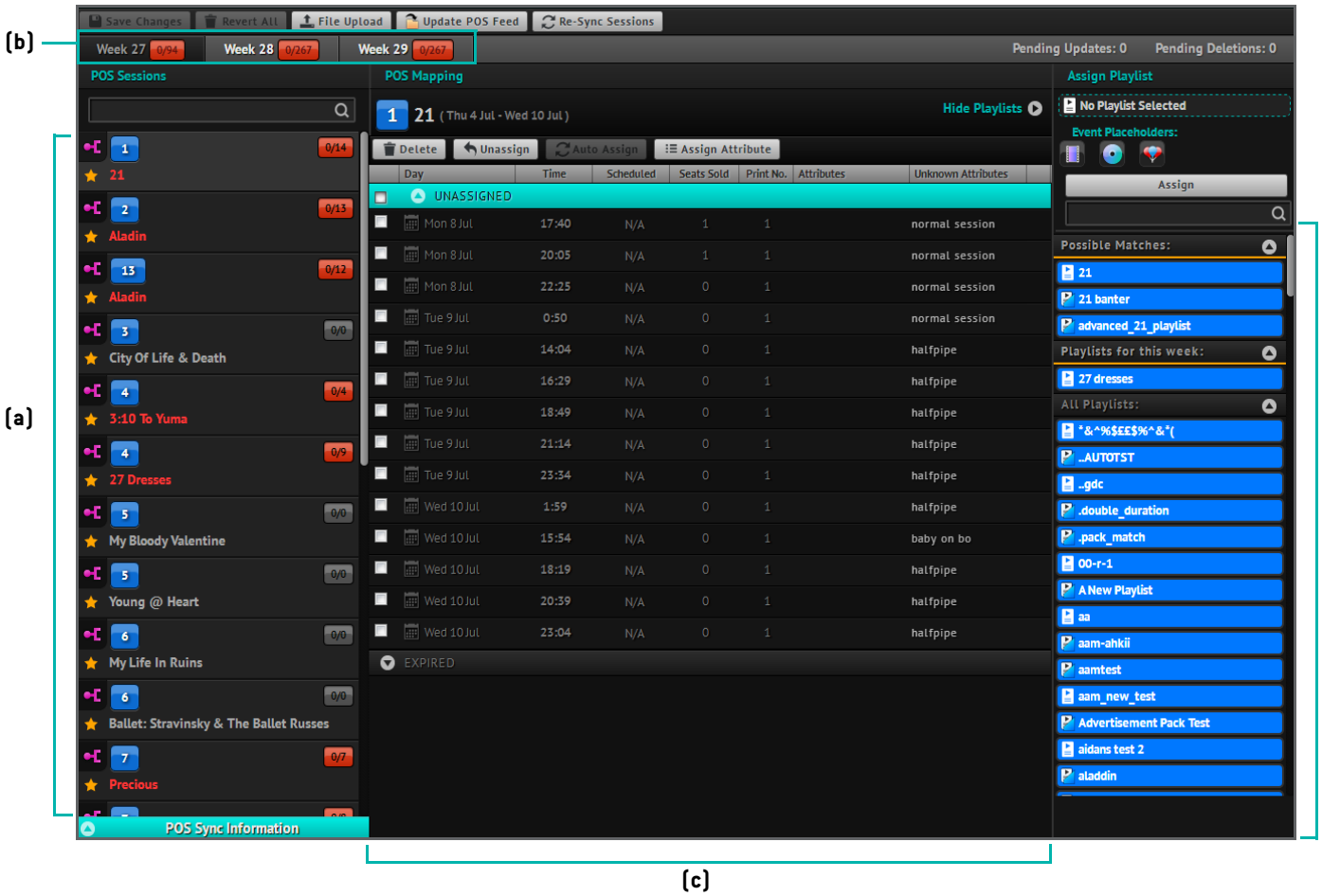


Figure 4-5: POS Page

4.2.3. POS Sync Reports

POS sync reports are summaries of information, in the form of feeds, imported from the POS system to the TMS through background syncing jobs, and presented to the user. These reports are visible on the POS page:

- To view POS sync reports, use the **POS Sync Information** tab at the bottom of the POS page. This will open an area on the left hand side of the page to view the reports. An example of a similar report is illustrated in Figure 4-6.

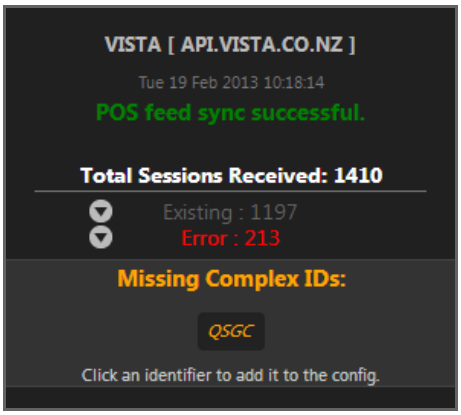


Figure 4-6: Example of a POS Feed Report

Note:

- Every time the POS feed is updated, a notification will appear in the top right hand side of the Screenwriter user interface. The notification will not disappear until the user acknowledges the notification by hovering the cursor over the notification and clicking on the **Acknowledge POS Changes** button (Figure 4-7).

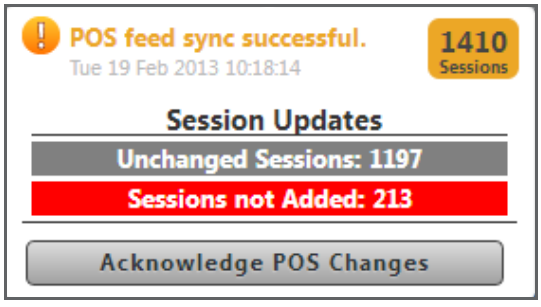


Figure 4-7: POS Feed Sync Notification

4.2.4. Manually Assign a Playlist to a POS Session

For a particular POS grouping, playlists can be assigned to POS sessions for playback scheduling. This can be achieved by mapping the desired POS sessions to suitable playlists. In order to map a playlist to a POS session:

1. Select an unassigned POS session on the POS page by using the appropriate checkbox.
2. Identify the desired playlist, on the right hand side of the page, to which the selected POS session is to be assigned. The available playlists consist of those that are possible matches as well as current playlists that apply for the week and also all playlists present in the TMS.
3. If required, after selecting a playlist, choose a desired event placeholder (35mm, DVD/Blu-Ray or Event) to target the playlist in the scheduler.
4. Use the **Assign Playlist** section (top right hand corner of POS page) to verify playlist details.
5. Click on the Assign button to acknowledge the mapping of the playlist to the selected POS session.

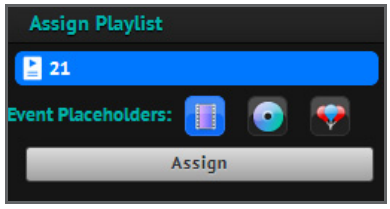


Figure 4-8: Assigning a POS Session to a Playlist

4.2.5. Automatically Assign a Playlist to a POS Session

POS sessions can also be automatically scheduled for playback. This is a powerful functionality that uses a pre-defined template structure (See **Templates on page 56**) and rules to establish the mappings across playlists and POS sessions. During the automatic playlist assignment process, the correct content items and automation are inserted into the content and automation placeholders within the template, respectively. To automatically assign a playlist to a POS session:

1. Select an unassigned POS session on the POS page by using the appropriate checkbox.
2. Click on the Auto Assign button to automatically assign and schedule a playlist to the POS session.

4.2.6. Managing POS Sessions and Mappings

There are several other actions that are central to the management of POS sessions, namely:

- Once POS sessions have been mapped to their respective playlists, use the scheduler in order to view the scheduled POS sessions.

- To unassign previously assigned POS sessions, select the required entries on the page and then click on the Unassign button.
- To delete a POS session, select the required entry on the page (**Figure 4-5c**) and then click on the Delete button. However, it is not possible to directly delete a playlist that has been mapped to a POS session. To be able to delete a playlist that has been mapped to a POS session, the playlist first needs to be unmapped and then deleted.
- To revert all changes made to POS feeds, click on the Revert All button and confirm the action.
- To manually upload a POS feed, click on the File Upload button. This will open a new dialog box. Drag and drop the POS feed files to the dialog box or, alternatively, use the Add files... button to browse and load the files. Screenwriter supported POS file formats are described in **Appendix B: Supported File Formats**.
- Re-synchronising with the POS system automatically takes place at every 4-hour interval. If at any point it is required to re-synchronise with the POS system for a faster update, click on the Update POS Feed button.
- To manually re-sync POS sessions for a given week, click on the Re-Sync Sessions button on the POS page. This will open a window from which it is possible to have the LMS playlist(s) transferred to devices with an attempt made to schedule them again (**Figure 4-9**). The options present in the window allow the re-sync to be carried out based on either POS grouping titles, screen servers, days or be applied to all POS sessions.

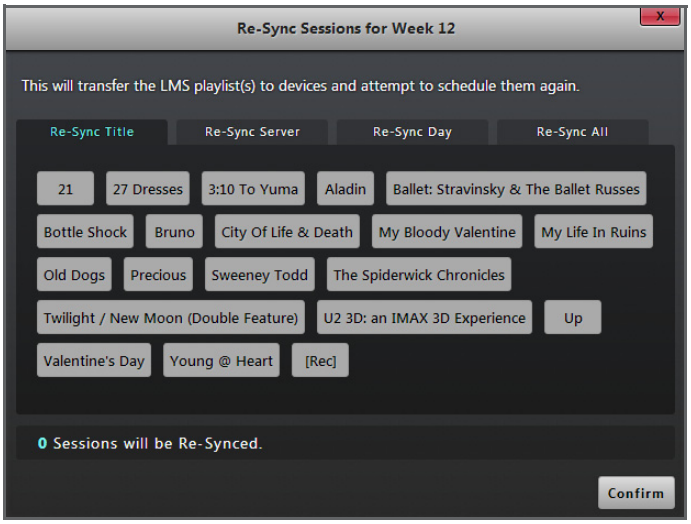


Figure 4-9: Re-Sync Sessions for a Week Dialog Box

Note:

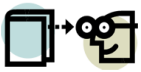
- If a schedule that involves a mapped POS session is manually moved in the scheduler on the schedule page, the corresponding POS session that has been changed will be flagged on the POS page with a **Clock** icon.

4.3. Dynamic Pack Matching and Scheduling via POS

Dynamic pack matching allows the user to create playlists and have packs inserted into a playlist after that playlist is scheduled on a screen. The scheduling of the playlists can be performed via POS integration or manually through the scheduler.

The packs used are created either manually via the TMS interface or fed into the TMS via third parties such as advertisement providers for lists of advertisements, or headquarters for lists of trailers. Packs can be slotted into the final playlist based on a set of metadata-driven rules associated with the packs.

The dynamic pack matching section of this user manual has previously introduced the key principles that are central to achieving the automatic insertion of pack content within playlists while making the appropriate consideration for scheduling parameters (See **Dynamic Pack Matching on page 50**). This section builds on top of this understanding in order to show, using a real example, how Screenwriter can be exploited for this purpose.



Example:

In this example, four packs are created and all of these packs are to be associated with the placeholder identified as **Local Advertisement**. The following rules are to be used:

- Morning advertisements are required for week 36 for screens 1 and 2.
- Separate morning advertisements are required for week 36 for screens 3 and 4.
- Evening advertisements are required for week 36 for screens 1 and 2.
- Separate evening advertisements are required for week 36 for screens 3 and 4.
- Evening advertisements start at 17:00.
- Advertisements are provided by a relevant advertisement provider/head office.

Note:

- In the context of this example, week 36 refers to the date range from 29 August 2012 to 05 September 2012, both dates inclusive.

To illustrate the auto-matching capability, the **Ultramarines** feature will be scheduled to play on screen 2 on the 4th of September (week 36, i.e. W36), one showing at 13:30 and the next at 17:30. The following steps are followed:

1. The morning advertisement pack is created (**Figure 4-10**). The following parameters are set: a pack title of **morning_ads_w36_1_2** is assigned; the **Local Advertisement** placeholder is chosen; the date range is for **week 36**; the time range is for **09:00** to **17:00**; the applicable screens are **1** and **2**.

Note:

- A value specified in the "priority" field is used to differentiate between packs that have the same date and time ranges as well as film title details. This makes it easy for sites to override pack matching. For example, if there are two identical packs but one has a higher priority number, then the pack with the higher priority number is the one that gets selected.
- The "print number" field refers to the print number of the feature. Sites normally have a few features which carry different print numbers.

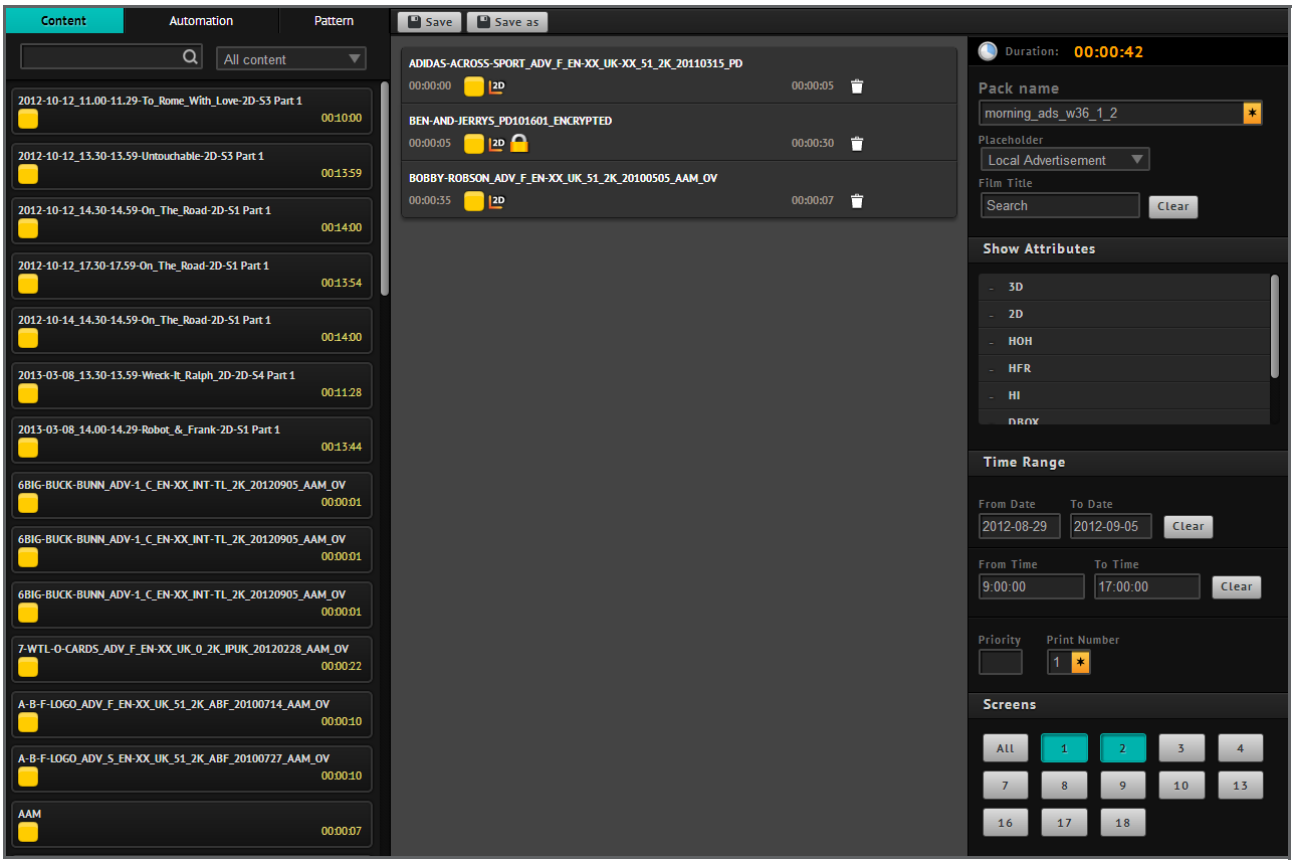


Figure 4-10: Creating the Morning Advertisement Pack

2. The evening advertisement pack is created (Figure 4-11). The following parameters are set: a pack title of **evening_ads_w36_1_2** is assigned; the **Local Advertisement** placeholder is chosen; the date range is for **week 36**; the time range is for **17:00** to **23:59**; the applicable screens are **1** and **2**.

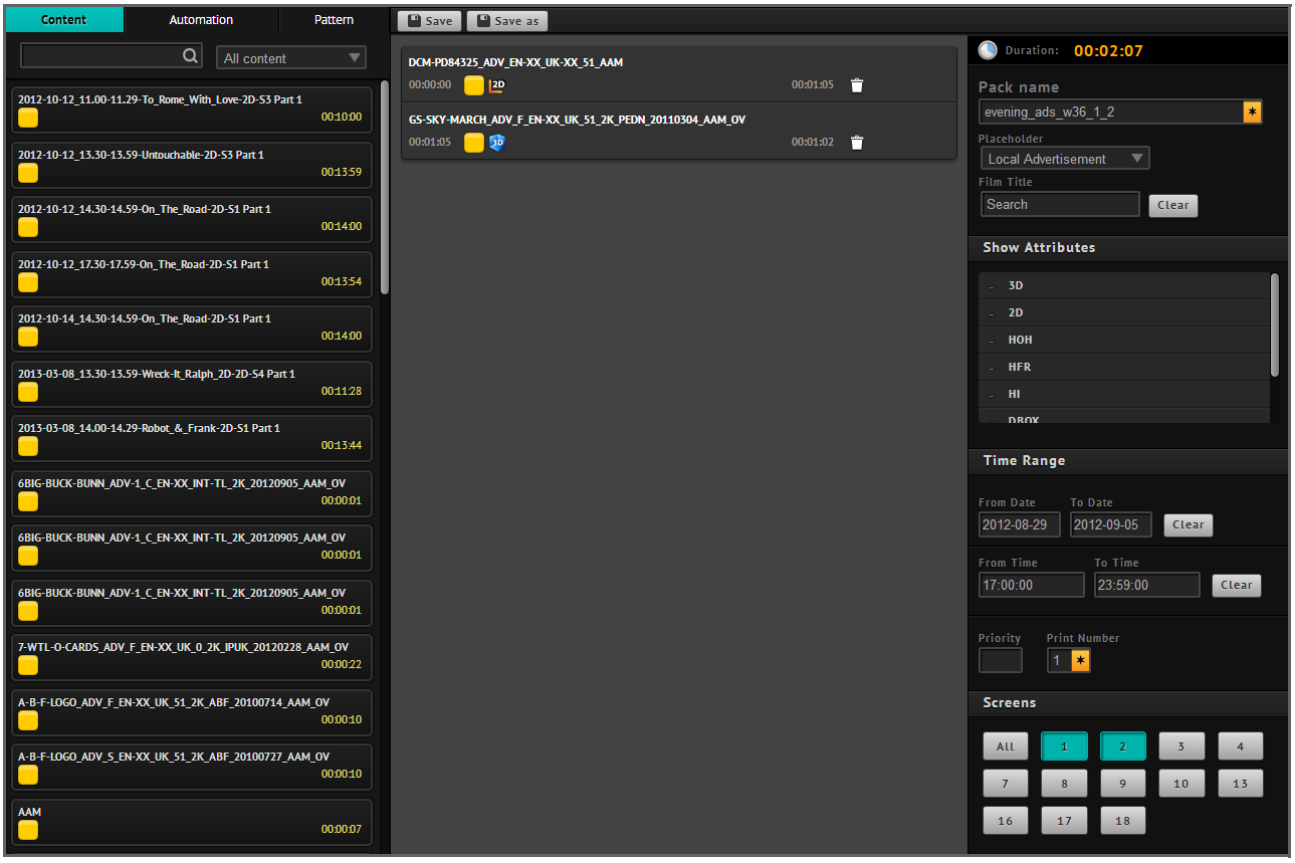


Figure 4-11: Creating the Evening Advertisement Pack

3. The same procedure is repeated in order to create the morning and evening advertisement packs that are applicable to screens **3** and **4**. Figure 4-12 identifies each of the four created packs, which are displayed on the pack page.

Figure 4-12: Morning and Evening Advertisement Packs

4. The playlist then needs to be created. However, instead of including the individual advertisement packs in the playlist, the actual **Local Advertisement** placeholder is inserted. The contents of the pack will then be determined when scheduled. The playlist consists of the following: **show start cues** associated with a transitional (Figure 4-13a); **Local Advertisement** placeholder (Figure 4-13b); **trailers** (Figure 4-13c); **feature with feature start cue** (Figure 4-13d).

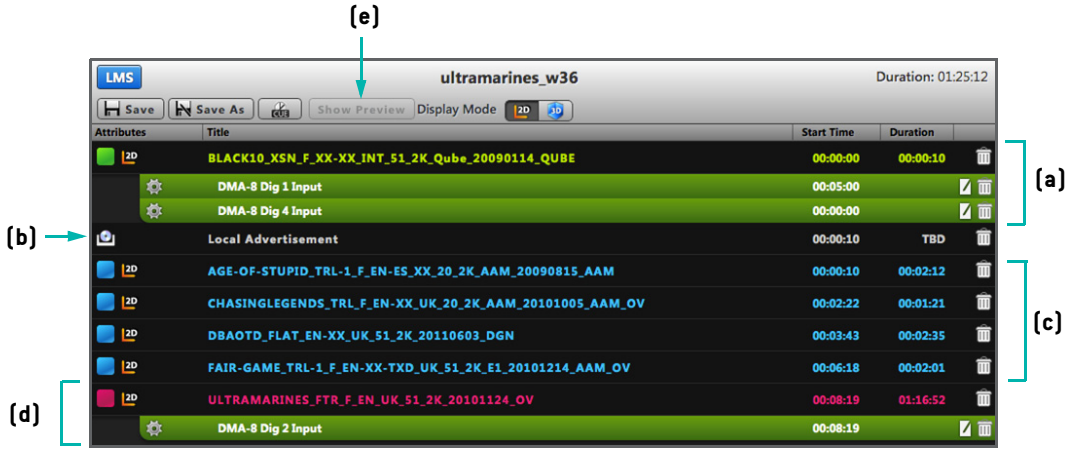


Figure 4-13: Creating a Playlist with the Local Advertisement Placeholder

5. Before assigning this playlist, the dynamic matching can be tested. In order to do this, the user first needs to inform AAM regarding the intended date that the playlist is to be played back, together with the necessary details for 2D/3D screening and HOH as match criteria. Figure 4-14 depicts the set up details for testing the playback on the **4th of September** at **13:30** (Figure 4-14a) and **17:00** (Figure 4-14b).
6. Click on the **Show Preview** button (Figure 4-13e). it is possible to confirm that the advertisements targeted at screen **2** are in fact those that correspond to the local advertisement pack marked for the correct date range (Figure 4-15).

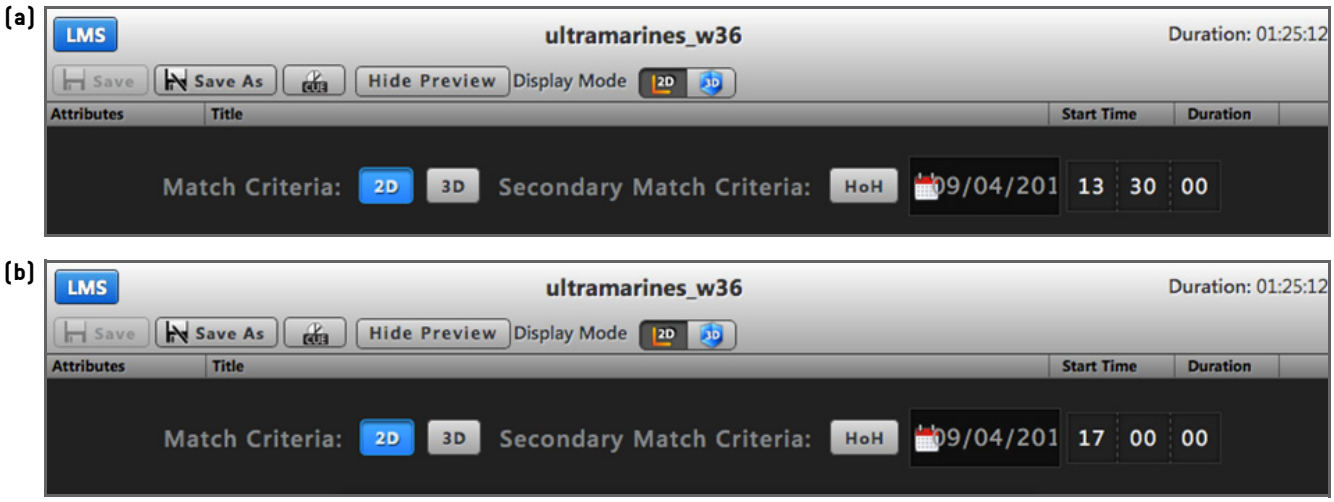


Figure 4-14: Testing Playback for the Specified Date and Time

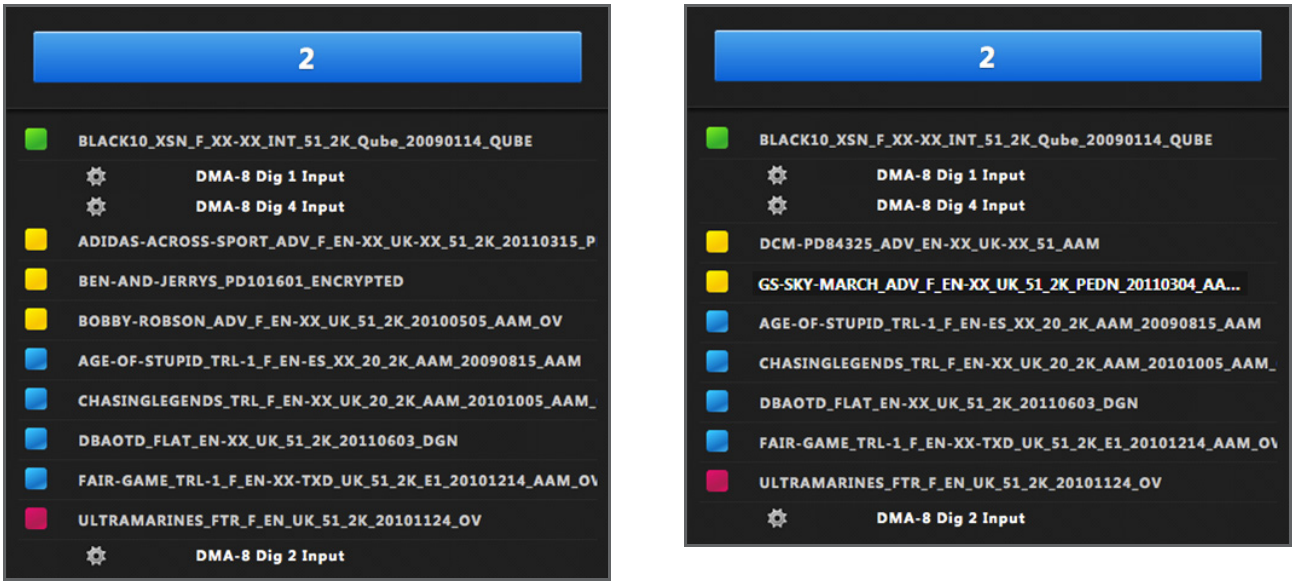


Figure 4-15: Confirming Dynamic Matching Results

7. Once the test results have been confirmed successful, it is then possible to schedule the playlist using the POS system (See **Point of Sale on page 66** for more details). In order to do this, navigate to the POS page, select the required POS sessions, map the POS sessions to the already created playlist and save changes.
8. Screenwriter will then create the correct playlist on each screen and schedule it. **Figure 4-16** illustrates the final schedules for screen **2**.

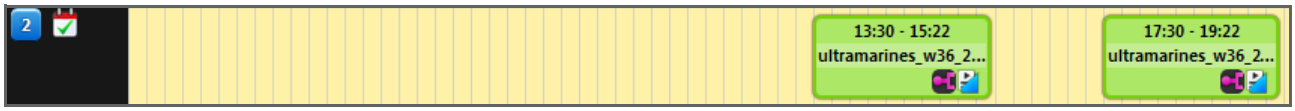


Figure 4-16: Viewing the Schedule for the Playlist

Note:

- SPLs are generated based on a naming convention derived from the playlist name, playback date and time. For example, the playlists for screen **2**, intended for the **4th of September 2012** at **13:00** and **17:30**, are shown in **Figure 4-17**.
- In the event that amendments are made to the packs, then simply clicking on the Re-Sync Sessions button on the POS page will recalculate the pack matching and create new playlists for the designated screens.

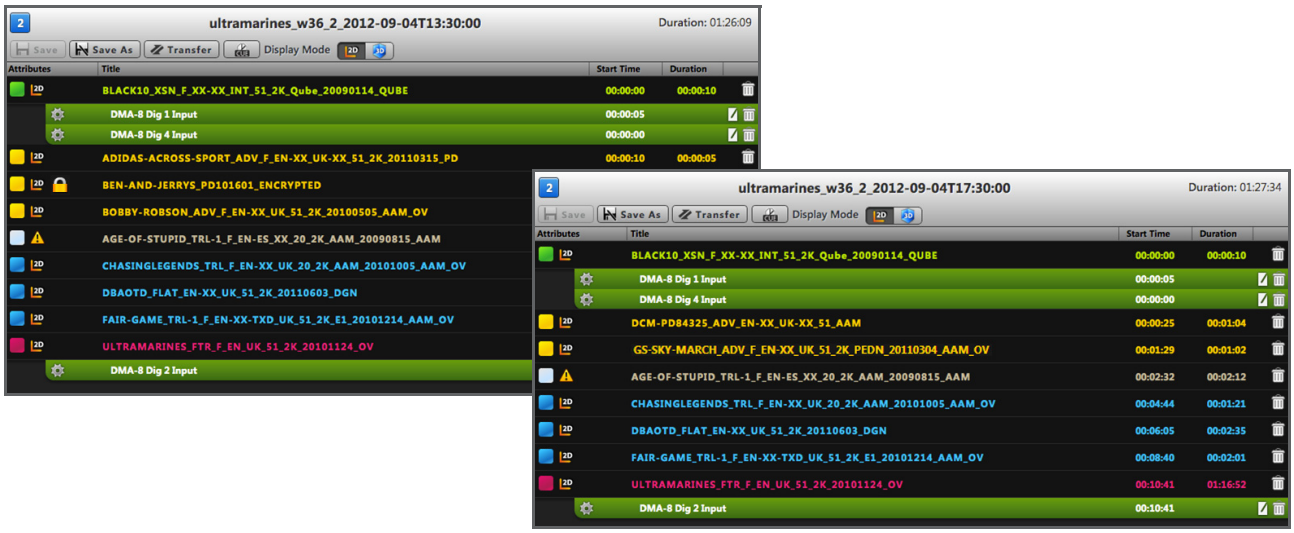


Figure 4-17: Naming Convention for Dynamically Matched Playlists

4.3.1. Summary of Dynamic Pack Matching

The previous section has highlighted the details of the steps required to ensure the proper set up of dynamic pack matching and scheduling via POS. These steps are summarised next:

- Users can add placeholders to their playlists to make them more generic. In this way, a user may schedule a playlist at multiple different times of the day and allow the system to dynamically decide which advertisements, trailers, etc., should be played as part of that particular SPL.
- Users create collections of content items in the form of packs, which are useful for grouping together similar pieces of content, e.g. morning advertisements and evening advertisements.
- When a playlist containing a placeholder is scheduled on a screen server, any placeholders found in the playlist will be automatically swapped for a pack.
- The pack that gets inserted into the playlist when it is scheduled depends on: (1) the time of day that the playlist gets scheduled for, (2) the capabilities of the screen server, e.g. 3D playback and HFR support, and (3) any other criteria specified during the creation of the pack such as title name.
- If any changes are made to the packs in the system, the user can use the Re-Sync Sessions button on the POS page to rebuild and reschedule the playlists.

Chapter

5

Reporting

Overview:

The reporting section of Screenwriter provides ways of visualising status reports about schedules, playlists, KDMs, devices and content. This chapter documents the various features of the reporting section.

5.1. Reports for Schedules

The **schedule report page** (Figure 5-1) is accessed through the Schedules tab under the Reports option in the header bar. The page lists, for each screen server, details such as the name and start time of the items present in the scheduler and any errors associated with, for example, KDMs and playlists.

Screen	Start Time	Name	KDM Errors	Playlist Errors	Content Errors	Schedule Clashes
1	22:55:00 2013-04-21	21	0	1	0	0
1	23:04:00 2013-04-17	21	0	1	0	2
1	21:14:00 2013-04-16	bu test_1_2013-04-16T21:14:00	0	1	0	1
1	18:10:00 2013-04-21	21	0	1	0	0
1	23:04:00 2013-04-17	HARRY POTTER 30FR 19:00	0	1	0	1
1	23:34:00 2013-04-16	21	0	1	0	0
1	01:20:00 2013-04-20	21	0	1	0	0
1	01:59:00 2013-04-17	21	0	1	0	0
1	14:04:00 2013-04-18	21	0	1	0	0
1	18:49:00 2013-04-23	21	0	1	0	0
1	22:25:00 2013-04-22	21	0	1	0	0
1	22:25:00 2013-04-20	21	0	1	0	0
1	15:20:00 2013-04-22	21	0	1	0	0
1	03:49:00 2013-04-18	21	0	1	0	0
1	13:25:00 2013-04-19	21	0	1	0	0
1	00:34:49 2013-04-18	hfr_test	0	1	0	1
1	16:29:00 2013-04-23	21	0	1	0	0
1	20:35:00 2013-04-19	21	0	1	0	0
1	15:50:00 2013-04-19	21	0	1	0	0
1	20:39:00 2013-04-17	bu test_1_2013-04-17T20:39:00	0	1	0	1
1	20:35:00 2013-04-21	21	0	1	0	0
1	01:20:00 2013-04-22	21	0	1	0	0

Showing 1 to 81 of 81

Figure 5-1: Schedule Report Page

Note:

- To sort entries on the page, click on a relevant column title.
- Clicking on a row corresponding to a schedule on the page displays a window summarising session errors and related explanation details.

5.2. Reports for Playlists

The **playlist report page** (Figure 5-2) is accessed through the Playlists tab under the Reports option in the header bar. It is possible to use the **Playlist Errors** tab (Figure 5-2a) to view, for each screen server, the corresponding playlist names and their associated KDM and content errors. Switch to the **Playlists Not Scheduled** tab (Figure 5-2b) to view a full list of playlists that have not yet been scheduled for playback.

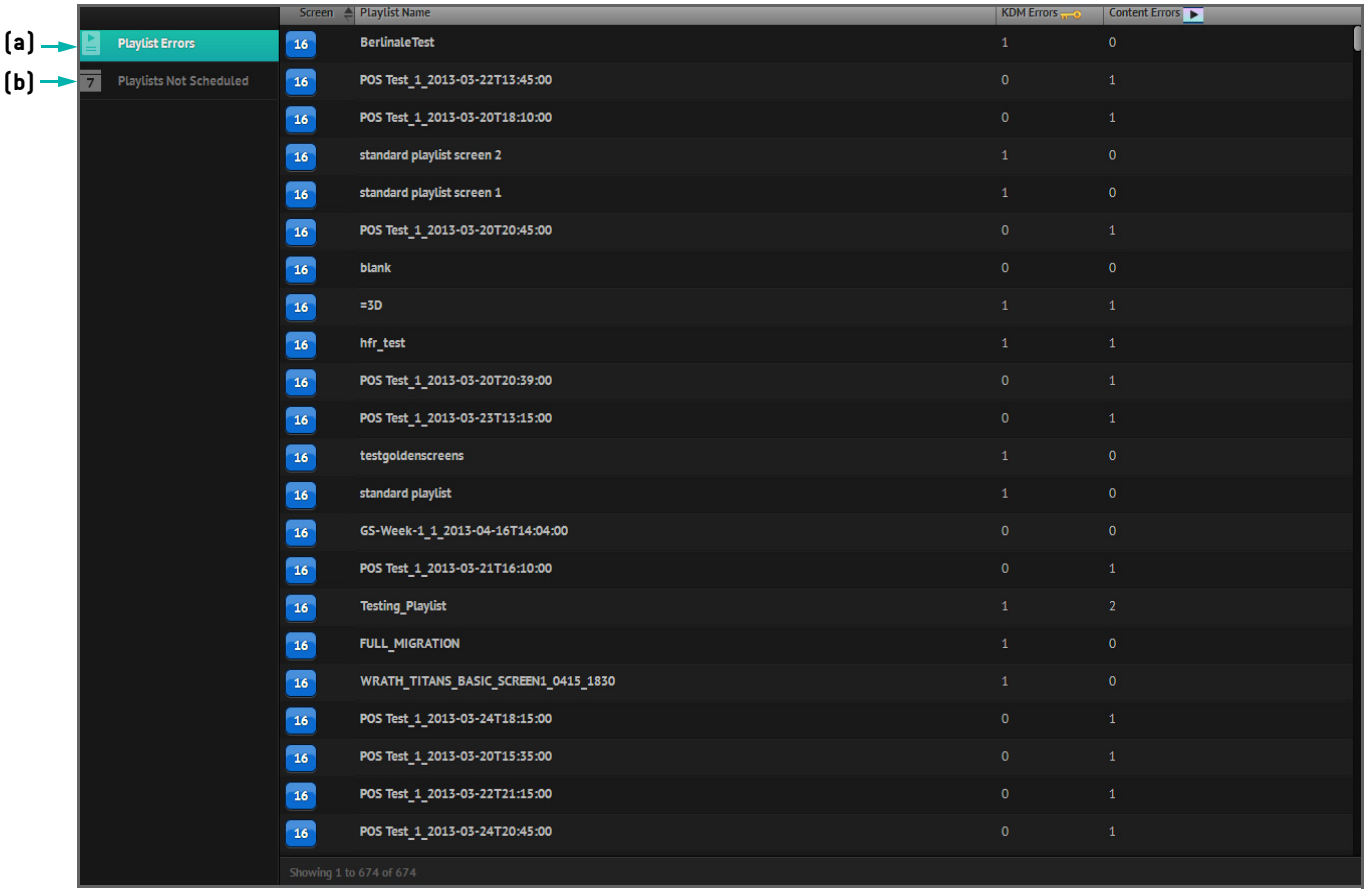


Figure 5-2: Playlist Report Page

Note:

- To sort entries on the page, click on a relevant column title.
- Clicking on a row corresponding to a playlist on the page displays a window summarising related error information.

5.3. Reports for KDMs

The **KDM report page** (Figure 5-3) is accessed through the KDMs tab under the Reports option in the header bar. The page lists, for each screen server, the corresponding CPL titles and the expiration date of their associated KDMs. The page is divided into two areas, where one area is used to view all CPLs whose KDMs will expire in the next 48 hours, while the other area shows CPLs whose KDMs will expire in the next 7 days.

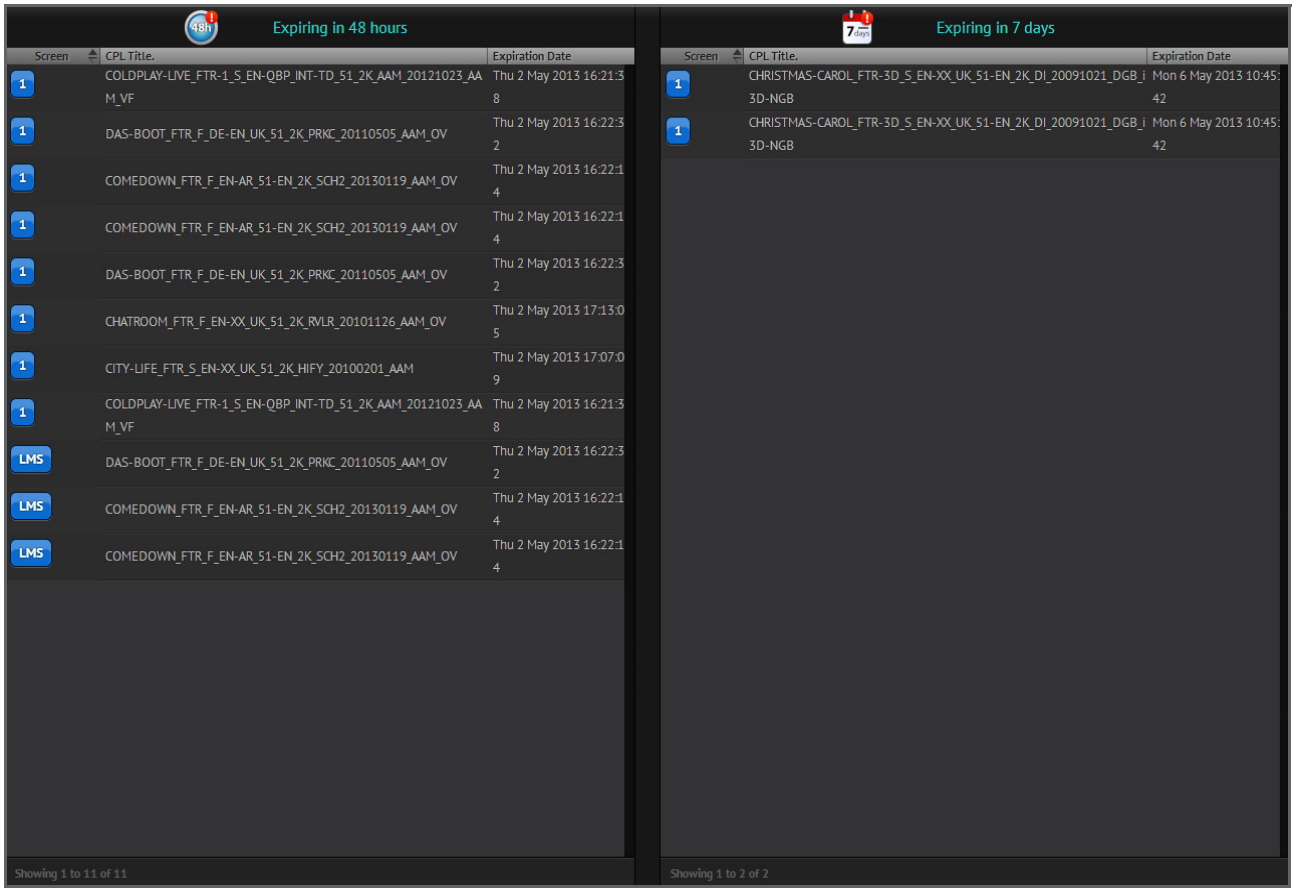


Figure 5-3: KDM Report Page

Note:

- To sort entries on the page, click on a relevant column title.

5.4. Reports for Devices

The **device report page** (Figure 5-4) is accessed through the Devices tab under the Reports option in the header bar. The page holds the following information:

- Screen servers are individually identified on the page (Figure 5-4a). Each screen server section features a summary of information, which is displayed at a more detailed level on the right hand side of the page (Figure 5-4b).
- If there is a projector that has been configured for the screen server, then, basic projector information as well as lamp and dowser details will be visible for the server. The existence of that information is indicated by the icons in the screen server section (Figure 5-4c and Figure 5-4d). The projector status is also captured (Figure 5-4e).
- When a screen server is properly configured, server details are listed on the page (Figure 5-4b). The existence of these details is represented by an icon and disk usage indicator in the screen server section (Figure 5-4f).

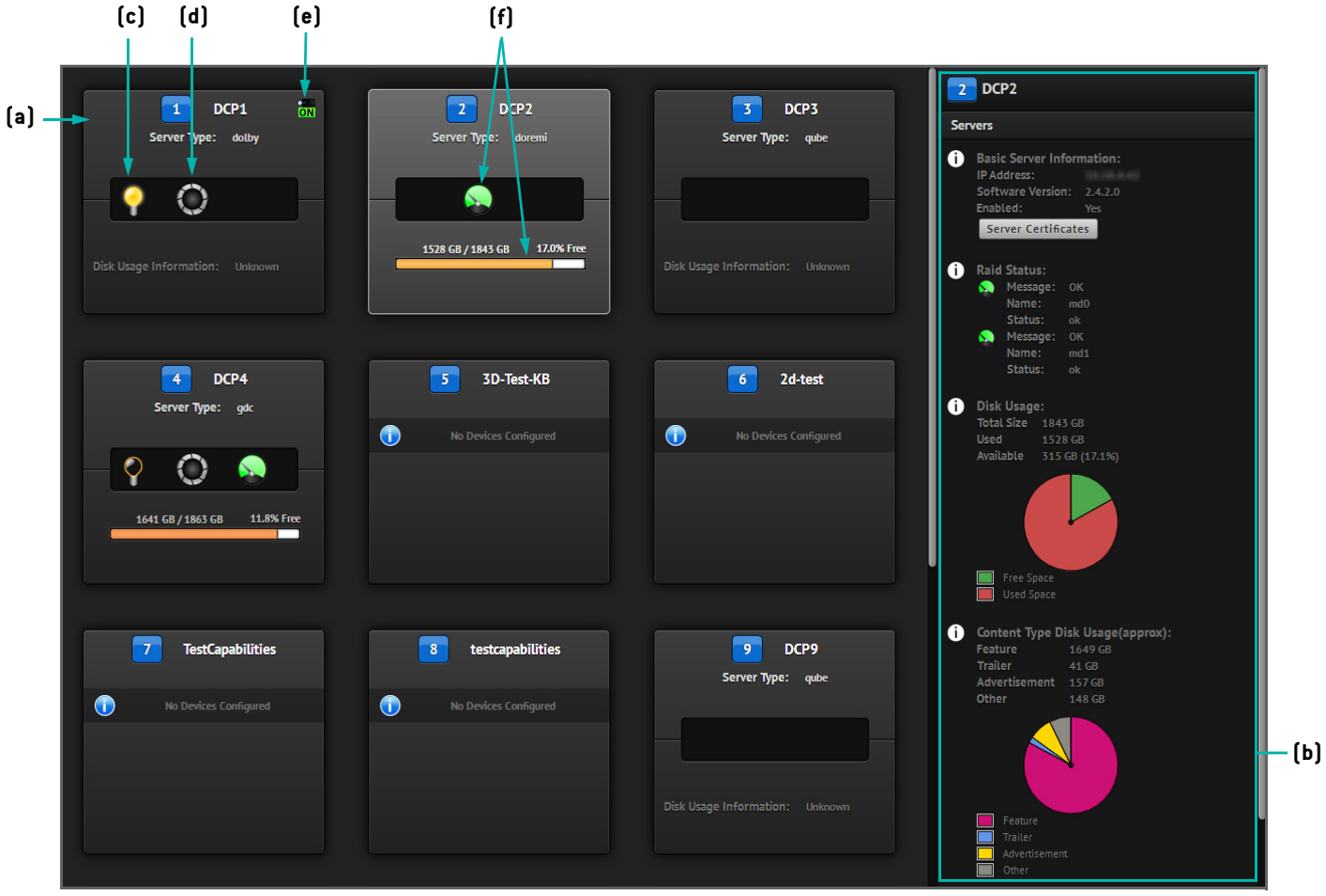


Figure 5-4: Device Report Page

5.5. Reports for Content

The **content report page** (Figure 5-5) is accessed through the Content tab under the Reports option in the header bar. The page can be used to view a wide range of information, including:

- **Content Without KDM** (Figure 5-5a). Use this tab to view content items that do not have any associated KDMs for each screen server. Where applicable, select the **Playlists** tab (Figure 5-5b) and **Packs** tab (Figure 5-5c) to view existing playlists and packs that contain the content item. It is possible to know when these are applicable due to the icon in the corresponding column in the main page. Also notice that a bar chart is provided on the page (Figure 5-5d). The chart can be consulted in order to have a quick overview of used and unused space on each screen server.
- **Unused Content** (Figure 5-5e). Use this tab to view unused content items for each screen server.
- **Content Not on LMS** (Figure 5-5f). Use this tab to view content items that are not present on the LMS.

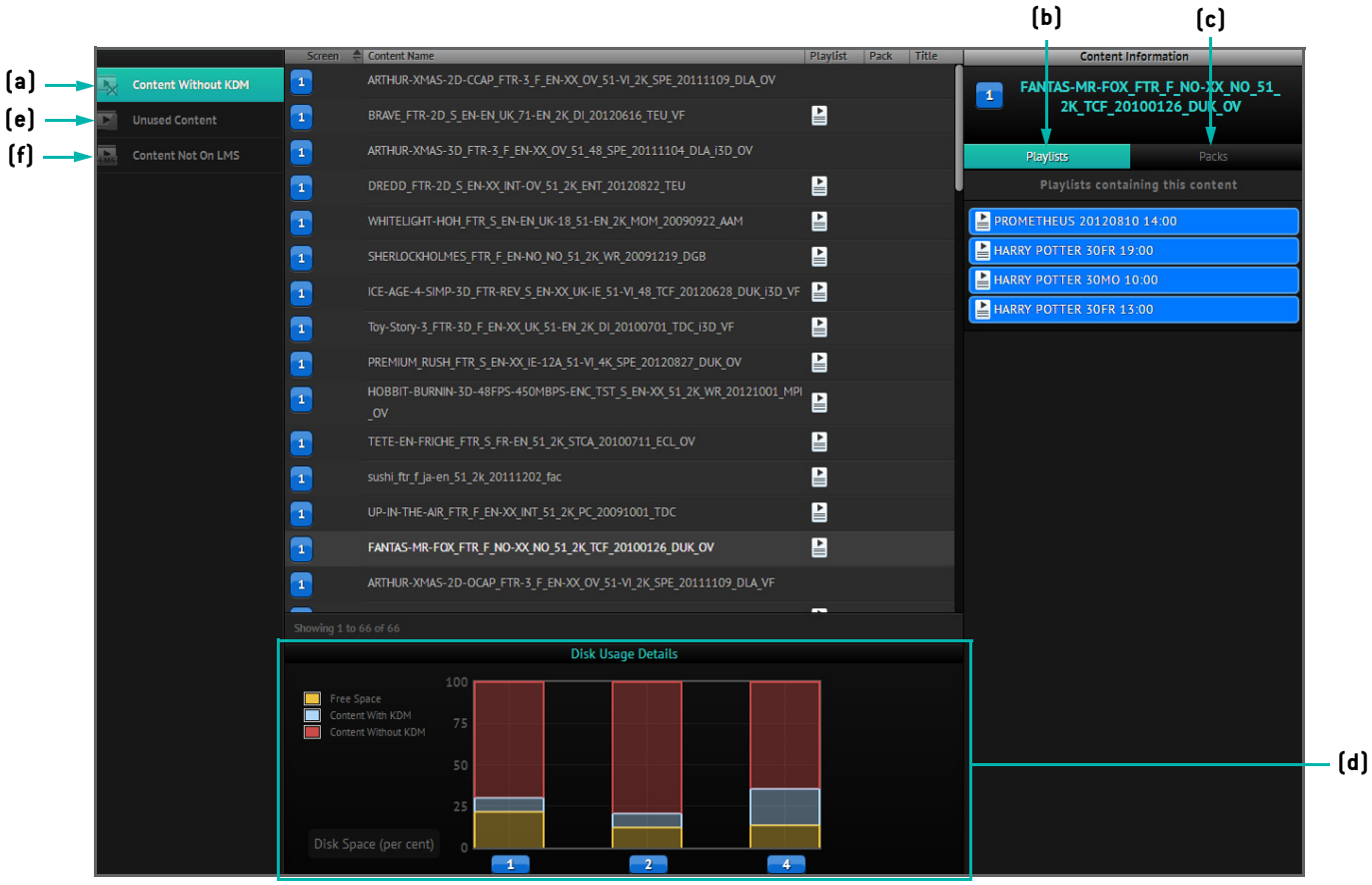


Figure 5-5: Content Report Page

Note:

- To sort entries on the page, click on a relevant column title.
- The bar chart is only visible while using the **Content Without KDM** (Figure 5-5a) and **Unused Content** (Figure 5-5e) tabs.

Chapter

6

Configuration Management

Overview:

Screenwriter has a user configuration section where it is possible to perform a range of configuration tasks such as the addition of devices at sites, emails for KDM purposes, new screens and the more general setups required for user management and POS, amongst others. This chapter documents the various configurations that can be performed using this section of the application.

6.1. Configuration of Complex

The **complex devices configuration page** (Figure 6-1) is the default page that is first accessed through the Complex tab under the Configuration option in the header bar. On this page it is possible to manage the configuration of devices for a complex.

Note:

- New screens at a site are added in the configuration section and become available for screen management purposes (See Screen Management on page 13).
- A Help option is available which, when used, summarises key actions that can be carried out on the page.

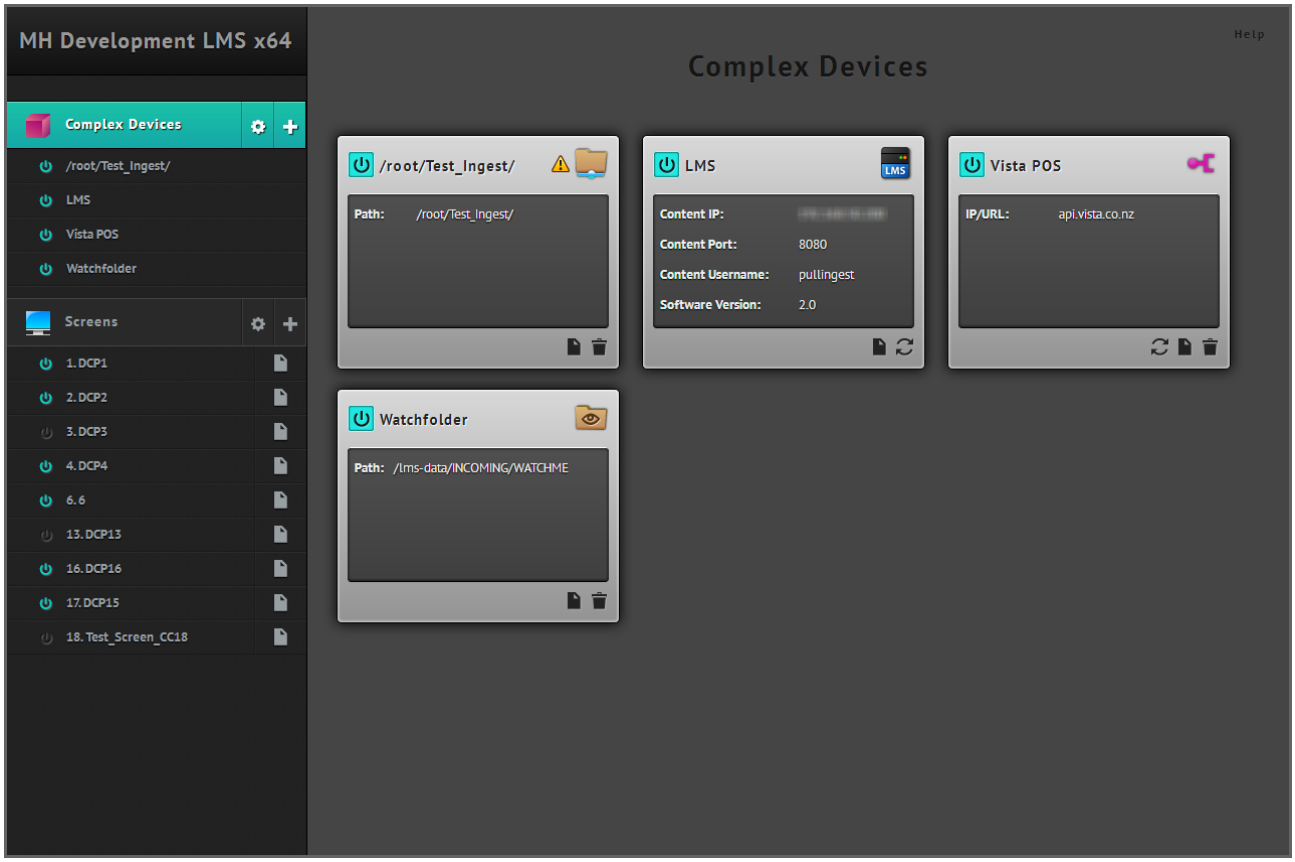


Figure 6-1: Complex Devices Configuration Page

6.1.1. Configure the LMS

The library server, or LMS, is a large storage server for content. The library server configuration options are managed from the complex devices configuration page.

Example:

In this example, the LMS is configured to use the content IP **127.0.0.1** and port **2121** for the FTP address. To configure the LMS:

1. From the complex devices configuration page, identify the **LMS** window in the main area of the page.
2. In the LMS window, click on the button to edit the LMS details. This will open a dialog box with a number of fields that are relevant to the LMS configuration (Figure 6-2).

Figure 6-2: Dialog Box for Editing LMS Details

3. Verify the LMS details to ensure FTP settings are correct.
4. Click on the Save button to complete the procedure.

Tip:

- The icon marked as on the LMS window found on the complex devices configuration page allows for re-scanning the local storage drive. This constitutes a troubleshooting technique in case someone deletes files by hand on the drive itself.

6.1.2. Add FTP Folder

A FTP folder is a remote folder connected to Screenwriter via FTP, which can be configured to access DCPs and KDMs on a remote FTP site. When a FTP folder is added it will become visible on the content page (See Figure 3-1 on page 22). To add a new FTP folder:

1. From the complex devices configuration page, click on the + button to add a new device. This will open the **Add New Complex Device** dialog box (Figure 6-3).

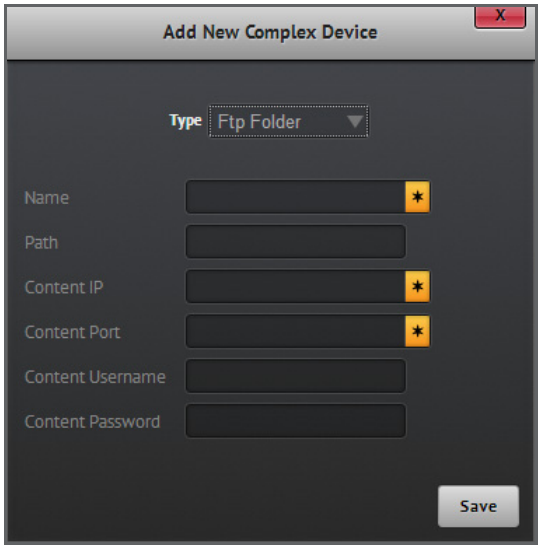


Figure 6-3: Dialog Box for Adding FTP Folder

2. Select the **Ftp Folder** option from the **Type** dropdown menu.
3. Complete the remaining fields of the dialog box. These fields include:

- **Name**: display name for this FTP folder.
- **Path**: relative path on the FTP site that contains the DCPs.
- **Content IP**: IP address of FTP site.
- **Content Port**: port of the FTP site.
- **Content Username** and **Content Password**: username and password of the FTP site.

4. Click on the Save button to complete the procedure.

Tip:

- If the configured path is for a shared drive with multiple sub-folders that contain DCPs, it will take longer for Screenwriter to scan and refresh. In this situation, it is advisable to have separate configurations for each sub-folder.

6.1.3. Add Local Folder

A local folder can be created on the TMS box for holding DCPs. The local folder can, for example, be a drop folder not intended for auto-ingesting purposes, or a folder to be used as a mount shared drive. When a local folder is added it will become visible on the content page (See Figure 3-1 on page 22). To add a new local folder:

1. From the complex devices configuration page, click on the + button to add a new device. This will open the **Add New Complex Device** dialog box (Figure 6-4).

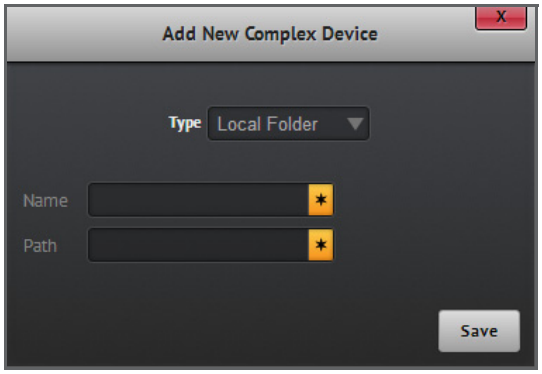


Figure 6-4: Dialog Box for Adding Local Folder

2. Select the **Local Folder** option from the **Type** dropdown menu.
3. Complete the remaining fields of the dialog box. These fields include:

- **Name**: display name of the local folder.
- **Path**: full path to the desired folder on the TMS.

4. Click on the Save button to complete the procedure.

6.1.4. Add Watch Folder

A watch folder is a local folder on the TMS box intended for DCPs or KDMs to be dropped into, e.g. a third party system drops content via FTP into this folder. Content is automatically ingested from this folder into the library. When a watch folder is added it will become visible on the content page (See Figure 3-1 on page 22). To add a new watch folder:

1. From the complex devices configuration page, click on the + button to add a new device. This will open the **Add New Complex Device** dialog box (Figure 6-5).

Figure 6-5: Dialog Box for Adding Watch Folder

2. Select the **Watchfolder** option from the **Type** dropdown menu.
3. Complete the remaining fields of the dialog box. These fields include:

- **Name**: display name of the watch folder.
- **Path**: full path of the drop folder.

4. Click on the Save button to complete the procedure.

6.1.5. Add POS Device

POS device configuration is a step that is required in order to be able to pull information from a third party POS system. To add a POS device:

1. From the complex devices configuration page, click on the + button to add a new device. This will open the **Add New Complex Device** dialog box (Figure 6-6).

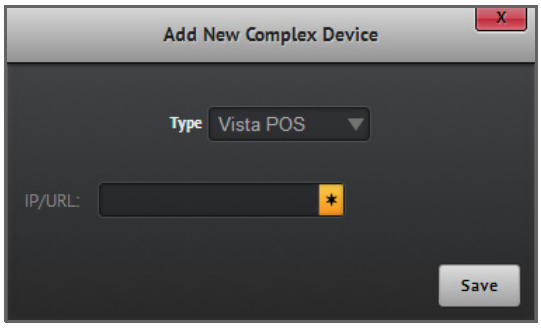


Figure 6-6: Dialog Box for Adding POS Device

2. Select the type of POS device to be configured from the **Type** dropdown menu.
3. Complete the remaining fields in the dialog box. Depending on the type of POS device selected, different fields may be displayed. However, there is one field that is common to all POS devices, which is the **IP/URL** field for allowing connection of the POS device to the TMS.
4. Click on the Save button to complete the procedure.

Note:

- Screenwriter currently supports Vista POS, Newman POS, SARFT POS, UCS POS, Compeso POS, Markus POS and Merlin POS.
- See **POS Setup on page 102** for further information about POS setup.

6.1.6. Delete Complex Device

Configured complex devices can be deleted on demand when they are no longer required. To delete a complex device:

1. Identify the complex device window in the main area of the complex devices configuration page.
2. From the complex device window, click on the button and confirm the deletion of the device.

Note:

- The LMS complex device cannot be deleted as it is required by the system.

6.1.7. Add Screen

From a configuration perspective, a screen is regarded as a grouping of devices that support the playback of playlists, where screen server and projector details are added to the screen. It is envisaged that screen configuration will be extended to support the addition of other devices such as audio processors and automation tools. The section that follows documents a walk-through example of configuring a screen with screen devices added to it.

Note:

- Multiple projectors can be added and enabled for a screen. However, only one screen server can be enabled for a screen.
- A screen can be marked as being 3D capable, therefore, allowing the TMS to warn when 3D is scheduled for screens not configured to play 3D.

Example:

In this example, a new **Screen 3** will be added. Screen 3 has a Doremi screen server installed, is 3D enabled and has an audio capability of 7.1.

To add the new screen:

1. Click on the + button to add a new screen on the **complex screens configuration page** (Figure 6-7a). This will open the **Add New Screen** dialog box (Figure 6-8a).
2. Complete the required screen details and after the screen is saved (Figure 6-8b), it then becomes necessary to associate a screen server to the screen by clicking on the **Add Device** button (Figure 6-8c). This will open a dialog box (Figure 6-9) to complete the details of the device that is being added to the screen.

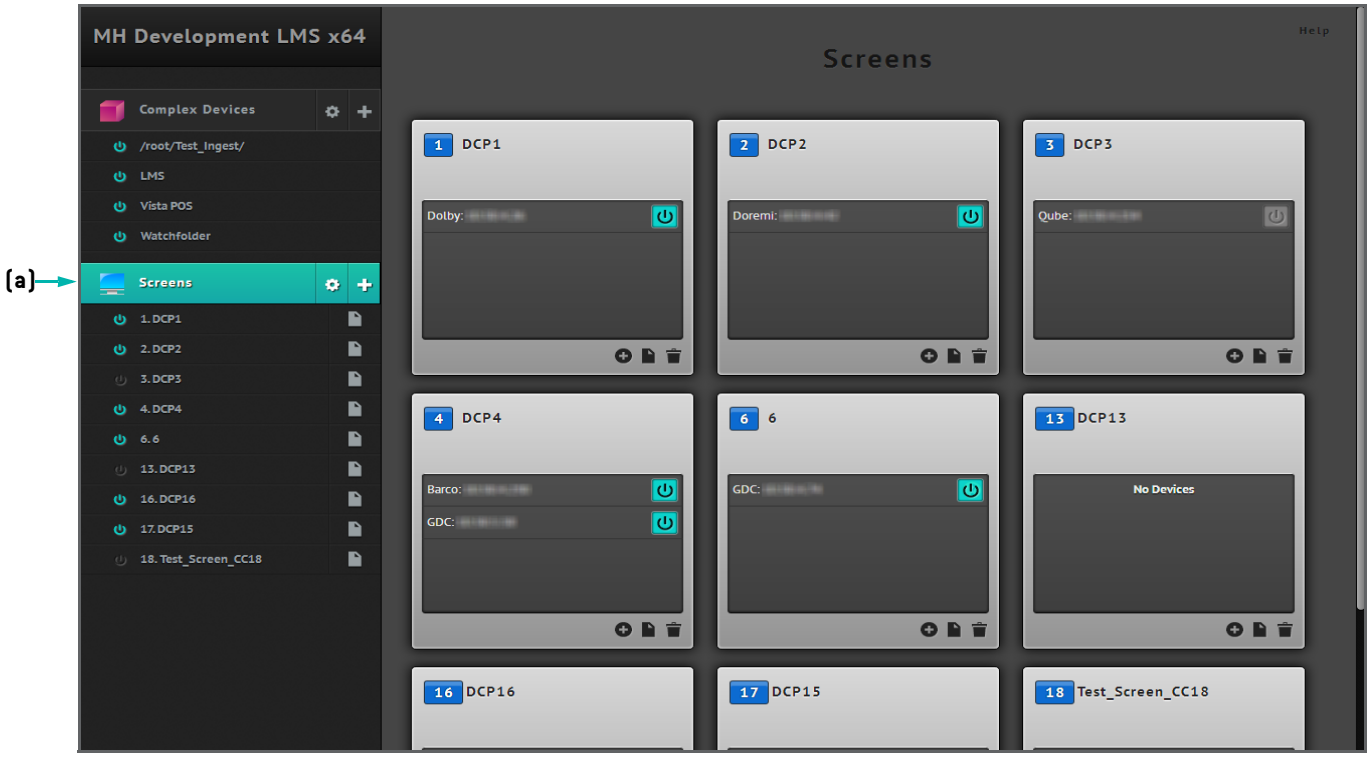


Figure 6-7: Complex Screens Configuration Page

Figure 6-8: Adding a New Screen

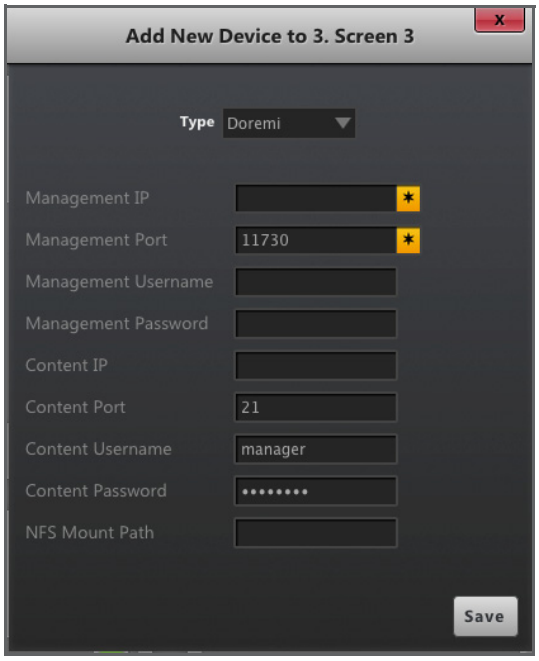


Figure 6-9: Dialog Box for Adding New Device to Screen

3. From the dialog box, select the type of device to add. Based on this example, it is required to add a screen server device of type **Doremi**. Screen servers require two IP addresses: one address for communication (the management IP) and another to transfer DCPs (the Content IP). The Content IP is usually the larger capacity network, i.e. 10 Gb/s. The capacity of this network will affect the transfer speed. Content items are transferred to the screen servers over the content network using FTP.

4. Complete the other fields present in the dialog box. These include:

- **Management IP**: IP for communication.
- **Management Port**: port used for communication over the Management IP (specific to screen server).

- **Management Username** and **Management Password**: only required for specific screen servers.
- **Content IP**: content IP address for content transfers.
- **Content Port**: port for content transfers (specific to the screen server).
- **Content Username** and **Content Password**: username and password for the FTP transfer over the content IP.

Note:

- The default port and user information is populated in the fields depending on the type selected when creating a new device.
- In this example, it is possible to see that the default management port is **11730** for Doremi, as well as a content port of **21** with the relevant username and password.

5. On saving, it will be possible to see the screen server appear for that screen (Figure 6-10). By default the device is enabled for use.

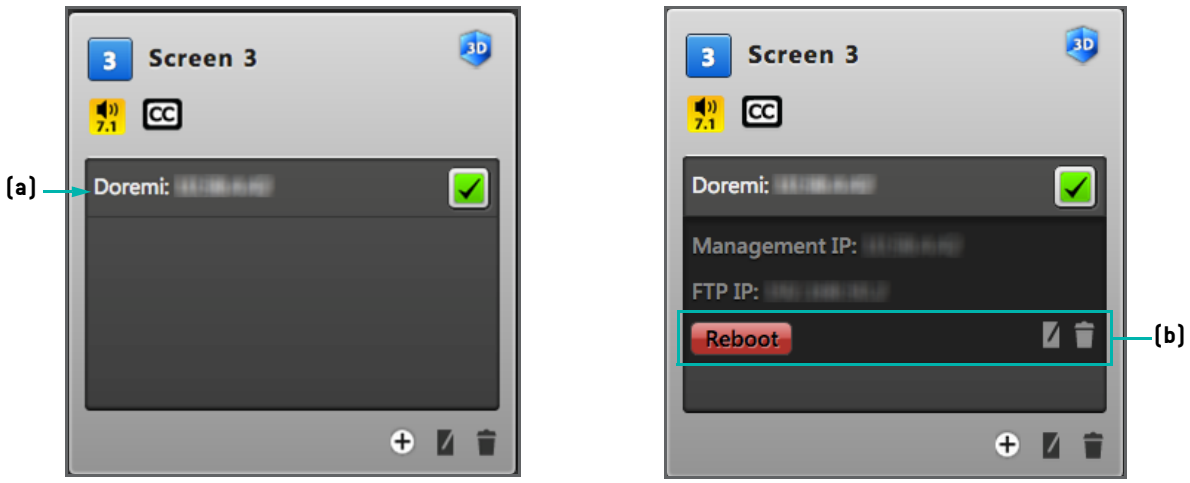


Figure 6-10: New Screen with Screen Server

6. Click on the row containing the new screen server (Figure 6-10a) to view details and use the reboot, edit or delete buttons, as appropriate (Figure 6-10b).

Note:

- It will also be possible to view **Screen 3** at the bottom of every page in Screenwriter, i.e. in the navigation that displays screen and projector status (Figure 6-11a).
- Mouse over a screen icon for more details. If the icon appears in red, e.g. as in the case of **Screen 2** (Figure 6-11), this implies that there are warnings/error messages as well as connectivity issues.

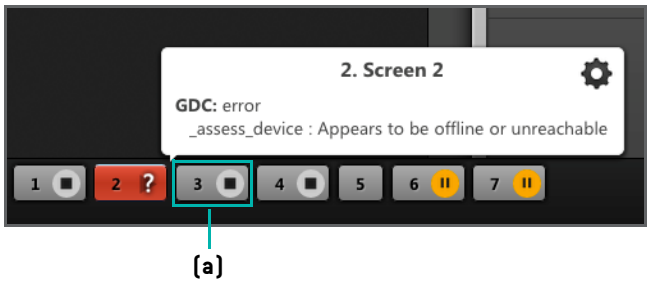


Figure 6-11: Status Bar with Error Message

6.1.8. Edit Screen

Screens can be edited in order to review their configured details such as show attributes and screen capabilities. Further information about the configuration of show attributes is captured in the **Show Attributes** section of this user manual. To edit screen details:

1. From the complex screens configuration page, identify the screen that needs reviewing.
2. Click on the button adjacent to the desired screen. This will open the **Edit Screen** dialog box which holds tabs for allowing the modification of various screen parameters (**Figure 6-12**).

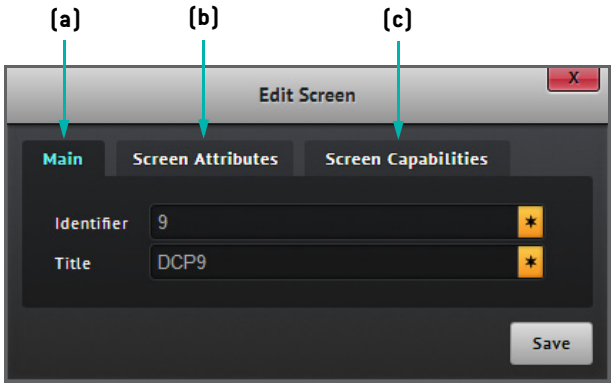


Figure 6-12: Edit Screen Dialog Box

3. Make modifications to the main details of the screen as required. The **Identifier** and **Title** parameters of the screen can be changed from the **Main** tab in the dialog box (**Figure 6-12a**).
4. Make modifications to assign or remove show attributes for the screen as required, by using the **Show Attributes** tab (**Figure 6-12b**).
5. Make modifications to assign or remove screen capabilities for the screen as required, by using the **Screen Capabilities** tab (**Figure 6-12c**).
6. Once all changes have been made, click on the Save button to complete the procedure.

6.1.9. Delete Screen

Configured screens can be deleted on demand when they are no longer required. To delete a screen:

1. Identify the screen window in the main area of the screen devices configuration page.
2. From the screen window, click on the button and confirm the deletion of the screen.

6.1.10. Check Configuration

The complex devices and complex screens configuration pages offer options to quickly check the configuration of complex devices and screens that have been set up, respectively. The following actions can be achieved for configuration checks:

- To check the configuration of complex devices, click on the button adjacent to the Complex Devices option on the complex devices configuration page. This will open a window listing all complex devices together with icons identifying the status of the management and content configuration details (Figure 6-13).
- To test complex devices configuration settings, click on the Test button in the **Configuration Check** dialog box for complex devices (Figure 6-13).

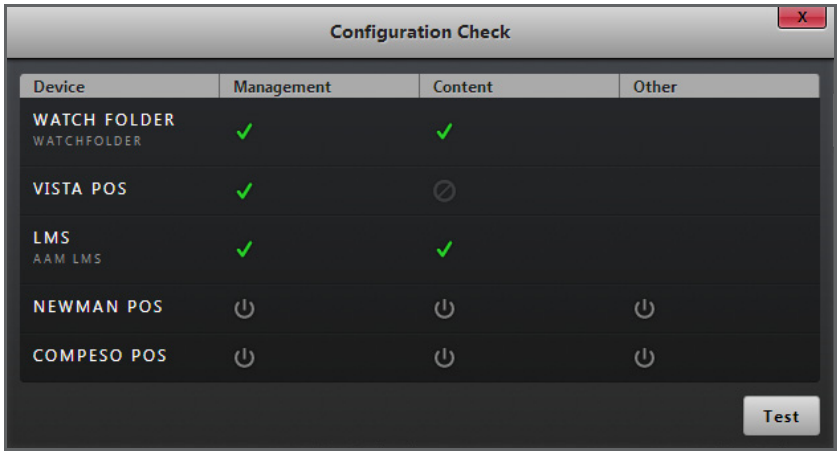


Figure 6-13: Configuration Check Dialog Box for Complex Devices

- To check the configuration of screens, click on the button adjacent to the Screens option on the complex screens configuration page. This will open a window listing all screens together with icons identifying the status of the management and content configuration details (Figure 6-14).
- To test complex screens configuration settings, click on the Test button in the **Configuration Check** dialog box for complex screens (Figure 6-14).

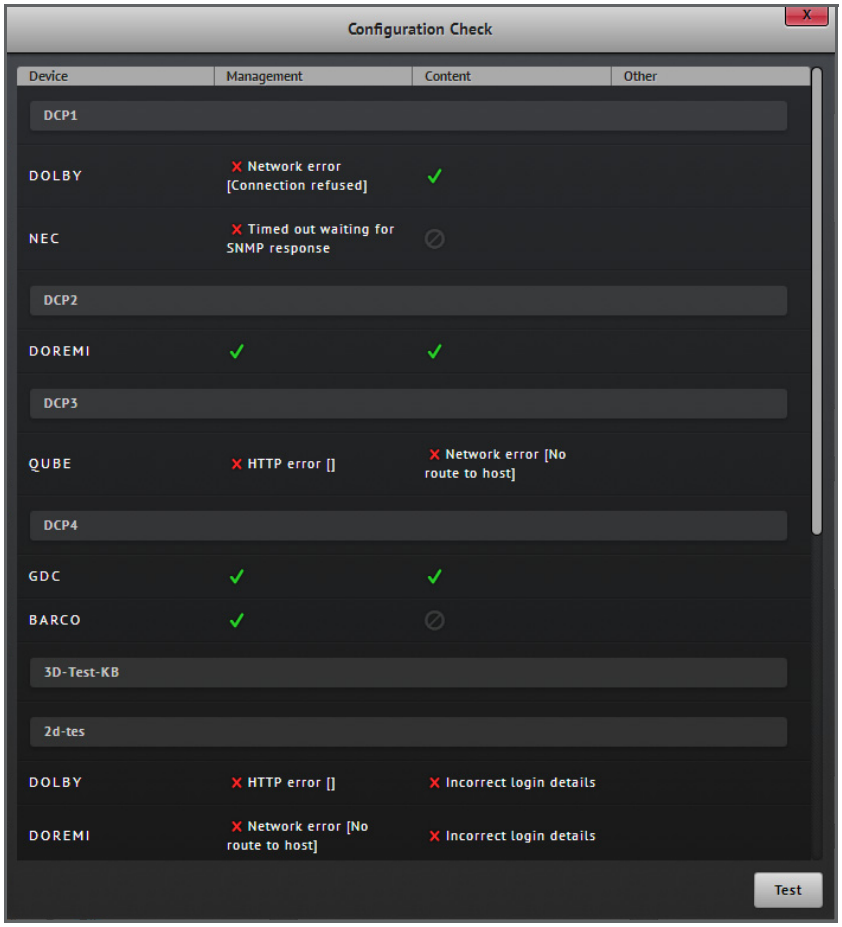


Figure 6-14: Configuration Check Dialog Box for Complex Screens

Note:

- The details of any errors encountered during the testing step will be displayed in the window. These messages can be consulted in order to diagnose any issues.

6.1.11. IP Camera Configuration

Screenwriter supports the configuration of IP cameras to enable the user to see what is happening on the screen, using the screen management section of the application (See **Screen Management on page 13**). IP cameras are configured by associating them as devices to the required screens in the same way that, for example, projectors are added to screens (See **Add Screen on page 89**). To configure an IP camera for a screen:

1. Select a screen under the Screens section of complex configuration and click on the + button on the main area of the page to add a device. Alternatively, when accessing the **complex screens configuration page** (See **Figure 6-7 on page 90**), identify the required screen window on the page and click on the icon. This will open a dialog box for adding a new device.
2. Using the dialog box, select the **Axis** option from the **Type** dropdown menu (**Figure 6-15**).

Note:

- Currently, cameras produced by Axis are supported by Screenwriter.

Figure 6-15: Dialog Box for Adding IP Camera

3. Complete the other fields present in the dialog box. These include:

- **Management IP**: IP for communication.
- **Management Port**: port used for communication over the Management IP (specific to screen server).
- **Management Username** and **Management Password**: only required for specific screen servers.

4. Click on the Save button to complete the configuration procedure. The device will be shown to have been configured (Figure 6-16a). Following the configuration of the IP camera it becomes possible to see exactly what is happening on a given screen from the screen management function of Screenwriter. An example is shown in the screen section in Figure 6-16b.

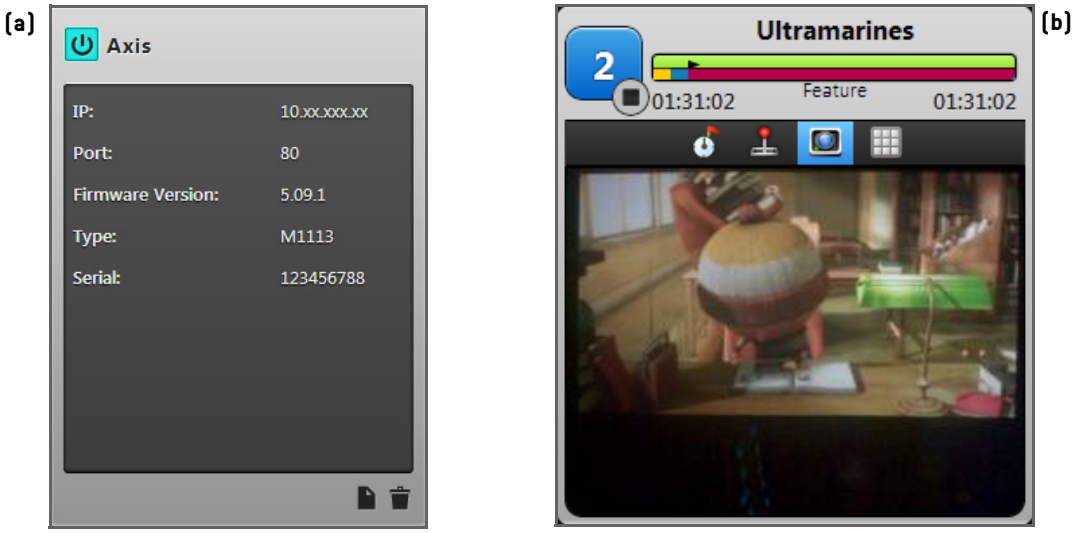


Figure 6-16: Configured IP Camera Device and Live IP Camera Feeds

6.2. General Configuration

General configuration covers a broad range of setups and details that are required for the administrative side of the application such as POS setup, user management and pack placeholder management, amongst others. The **complex setup configuration page** (Figure 6-17) is first displayed when accessing the General tab under the Configuration option in the header bar.

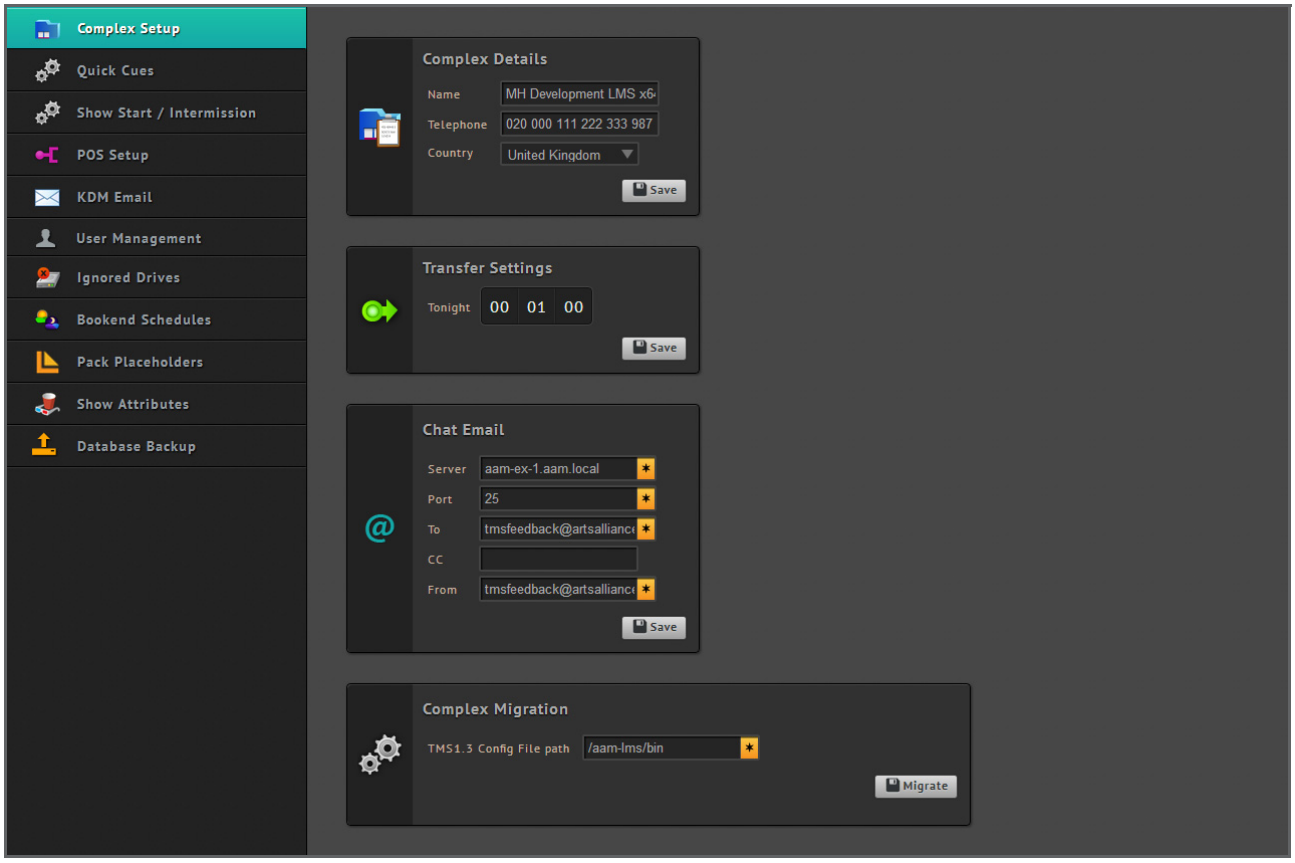


Figure 6-17: Complex Setup Configuration Page

6.2.1. Complex Setup

Complex setup configuration options are accessed from the Complex Setup tab. The following can be achieved from the complex setup configuration page:

- To enter complex details, fill out the fields present in the **Complex Details** window of the page (Figure 6-18). These details are required to display the name of the complex throughout the application, such as in the header bar (See Figure 1-4 on page 7), and can also be used during any request for support.

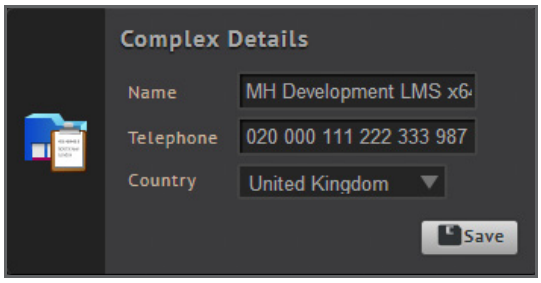


Figure 6-18: Complex Details Window

- To enter transfer settings regarding a default time for transfers to take place, input a value in the time field in the **Transfer Settings** window (Figure 6-19).

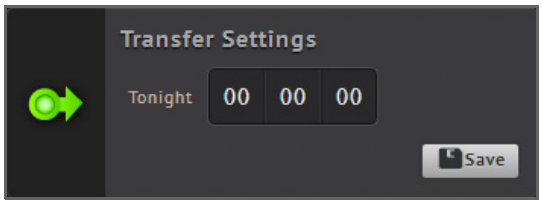


Figure 6-19: Transfer Settings Window

- To enter chat email details required for the proper functioning of the TMS chat functionality, fill out the fields present in the **Chat Email** window (Figure 6-20).

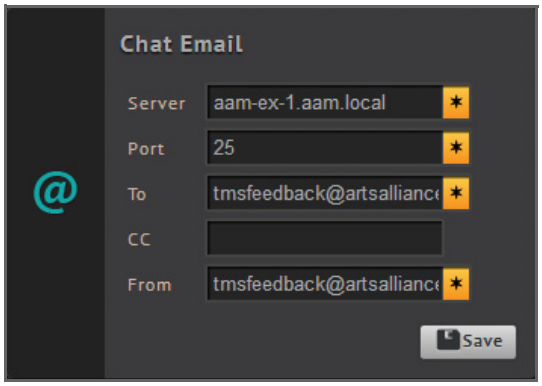


Figure 6-20: Chat Email Window

- The complex migration feature pulls all the information from the user's previous instance of TMS 1 and integrates into TMS 2. For this feature to function, it is required that both instances (i.e. TMS 1 and TMS 2) be running concurrently. To specify complex migration details, complete the **Config File Path** field of TMS 1 (Figure 6-21). Clicking on the Migrate button causes Screenwriter to extract all playlists, packs, screens, devices, cue configurations and POS information from the TMS 1 database. The complex can then shut down TMS 1 to start using Screenwriter.

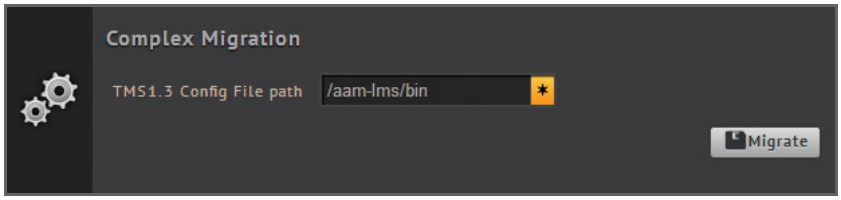


Figure 6-21: Complex Migration Window

6.2.2. Quick Cues

Quick cues are rapidly accessible automation cues that the user can choose to activate for particular screens during screen management (See **Figure 2-3 on page 16**). In Screenwriter, icons can be selected to represent specific automation cues. Quick cue configuration options are accessed from the Quick Cues tab. On access the **quick cues configuration page** is displayed (**Figure 6-22**), which provides options to allow quick cue icons to be assigned to automation cues to indicate that they apply to a server or multiple servers. To assign a quick cue icon to an automation cue:

1. When the quick cues configuration page is first accessed, click on the New quick cue button.
2. Choose the required type of server, from the provided tabs, for which automation cues exist (**Figure 6-22a**). It is also possible to select multiple servers that share similar attributes.
3. Identify the desired automation(s) from the list of available options (**Figure 6-22b**).
4. Use the appropriate buttons to select the participating screen server(s) (**Figure 6-22c**).
5. Click on the button to select an icon for assigning to the quick cue.
6. Click on the Save button to complete the procedure.

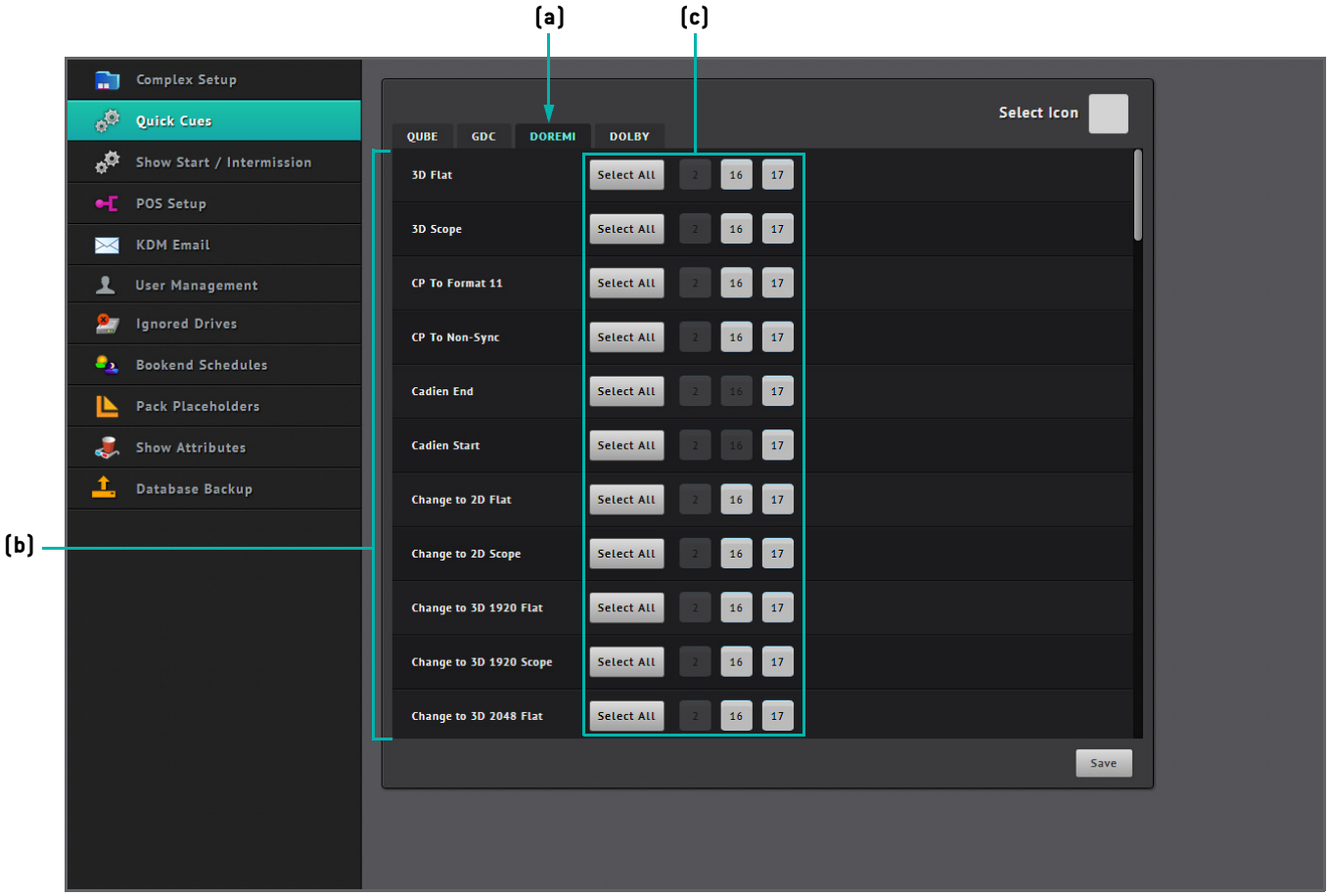


Figure 6-22: Quick Cues Configuration Page

6.2.3. Show Start and Intermission

Automation cues can be made available for use during show start or intermission. Show start/intermission configuration options are accessed from the Show Start / Intermission tab. On access the **show start/intermission configuration page** is displayed (Figure 6-23), which provides options to make server automation cues applicable as show start or intermission. The main area of the page lists all the automations for various types of screen servers. The following can be achieved from this page:

- To set an automation as show start, identify the automation in the list and click on the button.
- To set an automation as intermission, identify the automation in the list and click on the button.

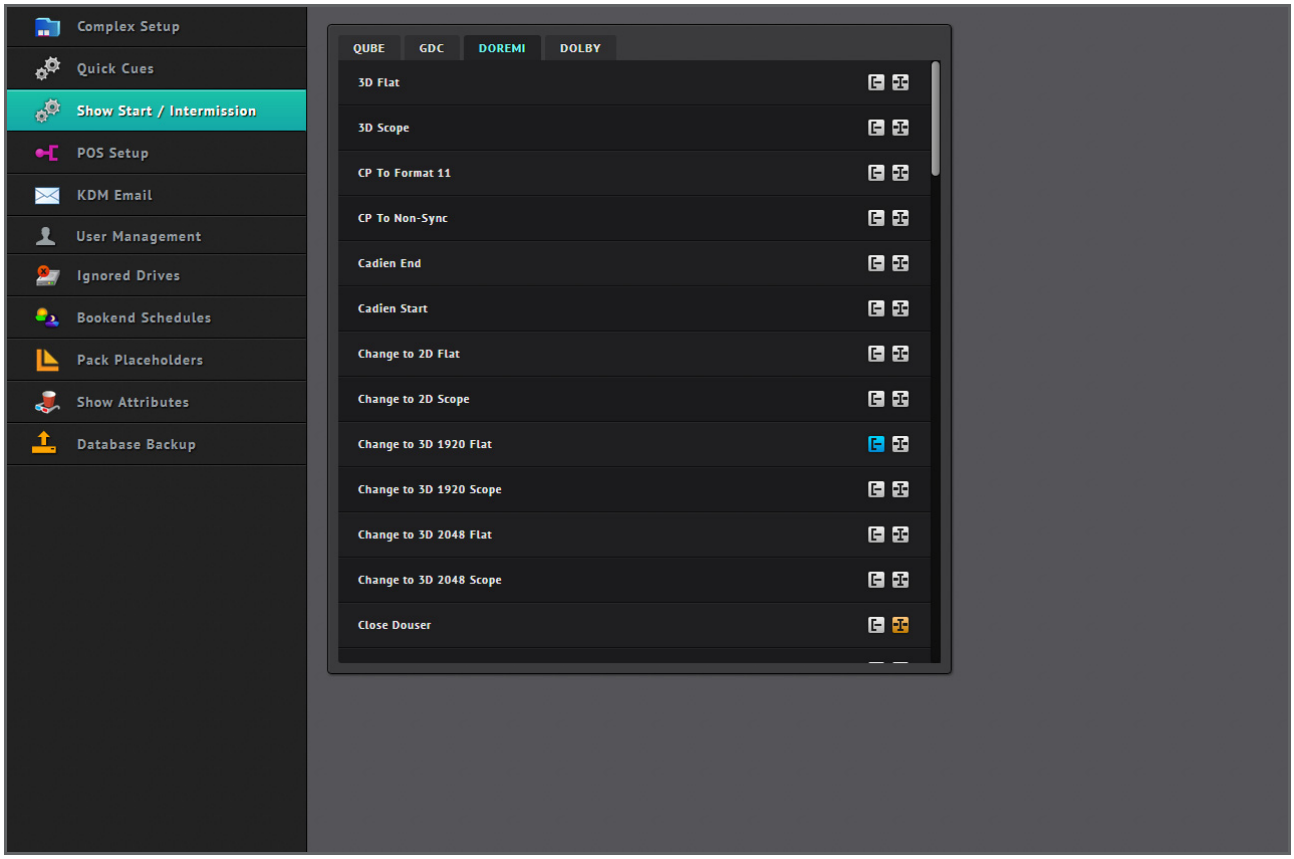


Figure 6-23: Show Start and Intermission Configuration Page

6.2.4. POS Setup

POS information can be sent to the TMS via the API, uploaded from a file that follows the AAM specified format, or pulled from a third party POS system that AAM supports integration with. POS setup configuration options are accessed from the POS Setup tab and are displayed on the **POS setup configuration page** (Figure 6-24).

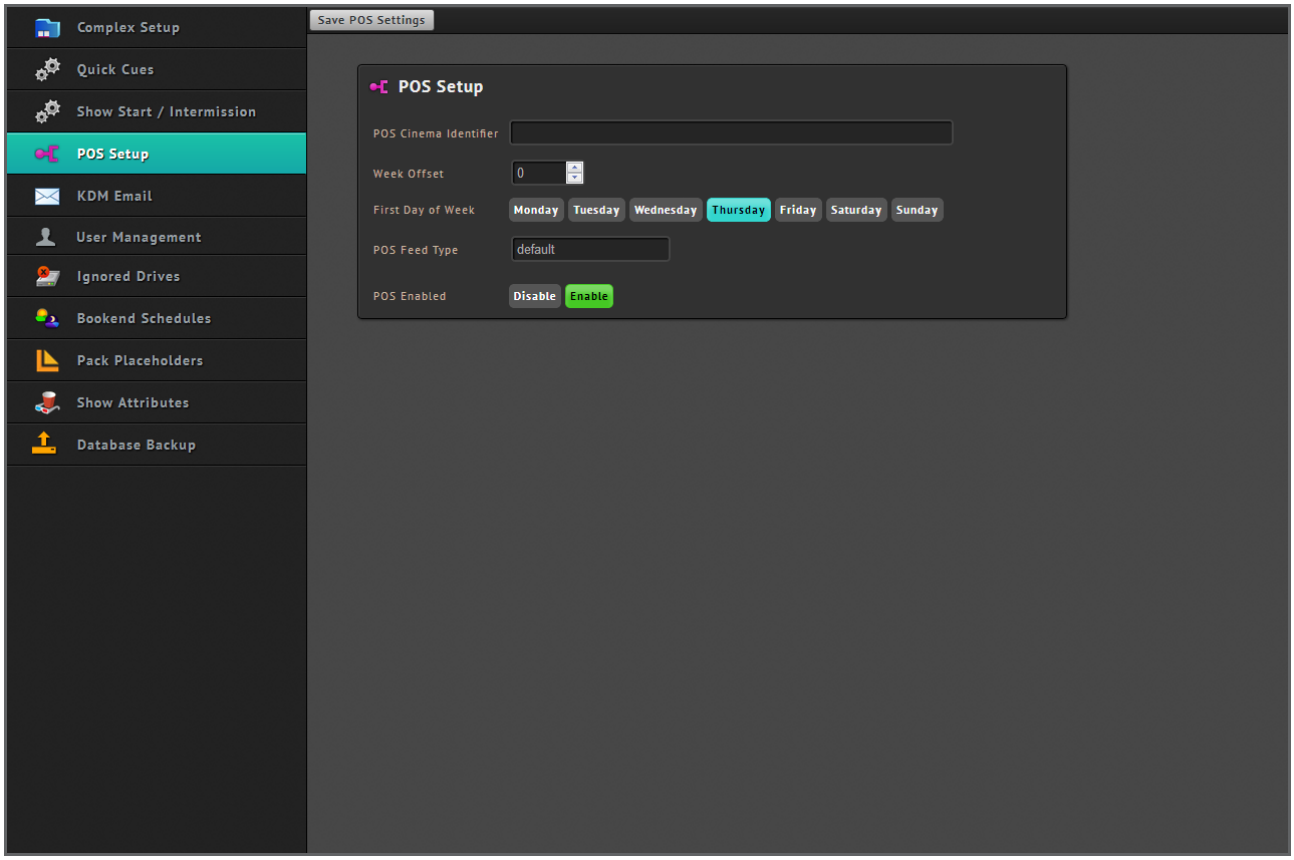


Figure 6-24: POS Setup Configuration Page

From the page it is possible to enable POS integration by completing several key fields including:

- **POS Cinema Identifier**: this is the unique code that appears in the feed from the POS system to identify a particular cinema. Multiple codes can be included within this field. However, the codes must be written such that they are comma delimited, e.g. CUKEN048, CUKEN047, CUKEN046, etc.
- **Week Offset**: offset in number of days to apply to the week numbering when computing the financial week for the year.
- **First Day of Week**: day of week that is considered the start of the "movie week".
- **POS Feed Type**: used if there is a specific custom feed type for one's specific rollout (contact AAM for this code). Most sites do not require any value in this field other than the default.
- **POS Enabled**: this allows toggling between having the POS enabled or disabled for third party POS device, if pulling the POS information from a third party system such as Vista.

Note:

- Once POS is enabled and information is being pulled, an information bar Week 10 97/124 Week 11 0/140 will be visible in the header bar, providing information regarding outstanding sessions that may require playlist assignment to be performed (See **Point of Sale on page 66**).

- If a POS device is configured but is disabled on the POS setup configuration page, then it is possible to see it as disabled in the complex setup configuration page (Figure 6-25).

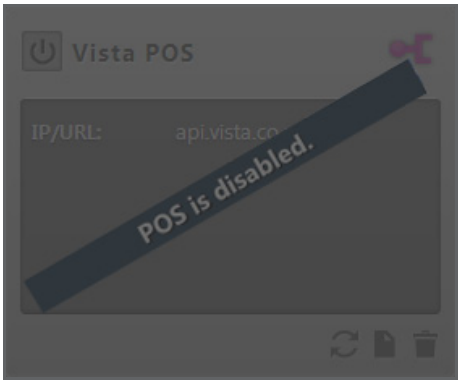


Figure 6-25: Disabled POS Device

6.2.5. KDM Email

KDM email configuration options are accessed from the KDM Email tab and are displayed on the **KDM email configuration page** (Figure 6-26). KDM email configuration is required to allow setup of an email inbox that the TMS can then scan through for emails containing KDMs. KDM email setup requires completing details for the username, password, server and protocol of the KDM email account.

Note:

- When KDM email setup is enabled the icon will appear at the right hand side of the header bar, indicating that the KDM email account is connected and that the TMS is scanning that account for KDMs.

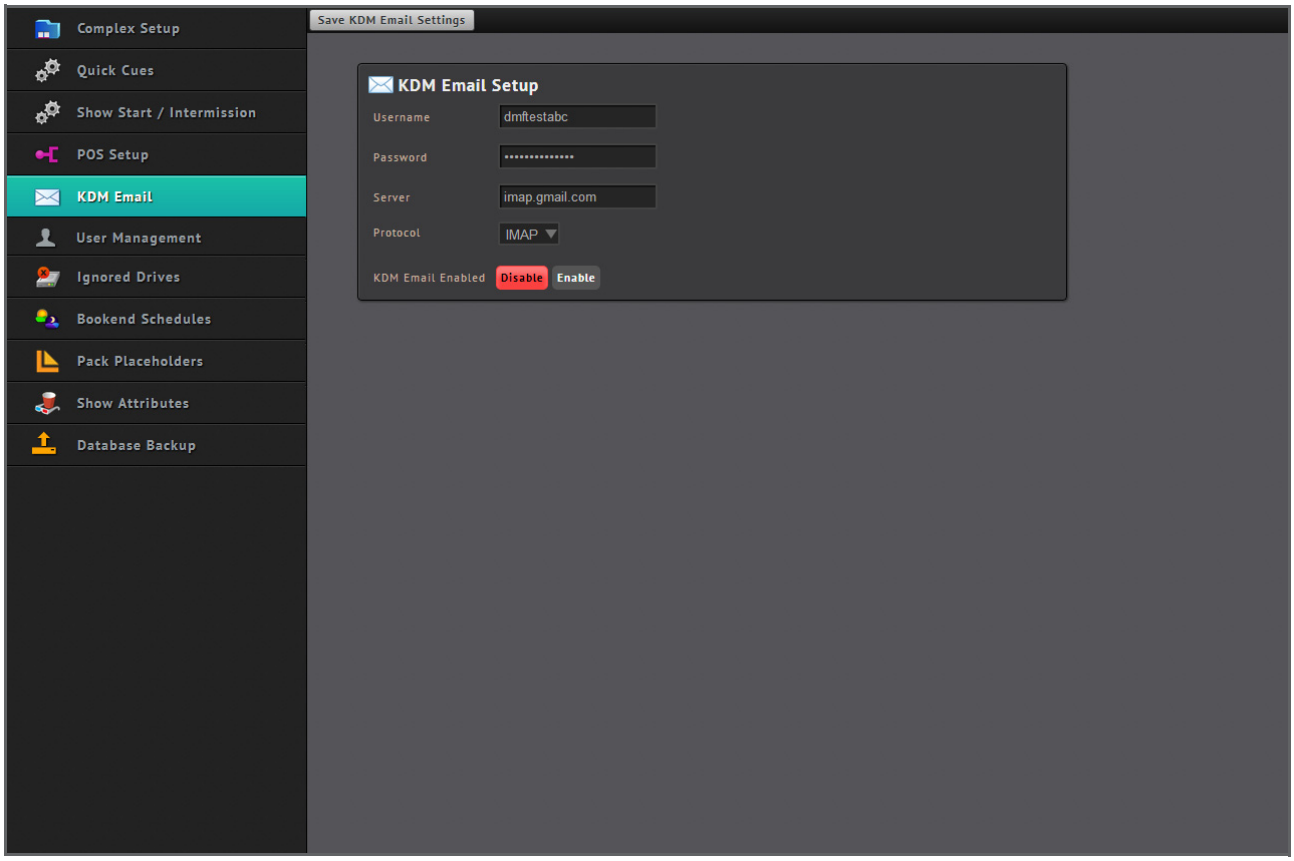


Figure 6-26: KDM Email Configuration Page

6.2.6. User Management

User management is concerned with the association of TMS user accounts with TMS user groups, so that it becomes possible to control the level of access that specific users should have. There are four user groups that are defined in Screenwriter and any user account can be a member of one user group at a time. These user groups consist of:

- **Read Only** users who are able to browse SPLs, view content as well as view and upload KDMs.
- **Show Managers** who are able to browse and activate current SPLs and play content including starting and stopping playback. They are able to assemble or delete SPLs to and from storage and are also allowed to import and delete content to and from storage.
- **Super Users** who inherit all Show Manager functions and are able to configure theatre system setups.
- **Administrators** who inherit all Super User functions and are able to perform system and security setups.

Note:

- See **Appendix A: User Permissions on page 121** for a more elaborate understanding of the types of actions and access covered under each type of user defined in the application.

User management configuration options are accessed from the User Management tab and are displayed on the **user management configuration page** (Figure 6-27).

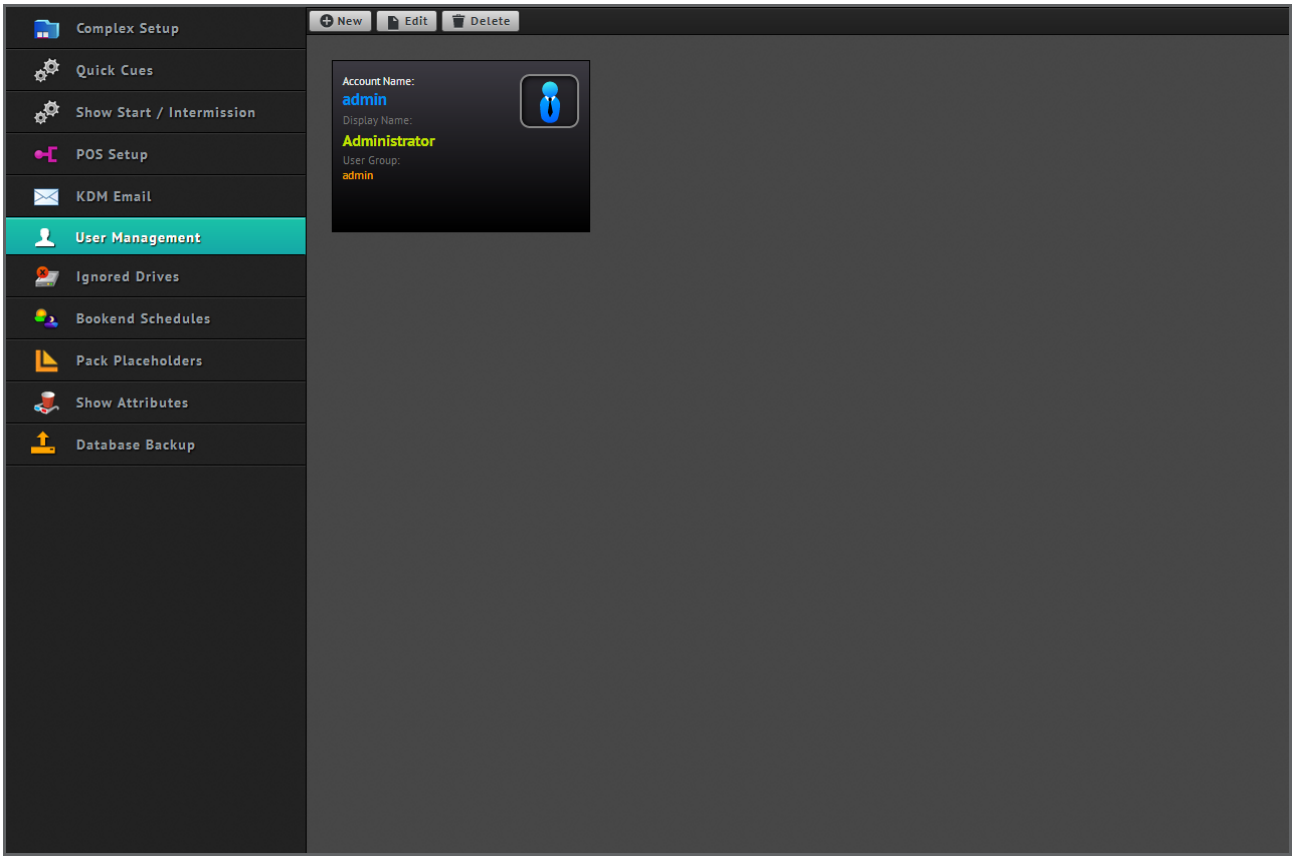


Figure 6-27: User Management Configuration Page

The following actions can be carried out from the user management configuration page:

- To add a new user account, click on the New button. This will open a dialog box from which it is possible to enter details about the account name, display name, user group to tie the user account to and password. Click on the Save button in the dialog box to save the user account.
- To edit the details of an existing user account, select the desired account by clicking on it from the main area of the page and click on the Edit button. This will open a dialog box from which changes to existing user account information can be made. Once the changes have been performed, click on the Save button to complete the procedure.
- To delete a user account, select the desired account by clicking on it from the main area of the page. Click on the Delete button and confirm deletion of the user account.

6.2.7. Ignored Drives

Ignored drives are drives and/or plugged-in devices that may hold content that should not be considered by the TMS, i.e. content that should not be scanned. Ignored drives configuration options are accessed from the Ignored Drives tab and are displayed on the **ignored drives configuration page** (Figure 6-28).

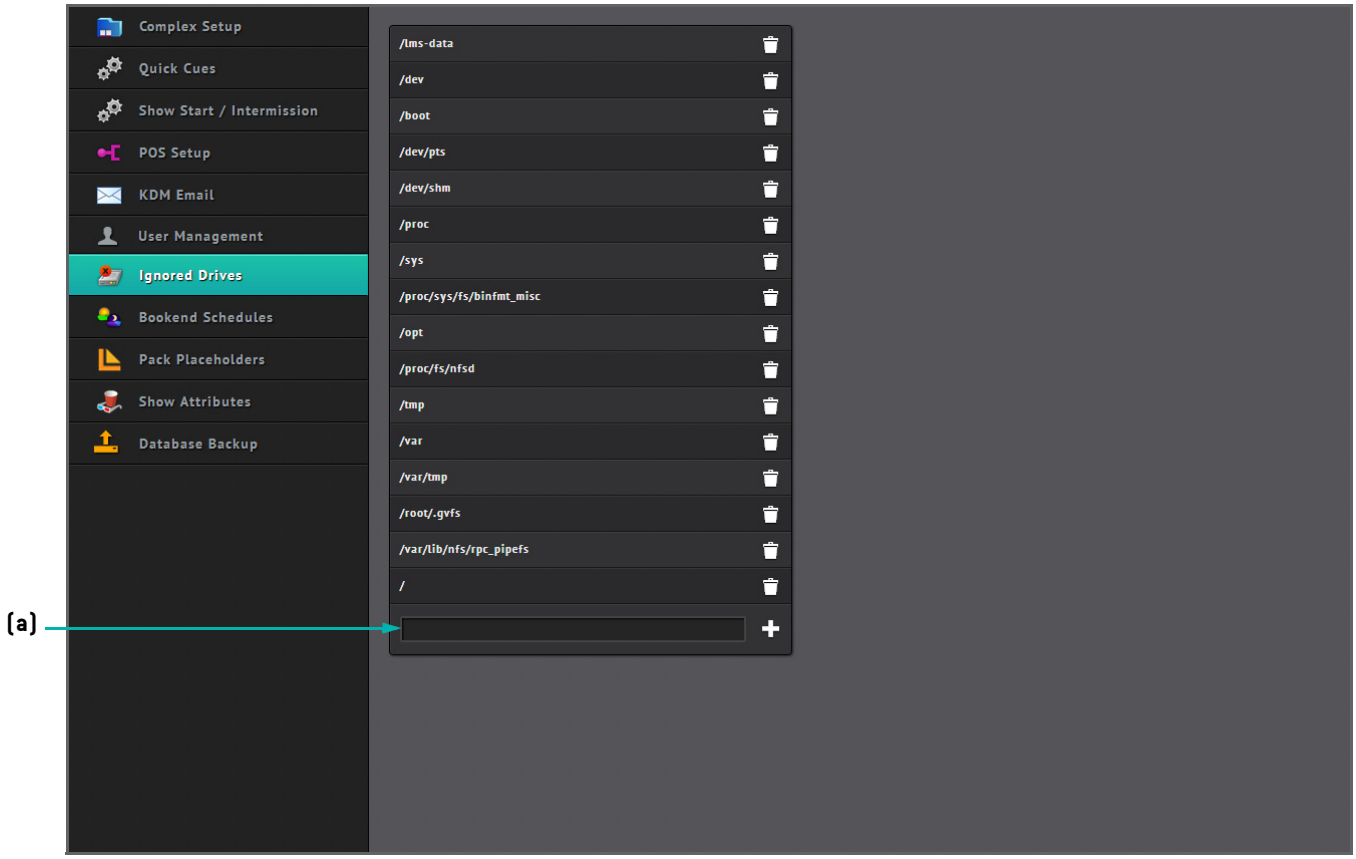


Figure 6-28: Ignored Drives Configuration Page

The following user actions can be achieved from the page:

- To add the location of a drive to ignore, enter the path of the drive (Figure 6-28a) and click on the button.
- To remove the location of an ignored drive, use the button.

6.2.8. Bookend Schedules

Complexes sometimes have a set of cues that must be run at the start of day and end of day to typically 'open' and 'close' the cinema, respectively. In Screenwriter, playlists can be selected to perform the function of the start of day and end of day cues. Time offset values can be specified between the start of day playlist and the first show of the day as well as between the last show of the day and end of day playlist.

Bookend schedules configuration options are accessed from the Bookend Schedules tab and are displayed on the **bookend schedules configuration page** (Figure 6-29).

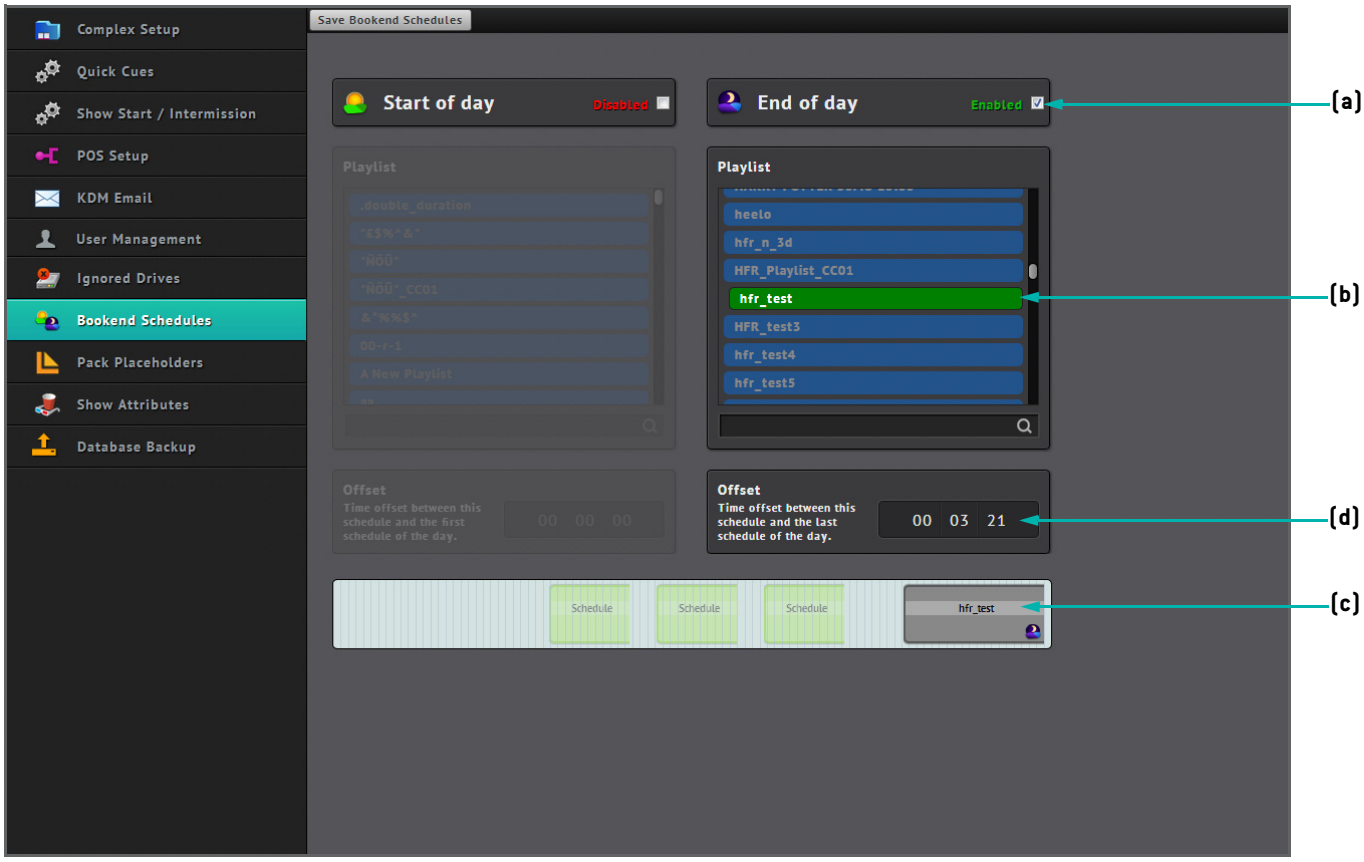


Figure 6-29: Bookend Schedules Configuration Page

To configure bookend schedules:

1. From the bookend schedules configuration page, identify which bookend schedules are to be enabled. In the example shown in Figure 6-29a, only the end of day schedule has been enabled.
2. From the list of available playlists for each bookend schedule, select the playlists that should provide the function as start of day and end of day cues. In Figure 6-29b, the playlist called "**hfr_test**" has been chosen for the purpose of the end of day cue. This is made visible in the scheduler representation on the page (Figure 6-29c).
3. After selecting the playlists specify a time offset value. For a start of day cue, the time offset value is the time interval between the finish time of the start of day playlist and the begin time of the first show. For an end of day cue, the time offset value is the time interval between the finish time of the last show and the begin time of the end of day playlist. In Figure 6-29d, the time offset is equivalent to 3 minutes and 21 seconds.
4. Once the start of day and end of day bookend schedules have been defined, click on the Save Bookend Schedules button to complete the procedure.

Note:

- When a content playlist has been scheduled to play on a given day, the bookend schedules will be automatically placed that day, but will not play when there is nothing scheduled.

6.2.9. Pack Placeholders

Pack placeholder configuration options are accessed from the Pack Placeholders tab and are displayed on the **pack placeholders configuration page** (Figure 6-30).

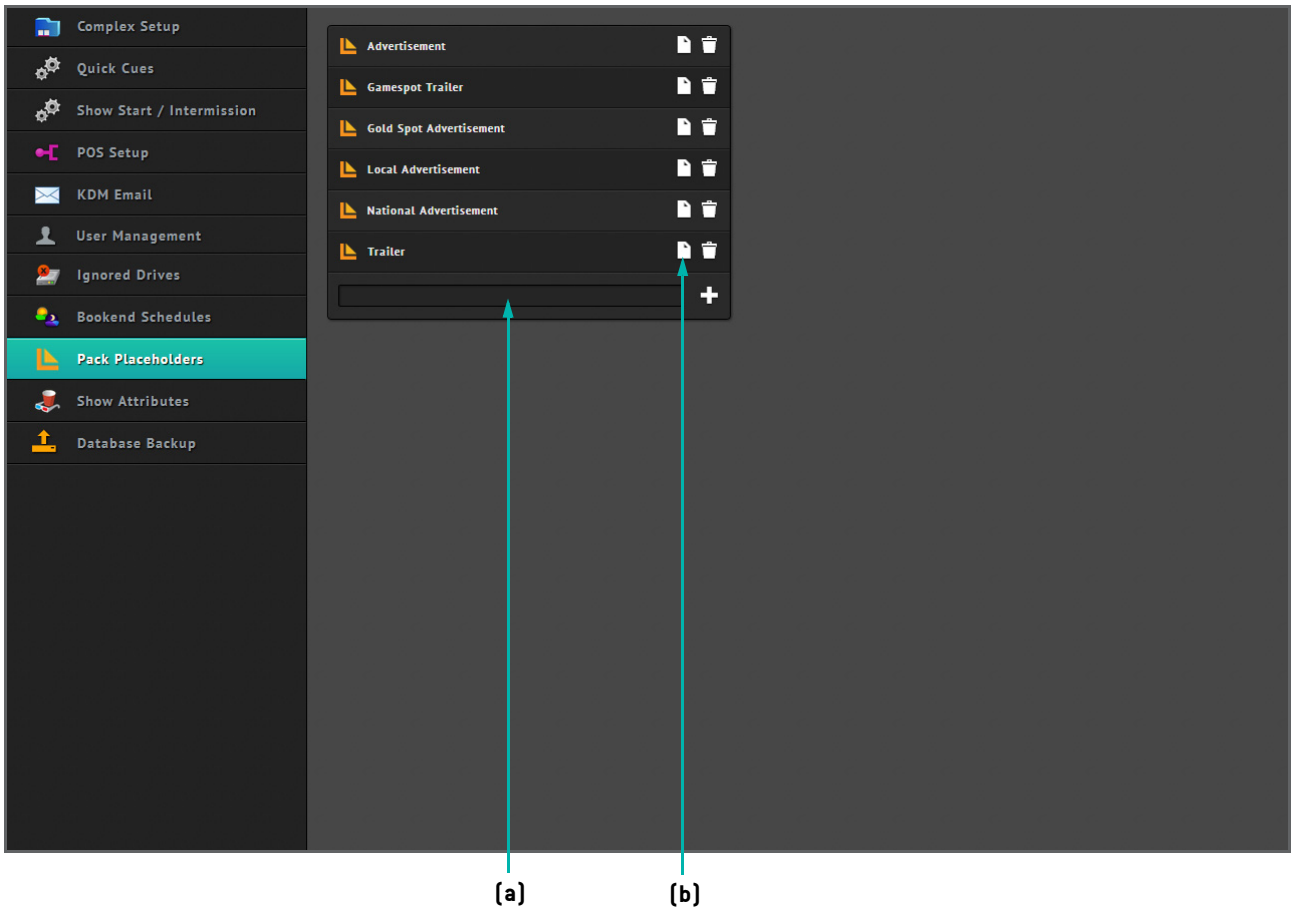


Figure 6-30: Pack Placeholders Configuration Page

The page provides options for adding, editing and removing pack placeholders. These pack placeholders are typically used in the playlist section (See **Playlists on page 33**), pack section (See **Packs on page 44**) and templates sections (See **Templates on page 56**). The following user actions can be achieved from the pack placeholders configuration page:

- To add a new pack placeholder, type the name of the placeholder in the field provided (**Figure 6-30a**) and click on the ✚ button.

- To edit the name of a pack placeholder, click on the **Edit** button (Figure 6-30b). Retype the name of the placeholder and save it.
- To delete a pack placeholder, identify the desired placeholder and click on the button.

6.2.10. Show Attributes

Configuration options for show attributes are accessed from the Show Attributes tab. On access the **show attributes configuration page** is displayed (Figure 6-31). Show attributes are metadata associated with CPLs and/or screens and are either defined within the TMS application or externally defined by third party systems that communicate with the TMS, e.g. POS systems.

For example, an attribute called "3D" is defined in Screenwriter in order to reference CPLs and screens that satisfy 3D capability. However, other systems feeding information to the software may be referencing CPLs and screens with attributes quoted as "three_d", "3d", "3-d", etc. Since Screenwriter aims at integrating multiple sources of information coming from diverse systems, the application provides a method of allowing the user to mediate show attributes in order to match the correct external attributes to existing ones or to create new show attributes based on external attributes, for use in the application. An example where show attributes are used is in the pack edit page (See Figure 3-26 on page 47).

The **Show Attributes** and **Unmatched Show Attributes** windows are displayed on the show attributes configuration page. The following key points are relevant to the configuration of show attributes:

- The **Show Attributes** window (Figure 6-31a) lists all system-defined and purposely created show attributes, which include **3D**, **CC** (Closed Caption), **HOH** (Hard of Hearing), **DBOX** (screen and CPL capability for motion effects), **HI** (Hearing Impaired), **HFR** (High Frame Rate) and **VI** (Vision Impaired).
- The ✓ icon indicates whether a particular show attribute applies at the CPL and/or screen levels.
- Third party show attributes that are unmatched, i.e. do not have a matching system-defined or user-created attribute counterpart, are listed in the **Unmatched Show Attributes** window (Figure 6-31b). The window identifies the name and source of these attributes.
- Unmatched show attributes can be matched to existing ones. To do this, identify the desired unmatched show attribute in the list, e.g. three_d. Using the dropdown menu (Figure 6-31c), select the matching existing attribute, e.g. 3D. Click on the Match button to complete the attribute matching procedure.
- In some cases unmatched show attributes will not have a matching attribute counterpart that exists in the system. However, if it is still required to be able to use the attribute then the unmatched show attribute needs to be added to the existing list of show attributes. To do this, identify the desired unmatched show attribute in the list. Clicking on the New button will then add the attribute to the list of reusable show attributes. Custom-added show attributes can be removed on demand.
- Unmatched show attributes that are to be made new attributes can be marked as screen capability attributes by using the checkbox under the **Screen** column (Figure 6-31d).
- After confirming the matching between attributes, the user needs to go to the complex screens configuration page and edit the screen for accepting the attribute as appropriate (See Add Screen on page 89 and See Edit Screen on page 93).

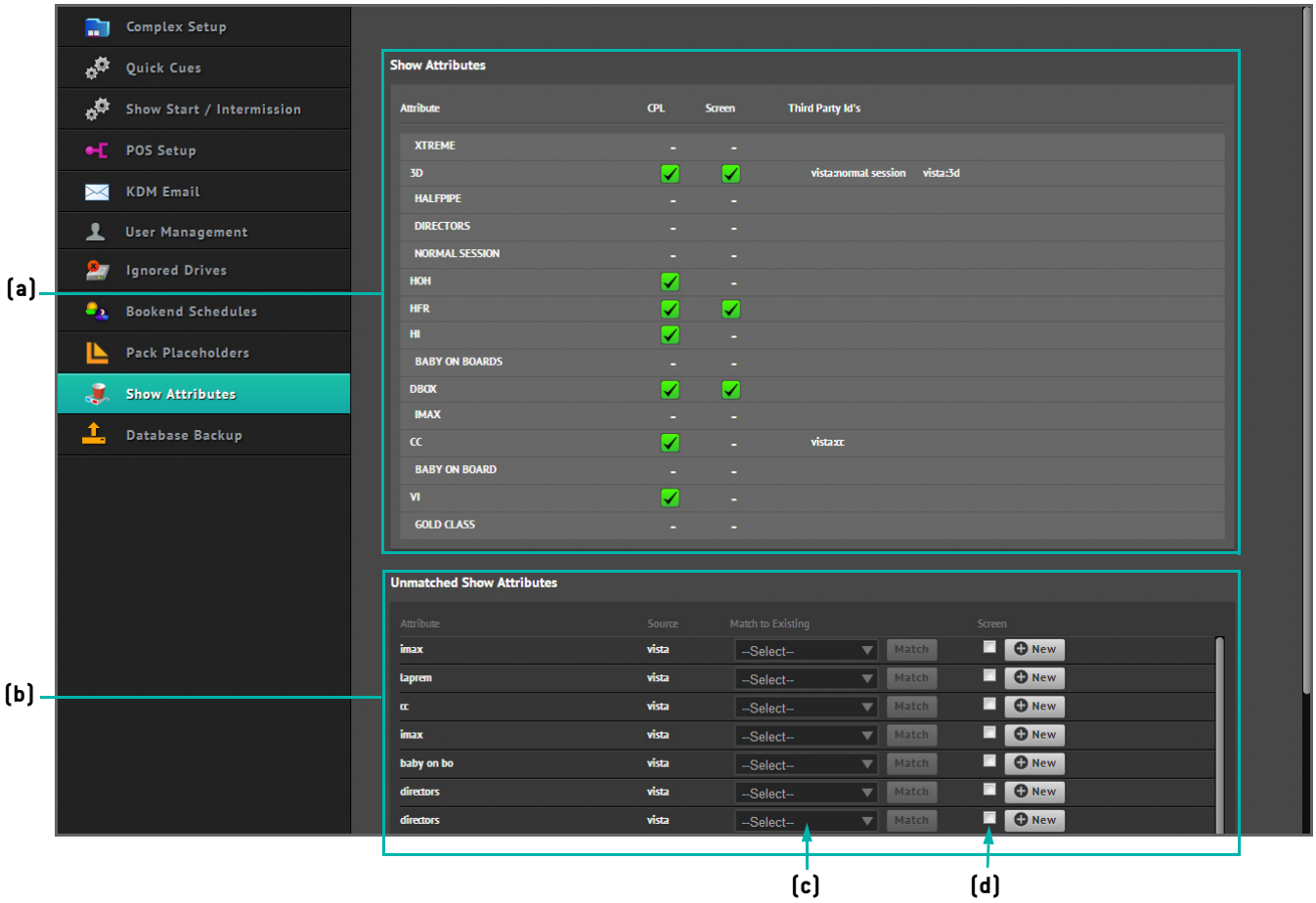


Figure 6-31: Show Attributes Configuration Page

6.2.11. Database Backup

Options for backing up the TMS database are accessed from the Database Backup tab. On access the **database backup configuration page** is displayed (Figure 6-32). The database backup function takes each table in the database and copies it onto the correct file system. The cinema site at which the TMS is hosted is then able to use the database restore function to put the information back into the database. This is useful if the database is corrupt or the database schema is malformed. This implies that sites can effectively backup, delete, restart and then repopulate the database.

- To activate the database backup function, click on the **Back up Database to File System** option (Figure 6-32a).
- To activate the database restoration function, click on the **Restore Database from File System** option (Figure 6-32b).

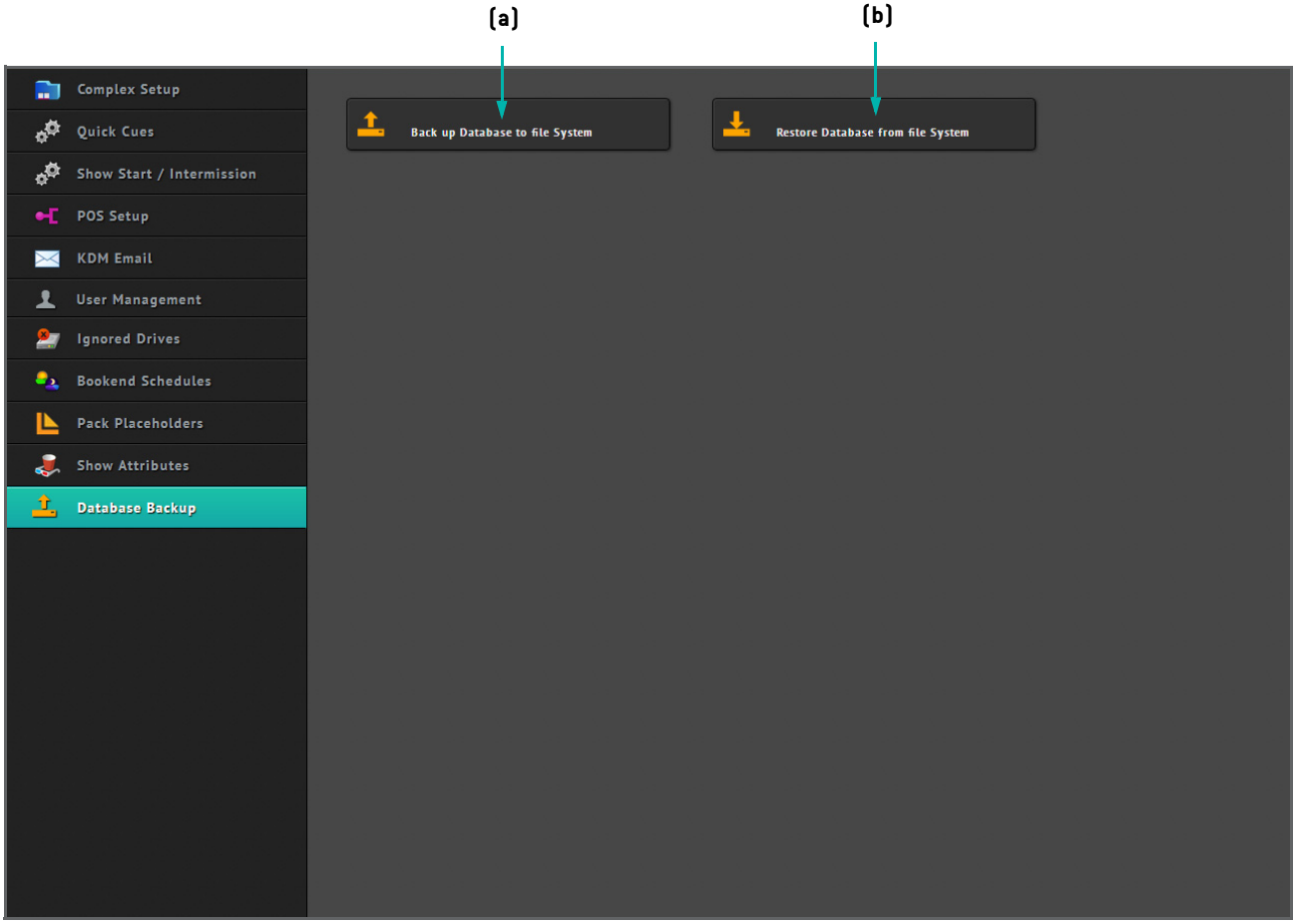


Figure 6-32: Database Backup Configuration Page

6.3. Macro Pack Configuration

The **macro pack configuration page** is accessed through the Macro Pack tab under the Configuration option in the header bar (See Macro Packs and Macro Pack Placeholders on page 53 for further details). This page provides options for setting up pre-show automation for complex screens (Figure 6-33).

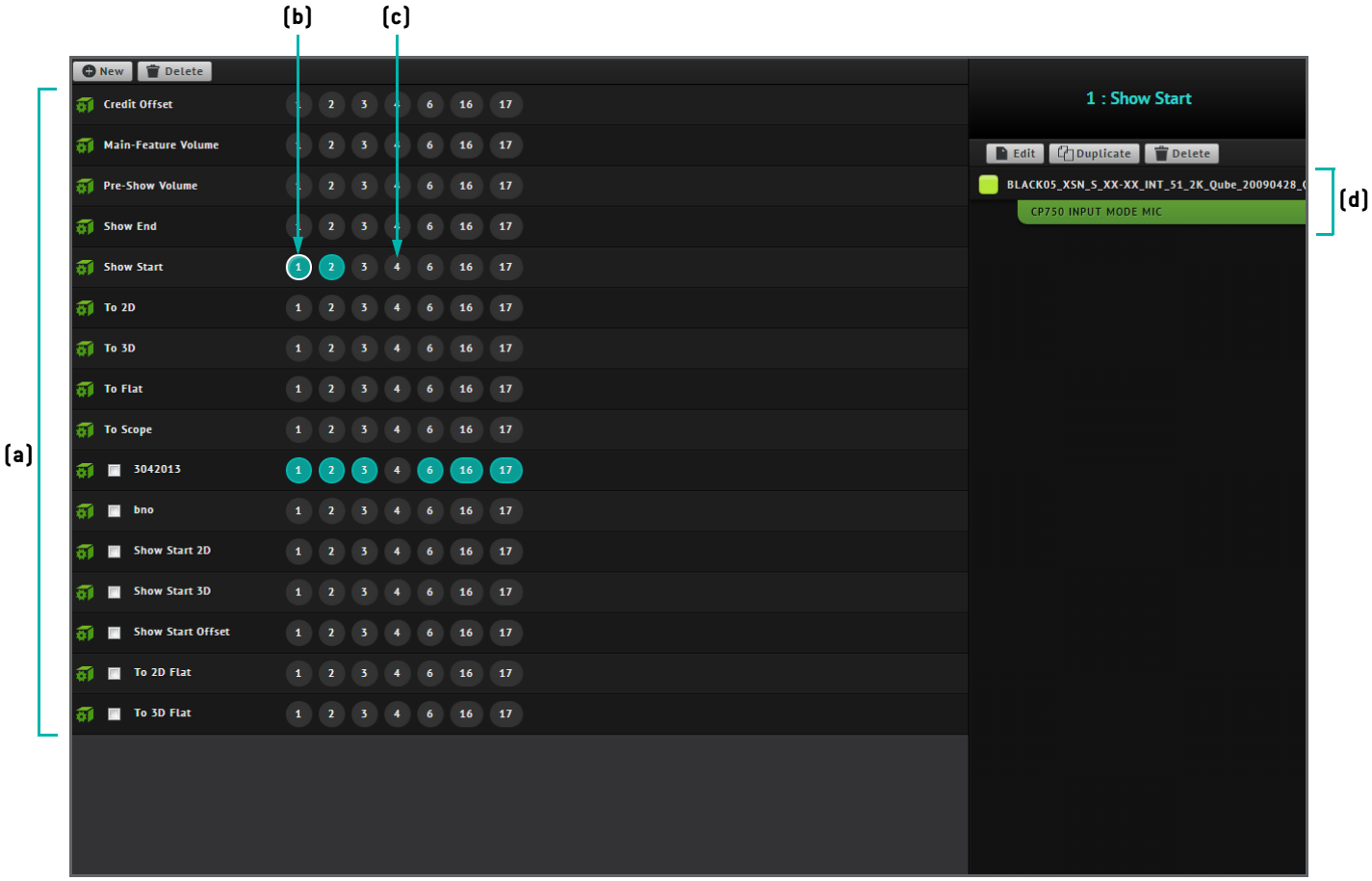


Figure 6-33: Macro Pack Configuration Page

Existing macro pack placeholders are listed on the left hand side (Figure 6-33a). For each macro pack placeholder, the screens for which the corresponding macro packs have been configured are shown (Figure 6-33b). Those that do not have any macro pack set up are also easily identifiable (Figure 6-33c).

When a screen number is picked from the area on the left hand side of the page, it becomes possible to view pack configuration details as relevant (Figure 6-33d).

6.3.1. Set up Macro Pack

Macro packs can be set up per screen based on a macro pack placeholder. To set up a macro pack for a screen:

1. Identify an existing macro pack placeholder and choose the desired screen to be set up for the macro pack, from the macro pack configuration page.
2. Click on the Edit button on the right hand side of the page. This will normally then open the **macro pack edit page** (Figure 6-34). However, when the Credit Offset macro pack placeholder is being used, a different window will open as shown in Figure 6-35.

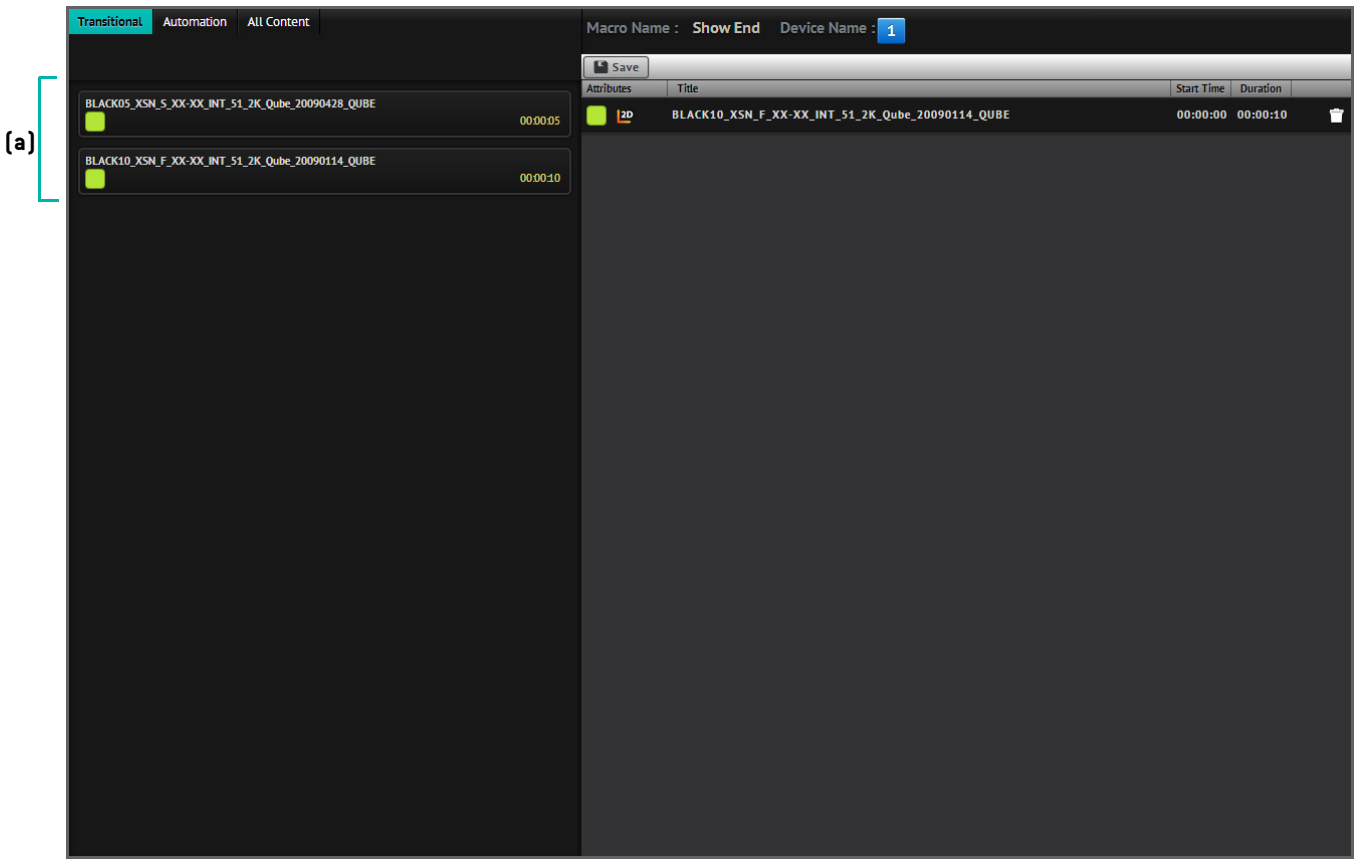


Figure 6-34: Macro Pack Edit Page

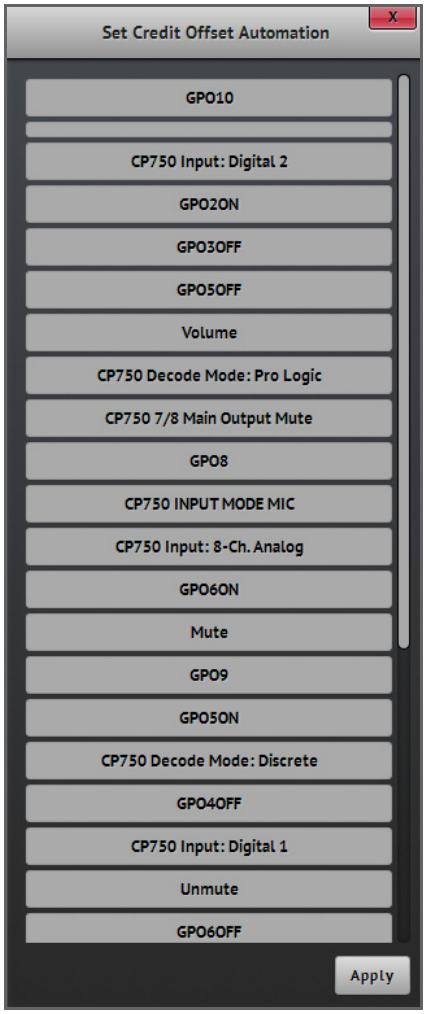


Figure 6-35: Set Credit Offset Automation Dialog Box

3. When presented with the **macro pack edit page** use the item picker on the left hand side of the page (Figure 6-34a) to drag and drop transitionals, automation cues or content items to define the macro pack. When presented with the **Set Credit Offset Automation** dialog box, select the required option from the list in the dialog box and click on the Apply button.

4. When using the macro pack edit page, click on the Save button to save the macro pack. The macro pack configuration page will then show that a macro pack has been configured for the screen based on the corresponding macro pack placeholder.

Note:

- Automation cues must be dragged onto content or pattern items. It is recommended to use Doremi patterns or transitional CPLs as content.
- Some automation will require additional parameters to be entered, e.g. volume requires a volume setting, trigger requires a cue to execute if the trigger fires, etc.

6.3.2. Edit Macro Pack

Macro packs can be edited to review and amend their included automation. To edit a macro pack:

1. Identify an existing macro pack placeholder and choose the desired macro pack configured screen on the left hand side of the macro pack configuration page.
2. The Edit button will become visible on the right hand side of the page. Clicking on that button will normally open the **macro pack edit page** (Figure 6-34). However, when the Credit Offset macro pack placeholder is being used, the **Set Credit Offset Automation** dialog box will open, as shown in Figure 6-35.
3. Make the necessary modifications to the macro pack.
4. Save the changes made.

6.3.3. Duplicate Macro Pack

Macro packs can be duplicated for all screens for quicker reuse and to speed up the procedure of assigning them to the screens. To duplicate a macro pack:

1. Identify an existing macro pack placeholder and choose the desired macro pack configured screen on the left hand side of the macro pack configuration page.
2. The Duplicate button will become visible on the right hand side of the page. Clicking on that button will open the **Duplicate Macro Pack** dialog box (Figure 6-36).

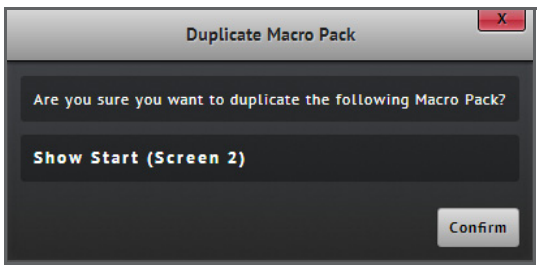


Figure 6-36: Duplicate Macro Pack Dialog Box

3. Click on the Confirm button to register the duplication of the macro pack. A dialog box will then open, identifying the screens on which the macro pack has been successfully duplicated.

Note:

- For a macro pack to be duplicated, the setup must be identical to that of the screen from which the macro pack is being duplicated.

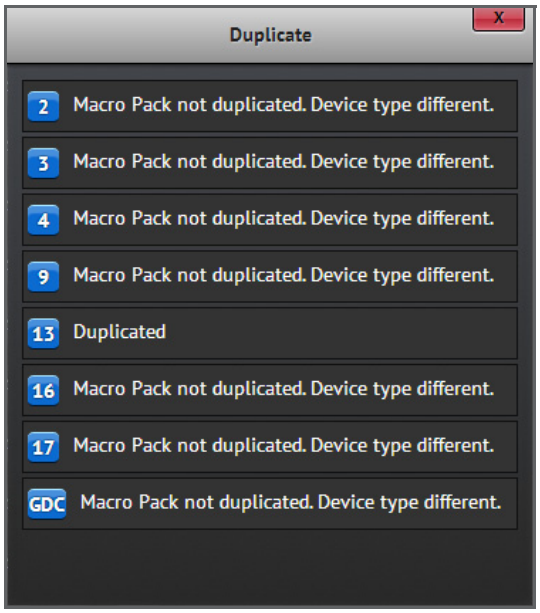


Figure 6-37: Duplicate Dialog Box

6.3.4. Delete Macro Pack

Macro packs can be deleted on demand when they are no longer required. To delete a macro pack:

1. Identify an existing macro pack placeholder and choose the desired macro pack configured screen on the left hand side of the macro pack configuration page.
2. The Delete button will become visible on the right hand side of the page. Clicking on that button will open the **Delete Macro Pack** dialog box (Figure 6-38).

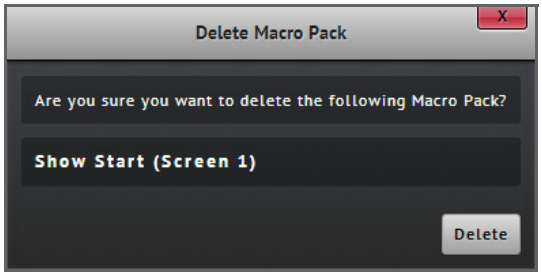


Figure 6-38: Delete Macro Pack Dialog Box

3. Click on the Delete button to remove the macro pack.

6.3.5. Create Macro Pack Placeholder

New macro pack placeholders can be added for use in the system. To create a macro pack placeholder:

1. Whilst on the macro pack configuration page, click on the New button. This will open the **New Macro Type** dialog box (Figure 6-39).

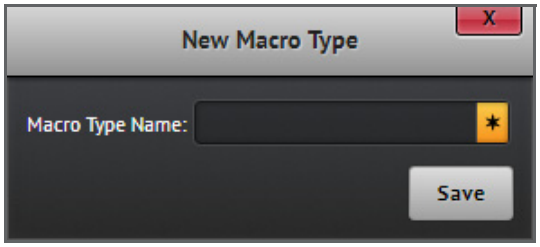


Figure 6-39: New Macro Type Dialog Box

2. Enter the name of the macro pack placeholder in the field provided in the dialog box.
3. Click on the Save button to complete the procedure.

6.3.6. Delete Macro Pack Placeholder

Custom macro pack placeholders can be deleted on demand when they are no longer required. To delete a macro pack placeholder:

1. Whilst on the macro pack configuration page, identify the desired custom macro pack placeholder and use the checkbox for the macro pack placeholder to select it.

2. Click on the Delete button on the page. This will open the **Delete Macro Placeholder** dialog box requesting confirmation of deletion (Figure 6-40).

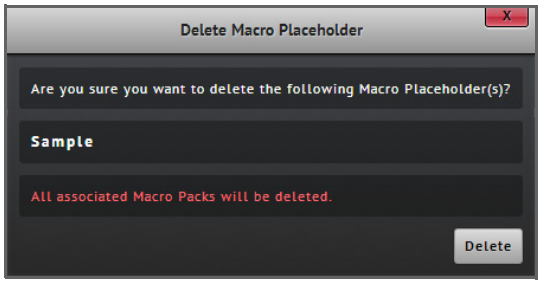


Figure 6-40: Delete Macro Placeholder Dialog Box

3. Click on the Delete button to remove the macro pack placeholder.

Note:

- System-defined macro pack placeholders cannot be deleted.

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Appendix A: User Permissions

Permitted actions and/or permitted access to:	Read Only User	Show Manager	Super User	Administrator
Playback information.	●	●	●	●
Playback actions (play, pause, eject, etc.).		●	●	●
POS information	●	●	●	●
POS actions (assign, unassign, delete, pull feed, etc.).		●	●	●
Projection information.	●	●	●	●
Scheduling information.	●	●	●	●
Scheduling actions (save, create, delete).		●	●	●
Playlist information.	●	●	●	●
Playlist actions (save, transfer, delete).		●	●	●
Core information (device messages, device status, chat, language, performance information, etc.).	●	●	●	●
Core actions (KDM upload, POS upload, send chat, deadlist upload, LMS re-sync, etc.).		●	●	●
Content information.	●	●	●	●
Content actions (delete, transfer, add key, clear transfer history, force transfers, etc.).		●	●	●
Reports information.	●	●	●	●
Camera information	●	●	●	●
Camera action (save image).		●	●	●
Automation information.	●	●	●	●
Automation actions (save/delete/update quick cue, set automation configuration).		●	●	●

Permitted actions and/or permitted access to:	Read Only User	Show Manager	Super User	Administrator
Configuration information.	●	●	●	●
Configuration actions (save/delete device, save/delete screen, enable/disable screen, enable/disable device, reboot device, etc.).			●	●
Logging information.	●	●	●	●
Logging actions (delete logs, re-collect logs).		●	●	●
Templating information (get titles/templates/placeholders/ packs/macro packs).	●	●	●	●
Templating actions (save/delete titles/templates/ placeholders/packs/ macro packs).		●	●	●

Appendix B: Supported File Formats

Pack XML Format

Screenwriter supports an XML format for the delivery of pre-show packs. The packs have to be manually uploaded, either by dragging and dropping the files or browsing for them, using the upload functionality present on the pack page. An example of the XML format for packs is identified next.

```
<?xml version="1.0" encoding="UTF-8"?>
- <AAMPack xsi:noNamespaceSchemaLocation="pack_schema.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
    <UUID>urn:uuid:55000000-0000-0000-0000-000000000087</UUID>
    <AnnotationText>Nurul Miah Correct Ad Pack XML Upload</AnnotationText>
    <IssueDate>2011-08-10T15:00:00Z</IssueDate>
    <Issuer>Nurul Miah</Issuer>
    <PackType>Advertisement</PackType>
    <Version>1</Version>
    <ComplexName>Mission Hall</ComplexName>
    <NotValidBeforeDate>2012-08-01</NotValidBeforeDate>
    <NotValidBeforeTime>10:00:00</NotValidBeforeTime>
    <NotValidAfterDate>2012-10-10</NotValidAfterDate>
    <NotValidAfterTime>17:00:00</NotValidAfterTime>
    <TargetRatingCertificate>18</TargetRatingCertificate>
    <FilmTitle>Bourne Legacy</FilmTitle>
    <AudienceGroup>Some Audience</AudienceGroup>
  - <ScreenList>
    - <Screen>
        <Number>2</Number>
      </Screen>
    </ScreenList>
  - <ElementList>
    - <Element>
        <AnnotationText>ART-BLACK_ADV_F_20_2K_AAM</AnnotationText>
        <CplUUID>urn:uuid:b0786b7b-60d1-44b4-ad03-2da1edd73cb5</CplUUID>
        <EditRate>24 1</EditRate>
        <Duration>1571</Duration>
      </Element>
    - <Element>
        <AnnotationText>ASSOC_BBC4_LOGO_177_EN-XX_GB-XX_00</AnnotationText>
        <CplUUID>urn:uuid:8f0b2620-cd1b-c941-abbe-65100fa2884d</CplUUID>
        <EditRate>24 1</EditRate>
        <Duration>1571</Duration>
      </Element>
    - <Element>
        <AnnotationText>A-B-F-LOGO_ADV_S_EN-XX_UK_51_2K_ABF_20100727_AAM_OV</AnnotationText>
        <CplUUID>urn:uuid:39002430-57d8-4dfe-8135-2e604aa00105</CplUUID>
        <EditRate>24 1</EditRate>
        <Duration>240</Duration>
      </Element>
    - <Element>
        <AnnotationText>ADIDAS-MUSIC_ADV_F_EN-XX_UK-XX_51_2K_20110315_PD</AnnotationText>
        <CplUUID>urn:uuid:092b5461-6f99-4244-9b1b-296e43cf5d7a</CplUUID>
        <EditRate>24 1</EditRate>
        <Duration>120</Duration>
      </Element>
    - <Element>
        <AnnotationText>ALTA-1-LOGO_ADV_F_NO-XX_NO-XX_00_2K_NDA_20071130_AAM</AnnotationText>
        <CplUUID>urn:uuid:be31183e-3459-4ed7-91a3-fcfbbb7b0d73</CplUUID>
        <EditRate>24 1</EditRate>
        <Duration>120</Duration>
      </Element>
    </ElementList>
</AAMPack>
```

Name of XML Tag	Description
<UUID></UUID>	Pack UUID.
<AnnotationText></AnnotationText>	Displayed name for the pack.
<IssueDate></IssueDate>	Date and time of issue of the pack.
<Issuer></Issuer>	Name of the issuer, e.g. the name of the advertising service provider.
<PackType></PackType>	The pack type (placeholder) targeted by this pack, e.g. trailer pack. If a pack type is not found on the system to match this value, it will be automatically created.
<Version></Version>	Version number. Allows packs to be updated.
<ComplexName></ComplexName>	Name of the target complex. Used for informative purposes only.
<NotValidBeforeDate></NotValidBeforeDate>	Starting date for pack validity.
<NotValidBeforeTime></NotValidBeforeTime>	Starting time of day for pack validity.
<NotValidAfterDate></NotValidAfterDate>	End date for pack validity.
<NotValidAfterTime></NotValidAfterTime>	End time of day for pack validity.
<TargetRatingCertificate></TargetRatingCertificate>	Target ratings certificate for the pack, e.g. PG. This is optional and used for informative purposes only.
<AudienceGroup></AudienceGroup>	Can be used to target packs at audience groups such as children, families, etc. This is optional and used for informative purposes only.
<ScreenList></ScreenList>	List of screen numbers for which the pack is targeted. Used by the auto-matching mechanism.
<ElementList></ElementList>	List of CPL elements in play order. Each element includes tags for including annotation text, CPL UUID, frame rate (i.e. edit rate) and duration.

POS File Formats

Screenwriter also supports two file formats for manually uploading POS information: XML and tab-separated text files. Examples are next identified.

XML Format

```
<?xml version="1.0" encoding="UTF-8"?>
- <AAMPos xsi:noNamespaceSchemaLocation="pos_schema.xsd" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
  - <sessions>
    - <session>
        <id>1</id>
        <screen_identifier>1</screen_identifier>
        <complex_identifier>AAM Hammersmith</complex_identifier>
        <start>201301141200</start>
        <end>201301141400</end>
        <feature_duration>6000</feature_duration>
        <title>Life of Pi</title>
        <rating>18</rating>
        <seats_available>200</seats_available>
        <seats_sold>200</seats_sold>
        <session_attributes>Normal Session</session_attributes>
      </session>
    - <session>
        <id>2</id>
        <screen_identifier>1</screen_identifier>
        <complex_identifier>AAM Hammersmith</complex_identifier>
        <start>201301141500</start>
        <end>201301141700</end>
        <feature_duration>6000</feature_duration>
        <title>Life of Pi</title>
        <rating>12</rating>
        <seats_available>200</seats_available>
        <seats_sold>200</seats_sold>
        <session_attributes>OAP</session_attributes>
      </session>
    - <session>
        <id>3</id>
        <screen_identifier>1</screen_identifier>
        <complex_identifier>AAM Hammersmith</complex_identifier>
        <start>201301141800</start>
        <end>201301142000</end>
        <feature_duration>6000</feature_duration>
        <title>Life of Pi</title>
        <rating>18</rating>
        <seats_available>200</seats_available>
        <seats_sold>200</seats_sold>
        <session_attributes>3d</session_attributes>
      </session>
    - <session>
        <id>4</id>
        <screen_identifier>1</screen_identifier>
        <complex_identifier>AAM Hammersmith</complex_identifier>
        <start>201301142100</start>
        <end>201301142300</end>
        <feature_duration>6000</feature_duration>
        <title>Life of Pi</title>
        <rating>PG</rating>
        <seats_available>200</seats_available>
        <seats_sold>200</seats_sold>
        <session_attributes> </session_attributes>
      </session>
    </sessions>
</AAMPos>
```

Name of XML Tag	Description
<AAMPos></AAMPos>	All POS sessions are contained within this tag.
<sessions></sessions>	Individual POS sessions are contained within this tag.
<session></session>	Details of individual sessions are captured within this tag.
<id></id>	Identifier for a POS session.
<screen_identifier></screen_identifier>	Screen number identifier for the targeted screen.
<complex_identifier></complex_identifier>	Identifier for the targeted complex.
<start></start>	Start date and time for the schedule.
<end></end>	End date and time for the schedule.
<feature_duration></feature_duration>	Length of the feature quoted in seconds.
<title></title>	Title of the film.
<rating></rating>	Film rating.
<seats_available></seats_available>	Number of seats available for the session, i.e. single showing on a single screen.
<seats_sold></seats_sold>	Number of seats sold for the session, i.e. single showing on a single screen.
<session_attributes></session_attributes>	Additional attributes for the session, if any. Examples are “Normal Session”, “3D”, etc. and are referenced as show attributes.

Tab-Separated Text File Format

```
ID      Cinema_Server   Screen_bytNum   Film_StrCode    Film_Title      Film_Date       Film_DurMinutes Film_DurHours   Seats_Sold      Seats_Available
1       AAM Hammersmith 4       6657    Life of Pi      2012-09-01 10:20:00     01:52:00        112     0       190     15
2       AAM Hammersmith 2       6687    Life of Pi      2012-09-01 10:30:00     01:58:00        118     0       313     15
3       AAM Hammersmith 5       6646    Life of Pi      2012-09-01 10:30:00     01:42:00        102     0       185     7
4       AAM Hammersmith 6       6541    Life of Pi  2012-09-01 10:30:00 01:34:00        94      3       45      BO
```

Column Name	Description
ID	Identifier for a POS session.
Cinema_Server	Complex identifier, i.e. unique ID for the complex.
Screen_bytNum	Screen number identifier for the targeted screen.
Film_StrCode	Unique ID for the film.
Film_Title	Title of the film.
Film_Date	Date and time for the schedule.
Film_DurMinutes	Duration of the film quoted in minutes.
Film_DurHours	Duration of the film quoted in hours.
Seats_Sold	Number of seats sold for the session, i.e. single showing on a single screen. Although present, it is uncommon for this information to be uploaded.
Seats_Available	Number of seats available for the session, i.e. single showing on a single screen. Although present, it is uncommon for this information to be uploaded.

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Appendix C: Glossary

automation cue

An automation cue is a command that can be included in a playlist to automatically carry out an action such as opening/closing the dowser of a projector, turning lights on/off, turning lamp on/off, etc. The ability to use automation cues is dependent on whether the cue is supported for a given screen server.

bookend schedule

Complexes sometimes have a set of cues that must be run at the start of day and end of day to typically 'open' and 'close' the cinema, respectively. A bookend schedule is a scheduled playlist that can be selected to perform the function of the start of day and end of day cues.

content

A content item is a specific item of media held on some library server, screen server or plugged-in device.

content placeholder

A content placeholder is a high-level category which is used in the definition and allocation of packs as well as in playlists and templates. Examples of content placeholders are placeholders for local advertisement, gold spot advertisement, trailer, etc.

deadlist

A deadlist is a list of dead content, usually consisting of advertisements that are no longer in use.

dynamic pack matching

Dynamic pack matching is an aspect of semi-automated pre-show management. Dynamic pack matching makes it possible for the user to have packs automatically inserted into SPLs based on a set of metadata-driven rules associated with the packs.

FTP folder

A FTP folder is a remote folder connected to Screenwriter via FTP, which can be configured to access DCPs and KDMs on a remote FTP site.

ignored drive

An ignored drive is a drive or plugged-in device that may hold content that should not be considered by the TMS, i.e. content that should not be scanned.

local folder

A local folder can be created on the TMS box for holding DCPs. The local folder can, for example, be a drop folder not intended for auto-ingesting purposes or a folder to be used as a mount shared drive.

macro pack

A macro pack is a type of grouping for which the constituent items generally remain unchanged from show to show. A macro pack is configured for each screen and usually contains all the automation needed for playlists. A macro pack fits into a type of placeholder called “macro pack placeholder”.

macro pack placeholder

A macro pack placeholder is a configured item that provides a method of allocating macro packs within playlists. A macro pack placeholder can be reused multiple times from playlist to playlist and also in templates. Macro pack placeholders ensure that playlists can be easily switched across screens without the user having to worry about whether the automation is compatible, as the system will place the appropriate macro packs with the required automation for a given screen into the macro pack placeholders already present in the playlists.

pack

A pack is a special kind of pre-show item that serves as a container for referencing content of various types such as advertisements and trailers. Packs serve two purposes, namely: (1) as reusable grouping of content and (2) as inputs to content placeholders for dynamic matching.

pattern

A pattern is a server specific way of displaying a black screen for a certain duration. Sony and Doremi screen servers are examples of servers that support patterns.

placeholder

A placeholder is a high-level category which is used in the definition and allocation of packs as well as in playlists and templates. Placeholders can, for example apply to local advertisement, national advertisement, etc., in the case of content placeholders, but can also exist as placeholders for automation in the case of macro pack placeholders.

playlist

A playlist, also referred to as a Show Playlist (SPL) when scheduled for playback, typically contains content items that have been aggregated in a chronological order. A playlist may also contain items other than content items such as automation cues and placeholders.

POS grouping

A POS grouping is a collection of POS schedules that share a single title, where the title generally designates the feature film targeted at these schedules.

POS schedule

A POS schedule, also known as a POS session, is a schedule retrieved from the synchronisation process between a TMS and a POS system and carries key attributes of the schedule such as title and intended time of projection.

show start

Many exhibitors have content that needs to be shown before the actual start time of a session. The content can cover a range of material from “black background with sound” to local advertisements, exhibitor-related advertisements and many more.

template

A template is an outline of a playlist made entirely of placeholders for content and automation. The concept has been developed to support efficient playlist creation by moving away from manual methods of scheduling playlists in favour of virtually completely automated methods of creating playlists and have them scheduled for playback.

templated playlist

A templated playlist is a playlist that has some content placeholder in it, such as a placeholder for local advertisement, gold spot advertisement, trailer, etc. Screenwriter decides what content items get inserted into the content placeholders.

title

Titles are abstractions of a given feature that represent the names that various things, such as content, are tied to.

transitional

A transitional is essentially a CPL that displays a black screen for a certain duration and constitutes another alternative to a black pattern in order to show a black screen.

watch folder

A watch folder is a local folder on the TMS box intended for DCPs or KDMs to be dropped into, e.g. a third party system drops content via FTP into this folder. Content is automatically ingested from this folder into the library.

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