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A **BELDEN** BRAND

# **MORPHEUS**

AUTOMATION SOFTWARE

## **Operator's Manual v4.6 Rev. 2**

2018-10-19

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# 1. Introduction

Welcome to Morpheus, Grass Valley's flagship TV transmission automation product. Morpheus is a powerful, highly sophisticated, stable, fully scalable, feature-rich system offering facilities that satisfy the most demanding transmission requirement.

**Important:** On Windows 7 platform, ensure that the display setting in Control Panel > Appearance and Personalization > Display is set to 'Smaller - 100%', otherwise some Morpheus windows will not be displayed correctly.

The main component of the Morpheus automation system for operators is the Editor application. The Editor provides the means of working with 'events' on the 'schedule' (refer to page 5). Figure 1 below shows the main parts of the Editor window.

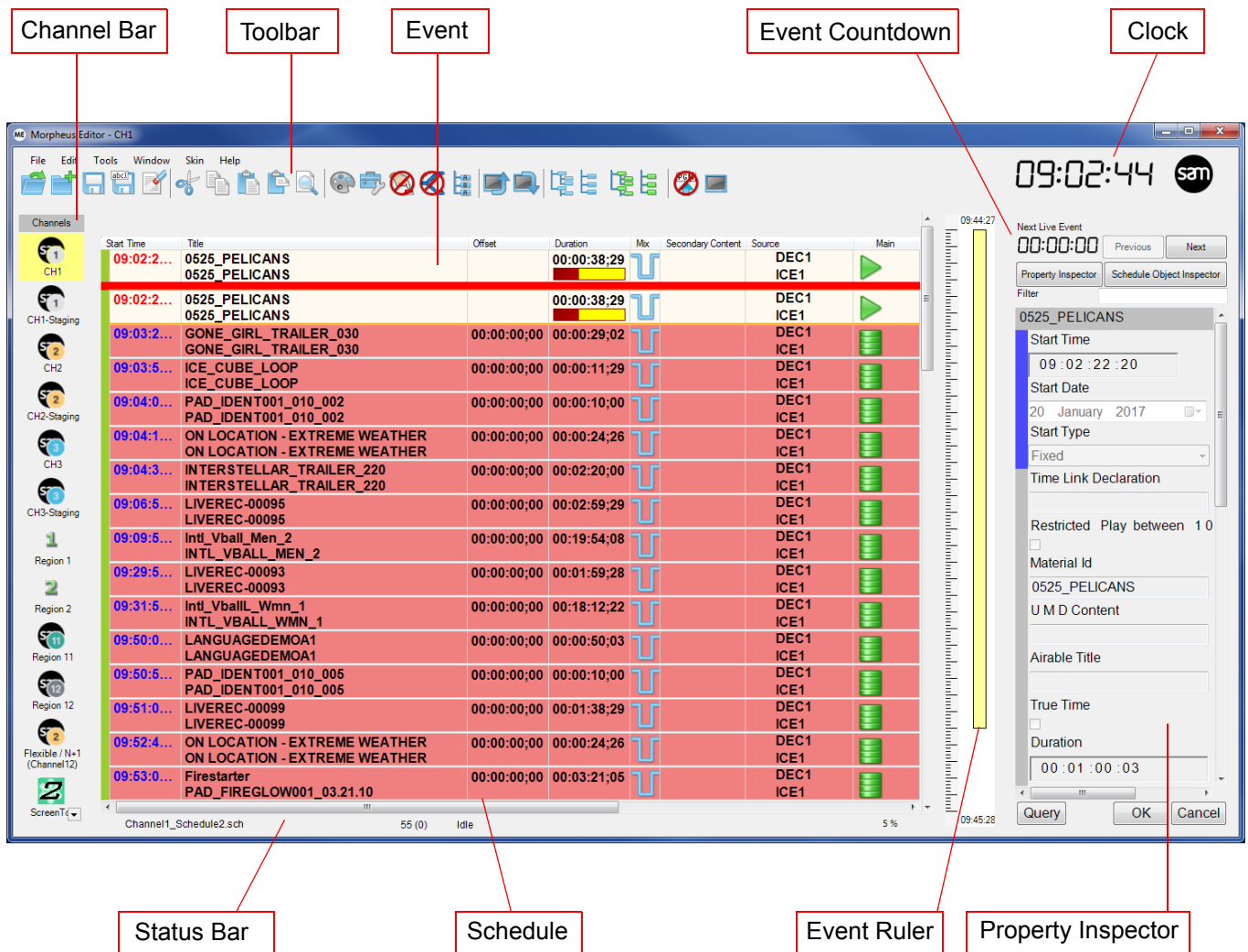


Figure 1 Morpheus Editor Main Display

## 1.1 Components of the Editor Window

There are nine main components of the Editor window:

- Channel bar (refer to page 5)
- Events (refer to page 6)
- Schedule (refer to page 5)
- Toolbar (refer to page 7)
- Event countdown (refer to page 13)
- Clock - shows the current system time
- Status bar (refer to page 9)
- Event ruler (refer to page 122)
- Property Inspector (refer to page 166)

## 1.2 Online Editor/Offline Editor

The Editor can run in one of two modes: online and offline. Each is described briefly below.

### Online Editor

The Online Editor accesses the on-air schedule and shows the system time (clock) in the top right-hand corner.

### Offline Editor

The Offline Editor does not access the on-air schedule. It allows schedules to be created and edited offline. The Offline Editor is used for the following tasks:

- Build schedules for the future without affecting the online schedule.
- Check the timing and flow of sequences before including the events in the on-air schedule.
- Check the status of material in the Morpheus media management database (refer to page 212).
- Create schedules that can be saved and appended to the online schedule at a later time.

The Offline Editor differs from the Online Editor in the following ways:

- It does not include the event countdown (refer to page 13).
- The word 'Offline' is displayed in place of the clock.
- An 'Offline' menu is displayed on the menu bar.

## 1.2.1 Roles - Restricting Access to the Online/Offline Editors

When logging on to the Editor, it is necessary to use a 'role'. The selected role sets permissions and restrictions for options that are relevant to the operator. Any channels and/or options that are not enabled for a role are greyed out.

**Note:** Some of the options documented in this manual may not be enabled on all user roles.

Once logged in using one particular role, it is possible to switch to another role without exiting from the Editor.

1. From the Menu Bar select **File > Change Role**.  
The Role Login dialog box is displayed.
2. From the **Role name** list, select the required role.
3. When prompted, enter the password associated to the role and click **OK**.

### 1.2.1.1 Starting the Online Editor

Start the online Editor using either the desktop shortcut or the shortcuts folder as described below.

- A shortcut for the Online Editor may have been created on the desktop. If so, double-click on the shortcut.



- If a shortcut has not been created, start the Online Editor using the Morpheus Shortcuts Folder.
  1. On the desktop, open the **Morpheus Shortcuts** folder.
  2. Double-click **Editor**.  
The Role Login dialog box is displayed.
  3. Select the **Role** name (the system may be configured to select the role automatically).
  4. Enter a **Password**, if applicable, and then click **OK**.

### 1.2.1.2 Starting the Offline Editor

The Offline Editor is started using either the desktop shortcut or the shortcuts folder as described below.

- A shortcut for the Offline Editor may have been created on the desktop. If so, double-click on the shortcut.



- If a shortcut has not been created, start the Offline Editor using the Morpheus Shortcuts Folder.

1. On the desktop, open the **Morpheus Shortcuts** folder.
2. Double-click **Offline Editor**.

Depending on the system configuration, the Role Login dialog box may appear.


3. Select a **Role name**, if applicable (the system may be configured to select the role automatically).
4. Enter a **Password**, if applicable, and then click **OK**.

## 1.3 Channel Bar

The 'channel bar' is displayed in the left-hand pane of the Editor window. It displays all of the channels that have been made visible for the current role, and in their preconfigured order (vertically, starting at the top). After switching roles (refer to Section 1.2.1 Roles - Restricting Access to the Online/Offline Editors), the channel that was on display for the previous role remains displayed for the new role as long as that channel is configured as 'visible' for both roles; if the channel is not configured as 'visible' for both roles, then the display will default to the first channel (as defined by the preconfigured Channel Order).



Figure 2 Channel Bar

If the displayed schedule is intended for a different channel, a warning symbol  appears alongside the channel icon.

It is possible to jump to the first channel by pressing on the left curly bracket key '{', or to the last channel by pressing the right curly bracket key '}'.

## 1.4 Schedule

The 'schedule' shows a list of events (refer to page 6) to be played out at specific times.

A typical schedule contains recordings, graphics, live material and other items, that make up the channel input seen by the viewer.

Each automation channel has its own schedule.

The Editor communicates with the Morpheus media management database that runs in the background and stores information (such as the duration or title) for each piece of server and tape-based material. The Editor takes information from the database and uses it to populate the relevant fields on the schedule. Operators can edit these fields, if required (refer to page 26).

## 1.5 Events

An 'event' instructs one or more broadcast devices to perform an action at a specific time.

Each event appears as a row on the schedule.

The event that is playing out is called the 'on-air event'. It is also known as the 'current event' or 'programme (PGM) event'. It appears above the red line at the top of the schedule.

The event scheduled to play immediately after the on-air event is called the 'preset event'.

When an event has played, it is greyed out for one minute (this duration depends on the system configuration) and is removed from the schedule. It may then be placed in the 'as run log' (refer to page 93).











Start Time	Title	Duration	Mix	Main
11:21:51:15	ON AIR EVENT A234567	00:49:09:00 		
11:21:49:08	PAST EVENT A123456	00:00:02:07		
11:21:51:15	ON AIR EVENT A234567	00:49:09:00 		
12:11:57:15	PRESET EVENT A345678	00:50:42:10		














Figure 3 On-Air, Preset and Past Events

## 1.6 Toolbar











The 'toolbar' is displayed at the top of the Editor window, below the menu bar.

**Note:** If a toolbar button is not enabled for a role, it is greyed out.

All of the toolbar buttons are shown in the table below.

Button	Description
	Load Schedule. Refer to 'Loading a Schedule' on page 54.
	Append Schedule. Refer to 'Appending a Schedule' on page 55.
	Save Schedule. Refer to 'Updating a Schedule' on page 53.
	Save As Schedule. Refer to 'Saving a Schedule for the First Time' on page 53.
	Clear. Refer to 'Clearing the Schedule' on page 47.
	Cut. Refer to 'Changing the Order of Events' on page 45.
	Copy. Refer to 'Changing the Order of Events' on page 45.
	Paste. Refer to 'Changing the Order of Events' on page 45.
	Paste Top. Refer to 'Moving/Copying Events after the On-Air Event' on page 46.
	Search and Replace. Refer to 'Basic Search and Replace' on page 15.
	Palette. Refer to 'The Palette' on page 131.
	Configuration. Refer to the Morpheus Engineer's manual for further information.
	Show MIP. Refer to 'Manual Intervention Panel' on page 97.

**Table 1 Editor Toolbar Buttons**

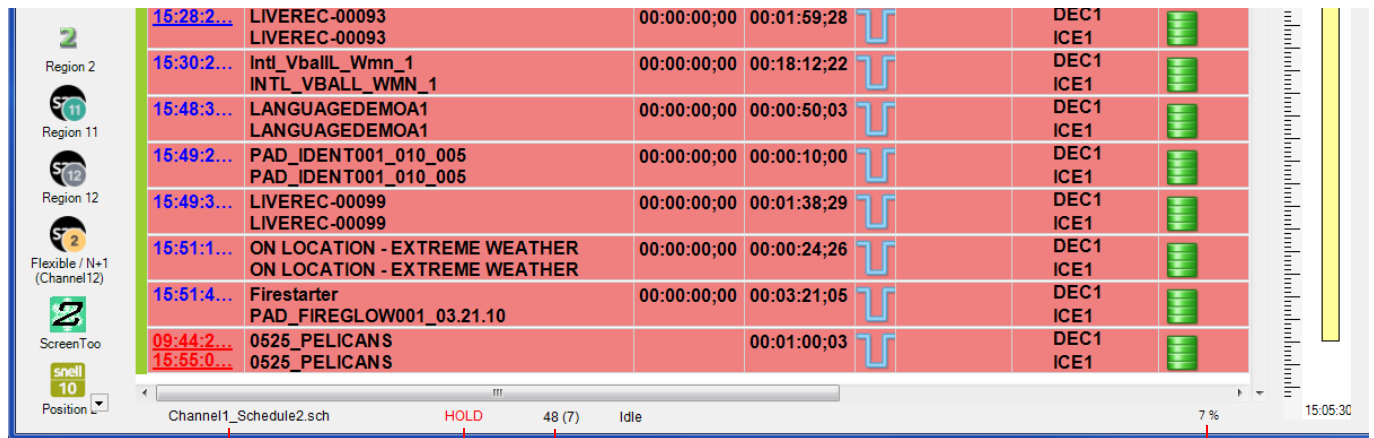
Button	Description
	Show Channel Flow Control. Refer to Chapter 4.14.4 Using the CFC Interface.
	Ripple. Refer to 'Rippling a Schedule' on page 52.
	Go To Top. Refer to 'Moving Around the Schedule' on page 43.
	Go To Bottom. Refer to 'Moving Around the Schedule' on page 43.
	Expand All. Refer to 'Displaying/Hiding Secondary Events' on page 108.
	Collapse All. Refer to 'Displaying/Hiding Secondary Events' on page 108.
	Expand All Break Headers. Refer to 'Displaying/Hiding Break Headers' on page 112.
	Collapse All Break Headers. Refer to 'Displaying/Hiding Break Headers' on page 112.
	Track Program Event. Refer to 'Track Program Event' on page 50.
	Add a Default Event. Refer to 'Adding a Default Event to the Schedule' on page 139.

**Table 1 Editor Toolbar Buttons**



## 1.7 Status Bar

The status bar is displayed at the bottom of the Editor window providing information on the schedule for the currently selected channel. An example is shown below.



The name of the schedule.

The on-air event is on hold. Refer to 'Hold' on page 104.

The number of events on the schedule: on air/awaiting playout and - played events (in brackets).

The percentage or duration of a programme type in the selected or rolling hour (refer to 'Rolling Hour' below).

Figure 4 Status Bar Messages

### 1.7.1 Rolling Hour

If the 'rolling hour' option is enabled in the Editor configuration, it performs a dynamic check on one of the following:

- Programmes (main programme items)
- Commercials (revenue generating advertisements)
- Junction events (channel idents and other interstitials)
- Live events (live studio items)
- Other events that are marked individually on the Property Inspector.

The rolling hour is displayed on the status bar as a percentage or duration of either:

- A 60 minute period (which could be partly in the future), or
- The current or previous complete clock hour.

## 1.7.2 Alarms

If an alarm exists, the alarms icon is displayed on the left-hand side of the status bar:



Double-click the icon in order to display the alarms table.

Alarm	Severity	Time	Description
local Availability Unknown	Mild	18-APR-2012 14:05:01:10	The availability of Application Server"local" is unknown.

Time	Entry
19-APR-2012 09:12:00:00	Finished schedule load, success = True - schedule name = C:\Morpheus\Monday.sch
19-APR-2012 09:12:00:00	Cleared ChannelOperation on [Channel1] from Loading
19-APR-2012 09:12:00:00	EffectiveEnabledState changed to True for event:{{21FD1445-1FD70C0B}} on Channel Channel1 with Start Time: 20-APR-2012 09:20:00:02
19-APR-2012 09:12:00:00	EffectiveEnabledState changed to True for event:{{41EE0500-AF2E8A4E}} on Channel Channel1 with Start Time: 20-APR-2012 09:20:00:02
19-APR-2012 09:12:00:00	EffectiveEnabledState changed to True for event:{{57FD2F84-670C4740}} on Channel Channel1 with Start Time: 20-APR-2012 09:16:08:02
19-APR-2012 09:12:00:00	EffectiveEnabledState changed to True for event:{{2300C2FE-B2E719BE}} on Channel Channel1 with Start Time: 20-APR-2012 09:16:08:02
19-APR-2012 09:12:00:00	EffectiveEnabledState changed to True for event:{{06678CC5-0A07EDED}} on Channel Channel1 with Start Time: 20-APR-2012 09:12:50:17
19-APR-2012 09:12:00:00	EffectiveEnabledState changed to True for event:{{131CE9E2-6CC1296C}} on Channel Channel1 with Start Time: 20-APR-2012 09:12:50:17

Figure 5 Alarms Table

**Note:** Alarms can also be displayed by selecting **Alarms** from the **Tools** menu.

## 1.8 Panoplay

The purpose of Panoplay is to synchronize schedules between channels that access different Event Stores. For example, using Panoplay, a Follower schedule can be modified so that it is identical to a Leader channel schedule - any change to a Leader channel is applied immediately to the Follower channel. A change made in a Follower channel is overwritten immediately by the Leader channel.

During the synchronization process, automation is switched off on the Follower system, and no automation commands are issued during this period. This state is indicated in the Editor.

A Follower channel cannot be the on-air channel - if Panoplay detects that a Follower channel is on-air, it will be un-synchronized from the Leader channel in order to prevent playout problems.

### 1.8.1 Multisystem Synchronisation

Panoplay supports synchronization with a third (or more) EventStore for disaster recovery and upgrade purposes. Each additional EventStore requires its own Panoplay Agent. These additional systems (mirrors) cannot become the Panoplay Leader.

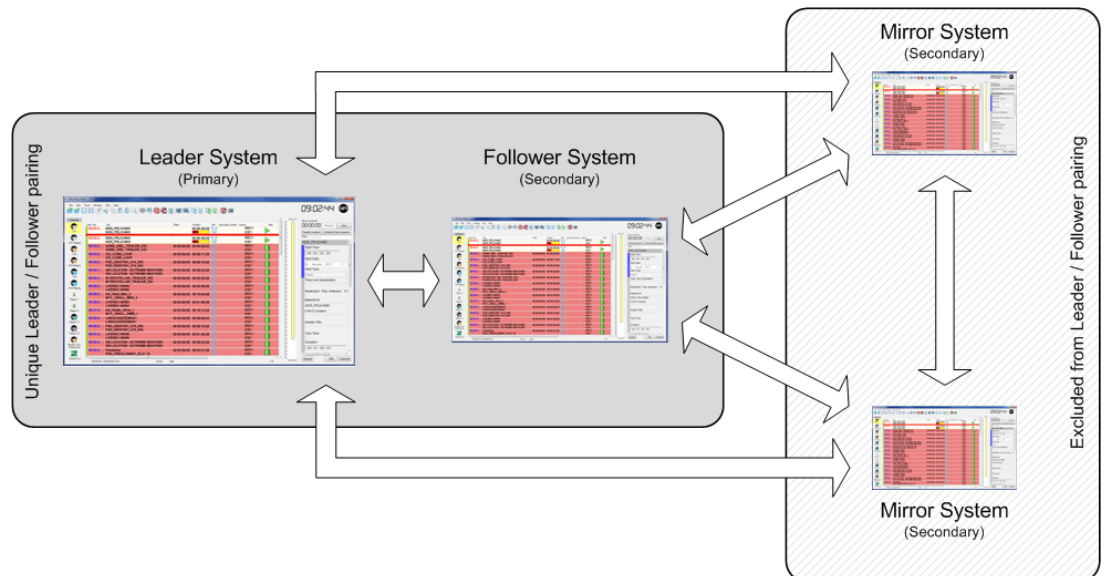
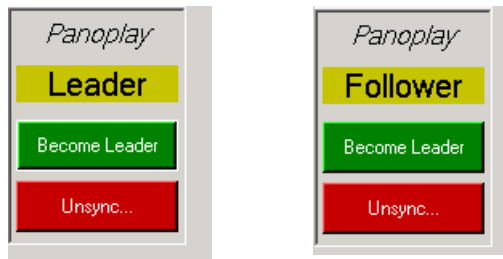


Figure 6 Panoplay Multisystem Synchronisation

## 1.9 Panoplay Status

The Panoplay status is displayed the Editor window as either Leader, Follower or Unsynchronized. It is shown in the title bar of the window and in a panel to the bottom-left as shown below:



**Figure 7** Panoplay Panel on the Editor

If configured, the Follower system will be indicated by a large banner displaying its name across the Editor grid.

**Note:** The Leader / Follower names are the defaults and may have been changed in the system configuration.

Panoplay alarm messages appear on the bottom toolbar and can be acknowledged using the Editor Alarms functionality.

## 1.10 Event Countdown

The 'event countdown' counts down in hours, minutes and seconds to either the next live event or to a highlighted event in the schedule.

### 1.10.1 Count Down to the Next Live Event

1. Right-click on the clock digits in the event countdown to display the following menu.

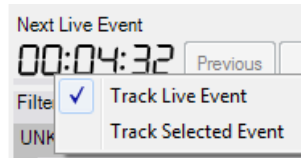


Figure 8 Event Countdown

2. Select **Track Live Event**.

**Note:**

The Event Material Type field (refer to page 190) in the Property Inspector (refer to page 166) must be set to **Live**.


### 1.10.2 Count Down to a Selected Event

1. Right-click on the clock digits in the event countdown and select **Track Selected Event**.
2. Highlight the required event on the schedule.
3. Right-click on the event and select **Track selected event**.

## 1.11 Resizing Areas of the Editor Window

The width of different areas of the Editor window can be changed, such as the Property Inspector or the channel bar.

1. Point to the left or right border of the area to change.

The mouse pointer is displayed as follows: 

2. Click and drag the area to the required width.

### 1.12 Changing the Editor skin

The look and feel of the Editor window can be changed by selecting a skin type from the toolbar menu. Click on **Skin**, and then one of the following options (the skin change is applied instantly):

- **Classic** - selects the standard color scheme as shown below:

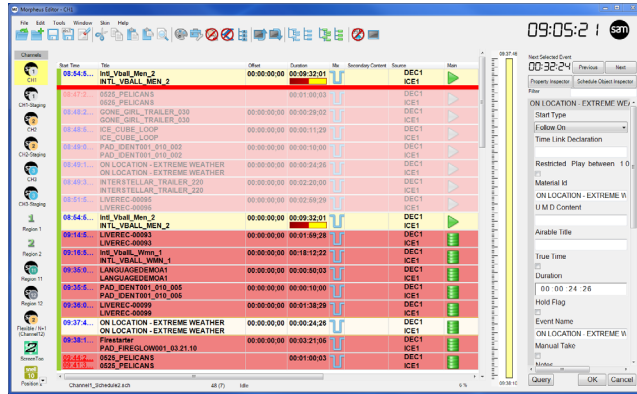


Figure 9 Classic Skin

- **Light** - selects a light grey color scheme as shown below:

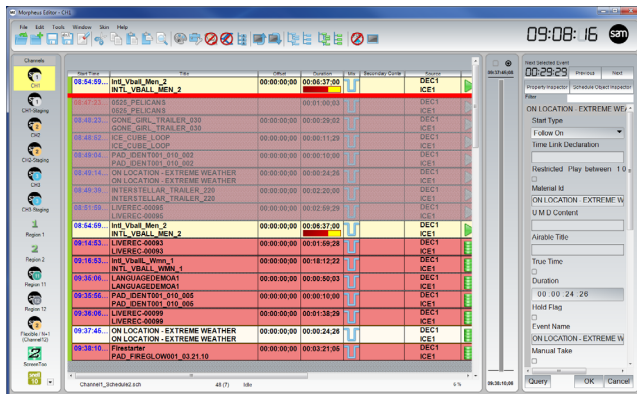


Figure 10 Light Skin

- **Dark** - selects a dark grey color scheme as shown below:

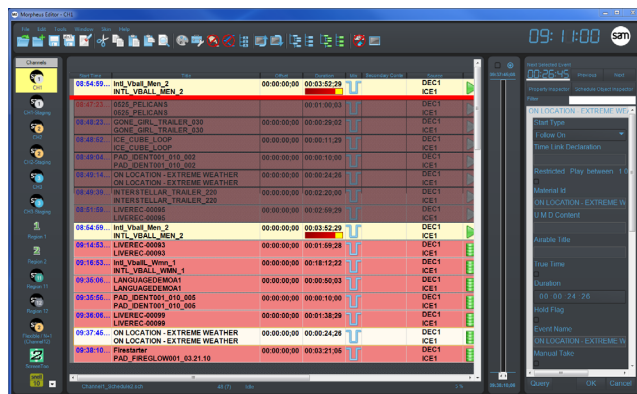


Figure 11 Dark Skin

## 2. Search and Replace

This section contains information on searching for material and replacing it in the Editor.

### 2.1 Basic Search and Replace

The **Search and Replace** option allows material to be searched for based on its ID, title or source and, if required, replace these for one or more events.

To search for material:

1. From the **Edit** menu, choose **Search And Replace** or on the toolbar, click **Search and Replace** as shown below:



The Search and Replace dialog box is displayed.

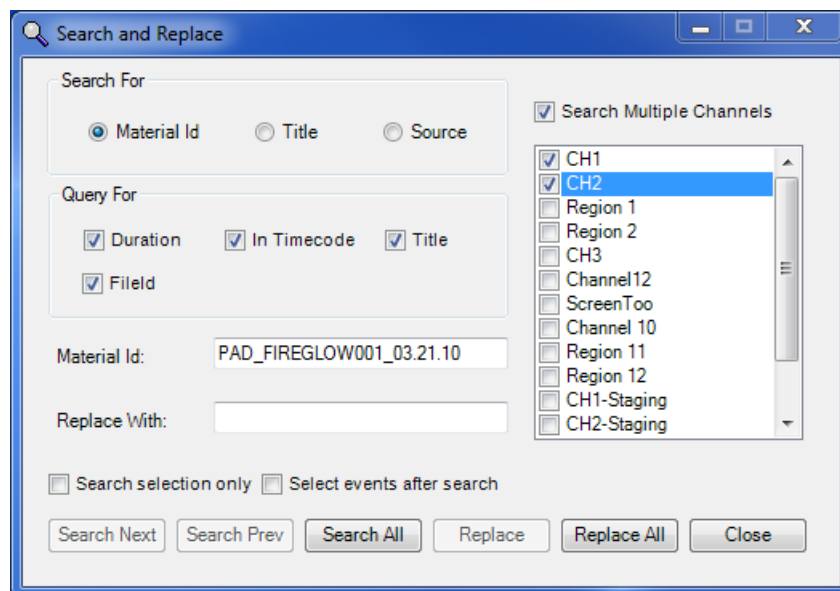


Figure 12 Search and Replace Dialog Box

2. In the **Search For** area, select **Material Id**, **Title** or **Source**.
3. In order to search for more than one channel, select **Search Multiple Channels**. Select the check boxes for all channels to be included.
4. In the **Material Id** field, type the ID of the material to be searched for  
or
5. In the **Title** field, type the title of the material to be searched for  
or
6. From the **Source** list, select the source of the material to be searched for.
7. In the **Replace With** field, enter the material ID or title, or select the source from the list.

### 2.1.1 Searching for Events

Click **Search Next** to search for the next event that matches the search criteria.

Click **Search Prev** to search for the previous event that matches the search criteria

Click **Search All** to highlight all events that match the search criteria.

### 2.1.2 Replacing Events

To replace a single event:

1. Click **Search Next** and either:
  - To replace the event, click **Replace**.
  - To leave the event as it is, click **Search Next**.
2. Continue in this way until all required events are replaced.

To replace all events, click **Replace All**.

**Note:** To close the Search and Replace dialog box, click **Close**.

### 2.1.3 Finding the Next Highlighted Event

If **Search All** is pressed in the Search and Replace dialog box, Morpheus highlights all events that match the search criteria. Search for the next highlighted event as follows:

- From the **Edit** menu, select **Find Next Highlighted Event** or
- Press **F3**.

### 2.1.4 Clearing All Highlighted Events

From the **Edit** menu, select **Clear Highlights**.



## 2.2 Advanced Search and Replace

Advanced Search and Replace provides the following functions:

- Search for all events that meet one or more conditions (refer to 'Selecting Search Criteria' below).
- Save search results for future use (refer to 'Saved Searches' on page 24).
- Replace event fields on the schedule with a different value (refer to 'Replacing Event Fields' on page 23).

On the Editor menu bar click on **Edit** and select **Advanced Search And Replace** (Figure 13).

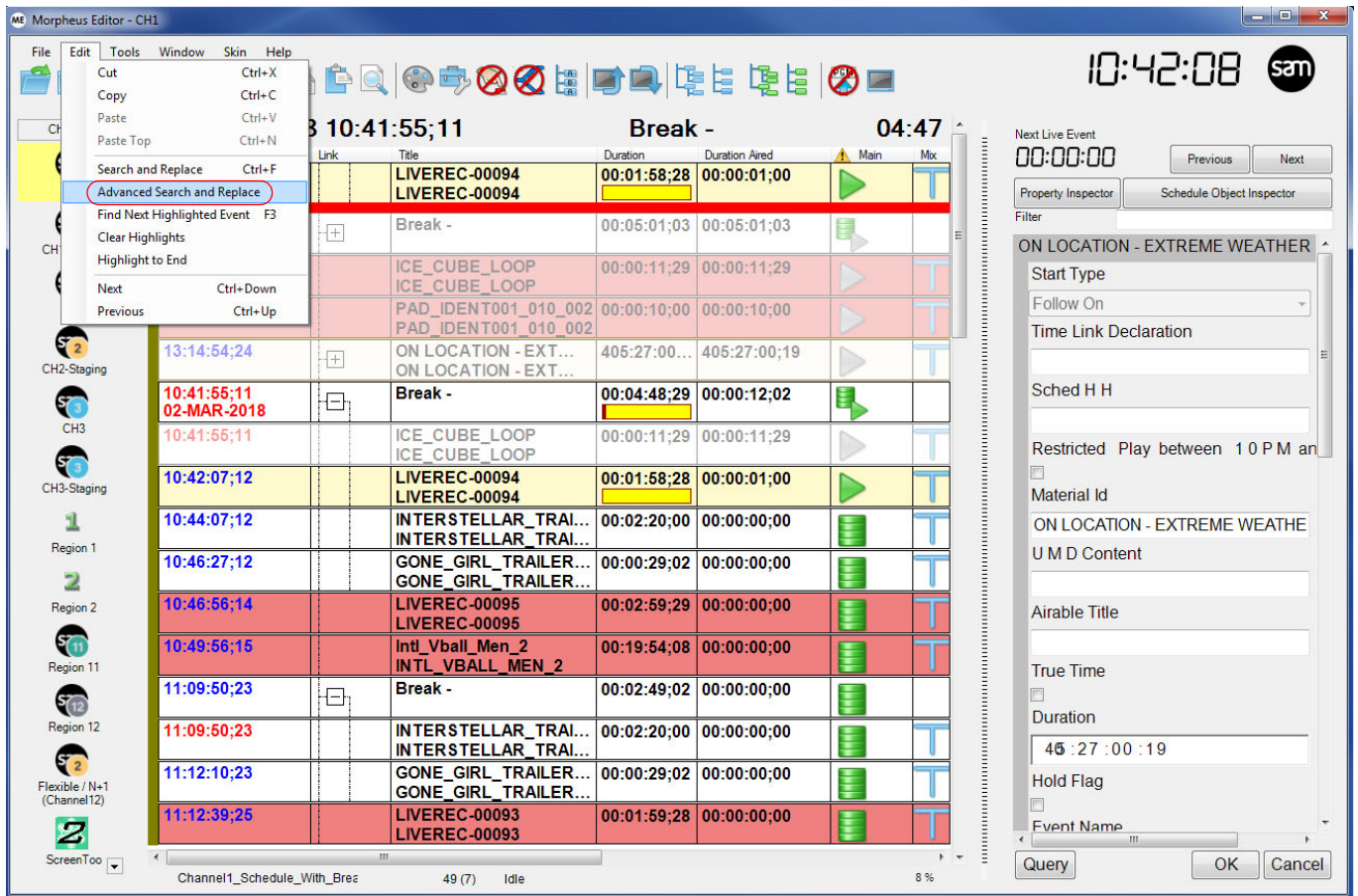


Figure 13 Open the Advanced Search Window from the Editor Menu Bar

The 'Advanced Search' window is displayed (Figure 14).

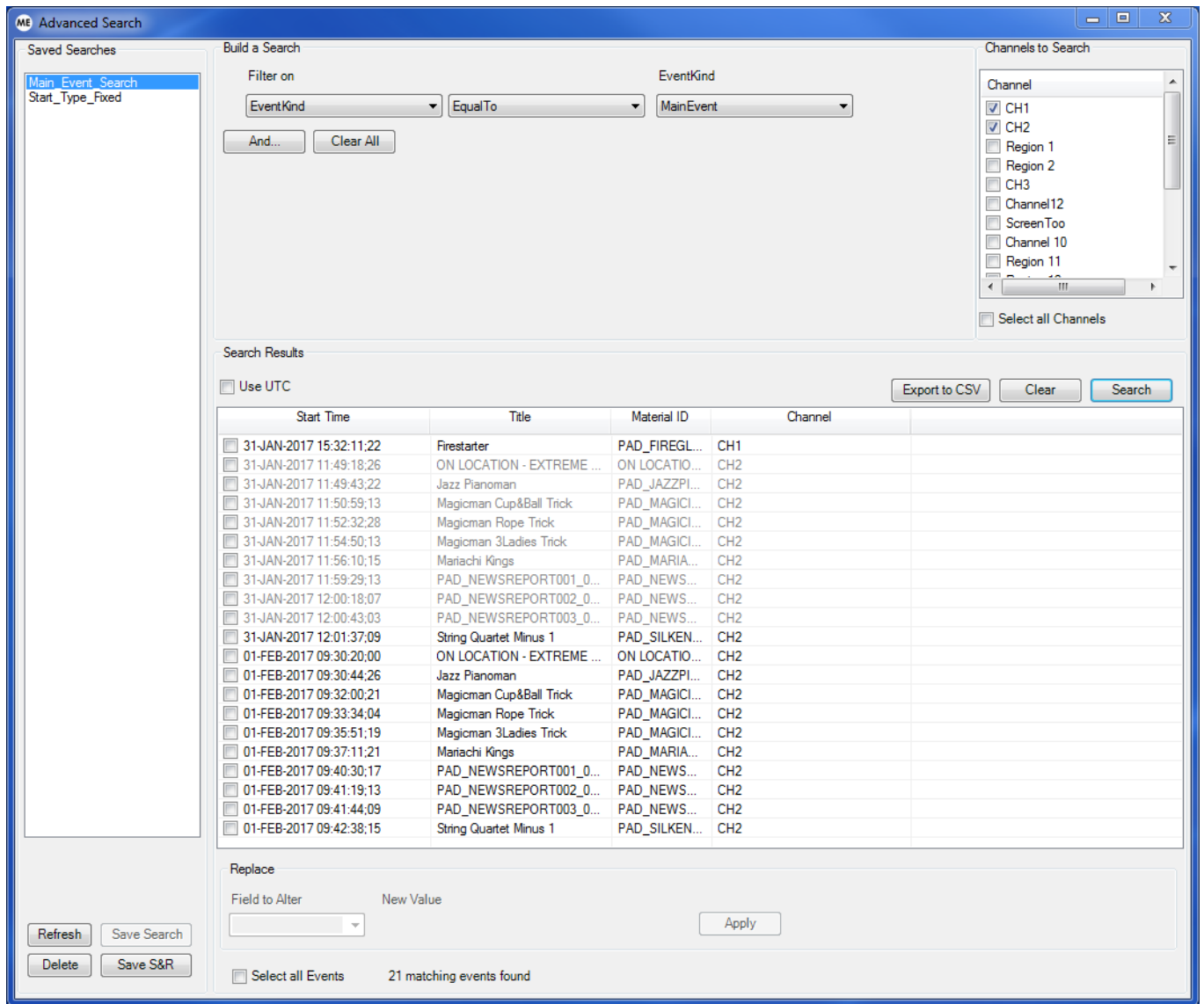


Figure 14 Advanced Search Window

### 2.2.1 Selecting the Search Criteria

1. In the 'Channels to Search' pane, select each channel that the search is to apply to by using the checkboxes. In order to apply a search to all configured channels, tick the **Select All Channels** check box.
2. In the 'Build a Search' pane, select the parameter type on which to base the search:
  - Actual Start Time
  - Event Kind
  - Field
  - Start Type

Depending upon the selected parameter type, different property menus are displayed containing appropriate qualifiers to refine the search (Figure 15).

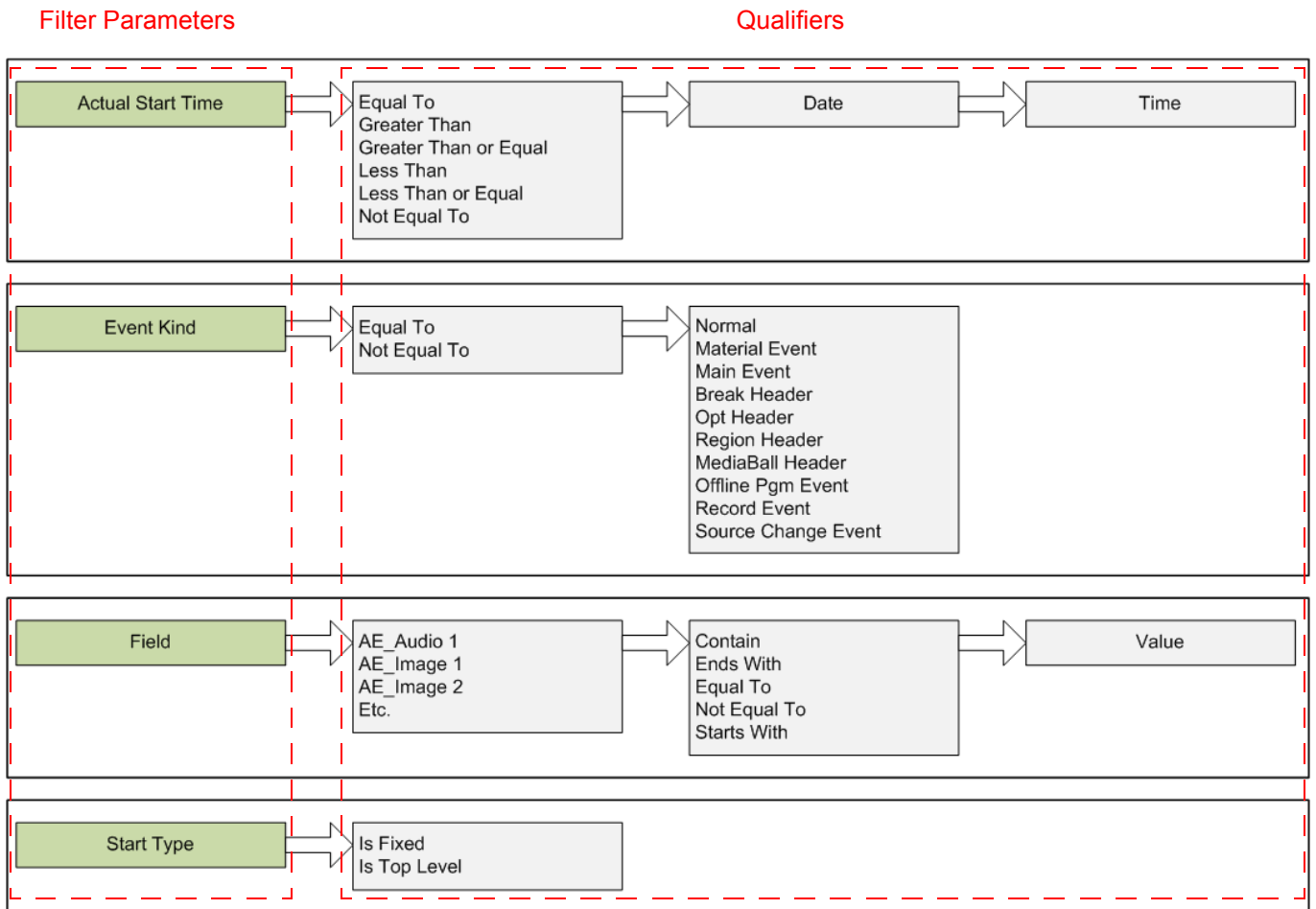


Figure 15 Advanced Search - Build a Search

3. Select the required qualifiers from the drop-down menus and alphanumeric fields.

- Click on the **And** button to create a compound filter by applying one or more additional parameters to a single search - any results will have to match all of the configured criteria.

### Example

The following compound filters would find all material events with a start date of 30 June 2014.

The screenshot shows a search filter configuration interface with two filter rules. The first rule is 'EventKind' equal to 'MaterialEvent'. The second rule is 'Actual Start Time' equal to '30 June 2014' at '00:00:00:00'. There are 'And...' and 'Clear All' buttons at the bottom.

- Click on the **Search** button.


All events that contain matches to the search criteria are displayed under the 'Search Results' section.

**Note:** A greyed-out event in the 'Search Results' pane is one that has already played.

## 2.2.2 Function Buttons

### - And

Create a compound filter by applying one or more additional parameters to a single search.

**Note:** To clear a single filter, click on the minus button  alongside it.

### - Clear All

Reset the search parameters to their default setting.

### - Show All (Field based searches only)

By default for Field based searches, the event type property must be configured as 'Visible' in the Configurator in order to appear in the field selection drop-down menu.

Tick the **Show All** check box in order to override the 'Visible' flag if it is disabled (the property is set to not visible). Refer to Editor section of the Morpheus Engineer's Manual for further information on parameter visibility.

### - Use UTC

Display the Start Time of the search results as UTC - the default is local time.

### - Export to CSV

Save all selected search results to a CSV file - Windows Explorer is displayed to allow the selection of a filename and destination folder.

### - Clear

Clear the search results pane.

### - Search

Run the search criteria on the selected channels.

### - Refresh

Refresh the search window, updating the current search results.

### - Delete

Delete a search. In the 'Saved Searches' pane, select the search item to delete and click on **Delete** - a confirmation window is displayed

**- Save Search**

Save a configured 'Search' filter combination for future use. Windows Explorer is opened to allow the selection of an appropriate file name - by default, searches are saved in the following folder: *C:\Morpheus\SavedSearches*

**- Save S&R**

Save a configured 'Search and Replace' filter combination for future use. Windows Explorer is opened to allow the selection of an appropriate file name - by default, searches are saved in the following folder: *C:\Morpheus\SavedSearches*

### 2.2.3 Search Examples

The following criteria finds all events created on or after 12 January 2012 with a start time of 14:37:10:00 or later:

Filter on		Date	Time
Actual Start Time	GreaterThanOrEqual	12 June 2012	14:37:10:00

The following criteria finds all break header events (refer to page 112):

Filter on	EventKind
EventKind	BreakHeader

The following criteria finds all events set to **Manual Take**:

Filter on	Field	Value
Field	ManualTake	EqualTo <input checked="" type="checkbox"/>

The following criteria finds all events that have a fixed start type:

Filter on	
Start Type	<input checked="" type="checkbox"/> IsFixed <input type="checkbox"/> IsTopLevel

To find events that have a follow-on start type, deselect the IsFixed option.

To find only top level events, select the IsTopLevel option. Otherwise, the search returns all matching events regardless of level.

### 2.2.4 Search and Replace Function

This facility (search and replace) acts upon all event property fields that exist in the system. When altering property fields - the change is only performed on the instance of the event that exists within the schedule, and only for events that are either currently playing, or are yet to play - the change has no effect upon events that have finished playing, nor does it affect the parameter values in the EventStore.

To replace the search fields:

1. Select the events for which fields are to be altered: either double click on the event or single click on event's checkbox.

**Note:** To edit all events, select **Select all Events**.

2. From the **Field to Alter** list, select the required field and click on **OK**.
3. In the **New Value** box, enter the new value and click on **Apply**.

### 2.2.5 Saving a Search

Save a search for future use, as follows:

1. Create a search using the criteria in the Build a search section.
2. Under **Saved Searches**, click **Save Search**.  
The Save As dialog box is displayed.
3. Browse to the required drive and folder.
4. In the **File name** box, type a name for the search and click **Save**.  
The search item is displayed under **Saved Searches**.

### 2.2.6 Saving a Search and Replace

Save the results of a search and the altered field values to be applied:

1. Under **Saved Searches**, click **Save S&R**.  
The Save As dialog box is displayed.
2. Browse to the required drive and folder.
3. In the **File name** box, type a name for the search and click **Save**.  
The search conditions appear under **Saved Searches**.

### 2.2.7 Using a Saved Search

To use a saved search:

1. From the **Saved Searches** list, select the required search.  
The **Build a Search** fields change to reflect the new search conditions.
2. Click **Search**. The matching events appear in the **Search Results** area.



### 3. Schedule Columns

The columns on the schedule provide information about each event, for example:

- The clip that is required
- The time at which the clip should be played out
- The duration of the clip
- The device that the clip will play out from

#### 3.1 Manipulating Columns

##### Changing the Width of a Column

To change the width of a column:

1. Point to the right edge of the relevant column heading.
2. Drag the column heading until the column is the required width.

##### Changing the Order of Columns

To change the order of a column:

1. Point to the heading of the column to move.
2. Click and drag it to the required position.

### 3.2 Event Fields

Each column has a heading, or 'field', such as Duration, Title or Start Time. It is also possible to create custom columns.

The fields and information displayed depend upon the configuration of the Editor.

Event Fields

Start Time	Title	Offset	Duration	Mix	Secondary Content	Source	Main
09:02:2...	0525_PELICANS 0525_PELICANS		00:00:38;29			DEC1 ICE1	
09:02:2...	0525_PELICANS 0525_PELICANS		00:00:38;29			DEC1 ICE1	
09:03:2...	GONE_GIRL_TRAILER_030 GONE_GIRL_TRAILER_030	00:00:00;00	00:00:29;02			DEC1 ICE1	
09:03:5...	ICE_CUBE_LOOP ICE_CUBE_LOOP	00:00:00;00	00:00:11;29			DEC1 ICE1	
09:04:0...	PAD_IDENT001_010_002 PAD_IDENT001_010_002	00:00:00;00	00:00:10;00			DEC1 ICE1	
09:04:1...	ON LOCATION - EXTREME WEATHER ON LOCATION - EXTREME WEATHER	00:00:00;00	00:00:24;26			DEC1 ICE1	
09:04:3...	INTERSTELLAR_TRAILER_220 INTERSTELLAR_TRAILER_220	00:00:00;00	00:02:20;00			DEC1 ICE1	
09:06:5...	LIVEREC-00095 LIVEREC-00095	00:00:00;00	00:02:59;29			DEC1 ICE1	
09:09:5...	Intl_Vball_Men_2 INTL_VBALL_MEN_2	00:00:00;00	00:19:54;08			DEC1 ICE1	
09:29:5...	LIVEREC-00093 LIVEREC-00093	00:00:00;00	00:01:59;28			DEC1 ICE1	
09:31:5...	Intl_Vball_Wmn_1 INTL_VBALL_WMN_1	00:00:00;00	00:18:12;22			DEC1 ICE1	
09:50:0...	LANGUAGEDEMOA1 LANGUAGEDEMOA1	00:00:00;00	00:00:50;03			DEC1 ICE1	
09:50:5...	PAD_IDENT001_010_005 PAD_IDENT001_010_005	00:00:00;00	00:00:10;00			DEC1 ICE1	
09:51:0...	LIVEREC-00099 LIVEREC-00099	00:00:00;00	00:01:38;29			DEC1 ICE1	
09:52:4...	ON LOCATION - EXTREME WEATHER ON LOCATION - EXTREME WEATHER	00:00:00;00	00:00:24;26			DEC1 ICE1	
09:53:0...	Firestarter PAD_FIREGLOW001_03.21.10	00:00:00;00	00:03:21;05			DEC1 ICE1	

Figure 16 Event Fields

### 3.2.1 Event Field: Start Time

The **Start Time** field shows the time the event is due to start. It is displayed in **hh:mm:ss:ff** (hours, minutes, seconds, frames).

**Note:** Change the start time of a fixed event using the **Start Type** field (refer to page 174) on the Property Inspector (refer to page 166).

#### Appearance

Blue text indicates that the event is a follow-on event (refer to page 121).

Red text indicates that the event is a fixed event (refer to page 122).

Underlined text indicates that the event is set for 'Manual Take' (refer to page 190) and requires operator intervention.

**Note:** The color and appearance of the **Start Time** text depend on the configuration of the Editor.

#### Dual Start Times



If two start times are shown, the first line shows the time the event was set to start and the second line shows the earliest time it can start. Such an event will not play without manual intervention (refer to 'Hold' on page 104).

**Note:** The start date may also appear in the **Start Time** field.

**Note:** Second line information may have been suppressed in the configuration.

#### Icons

The following icons appear if operator intervention is required:

Icon	Description
	Indicates that the event is on hold (refer to 'Hold' on page 104).
	Indicates that the event is set for Manual Take (refer to 'Manual Take' on page 190).

**Table 2 Start Time Icons**

### 3.2.2 Event Field: Link

This column relates to primary and secondary events (refer to page 108).

The **Link** column shows a continuous vertical dotted line for primary events, indicating that each event follows on from the previous.

If a primary event has secondary events below it, a plus symbol is displayed in the **Link** field.

- To display the secondary events, click on the plus sign. A minus sign is displayed in its place.

10:25:39:08			<b>PRIMARY EVENT</b> <b>A828226</b>
10:25:39:08			Secondary Event 1
10:25:39:08			Secondary Event 2

Figure 17 Event Fields

- To hide the secondary events and display the primary event only, click on the minus sign.

**Note:** A secondary event may have further secondary events below it. A second continuous vertical dotted line indicates that each secondary event follows on from the previous, as does a third dotted line.

### 3.2.3 Event Field: Title

The **Title** field shows the title of the event on the first line and the 'material ID' on the second line.

**TITLE**  
**P400420**

**Note:** Second line information may have been suppressed in the configuration.

The material ID is a unique identifier for a piece of material. It is an alphanumeric string of up to 20 characters. It is generated by the broadcaster using an agreed 'formula' and may incorporate elements relating to the date, the channel, the production company, the client and so on.

To change the title and/or material ID, double-click on the title or material ID and then make the changes.

**Note:** The title and material ID can also be changed using the **Event Name** and **Material Id** fields on the Property Inspector, if the system configuration allows it (refer to 'The Property Inspector' on page 166, 'Event Name' on page 186 and 'Material Id' on page 183).

To reset the title/material ID to their original values, use the **Query** button (refer to page 170).

### 3.2.4 Event Field: Offset

This field shows the time difference between the start of a secondary event and the start/end of the primary event above it (refer to 'Primary and Secondary Events' on page 108).

The offset is displayed in hours, minutes, seconds and frames.

This field links to the **Offset** field in the Property Inspector (refer to 'The Property Inspector' on page 166 and 'Offset' on page 172).

To view the timing relationships between primary and secondary events, use the Event Ruler (refer to page 122).

The **Offset** field links to the **Start Mode** field on the Property Inspector (refer to 'Start Mode' on page 173).

### 3.2.5 Event Field: Mix

This field displays an icon that represents the mixer transition for the start of the event. The default transition is 'Cut'.

To change the mixer transition, double-click on the **Mix** field for the relevant event. Select the required transition from the list.

**Note:**

Transitions other than cuts are only possible if the system includes a mixer.

The transition can also be changed using the 'Transition Type' field on the Property Inspector, if the system configuration allows it (refer to 'The Property Inspector' on page 166 and 'Transition Type' on page 176).



When two back-to-back main events are scheduled to play out on the same source, and they are configured for anything other than a transition of type 'cut', then the following will occur:

- The event that is due to transition out is truncated at the start of the transition, thereby producing the effect of a cut
- The event that is transitioning in will do so at the programmed time and according to the configured transition type

### 3.2.6 Event Field: Duration

A countdown of the remaining duration of the PGM event, displayed in **hh:mm:ss;ff** (hours, minutes, seconds and frames). Unless the event is PGM, this field displays the fixed total duration.

The duration of a header event is equal to the sum of its sub-events - when PGM, the duration of the header event counts down in parallel with each sub-event.

Depending on the Material Decorator setting (refer to page 168) and the **Duration Mode** (refer to page 191) of the event, it may or may not be possible to change the duration.

To change the duration, double-click on the **Duration** field.

**Note:** Use caution when increasing the duration - it is possible to result in playing out black. Decreasing the duration truncates the item.

**Note:** It is not possible to edit the duration of the PST event within the preroll time of that events' devices.

#### 3.2.6.1 Changing the Duration of the On-Air Event

It is not possible to change the duration of the on-air event using that event's **Duration** column - the duration is changed as follows:

1. Right-click on the on-air event and choose **Edit Duration**.
2. The Programme event editor dialog box is displayed, showing the current channel and on-air event title.

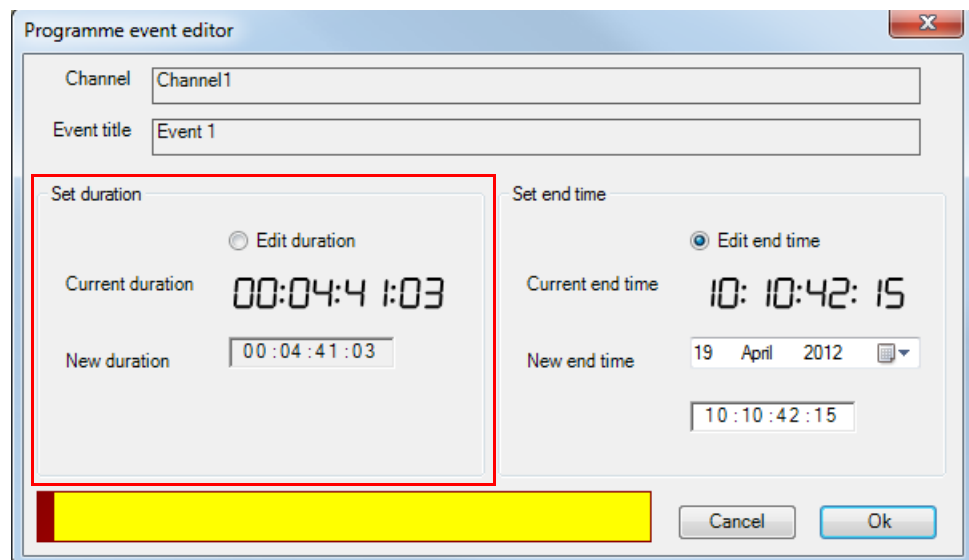


Figure 18 Programme Event Editor Dialog Box - Edit Duration

3. Perform one of the following actions:
  - To change the duration of the event, select **Edit duration**, under **Set duration** (Figure 18). Enter the required duration in the **New duration** field.
  - To change the event's end time, select **Edit end time**, under **Set end time** (). If required, enter a new date in the field provided or click on the arrow on the date field and select the date from the calendar. In the time field, enter the required end time.

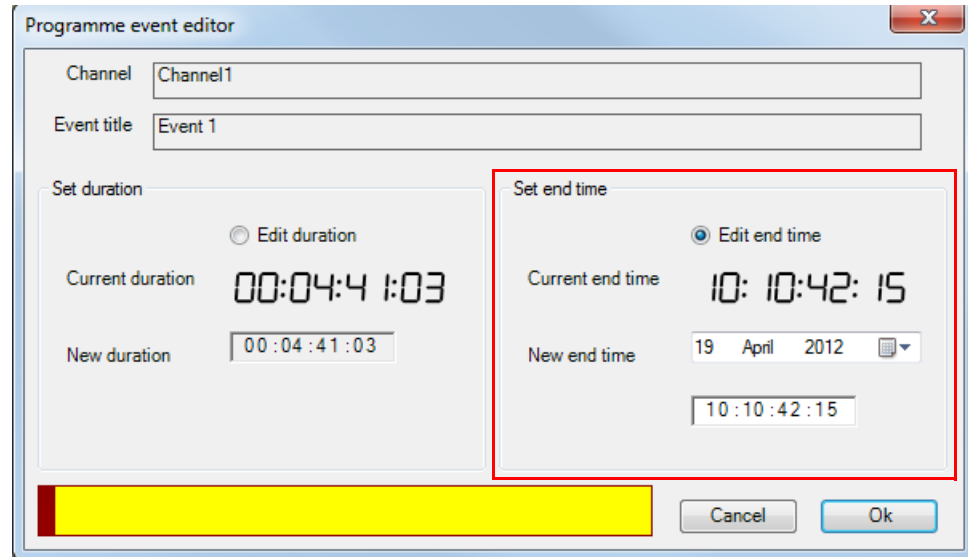


Figure 20 Programme Event Editor Dialog Box - Edit End Time

4. Click on **OK**.

Note:





If the new duration is shorter than the time that has already played out, or if the new end time is in the past, an error message is displayed.

### 3.2.7 Event Field: Secondary Content

If a primary event has secondary events associated with it, one or more icons may appear in this field (refer to 'Primary and Secondary Events' on page 108). These icons show the number and type of secondary events.

**Note:** If a secondary event has further secondary events, these are indicated in its **Secondary Content** field.

There are many types of secondary event. Four examples are shown in the following table. The icons in the Editor Window may differ from those in Table 3 (examples only).

Icon	Description
	DSK event. Refer to 'DSK Events' on page 110.
	DVE event. Refer to 'DVE Events' on page 110.
	GPI event. Refer to 'GPI Events' on page 110.
	Audio over event. Refer to 'Audio Over Events' on page 111.

**Table 3 Icons for Different Secondary EventTypes**

The background color of the secondary event icon indicates the status of the secondary event. The following table shows each possible icon background color.

Icon	Description
None	The event is in the future and will play.
Red	There is a problem with the event, such as a device allocation conflict. It will not play.
Green	The event is playing out.
Greyed out	The event is in the past (the parent event may still be playing out).

**Table 4 Secondary Event Status Color**



### 3.2.8 Event Field: Source

Displays the source on the first line, such as a server port or VTR, from which the event plays out - the device name is displayed on the second line.

**Note:** Second line information may have been suppressed in the configuration.

To change the source, double-click on the **Source** column and select the required device from the list.

**Note:** The source can be changed using the Property Inspector if the system configuration allows it (refer to 'The Property Inspector' on page 166 and 'Main Video Source/Main Audio Source' on page 190).

The source for one or more events can be changed using 'Search and Replace' (refer to page 15).

Using 'ripple', events can be played out from a schedule from alternate playout devices or server ports (refer to 'Rippling a Schedule' on page 52).

### 3.2.9 Event Fields: Main & Guard (Grd)

The **Main** and **Grd** columns show the status of each event on the main and guard source (refer to 'Guard Source' below) by means of barrels (refer to 'Status Barrels' below) and a transfer progress bar.

#### 3.2.9.1 Guard Source (Grd)


A guard source:

- Is an alternative playout device that can be selected if there is fault with the main source.
- Provides resilience and minimizes any disturbance to the channel output.
- Is associated with a device, not an event.
- Plays out the material at the same time as the main source.
- Can be selected from the Manual Intervention Panel by clicking **Take Guard Programme** (refer to 'Manual Intervention Panel' on Chapter 5. Manual Intervention Panel (MIP) and Section 5.2.5 TAKE GRD PGM (Take Guard Programme).
- It is possible to toggle between the main and guard sources using the **Toggle Guard** option in the right-click menu in the Editor.
- Can be invoked for the preset event by clicking **Take Guard Preset** in the MIP (refer to 'Take Guard PST' on page 101).
- Remains activated for every event that uses that device, until it is deactivated.










**Note:** If the guard is activated, its use is recorded in the as-run log (refer to page 93).

### 3.2.9.2 Status Barrels






The **Main** and **Grd** columns show one or two barrels for each event:

- The left-hand barrel indicates the ‘material status’ of the item in the Morpheus media management database (refer to page 212). This is determined by the Material Decorator’ (refer to page 215).
- The right-hand barrel indicates the device status of the item as reported by the Bridge (refer to ‘Device Status’ on page 209 and ‘Bridge’ on page 209).
- If the two barrels are the same color they are combined into one larger barrel.
- If the barrels indicate that an event will not play, the following icon is displayed next to the column heading: 

The table below shows each barrel colour and its meaning.

Status Barrel(s)	Description
	There is no response from the Material Decorator or Bridge.
	<p>The event will not play out for either of the following reasons:</p> <ul style="list-style-type: none"> <li>• There is content on the device but no response from the Bridge.</li> <li>• The event is outside the look-ahead period (refer to ‘Event Look Ahead’ on page 210).</li> </ul> <p>If automation is off, the entire schedule has this status.</p>
	The event will play out but the material decorator is no longer responding.
	The content is not on the specified device. A transfer request has been issued (refer to ‘Transfer Decorator Service’ on page 215).
	The database contains content metadata only. No recordings exists.
	The transfer has failed. The content is not on the server.
	The material is neither in the database or on the playout device.
	The database reports that there is content on the specified device but the device reports it as missing.
	A transfer is in progress.

**Table 5 Status Barrels**

Status Barrel(s)	Description
	<p>The event will not play for one of the following reasons.</p> <ul style="list-style-type: none"> <li>The content is not on the specified device and no transfer is available.</li> <li>The device controller has failed (refer to 'Device Controller Card' on page 208).</li> <li>The device controller is restarting.</li> </ul> <p>If the entire schedule has this status, the mixer has failed.</p>
	The event will play.
	The event is cued.
	The event is on air.
	The event has finished and is waiting to be collected.

**Table 5 Status Barrels**

**Note:** Display further information about the status barrels using the 'event status report' (refer to page 39).

### 3.2.9.3 Transfer Progress Bar

Morpheus can display a Transfer Progress bar on the Main and Guard columns - it is updated by the Video Network Manager and Archive Controller applications. This provides a more accurate prediction of when the material becomes available on the required device.

To configure this feature, refer to the Morpheus Engineer’s Manual.

Once the progress bar is configured, create a schedule item that requires an item of material to be transferred to a new device. The progress bar is displayed behind the material barrel as shown below:

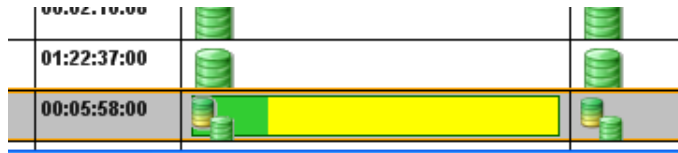


Figure 21 Transfer Progress bar

If the material is being transcoded, the Transfer Progress Bar is displayed as shown below:

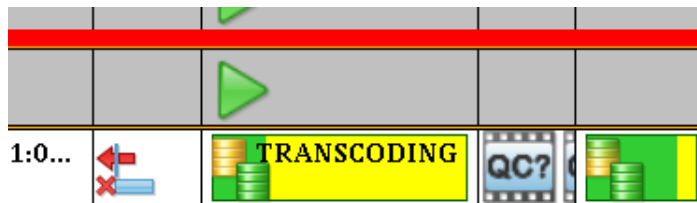


Figure 22 Transcoding Progress bar

**Note:** Display further information on the Main and Guard fields using the ‘Event Status Report’ (refer to Section 3.3 Event Status Report).

### 3.2.10 Event Field: Notes

If an icon is displayed in the **Notes** field, this indicates that a note has been added to the event.

- To view the note, double-click on the note icon.








**Note:** A note can be added to the event using the **Notes** field on the Property Inspector (refer to ‘The Property Inspector’ on page 166 and ‘Notes’ on page 190).

### 3.2.11 Event Field: QC

This shows the QC (Quality Control) status of all the video events on the playlist. This status is taken from the Morpheus media management database (refer to page 212). The icons show whether the material for transmission has been checked and is suitable to go to air.

The following table shows each possible QC icon.

Icon	Description
	If there is any late delivered material that has not been checked, this icon encourages the operator to review the material before it is transmitted.
	This indicates that the material has been quality checked but not content reviewed.
	This shows that the material has been content reviewed but not quality checked.
	This shows that the material has been reviewed and checked.
	This shows that the material has been checked by the Morpheus Quality Manager application.

**Table 6 QC Icons**

### 3.2.12 Event Field: Validation










The **Validation** field shows icons indicating errors or information associated with an event.

By default, if an event has no errors or there is no information available, the event's **Validation** field is left blank. However, the system may have been configured to show an icon. The default icon is as follows:



The system may be configured to show only a single icon in the **Validation** field. In this case, the highest (most serious) error level is shown. Alternatively, more than one icon may be seen, with the highest level on the left, the second highest level next to it and so on.

The following table shows the icons that may appear in the **Validation** field. These are the default icons and may differ, depending on the system configuration.

Icon	Description
	Critical.
	Error.
	Warning.
	If the system is not configured to show an icon indicating an error or warning, or if the appropriate icon is not available on the workstation, this icon is displayed in the <b>Validation</b> field. This indicates that there is a validation error or warning.
	Information.
	Displayed in the <b>Validation</b> field when a <b>Mix</b> or <b>Wipe</b> transition are selected (refer to Section 3.2.5 Event Field: Mix) that use the same source as the previous main event source. If a different source is selected, the icon is no longer displayed (refer to 'Source' on Section 3.2.8 Event Field: Source).  <b>Note:</b> Depending on the configuration of the editor, this icon may be suppressed.
	Indicates that the event's inpoint is earlier than the Morpheus media management database inpoint (refer to 'Inpoint' on page 185 and 'Morpheus Media Management Database' on page 212).  <b>Note:</b> Depending on the configuration of the editor, this icon may be suppressed.
	Indicates that the event's inpoint is offset from (later than) the database inpoint.  <b>Note:</b> Depending on the configuration of the editor, this icon may be suppressed.
	Indicates that the event's outpoint is later than the database outpoint so the clip may freeze for the duration of the event.  An event's outpoint determines at what timepoint, in the tape item or server file, the device stops playing. This would usually be <b>00:00:00:00</b> (hours, minutes, seconds, frames) for a server event or <b>10:00:00:00</b> for a tape event (depending on the station's method of working).  <b>Note:</b> Depending on the configuration of the editor, this icon may be suppressed.

**Table 7 Validation Icons**

**Note:** Display further information about the validation icons using the 'Event Status Report' (refer to Section 3.3 Event Status Report).

If the duration of opt breaks in regional channels differs, icons may appear in the **Validation** column to indicate this. Refer to 'Opt Header' on page 112 and Chapter 7.6.3 Duration Mismatch.

### 3.2.13 Event Field: Date

The **Date** field shows the start date for the event. This date can be changed on the Property Inspector if the event is a fixed event. The date is displayed as **dd-mmm-yyyy** as shown below:

Date	Start Time	
05-SEP-2013	10:58:11;01	⏸
05-SEP-2013	08:41:47;16 15:25:16;24	⏹ ⏸
05-SEP-2013	15:43:51;13	⏹
05-SEP-2013	15:48:06;24	
05-SEP-2013	15:51:27;05	

Figure 23 Date Field

### 3.2.14 Event Field: Thumbnail

This column contains a thumbnail image of the material from a Momentum system as shown in the example below:

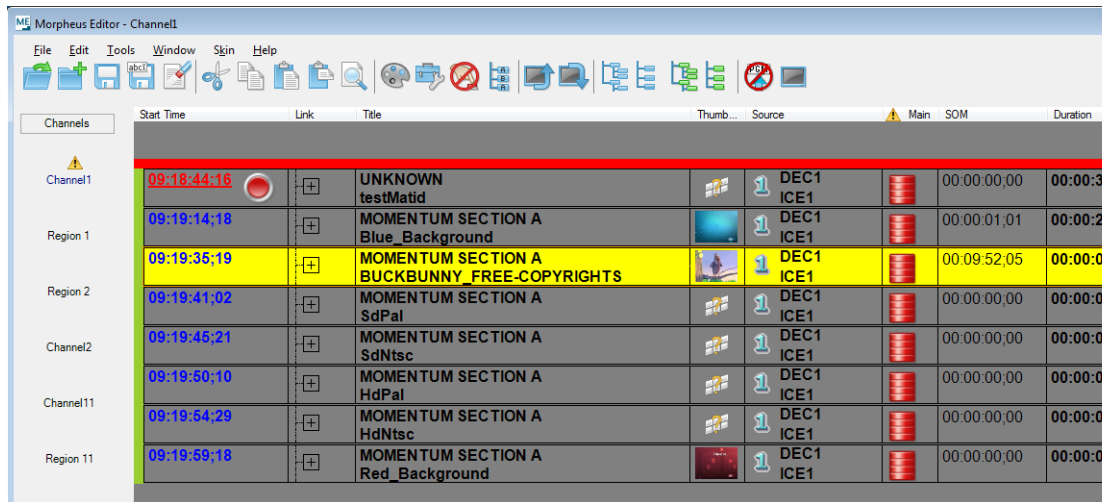


Figure 24 Thumbnail Column

If the Material ID for the event is a valid Material ID in the Momentum system and a thumbnail image exists, it is displayed in the Thumbnail column.

If the Material ID for the event is a valid Material ID in the Momentum system but it does not have a thumbnail image, the default icon is displayed as shown in first event above.

If the Material ID for the event does not exist in the Momentum system, the column is empty.

To view a clip in a player, double click on the thumbnail. The player is displayed as follows:

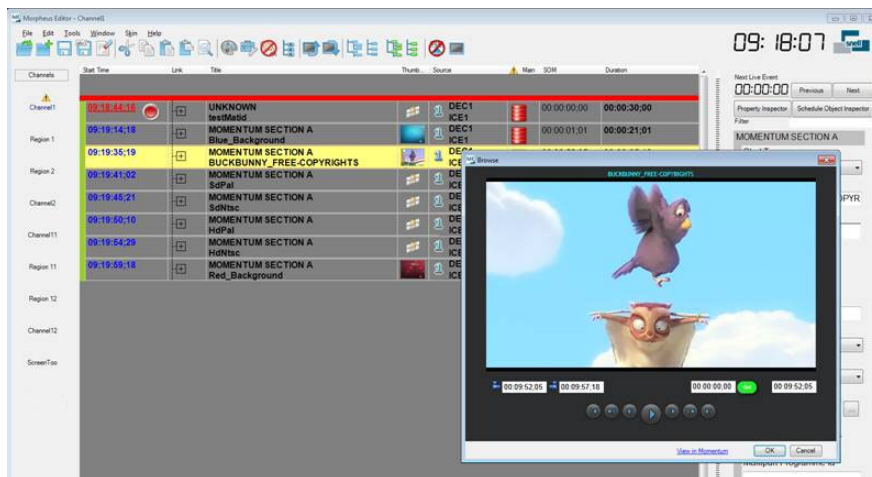
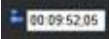
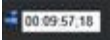
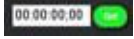



Figure 25 Thumbnail Player

The usual viewing options are available on the player (play, stop, fast forward, etc.) - these can be used to view the clip in the Editor.



Additionally, the following options are available:

Option	Description
	<b>Mark In</b> - Enter a timecode to set a new Mark In value for the clip. This value is not set in the Morpheus event until the user clicks the <b>OK</b> button. The value updates the schedule, therefore, ensure that the event is set to <b>Decorate Once</b> .
	<b>Mark Out</b> - Enter a timecode to set a new Mark Out value for the clip. This value is not set in the Morpheus event until the user clicks the <b>OK</b> button. The value updates the schedule, therefore, ensure that the event is set to <b>Decorate Once</b> .
	<b>Seek frame</b> - Enter a frame timecode then click <b>Go!</b> , in order to jump to that frame in the player.
	<b>Current frame timecode</b> - This is the timecode for the current frame.

**Table 8 Additional play options**

If the Player is currently open, the thumbnail image of the currently playing clip has a yellow border.

### 3.2.15 Event Field: Duration Aired

The amount of time over which the event has actually aired, counting up from its start time, and taking into account any overrun - it is displayed in **hh:mm:ss;ff** (hours, minutes, seconds and frames). Unless the event is PGM, this field displays 00:00:00;00.

The duration of a header event is equal to the sum of its sub-events - when PGM, the duration of the header event counts up in parallel with each sub-event.

### 3.3 Event Status Report

The 'event status report' shows information relating to the Main, Guard and Validation event columns. To display the status report for a particular event, double-click in its Main, Guard, or validation fields.

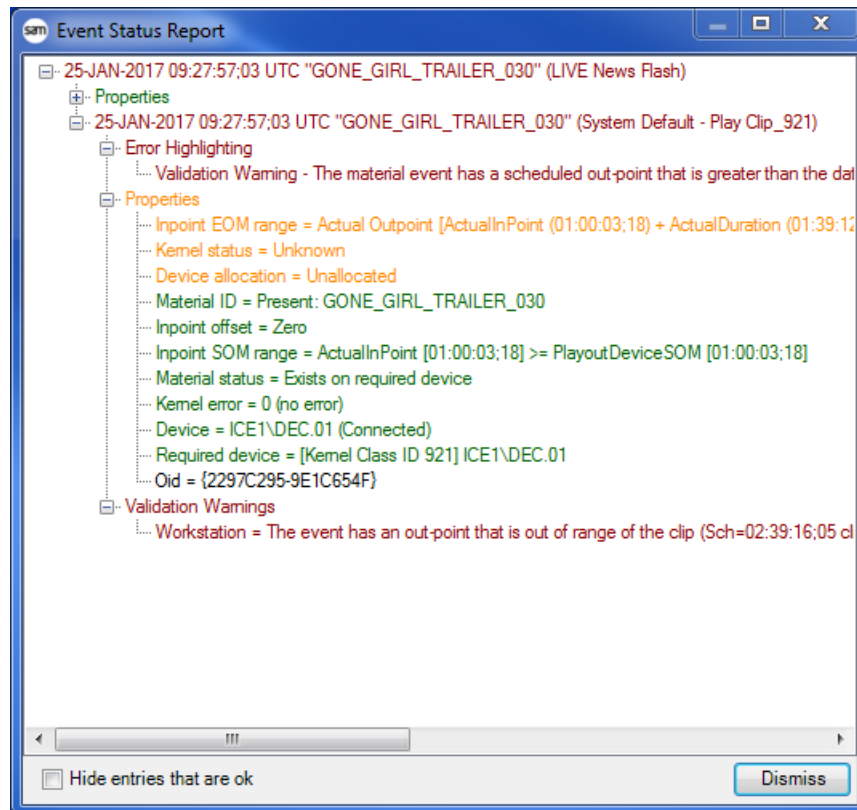


Figure 26 Event Status Report

The entries are colour coded as follows:

- Green text - information only
- Orange text - warning
- Red text - error

Select the **Hide entries that are ok** check box to hide information only entries (green text). Clear the check box to display all entries.

## 4. Working with Events on the Schedule

This section contains information on working with events on the Editor schedule. The events that are visible to an operator depend on the Editor configuration settings for the role.

### 4.1 Highlighting Events

Highlight one or more events in the schedule in order to perform an action:

- To highlight a single event, click that event.
- To highlight a range of events, hold down the **Shift** key while clicking the first and last event.
- To highlight all events on the schedule, click on the top event on the schedule and from the **Edit** menu, choose **Highlight to End**.

**Note:**

The background color of an event depends on the configuration of the Editor. For example, it is possible for an event background color to be red if it contains a validation error.

### 4.2 Moving Around the Schedule

- To move to the bottom of the schedule, press **End** or click **Go to Bottom** on the toolbar.



- To move to the top of the schedule, press **Home** or click **Go to Top** on the toolbar.



- To move to the next page, press **Page Down**.
- To move to the previous page, press **Page Up**.

## 4.3 Bookmarks

A bookmark labels an event so that it can be homed in on by an operator from anywhere in the schedule.

### 4.3.1 Applying a Bookmark

1. Highlight the relevant event.
2. Right-click on the highlighted event.

A dark green highlight is displayed to the left of the event.

3. Choose **Toggle Bookmark**.

### 4.3.2 Moving to a Bookmarked Event

1. Right-click an event on the schedule.
2. Choose either **Choose Go To Next Bookmark** or **Go To Previous Bookmark**. If necessary, repeat until the required event is found.

### 4.3.3 Removing a Bookmark

1. Right-click on the relevant bookmark.
2. Choose **Toggle Bookmark**.

## 4.4 Changing the Order of Events

Events can be moved or copied from one area of the schedule to another by using **Cut/Copy** and **Paste/Paste Top**. Additionally, the **Cut/Copy** and **Paste/Paste Top** function can be applied to a whole schedule (based on the Schedule Information Object ID). Be aware that these functions must be selectively enabled in the Editor Configuration window, and therefore may not be available for use.

### 4.4.1 Moving Events

1. Highlight the event(s) to move, and do one of the following:
  - From the **Edit** menu choose **Cut**.
  - Press **Ctrl+X**.
  - On the toolbar, click **Cut**.



2. Depending on the configuration of the Editor, a confirmation dialog box may appear. Click **Yes** to continue.
3. Select the event below which to move the new event.
4. Do one of the following:
  - From the **Edit**, menu choose **Paste**.
  - Press **Ctrl+V**.
  - On the toolbar, click **Paste**.



### 4.4.2 Copying Events

1. Highlight the event(s) to copy and do one of the following:
  - From the **Edit** menu, choose **Copy**.
  - Press **Ctrl+C**.
  - On the toolbar, click **Copy**.



2. Select the event below which to copy the new event.
3. Do one of the following:
  - From the **Edit** menu, choose **Paste** or press **Ctrl+V**.
  - On the toolbar, click **Paste**.

### 4.4.3 Moving/Copying Events After the On-Air Event

If required, one or more events can be moved or copied immediately after the on-air event - this action will move the preset event down the schedule.

1. Select the event(s) to move and do one of the following:
  - From the **Edit** menu, choose either **Cut** or **Copy**.
  - Press either **Ctrl+X** (to move the events) or **Ctrl+C** (to copy the events).
  - On the toolbar, click either **Cut** or **Copy**.
2. Depending on the configuration of the Editor, a confirmation dialog box may appear. Click **Yes** to continue.
3. Do one of the following:
  - From the **Edit** menu, choose **Paste Top**.
  - Press **Ctrl+N**.
4. On the toolbar, click **Paste Top**.



### 4.4.4 Paste Sibling

The **Paste Sibling** option is available from the right-click menu. It allows a main event to be moved to a position underneath another main event.

- A main event is a top level event. Some events can be at a lower level - these are called 'secondary events' (refer to page 108).
- A sibling event is an event that is at the same level as another event.

To move or copy the sibling event:

1. Highlight the event to move or copy.
2. Right-click on the event and choose either **Cut** or **Copy**.
3. Highlight the event below which to paste the new event.
4. Right-click on the event and choose **Paste Sibling**.

### 4.4.5 Paste Child

The **Paste Child** option allows the moving or copying of a child event from one parent event to another parent event (refer to 'Primary and Secondary Events' on page 108 and Parent/Child Relationships on page 109).

To move or copy the child event:

1. Highlight the child event.
2. Right-click on the event and choose either **Cut** or **Copy**.
3. Highlight the parent event below which to paste the child event.
4. Right-click on the event and choose **Paste Child**.

## 4.5 Deleting Events/Clearing the Schedule

**Important:**

Caution is required when deleting events or clearing the schedule as these operations cannot be undone. Depending on the configuration of the Editor, there may be no option to confirm deletion of events.

### 4.5.1 Deleting Events

1. Select the event(s) to delete.
2. Press **Delete** on the keyboard.
3. If a confirmation dialog box is displayed, click **Yes**.

### 4.5.2 Clearing the Schedule

Clearing the schedule leaves the on-air event running but removes all other events from the schedule.

1. Do one of the following:
  - From the **File** menu, choose **Clear**.
  - On the toolbar, click **Clear**.



2. To confirm, click **OK**.

## 4.6 Disabling / Enabling Events

If an event is to be prevented from running, it can be disabled as follows:

1. Highlight the event to disable.
2. Right-click on the event and select **Disable Event**.

The event is 'hatched out' and the following event runs normally.

3. To enable an event, select the event and then select **Enable Event(s)** from the right-click menu.

To disable multiple events, including events within break headers:

1. Use the Shift key to highlight multiple events
2. Right-click on the events and select **Disable Events**. The events are 'hatched out' and the following event runs normally.
3. To enable a set of events, select the events and then select **Enable Events** from the right-click menu.

**Note:**

Alternatively, the keyboard shortcut **Ctrl + Shift + D** can be used to enable or disable the event.

**Important:**

It is not possible to enable or disable an event that is in the past, equally, it is not possible to disable an event that has started it's preroll.



### 4.7 Force Validating an Event

Morpheus validates each event to ensure that the material is present and ready to play out. If it is necessary to play out an item of material at short notice, it is possible that the validation process is not completed before the event is cued.

To force Morpheus to validate an event as quickly as possible:

1. Right click on the event.
2. Select **Force Validate Events** as shown below:

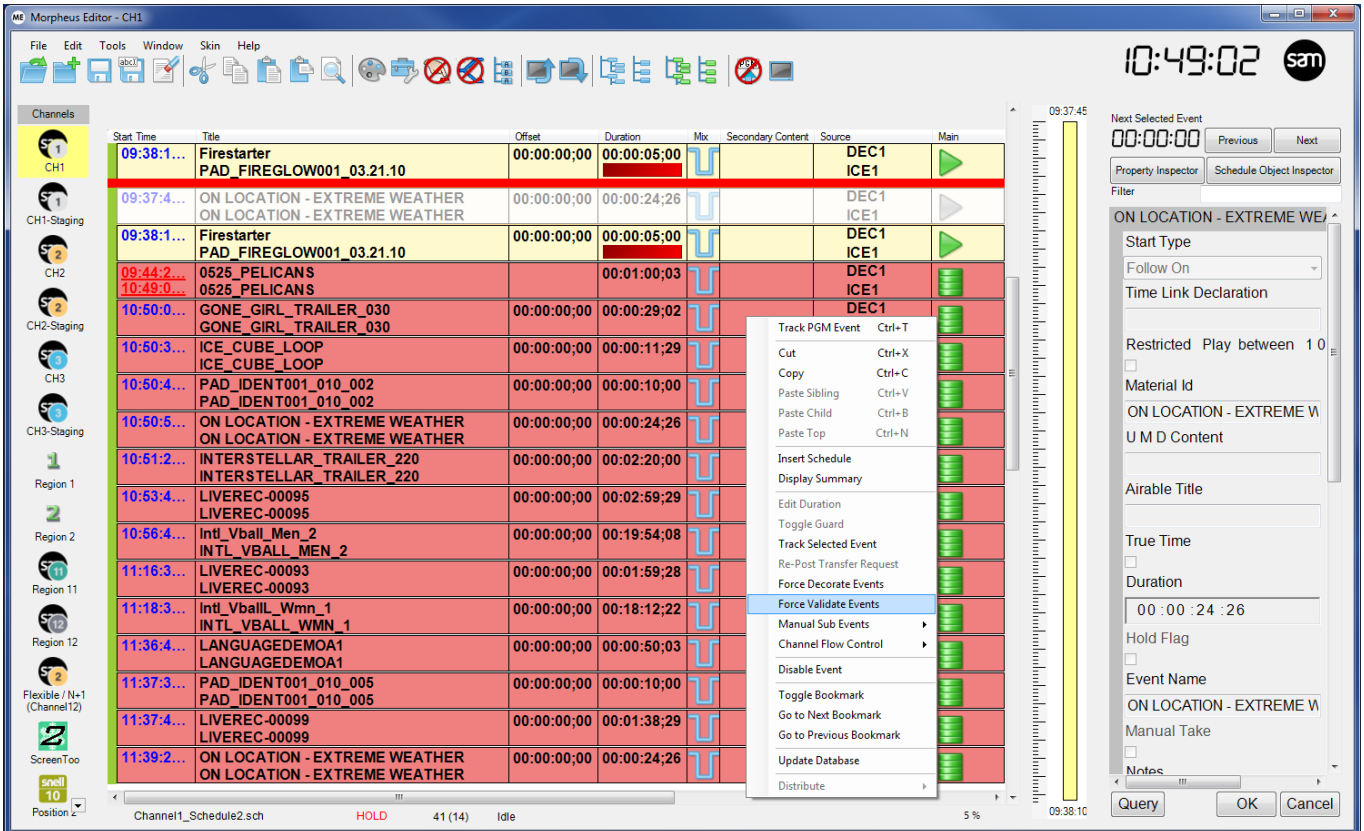


Figure 27 Force Validate Events

The Generic Validation Service validates the event as the highest priority.

### 4.8 Track Program Event

By default, the on-air event is displayed above a red line at the top of the schedule. Directly below the line is a greyed out event which is the event that has just finished playing. Beneath the greyed out event, the on-air event is displayed again.

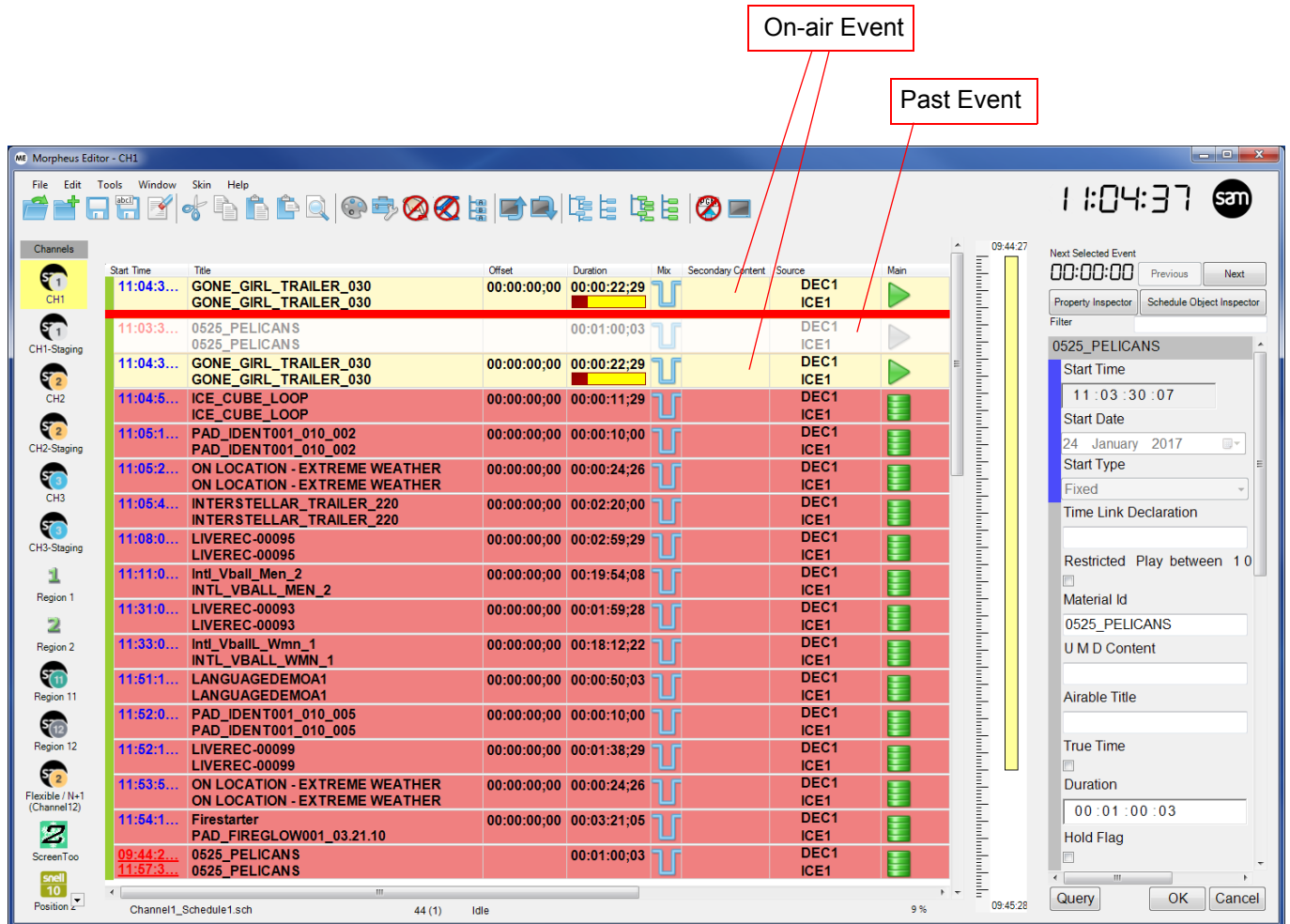


Figure 28 Track Program Event

The display can be changed so that the preset event directly follows the on-air event. To achieve this, do one of the following:

- On the toolbar, click **Track Program Event**.



- Right-click any event on the schedule. From the menu, choose **Track PGM Event**.
- Press **Ctrl+T**.

To return to the default display, do one of the following:

- On the toolbar, click:



- Right-click any event on the schedule. From the menu, choose **Track PGM Event**.
- Press **Ctrl+T**.

**Note:**

The on-air event is frozen at the top of the schedule, above the red line, to ensure that it is always visible in the schedule, even when scrolling down.

## 4.9 Rippling a Schedule

'Rippling' means playing out events on a schedule from alternate playout devices or server ports. The following examples demonstrate where rippling can be used:

- In a VTR based system where at least two machines need to play out alternately, rippling allows time for tapes to be changed. If a series of very short files (1 or 2 seconds) are to play out, three or more ports could be necessary.
- In server based systems where a server port needs a certain time (preroll) to guarantee a stable output.

Rippling allows an operator to choose a mixer transition, such as a wipe or crossfade - it requires two sources to be on air at the same time, so it is not possible in a system with a single server port.

Rippling distributes the load evenly between devices or ports.

### 4.9.1 How to Ripple a Schedule

1. Highlight the events to ripple (refer to page 43).
2. Do one of the following:
  - From the **Tools** menu, choose **Ripple**.
  - On the toolbar, click **Ripple**.



The **Select a Ripple** dialog box is displayed.

3. From the list on the left, select the devices to ripple.
4. From the **Options** pane, select the required check boxes.
5. Click **OK** to ripple the schedule and assign the events to alternate ports.

## 4.10 Saving and Loading Schedules

### 4.10.1 Saving a Schedule for the First Time

1. Do one of the following:
  - From the **File** menu choose **Save As**.
  - On the toolbar, click **Save As Schedule**.



The Save As dialog box is displayed. By default, the drive and folder are set to **C:\EventstoreExport**.

2. In the **File name** box, type a name for the schedule and click **Save**.

### 4.10.2 Updating a Schedule

**Note:**

It is recommended that **Save As** is used rather than **Save** to update a schedule. If loading a schedule from a previously saved file, which is then modified, **Save** overwrites the file, which may not be desirable. Because of this, some systems have the **Save** option disabled.

To update a schedule, do one of the following:

- From the **File** menu, choose **Save**.
- On the toolbar, click **Save**.



### 4.10.3 Loading a Schedule

**Load Schedule** keeps the on-air event running and replaces all remaining events with the new schedule. It is therefore recommended that care is taken when using this option.

If the loaded schedule begins with a fixed event, that event is placed in the future on the first date that has that time slot available (refer to 'Follow-on and Fixed Events' on page 117).

If the loaded schedule has a fixed event later on, that event and events following it are delayed to the first date that has that time slot free.

To load a schedule:

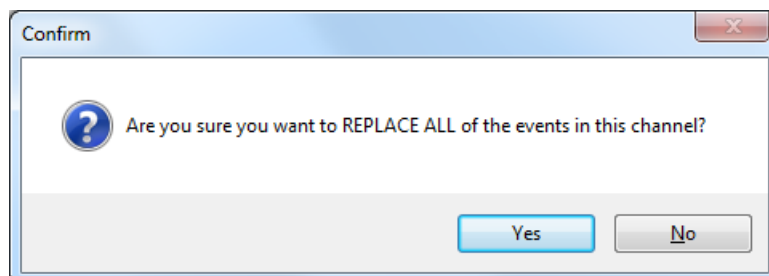
1. Do one of the following:
  - From the **File** menu, choose **Open**.
  - On the toolbar, click **Load Schedule**.



The Replace Schedule dialog box is displayed.

2. Browse to the required drive and folder.
3. Select the schedule from the list and click **Open**.

Depending on configuration of the Editor, Morpheus can display a confirmation warning (shown below) on the Editor when the operator attempts to replace all events on a channel.



**Figure 29** Load Confirmation Warning

#### 4.10.4 Appending a Schedule

**Append Schedule** places the selected schedule after the last event on the current schedule.

Appending is useful when a schedule for the next day or time period has been created and saved offline. It appends the next day's schedule to the current day's schedule.

If the appended schedule has fixed events, these are assigned the first date with the fixed start time free. Subsequent follow-on events follow on from them (refer to *Follow-on and Fixed Events* on page 117).

To append a schedule:

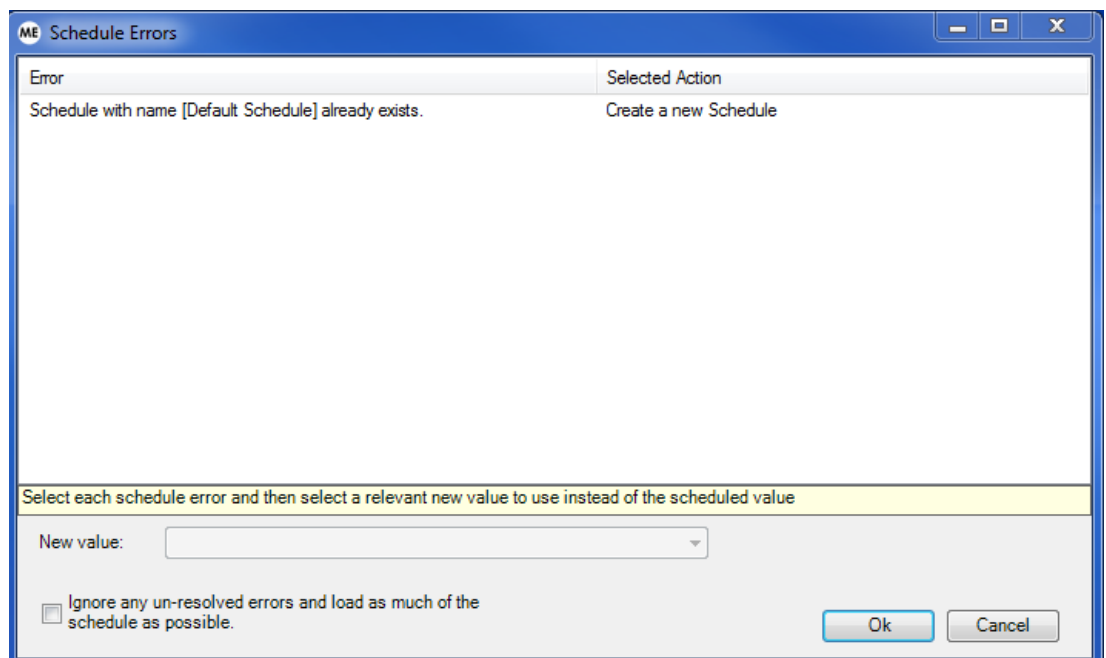
1. Do one of the following:
  - From the **File** menu, choose **Append**.
  - On the toolbar, click **Append Schedule**.



The Append Schedule dialog box is displayed.

2. Select the schedule to append and click **Open**.

Depending on configuration of the Editor, Morpheus can display a confirmation warning (shown below) on the Editor when the operator attempts to append a schedule that is already loaded in the Editor.



**Figure 30 Append Schedule Confirmation Window**

Click **OK** to append the schedule. Morpheus allocates the schedule a new Schedule Name. By default the system appends the schedule name with a number, starting with 1 - for example, the schedule in Figure 30 will be allocated the name 'Default Schedule(1)'.

### 4.10.5 Inserting a Schedule

The **Insert** option inserts a schedule into the current schedule or an offline schedule.

To insert a schedule:

1. Highlight the event below which to insert the schedule.
2. Do one of the following:
  - From the **File** menu, choose **Insert**.
  - Right-click any event on the schedule. From the menu, choose **Insert schedule**.

The Insert Schedule dialog box is displayed.

3. Select the drive and folder containing the schedule to insert.
4. Select the required schedule and click **Open**.

### 4.10.6 Creating and Saving Schedules in the Offline Editor

A schedule can be created and then saved in the Offline Editor for loading (or appending) into the live schedule in the Online Editor.



### 4.11 Multiple Schedules

When the Editor contains more than one schedule at a time, it can be difficult to see where one schedule ends and the next one begins. In order to differentiate between schedules, Morpheus displays a color-coded bar on the left-hand side of the Editor grid.

These colors appear because the schedules contain schedule object information. Morpheus displays this information in the Schedule Object Inspector.

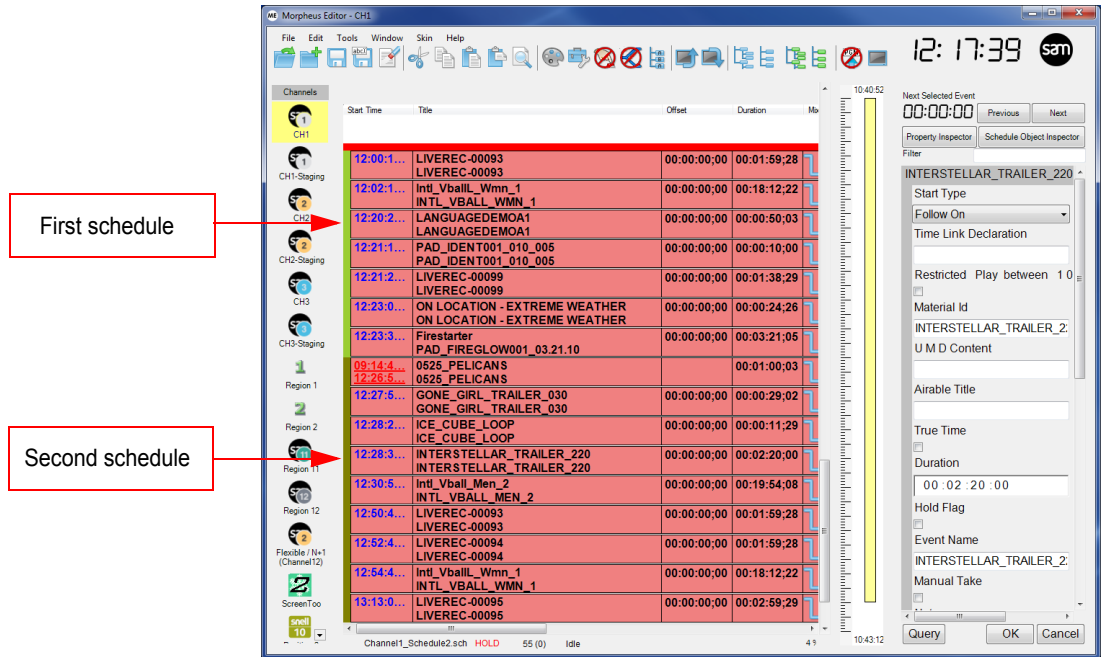


Figure 31 Schedule Indicators

In the example above, the first schedule has a green bar. The second schedule has a lighter green bar. Morpheus uses alternate colors if there are more than two schedules in the Editor.

Bookmarks appear on top of the schedule bar color in dark green as shown below:

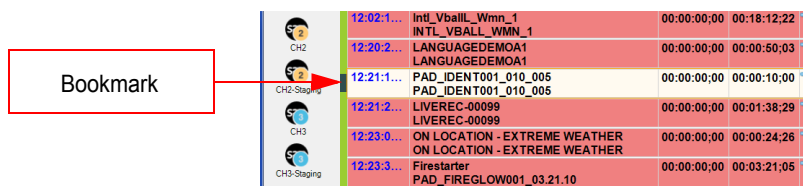


Figure 32 Bookmark in a Schedule

For further information, refer to Section 9.11 The Schedule Object Inspector.

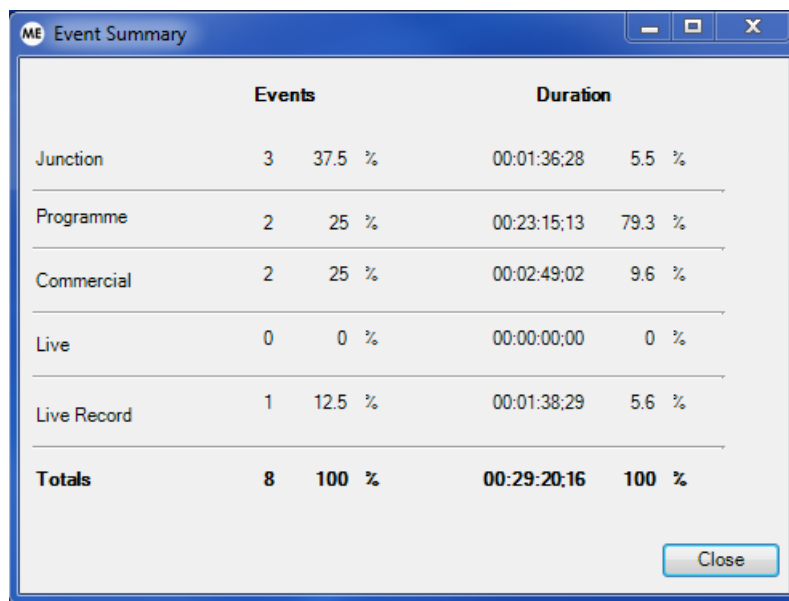
## 4.12 Event Summary

The 'event summary' schedule statistics to be viewed, such as the number and total duration of commercials in a schedule.

To display the event summary:

1. Highlight the required events or the whole schedule (refer to page 43).
2. Right-click any event on the schedule.
3. From the menu, choose **Display summary**.

The Event Summary window is displayed, listing, for each type of material, the number of events, the total duration, in hours, minutes, seconds and frames, and the percentage of the total number of events.



	Events		Duration	
Junction	3	37.5 %	00:01:36:28	5.5 %
Programme	2	25 %	00:23:15:13	79.3 %
Commercial	2	25 %	00:02:49:02	9.6 %
Live	0	0 %	00:00:00:00	0 %
Live Record	1	12.5 %	00:01:38:29	5.6 %
<b>Totals</b>	<b>8</b>	<b>100 %</b>	<b>00:29:20:16</b>	<b>100 %</b>

Figure 33 Event Summary Window

## 4.13 Hourly Summary

The **Hourly Summary** option allows the production of a report showing the percentage per hour, over a 30 hour period, during which a particular material type is used. To produce an hourly summary report:

1. From the **Tools** menu, choose **Hourly Summary**.

The Hourly Content Summary window is displayed.

Hour	Total duration	Percentage of hour
24/01/2017 10:00-11:00	00:00:00:00	(Unavailable Data)
24/01/2017 11:00-12:00	00:00:00:00	(Unavailable Data)
24/01/2017 12:00-13:00	00:00:00:00	(Unavailable Data)
24/01/2017 13:00-14:00	00:00:00:00	(Unavailable Data)
24/01/2017 14:00-15:00	00:00:00:00	(Unavailable Data)
24/01/2017 15:00-16:00	00:00:00:00	(Unavailable Data)
24/01/2017 16:00-17:00	00:00:00:00	(Unavailable Data)
24/01/2017 17:00-18:00	00:00:00:00	(Unavailable Data)
24/01/2017 18:00-19:00	00:00:00:00	(Unavailable Data)
24/01/2017 19:00-20:00	00:00:00:00	(Unavailable Data)
24/01/2017 20:00-21:00	00:00:00:00	(Unavailable Data)
24/01/2017 21:00-22:00	00:00:00:00	(Unavailable Data)
24/01/2017 22:00-23:00	00:00:00:00	(Unavailable Data)
24/01/2017 23:00-00:00	00:00:00:00	(Unavailable Data)
25/01/2017 00:00-01:00	00:00:00:00	(Unavailable Data)
25/01/2017 01:00-02:00	00:00:00:00	(Unavailable Data)
25/01/2017 02:00-03:00	00:00:00:00	(Unavailable Data)
25/01/2017 03:00-04:00	00:00:00:00	(Unavailable Data)
25/01/2017 04:00-05:00	00:00:00:00	(Unavailable Data)
25/01/2017 05:00-06:00	00:00:00:00	(Unavailable Data)
25/01/2017 06:00-07:00	00:00:00:00	(Unavailable Data)
25/01/2017 07:00-08:00	00:00:00:00	(Unavailable Data)
25/01/2017 08:00-09:00	00:00:00:00	(Unavailable Data)
25/01/2017 09:00-10:00	00:00:00:00	(Unavailable Data)
25/01/2017 10:00-11:00	00:00:00:00	(Unavailable Data)
25/01/2017 11:00-12:00	00:00:00:00	(Unavailable Data)
25/01/2017 12:00-13:00	00:00:00:00	(Unavailable Data)
25/01/2017 13:00-14:00	00:00:00:00	(Unavailable Data)
25/01/2017 14:00-15:00	00:00:00:00	(Unavailable Data)
25/01/2017 15:00-16:00	00:00:00:00	(Unavailable Data)

Figure 34 The Hourly Summary Window

2. Select a material type from the **Material type to summarise** list:
  - **Programme** - Main programme items
  - **Commercial** - Revenue-generating advertisements
  - **Junction** - Channel idents and other interstitials
  - **Live** - A live studio item
  - **Live record** - An item that was recorded live or crash recorded and may contain, for example, unexpected black.
3. Click **Update**.

**- Preview**

Display the format of the document prior to printing.

**- Print**

Send the contents of the Hourly Content Summary window to a printer - a print dialog box is displayed.

**- Print Colour**

Tick the checkbox if colour printing is required.

## 4.14 Operating Channel Flow Control-Join In Progress (CFC-JIP)

Once configured, CFC-JIP functionality is accessible from two different locations:

### In the Morpheus Editor (Workstation)

- Dead-Roll the selected show on the current channel
- Dead-Roll from the beginning of a selected event, for a specific period of time
- Take Live

### From the CFC Interface or the Combined CFC Interface

- Dead-Roll an entire Show
- Take Live All
- Rejoin
- Rejoin All

**Note:** The Take Live All and Rejoin All functions are provided on buttons at the bottom of the Combined CFC Interface, and are additional to the functions that operate on each individual CFC interface in the same window.

**Note:** Rejoin functionality is only provided on the CFC / Combined CFC interface - it is not available from the Morpheus Editor menu system.

### 4.14.1 Terminology

#### Source Channel

The active channel, running the on-air schedule.

#### Origin Event

The original events on the Source Channel.

#### Staging Channel

The isolated channel on which the Dead-Roll is performed. A Dead-Roll consists of either a number of events, or a show, selected from the Source Channel. A Staging Channel is bound to a single Source Channel, and it can operate in exactly the same way, except that no events on a Staging Channel will ever go to air.

**Note:**

It is not possible to load a schedule directly onto the Staging Channel outside of the CFC-JIP process.

A Dead-Rolled schedule on the Staging Channel may be modified if either Dynamic Rejoin modes have been selected (refer to Section 4.14.5 Rejoin Modes) - any modification to the part of the schedule on the Source Channel that has been Dead-Rolled Channel will be overwritten upon a rejoin.

#### Dead-Roll

The mechanism by which the chronology of a schedule is preserved by running a matching set of events from a Source Channel on a Staging Channel. Events in the schedule on the Staging Channel are not broadcast.

The duration of a Dead-Roll is selectable from a set of predefined options:

- An entire 'Show'
- 30, 60, or 90 minutes of the schedule

For details, refer to Section 4.14.3.1 Dead-Roll Using the Morpheus Editor (Workstation).

#### Take Live / Take Live All

A function that is designed to interrupt the current scheduled event on the Source Channel by switching to a live event from an alternative source - a Take Live can be performed on the selected channel (that which is currently in view in the Editor) or on multiple channels simultaneously by performing a Take Live All.

- A Dead-Roll is performed on the current 'Show' and the system 'Takes into' the live event. The duration of the live event inserted into the Source Channel schedule is preconfigured, although this is a nominal value only- the PST event is set to Manual Take, therefore the live event has the Hold flag set
- The duration of the Dead-Roll is preconfigured
- Resume the schedule at a selected point in time during the live event by performing a rejoin within the Rejoin Timeframe.

## Rejoin

The Join In Progress. Events from the Dead-Roll Set on the Staging Channel provide the means of resuming the original schedule at the point at which it would have been had it not been interrupted, and in accordance with the selected rejoin mode. The nature of the rejoin can be selected:

- Single Rejoin - applies only to the selected channel
- Group Rejoin (gang rejoin) - applies to multiple channels



Regardless of the selected rejoin mode, a rejoin is only possible for the duration of the Dead-Roll.

## Channel Flow Control (CFC)

The mechanism that uses the Source / Staging Channel pair to perform the Dead-Roll, Take-Live and Rejoin functions.

## Dead-Roll Set

The group of events that have been Dead-Rolled on the Staging Channel prior to a rejoin instruction (whether or not one occurs).

## Rejoin Timeframe

Applies to all rejoin modes.

The duration of the Dead-Roll Set, within which it is only possible to perform a rejoin (i.e from the PGM on the Staging Channel to the end of the Dead-Roll). The Rejoin Timeframe diminishes as events on the Staging Channel are Dead-Aired.

### Modifying the Dead-Roll Set

If events on the Staging Channel are altered following the Dead-Roll, then the Rejoin Timeframe will change according to the duration of those events - in this case, only the dynamic rejoin modes are supported. Due to its nature, a Mapped Rejoin must not be attempted if events on the Staging Channel have been modified.

## Dead-Airing

The action of running a schedule on the Staging Channel without broadcasting the events.

## Counterpart Event

A duplicate of an Origin event - they appear on the Staging Channel as events in the Dead-Roll Set, and on the Source Channel following a dynamic rejoin.

## Calculated Rejoin Event

The Main Event that has been selected by the Rejoin Calculation as the candidate to lead in the rejoin process - depending upon the selection criteria of the Rejoin Calculation, any Candidate Event (including the Natural Rejoin Event) could be selected.

**Note:** Unless there are very short events in the schedule, it is likely that the Calculated Rejoin Event will be either the PGM of the PST event on the Source Channel.

## Rejoined Event

The first event to air on the Source Channel after the Bumper Event, following a rejoin.

## Preserved Event

An event that is identified when a Dead-Roll Set has not yet fully expired and a Preserved rejoin instruction is issued. It describes Origin Events on the Source Channel that are within the boundaries of the Rejoin Timeframe; they are subsequently disabled by the system and displaced to a position below the events copied from the Staging Channel, in between the first Dead-Roll End Marker (copied from the Staging Channel) and the last Dead-Roll End Marker (the original Source Channel End Marker). As Origin Events, they can be enabled if required in order to replace the Counterpart Events copied from the Staging Channel (in which case the Counterpart Events should be disabled).

## Residual Event

An Origin Event that was included in Dead-Roll and will remain on the Source Channel after a rejoin has been performed in the following situations:

- When an event has overrun on the Source Channel
- When the duration of the Rejoin Timeframe has been purposefully reduced (for example if one or more events have been deleted from the Dead-Roll Set)
- A combination of an overrun on the Source Channel and a reduction in the duration of the Rejoin Timeframe

The number of Residual Events present on the Source Channel will depend on the states of the Source and Staging Channels at the point of the rejoin, such as:

- The remaining duration of the Rejoin Timeframe
- The duration of the Source Channel event overrun

**Note:** Residual Events will only be present when a dynamic rejoin mode is used (Override or Preserved)



In most cases, it will be desirable to manually delete all Residual Events following a rejoin - this is particularly relevant if scheduled time is to be resumed on the Source Channel.

For detailed information on the dynamic rejoin mode, refer to Section 4.14.5.1 Override Mode and Section 4.14.5.2 Preserved Mode.



**Bumper Event**

The event that is broadcast on the Source Channel schedule, ahead of the Rejoined Event, to inform the end viewer that the scheduled events are about to resume. The Bumper Event could be a logo, graphic, or a clip from an evergreen source.

**Rejoin Delay**

A fixed amount of time used in the Rejoin Calculation to allow for the following:

- The normal schedule to be resumed according to the selected rejoin mode
- The held PGM to finish playout, the duration of which is defined by the parameter 'Min. Remaining Time of Held Event'
- The source device to prepare to play the Bumper event

**Bumper Duration**

The duration over which the Bumper Event will be played, as determined by the Rejoin Calculation - it is set in the configuration at a fixed minimum, however it may be extended by the Rejoin Calculation as required.

The Rejoin Calculation must take account of the actual duration of the Bumper Event.

### 4.14.2 CFC Markers

Markers are disabled main events of zero duration that are used only by the CFC in order to perform Dead-Roll and Rejoin functions, and to provide visual cues in the Editor.

Marker types:

- CFC DeadRoll Start
- CFC DeadRoll End
- CFC Rejoin Marker

### Markers (Override Mode)

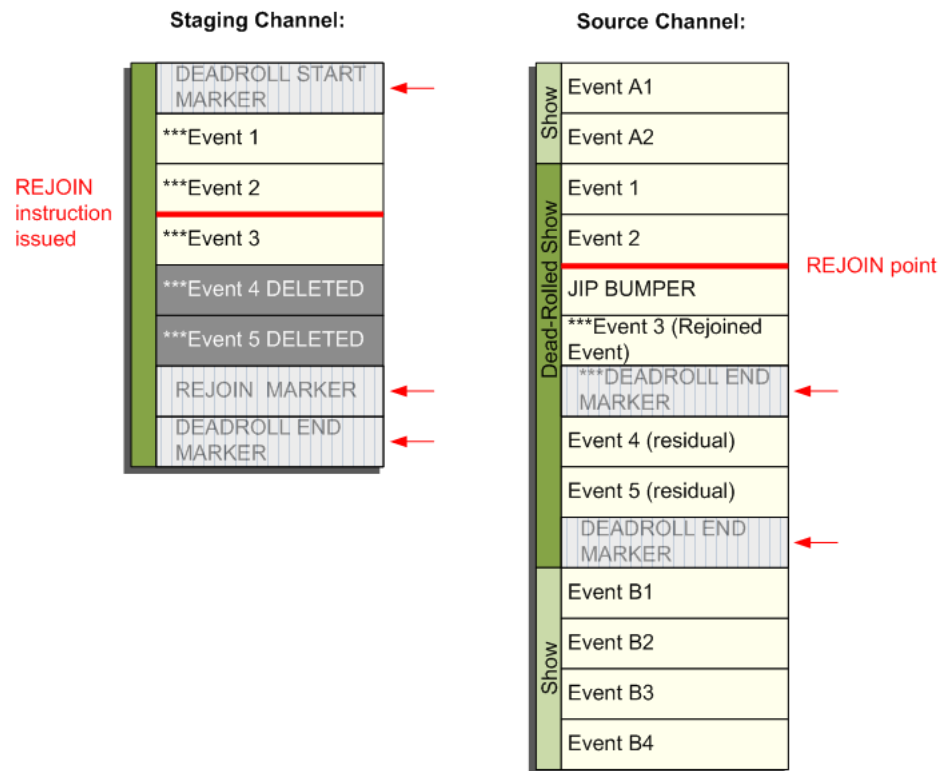


Figure 35 CFC Markers Example (Override Mode)

All marker event types are created by the CFC system if they do not already exist, and are assigned to a Source and Staging Channel pair as required - no further configurations are required in this respect.

**Note:** If the AsRun or Journal have been configured, then these markers will also be recorded.



CFC markers must not be deleted from the Staging Channel; they may be only be deleted from the Source Channel after the completion of a Rejoin.

All markers are used by the Host Shell Service 'Channel Flow Control Service'.

#### 4.14.2.1 Dead-Roll Markers

Dead-Roll Marker events are inserted into the schedule and are visible from any EventStore access point: the Workstation, EventStore Test, MultiHUD, etc.

##### Dead-Roll Start Marker

Regardless of the rejoin mode, a Dead-Roll Start Marker will only appear on the Staging Channel - it is positioned directly above the first event, or part thereof, that has been Dead-Rolled.

##### Dead-Roll End Marker

At the point of the Dead-Roll, and Regardless of the rejoin mode, a Dead-Roll End Marker will appear on both the Source Channel and the Staging Channel in order to indicate the extent of the Dead-Roll.



If Dead-Rolling for a fixed period of time, the system will never insert a Dead-Roll End Marker mid-event; it will always be positioned after the last event that falls entirely within the duration selected for the Dead-Roll, thus shortening the duration of the Dead-Roll. Refer to Chapter 4.14.3 Using CFC-JIP in the Morpheus Editor.

Note:

When using a Dynamic rejoin mode, at the point of a rejoin the Dead-Roll End Marker will be duplicated on the Source Channel: one created at the point of the Dead-Roll, the other copied back from the Staging Channel. This does not occur when using Mapped Mode, as the process does not copy events from the Staging Channel.

During a Dead-Roll, the Dead-Roll End Marker on the Source Channel will display its original scheduled start time above a current start time (which will ripple if the Source Channel is on hold) - these are used for reference purposes only.

Every time a new Dead-Roll is performed, new markers are created.

#### 4.14.2.2 Rejoin Marker

A marker to identify the end of the rejoin, positioned immediately after the last event in the Dead-Roll Set and before the Dead-Roll End Marker.

This marker will only appear on the Staging Channel - it is only for use by the CFC-JIP system, and has no other purpose.

### 4.14.3 Using CFC-JIP in the Morpheus Editor

The Morpheus Editor offers a menu system for the selection of CFC-JIP functions.

#### 4.14.3.1 Dead-Roll Using the Morpheus Editor (Workstation)

The mechanism by which the chronology of a schedule is preserved by running a matching set of events from a Source Channel on an isolated Staging Channel. Events in the schedule on the Staging Channel are not broadcast.

In the Editor, right click on an event in order to display a list of possible actions, then select Channel Flow Control > Deadroll.

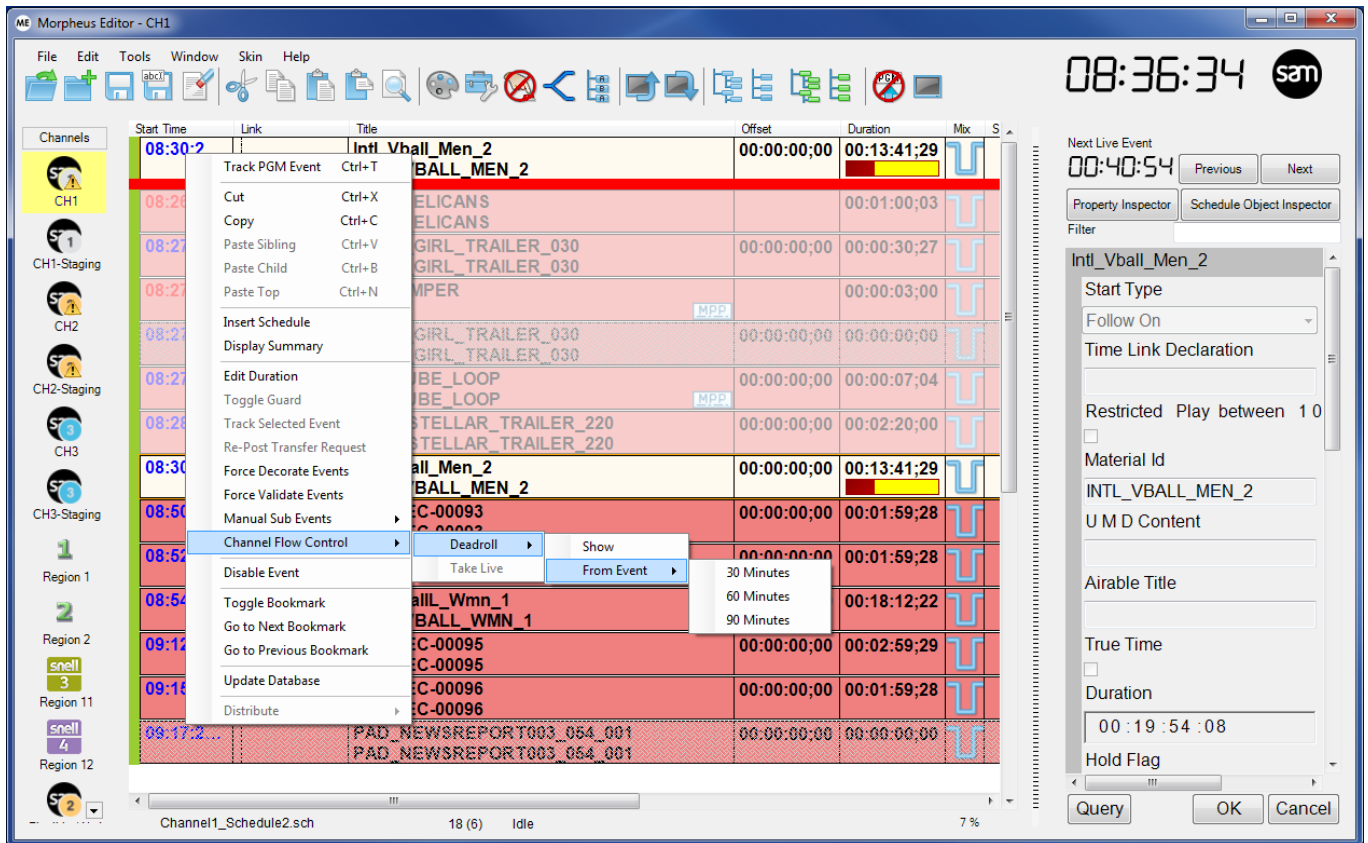


Figure 36 CFC Dead-Roll Options

The following options are available:

#### - Show

Dead-Roll the entire show in which the selected event is contained.

The Dead-Roll end marker will be positioned immediately after the last event in the Show.

**- From Event**

Dead-Roll the part of the schedule from one of the following starting points, and for a fixed period of time:

- From the beginning of the selected event, if it has not yet gone to air
- From the current time if the event is already PGM

Select one of the following fixed period time intervals for the Dead-Roll: 30, 60, 90 minutes.

**Note:**

Apart from the first event, all others will only be included in the Dead-Roll for their full duration - the last event to be included will be the one that has a duration that is closest to the end of the selected Dead-Roll time interval, without going over.

The Dead-Roll End Marker will be positioned at the end of the last event included in the Dead-Roll - the marker will neither split an event, nor will it be positioned beyond the expiry of the selected time interval.



If a Dead-Roll is performed on a channel whilst another Dead-Roll is already in progress, then the existing one will be overwritten.

### 4.14.3.2 Take Live Using the Morpheus Editor (Workstation)

A function that is designed to interrupt the current scheduled event on the Source Channel by switching to a live event from an alternative source - a Take Live can be performed on the selected channel (that which is currently in view in the Editor) or on multiple channels simultaneously by performing a Take Live All. A Dead-Roll is performed on the current 'Show' and the system 'Takes into' the live event. The PST event is set to Manual Take, therefore the live event has the Hold flag set.

In the Editor, right click on an event in order to display a list of possible actions, then select Channel Flow Control > Take Live.

This menu option performs the same function as a Take Live using the CFC interface (refer to Chapter 4.14.4.4 CFC Interface: Take Live).

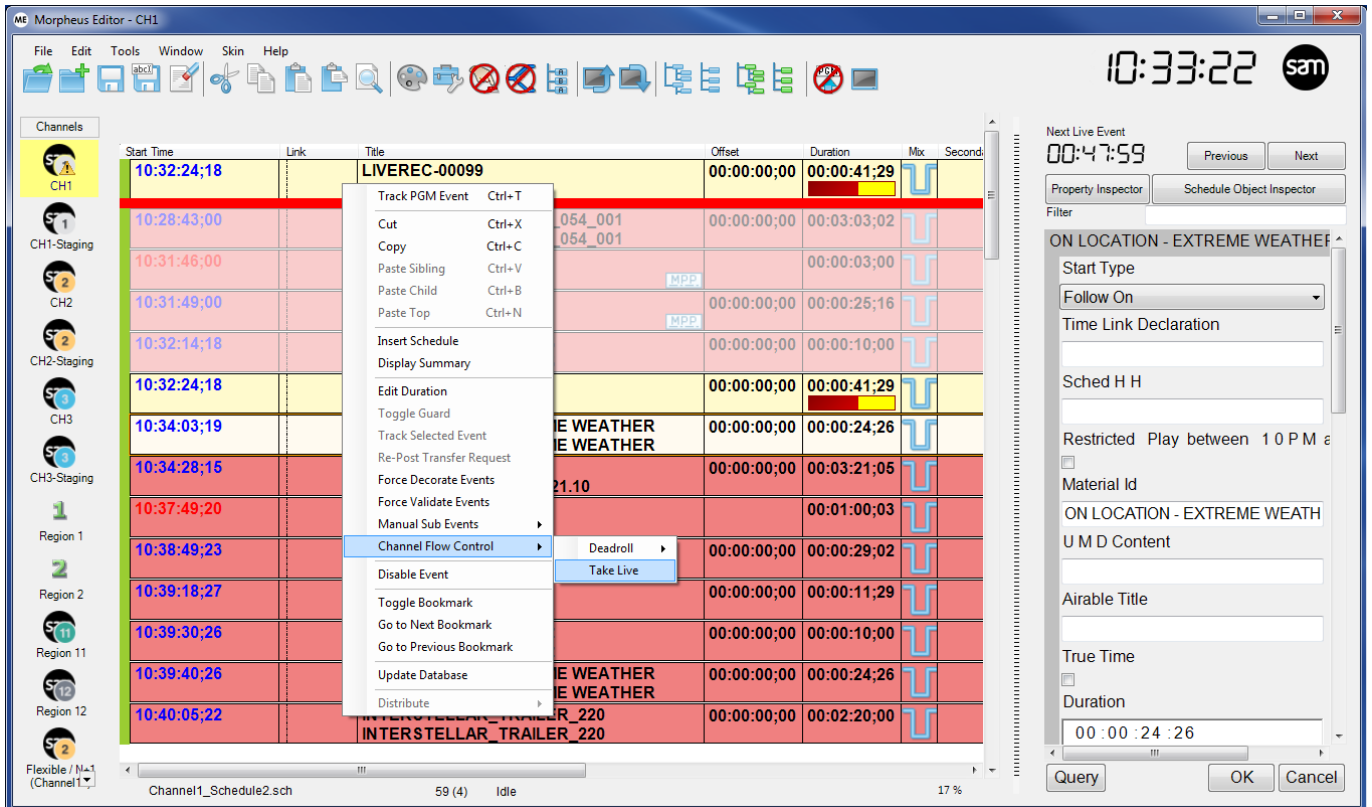


Figure 37 Take Live Using the Morpheus Editor (Workstation)

#### 4.14.4 Using the CFC Interface

The CFC Interface is an independent control panel for performing Deadroll, Take Live and Rejoin functions, as follows:

- Dead-Roll an entire show. If Dead-Rolling from a point in time is required, refer to Section 4.14.3 Using CFC-JIP in the Morpheus Editor
- Take Live on a single channel
- Take Live on multiple channels simultaneously (system configuration dependent)
- Perform a rejoin according to the selected mode
- Perform a Rejoin All, i.e. rejoin multiple channels simultaneously
- Display CFC enabled channels within their own window, or as a combined view (system configuration dependent)



CFC icon: click in order to display the CFC interface.



CFC icon: click in order to hide the CFC interface.

**Note:**

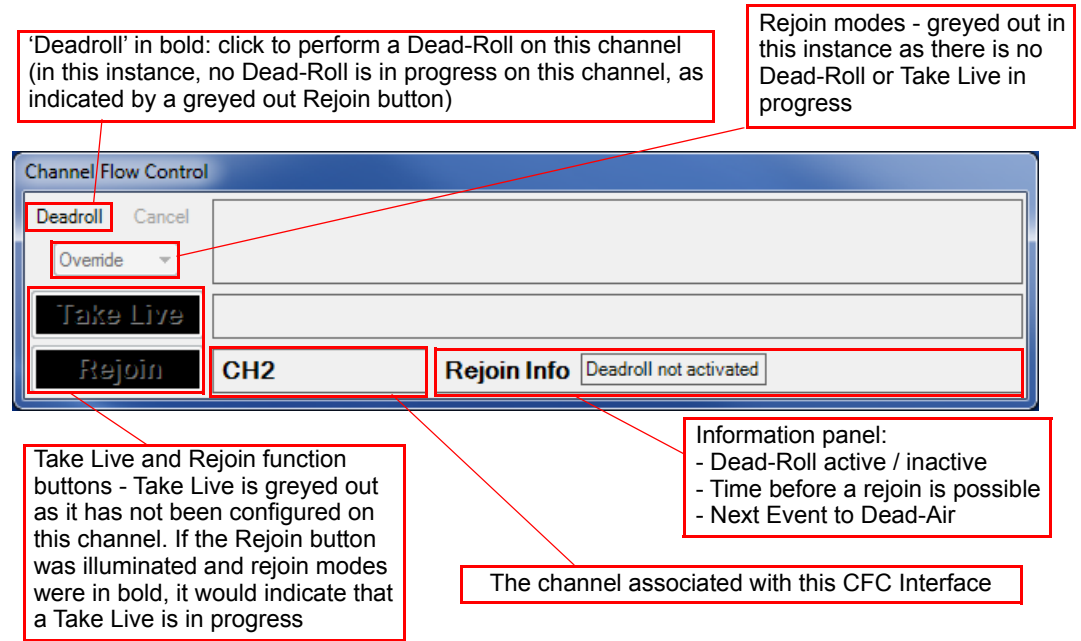
The CFC icon is only displayed on the tool bar if the system has been configured for CFC (i.e. at least one Staging Channel has been created and associated to a Source Channel).

Toggleing the visibility of the CFC interface is applied on a per channel basis - the CFC interface for each Source / Staging Channel pair will be displayed in the same physical position (relocating one will automatically relocate the other).

**Important:**

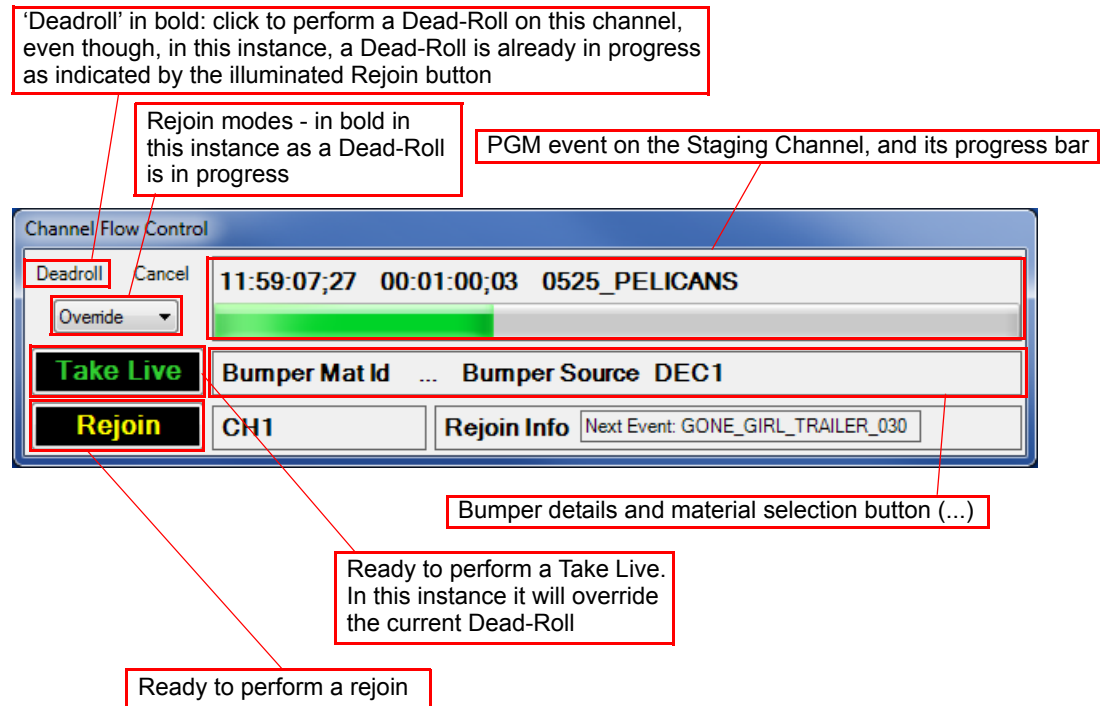
Visibility of channels in the Combined CFC Interface, and the availability of Rejoin modes is role dependant, and restrictions may have been imposed.

Initial View of Single CFC Interface with no Activity



**Figure 38 Single CFC Interface - No Activity**

Single CFC Interface with Dead-Roll Active and Take Live Configured



**Figure 39 Single CFC Interface - Active Dead-Roll**



### Single CFC Interface with Active Take Live

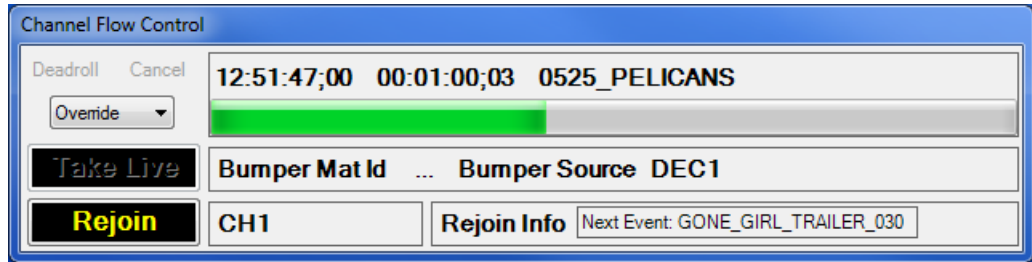


Figure 40 Single CFC Interface - Active Take Live

### Combined CFC Interface

Multiple CFC interfaces combined into a single window (Figure 41) - the system has 'Use Combined CFC Window' parameter set, and channel 1 (CH1) and channel 2 (CH2) have the 'Combined CFC Channel' parameter set in their configurations.

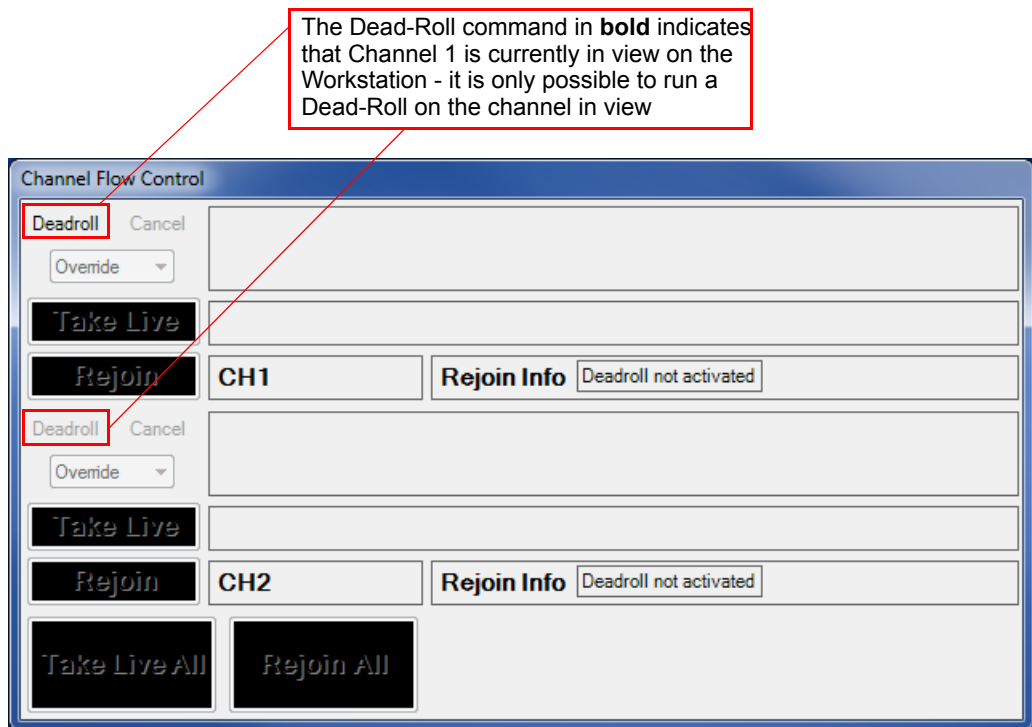


Figure 41 CFC Interface - No Active Dead-Roll

**Note:** A Take Live is not possible on either channel 1 or channel 2, in this instance, as it has not been configured (Take Live and Rejoin buttons are both extinguished).

### Combined CFC Interface Displaying Group Channel Controls

As shown in Fig. 42, a Dead-Roll is in progress - the following options are therefore available:

- Perform a rejoin on a per channel basis according to the selected rejoin mode
- Perform a Rejoin All: all channels will rejoin simultaneously, and according to the rejoin mode selected for each channel
- Cancel the Dead-Roll - revokes a Dead-Roll, removing all events from the Staging Channel. If Preserve Aired Staging Events is enabled and the Staging Channel has a previously finished Dead-Roll Set, then it is retained, and only the currently active Dead-Roll Set is removed. This action has no effect upon the schedule on the Source Channel.
- Perform another Dead-Roll, overriding the active Dead-Roll
- Perform a Take Live, overriding the active Dead-Roll, if one exists

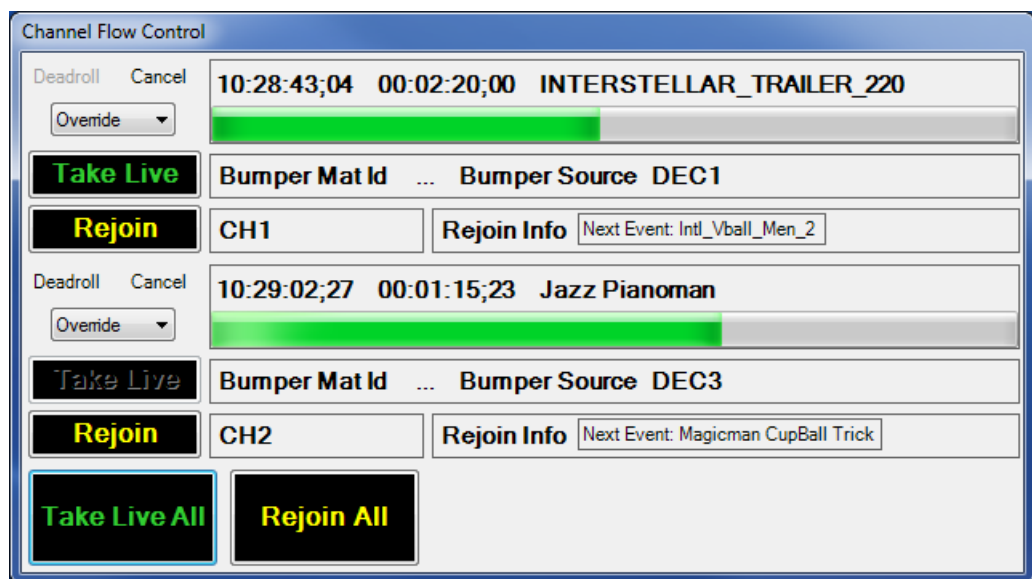


Figure 42 Combined CFC Interface - No Active Dead-Roll

#### 4.14.4.1 Bumper Information Pane

As well as displaying the identity of the Bumper source, the Bumper information pane provides the option of selecting an alternative Bumper material ID to that which has been preconfigured (Fig. 43).

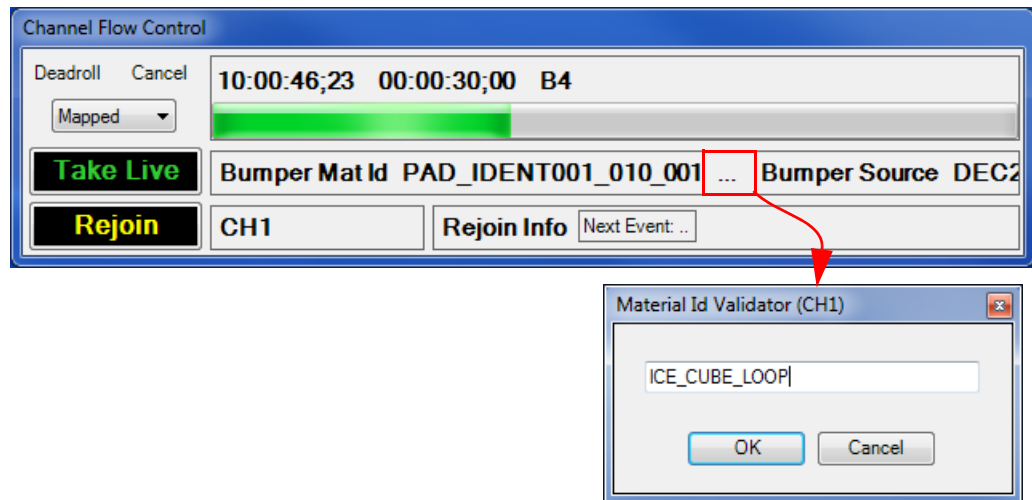


Figure 43 Selecting an Alternative Bumper Material ID

Click on the ellipsis button (...) in order to display the Material ID Validator window and enter a new material Id for the Bumper Event. Click on **OK** to accept the new material Id, or **Cancel** to annul.

**Note:** The ellipsis button (...) is only visible for the duration of the current Dead-Roll.

The material Id for the Bumper Event must syntactically match one that exists in the Palette - there is no predictive help. The Material ID Validator is not case sensitive.

An alternative material Id entered via the CFC Interface will persist until the Editor Workstation is restarted, at which point the default Bumper Event material Id configuration will be applied.

The alternative Bumper Event material Id is only applied to the channel that is associated to the CFC Interface on which it was changed.

#### 4.14.4.2 Rejoin Information Pane

An information pane is provided in the CFC interface to display the following information:

##### Deadroll not Activated

A Dead-Roll or a Take Live is not currently active on this channel - this message will also appear after a Dead-Roll has completed.

##### Rejoin Available In...

Displays the amount of time before which the first event in the Dead-Roll Set will begin Dead-Airing - a rejoin is not possible unless this time has been reached.

##### Next Event

The name of the PST event on the Staging Channel.

#### 4.14.4.3 CFC Interface: Dead-Roll

##### - Deadroll

Performs a Dead-Roll on the show that is currently selected (click on any event in the show in order to make the selection). If the show has not yet started, then all of its events are Dead-Rolled - if the show has already started, then all un-aired events (including the remainder of the current event) are Dead-Rolled.



If a Dead-Roll is performed whilst a previous Dead-Roll is still active, then the schedule from the first Dead-Roll will be overwritten by the second

##### - Cancel

Revokes the current Dead-Roll, removing all events from the Staging Channel, with the following exceptions:

- If Preserve Aired Staging Events is enabled and there remains a previously finished Dead-Roll Set on the Staging Channel, then it is not deleted
- If Preserve Aired Staging Events is enabled and a previously finished Dead-Roll Set remains on the Staging Channel whilst another Dead-Roll Set is Dead-Airing, then the active Dead-Roll Set is deleted.

**Note:**

The Cancel function has no effect upon the schedule on the Source Channel.

#### 4.14.4.4 CFC Interface: Take Live

A function that is designed to interrupt the current scheduled event on the Source Channel by switching to a live event from an alternative source - a Take Live can be performed on the selected channel (that which is currently in view in the Editor) or on multiple channels simultaneously by performing a Take Live All.

- A Dead-Roll is performed on the current 'Show' and the system 'Takes into' the live event. The duration of the live event inserted into the Source Channel schedule is preconfigured, although this is a nominal value only- the PST event is set to Manual Take, therefore the live event has the Hold flag set
- The duration of the Dead-Roll is preconfigured
- Resume the schedule at a selected point in time during the live event by performing a rejoin within the Rejoin Timeframe.

There are two possible Take Live actions:

- Take Live: performs a Take Live on the selected channel only (the selected channel is that which is currently in view in the Workstation)
- Take Live All: performs a Take Live on all channels that are configured for Combined CFC (function only available on the Combined CFC interface)

**Note:** When a Take Live All is performed, the system ignores any channels that are currently in a Take Live state (i.e. their existing Take Live state will be unaffected).

#### Function Buttons and Indicators

**Take Live** Take Live is currently configured for this channel, but has not been activated - press to Take Live.

**Take Live** Either a Take Live is in progress, or it is not currently configured on this channel, if a Take Live is in progress, the 'Rejoin' / 'Rejoin All' buttons will be highlighted)

**Take Live All** Take Live is currently configured on at least one channel, but none have been activated - press to Take Live on all channels that are configured for this action.

**Take Live All** Either a Take Live is in progress, or it is not currently configured on any channel - if a Take Live is in progress, the 'Rejoin' / 'Rejoin All' buttons will be highlighted.



If a 'Take Live' is performed during an existing Dead-Roll, then the Dead-Roll Set on Staging Channel will be overwritten by the events from the Take Live.

A Dead-Roll cannot be performed once a Take Live is active - the menu options are locked.

#### 4.14.4.5 CFC Interface: Rejoin

The 'Join In Progress'. Events from the Dead-Roll Set on the Staging Channel provide the means of resuming the original schedule at the point at which it would have been had it not been interrupted, and in accordance with the selected rejoin mode

- Single Rejoin - applies only to the selected channel
- Group Rejoin (gang rejoin) - applies to multiple channels

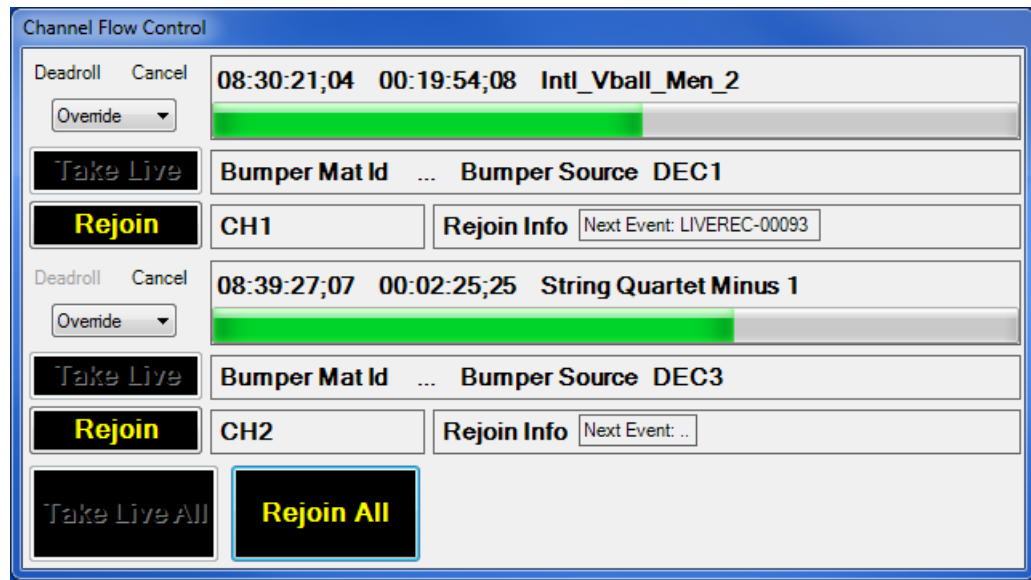


Figure 44 CFC Interface - Dead-Rolled Channels



Regardless of the selected rejoin mode, a rejoin is only possible for the duration of the Dead-Roll.

The rejoin instruction could be issued from the CFC interface or, for example, from a Morpheus Access Panel (MAP) via a script.

### 4.14.5 Rejoin Modes

Several modes are available that use different procedures to return to the Source Channel schedule:

- Override (a dynamic mode)
- Preserved (a dynamic mode)
- Mapped

A rejoin mode can only be selected once a Dead-Roll has been activated, but can be changed at any point up until a rejoin instruction has been executed.

The dynamic mode rejoin mechanisms, Override and Preserved, are based upon a period of time on the Staging Channel known as the Rejoin Timeframe, spanning from the PGM event to the end of the last event in the Dead-Roll. The rejoin process is responsible for any events that are the Rejoin Timeframe in order that they may be overlaid onto the Source Channel. The dynamic modes provide the facility to make changes to the Staging Channel Events, such as material Id, duration, source etc.

Using Mapped Mode, the Source Channel schedule is resumed at precise point in time.

Select a rejoin mode from the drop-down menu (Fig. 45) - the default is 'Override'.

**Note:** Only those Rejoin modes that have been enabled during the configuration of the CFC-JIP functionality will be visible and available to use ('Enabled Rejoin Modes' parameter) - the configuration is applied on a per role basis.

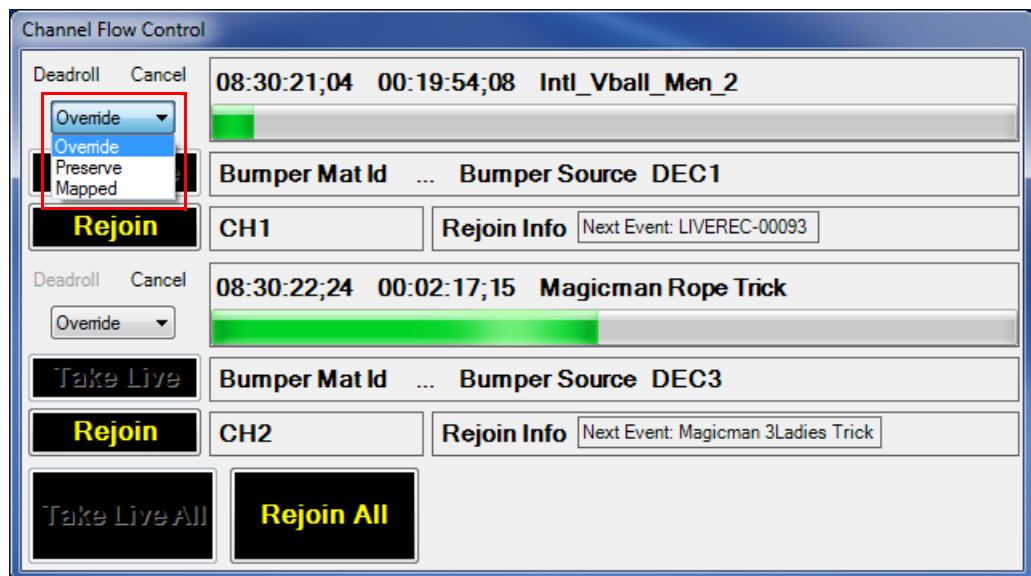


Figure 45 Rejoin Modes on CFC Interface

### 4.14.5.1 Override Mode

This is a dynamic mode that acts upon events that are within the Rejoin Timeframe (the length of time between the PGM event at the point of the rejoin instruction, to the end of the last event in the Dead-Roll Set). At the point of the rejoin, the events (or parts of events) that are within the Rejoin Timeframe will replace those on the Source Channel that occupy the same period of time. Any events on the Source Channel that are straddled by the end of the Rejoin Timeframe are deleted.

This is demonstrated in Fig. 46, where the Dead-Roll has been modified by deleting event 5, and increasing the duration of Event 4 by that of the deleted event. At the point of the rejoin, events 3 and 4 from the remaining Dead-Roll (the duration of which is the Rejoin Timeframe) will overwrite Origin Events 3, 4, and 5 on the Source Channel.

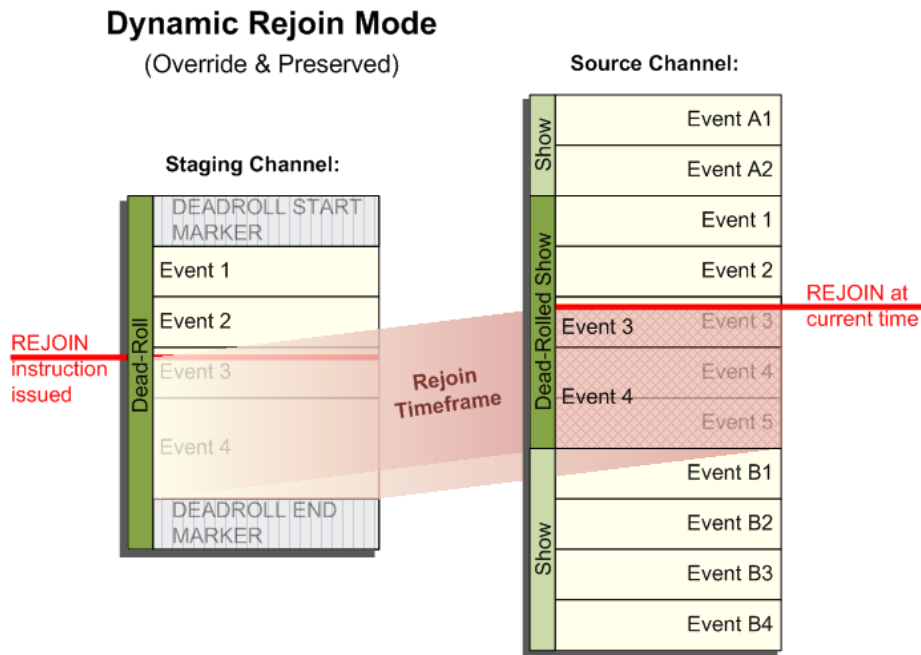
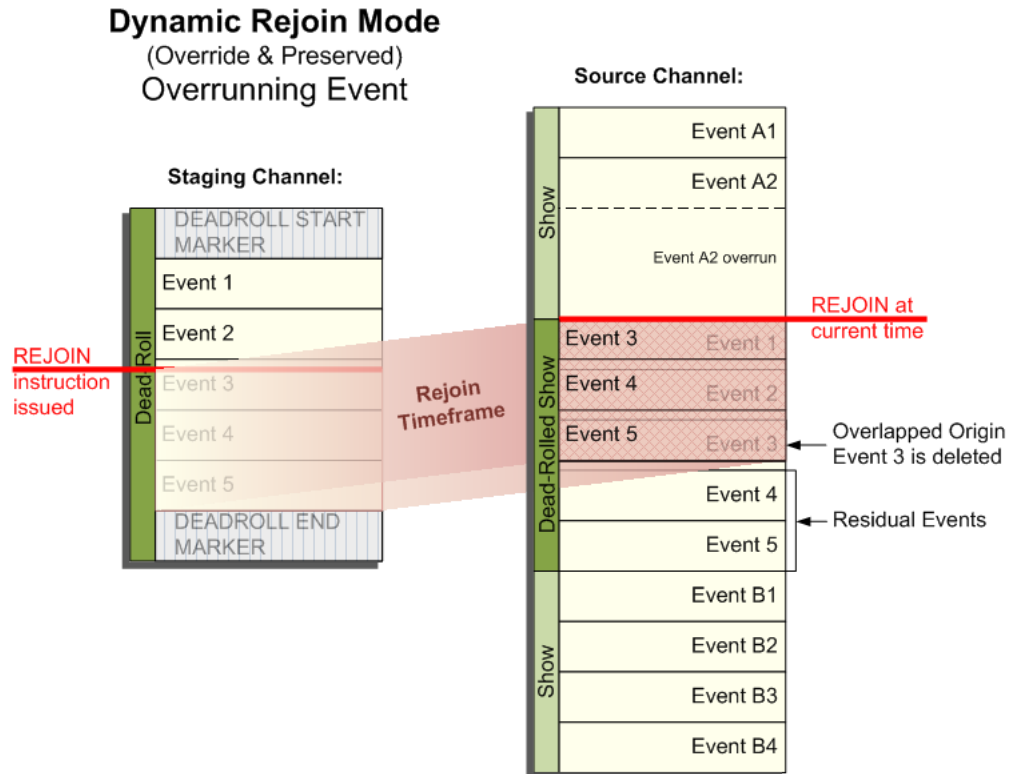


Figure 46 Dynamic Rejoin Mode Concept

Override mode is designed to make it possible to modify the contents and the length of the schedule on the Staging Channel, during the Dead-Roll and ahead of the rejoin, allowing a different selection of events to be overlaid onto the Source Channel. The Rejoin Timeframe may be changed if events on the Staging Channel are modified.



In this second example (Fig. 47), event A2 has been allowed to overrun. At the point of the rejoin, events 3, 4, and 5 from the Dead-Roll will overwrite Origin Events 1, 2, and 3 on the Source Channel as they have been delayed by the duration of the overrun. This has the effect of leaving Residual Events in the Source Channel schedule, i.e Origin Events 4 and 5 - if they are not deleted, the material identified by these events will be broadcast twice (once from the Rejoined Events, and again from the Origin Events).



**Figure 47 Dynamic Rejoin Mode Concept Showing Residual Events**

**Note:** The duration of the Rejoined Event is reduced in order to absorb the Rejoin Delay and accommodate the broadcast of the Bumper Event.

**Note:** If the Dead-Roll was initiated as a result of an overrun, and no changes are made to the schedule on the Source Channel or the Staging Channel, it is advisable to use Mapped Mode.

**Note:** The system generates a new OID each time a Counterpart Event is created. The OIDs on the Source Channel are unique, as are those of the Dead-Roll Set, and those that re-populate the Source Channel upon a rejoin.

### Override Mode Example: Event Duration Extended On Staging Channel

The duration of Event 5 has been extended on the Staging Channel by 40 seconds (from 30s to 1m10s), prior to the rejoin, thus extending the Rejoin Timeframe.

Immediately prior the rejoin instruction, the Staging Channel appears as shown in Fig. 48.

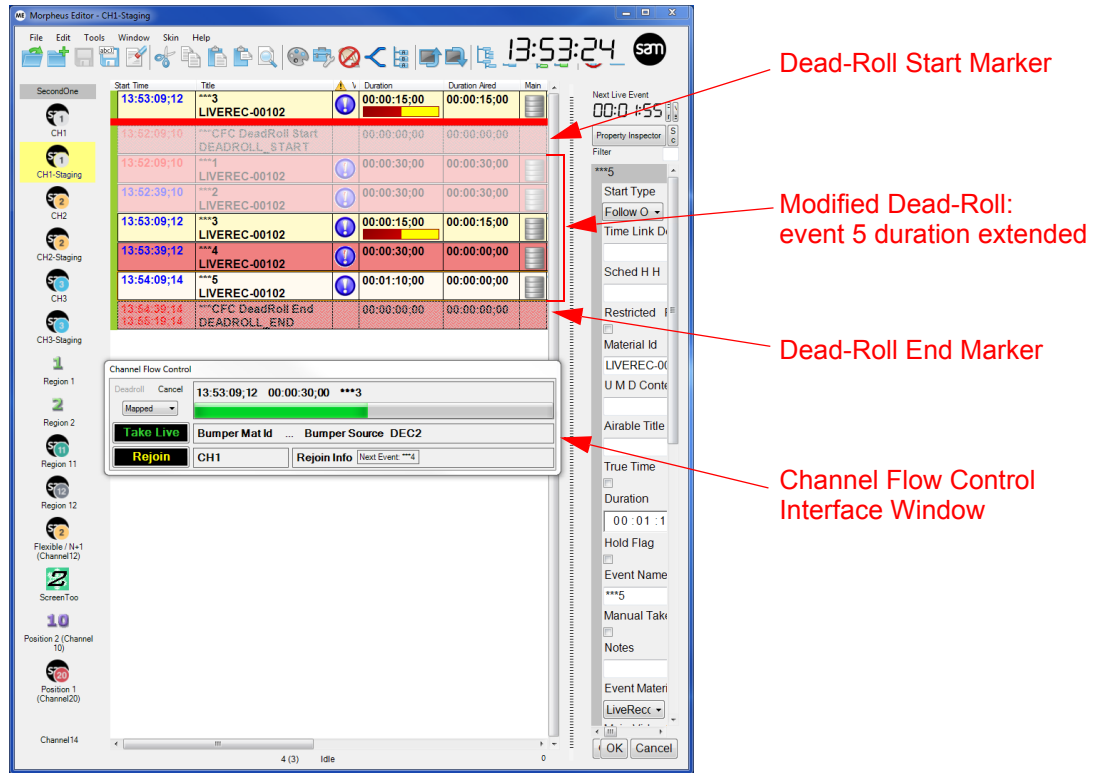


Figure 48 Override Rejoin Example: Staging Channel Schedule (Dead-Roll)

At the point of the rejoin, the following actions occur:

1. The Source Channel on-air event, event 3, plays out for the duration of the Rejoin Delay and is then followed by the Bumper Event.
2. The Counterpart events (3, 4, and 5), or parts thereof, from the Staging Channel that have not yet Dead-Aired are copied onto the Source Channel, replacing any events that fall wholly or partly within the Rejoin Timeframe - this results in events B1 and B2 being deleted.

**Note:** The asterisks prepended to the Dead-Rolled events demonstrate that these are copies, and not the Origin Events.

3. The PGM event from the Staging Channel, event 3, is then resumed on the Source Channel for its remaining duration, and is followed by all later events from the Dead-Roll.
4. The remainder of the schedule on the Source Channel, outside of the Rejoin Timeframe, is resumed after the Dead-Roll End Marker, starting with event B3.

**Note:** Event B3 onwards will not air according to their original scheduled time due to the event changes (increased duration of event 5 and the deletion of events B1 and B2).

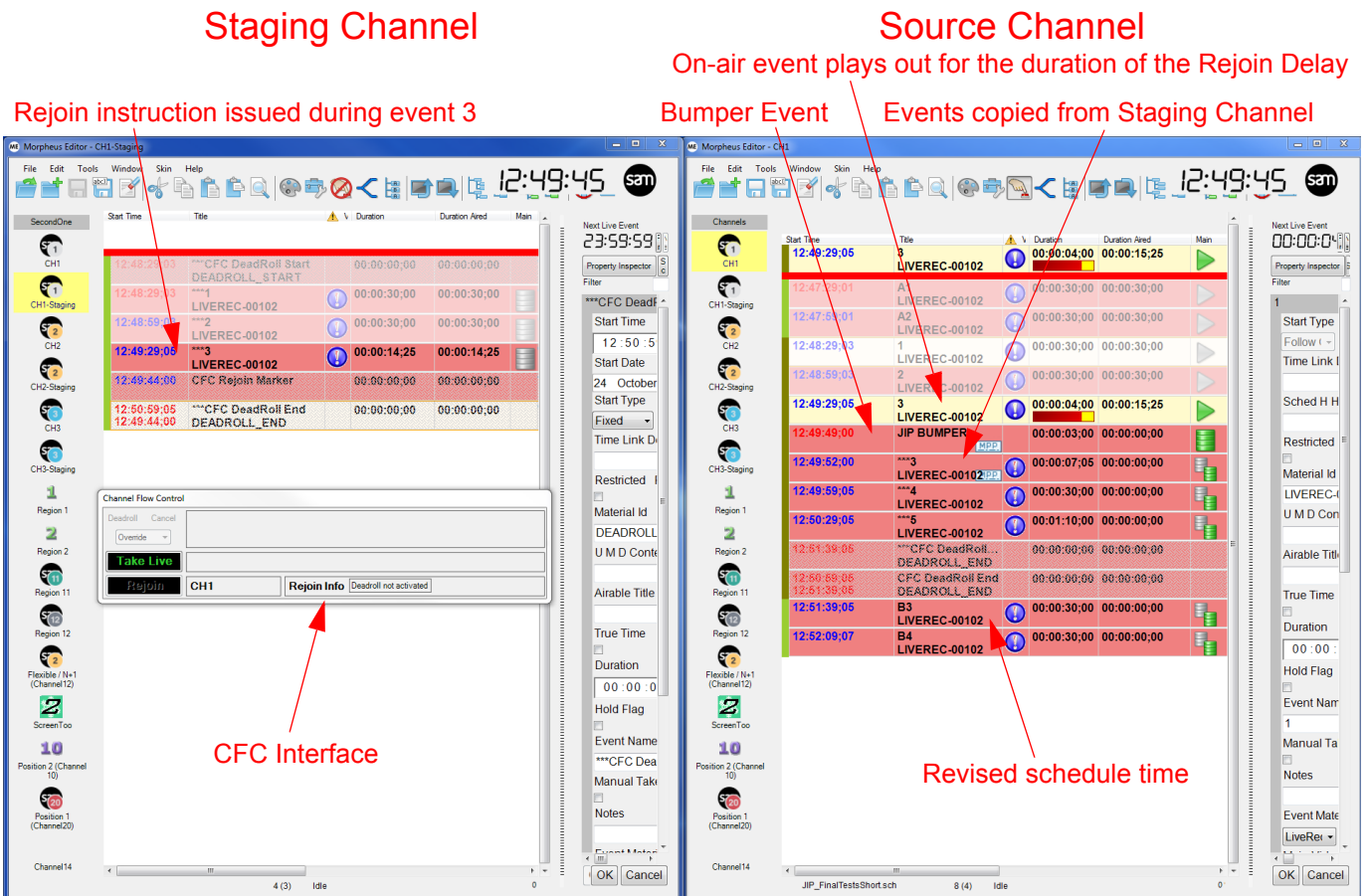


Figure 49 Override Mode Rejoin: Event Extended on the Staging Channel

#### 4.14.5.2 Preserved Mode

Preserved mode is identical to Override mode, i.e. the rejoin is processed in the same way, except that it preserves the original events from the Source Channel that have been Dead-Rolled, and would otherwise be overwritten by Staging Channel Events at the point of the rejoin.

It is a suitable rejoin mode following an overrun, and / or modification of the events on the Source Channel or the Staging Channel (i.e. rejoining with a modified schedule).

**Note:** Preserved mode is designed to provide the operator with the capability of resuming the schedule with the Origin Events.

This mode allows for, and requires, manual intervention in restructuring the schedule on the Source Channel once the rejoin has completed. The following options are available:

- Allow the Rejoined Event and the remainder of those events that have been imported from the Staging Channel to be broadcast. Residual Events should be deleted in order to avoid playing the same event content twice.
- Enable the Preserved Events in order for them to be reinstated, and disable or delete the events imported from the Staging Channel.
- Disable an event imported from the Staging Channel, replacing it with a Residual Event.

**Note:** If the Dead-Roll was initiated as a result of an overrun, and no changes are made to the schedule on the Source Channel or Staging Channel, it is advisable to use Mapped Mode.

**Note:** If changes have been made to the Dead-Roll Set, then this mode can be used.

**Note:** The duration of the Rejoined Event is reduced in order to absorb the Rejoin Delay and accommodate the broadcast of the Bumper Event.

**Note:** Dealing with Time Link Declarations and Time Link References

Due to their nature, if present in a Dead-Roll Set, both Time Link Declarations and References are disabled by the Channel Flow Control system - they are labelled as such with the following suffix:

‘\_CFC\_DISABLED’

Upon a rejoin, the suffix is removed and the Time Links are enabled on the Source Channel.

Preserved Mode Rejoin Example: Event Duration Extended On Staging Channel

The duration of Event 5 has been extended on the Staging Channel by 40 seconds (from 30s to 1m10s), prior to the rejoin, thus extending the Rejoin Timeframe.

Immediately prior the rejoin instruction, the Staging Channel appears as shown in Fig. 50.

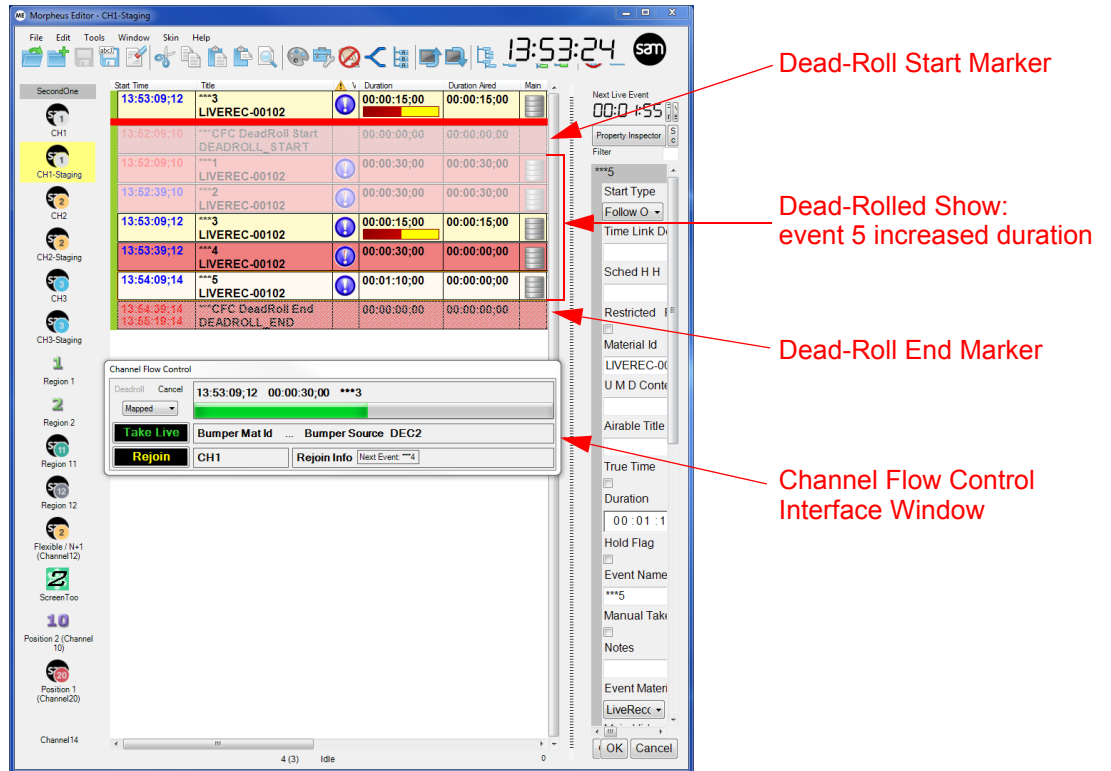


Figure 50 Preserved Rejoin Example: Staging Channel Schedule (Dead-Roll)

At the point of the rejoin, the following actions occur:

1. The Source Channel on-air event, event 3, plays out for the duration of the Rejoin Delay and is then followed by the Bumper Event.
2. The Counterpart events (3, 4, and 5), or parts thereof, from the Staging Channel that have not yet Dead-Aired are copied onto the Source Channel, replacing any events that fall wholly or partly within the Rejoin Timeframe - this results in events 4, 5, B1 and B2 preserved in a disabled state.

**Note:** The asterisks prepended to the Dead-Rolled events demonstrate that these are copies, and not the Origin Events.

3. The PGM event from the Staging Channel, event 3, is then resumed on the Source Channel for its remaining duration, and is followed by all later events from the Dead-Roll.
4. The remainder of the schedule on the Source Channel, outside of the Rejoin Timeframe, is resumed after the Dead-Roll End Marker, starting with event B3.

**Note:** Event B3 onwards will not air according to their original scheduled time due to the increased duration of event 5.

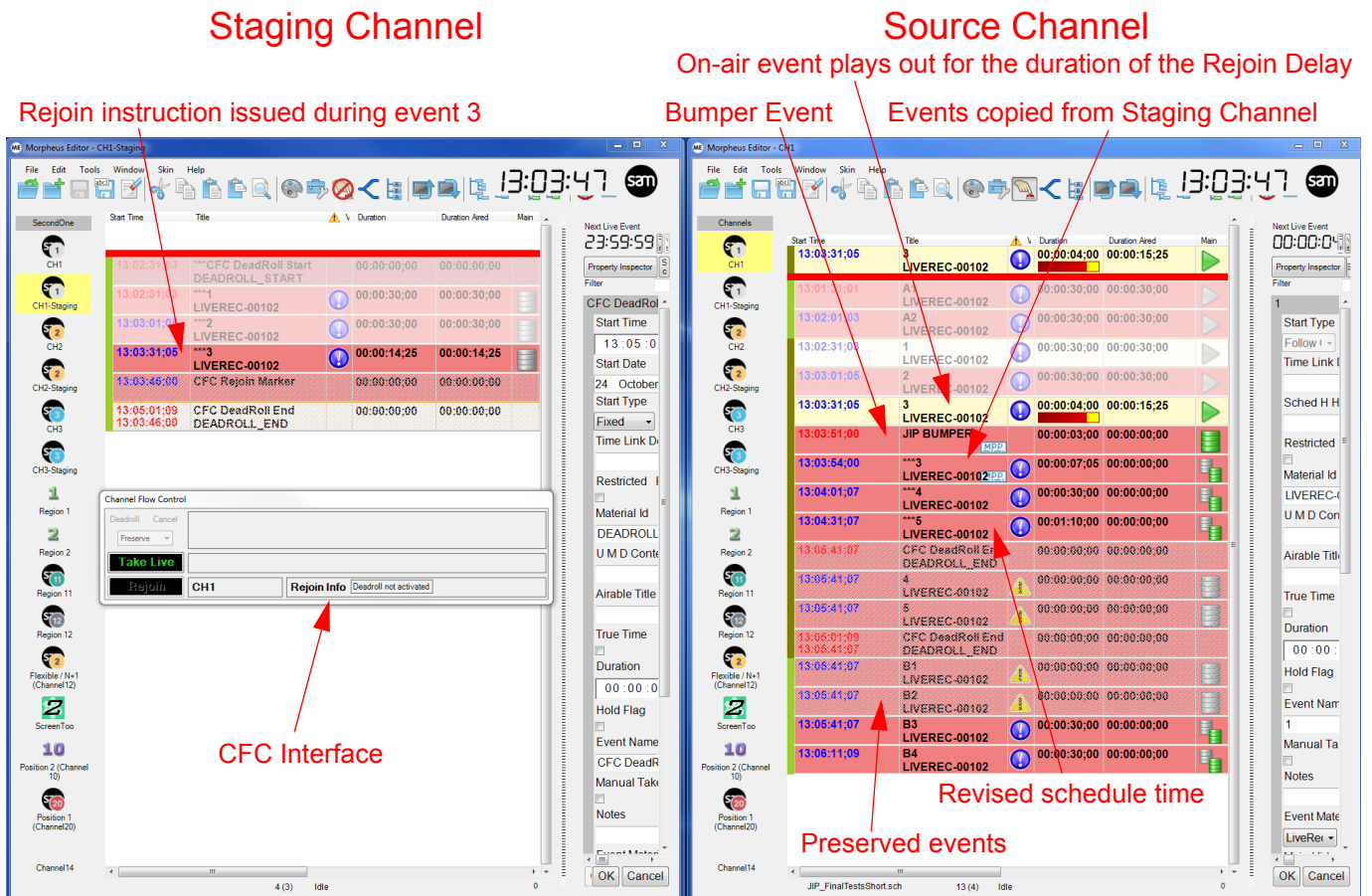


Figure 51 Preserved Mode Rejoin: Event Duration Extended on Staging Channel

### 4.14.5.3 Mapped Mode Rejoin

This mode is designed to make it possible to resume schedule time on the Source Channel following an event overrun (such as an extended sports program or news bulletin).

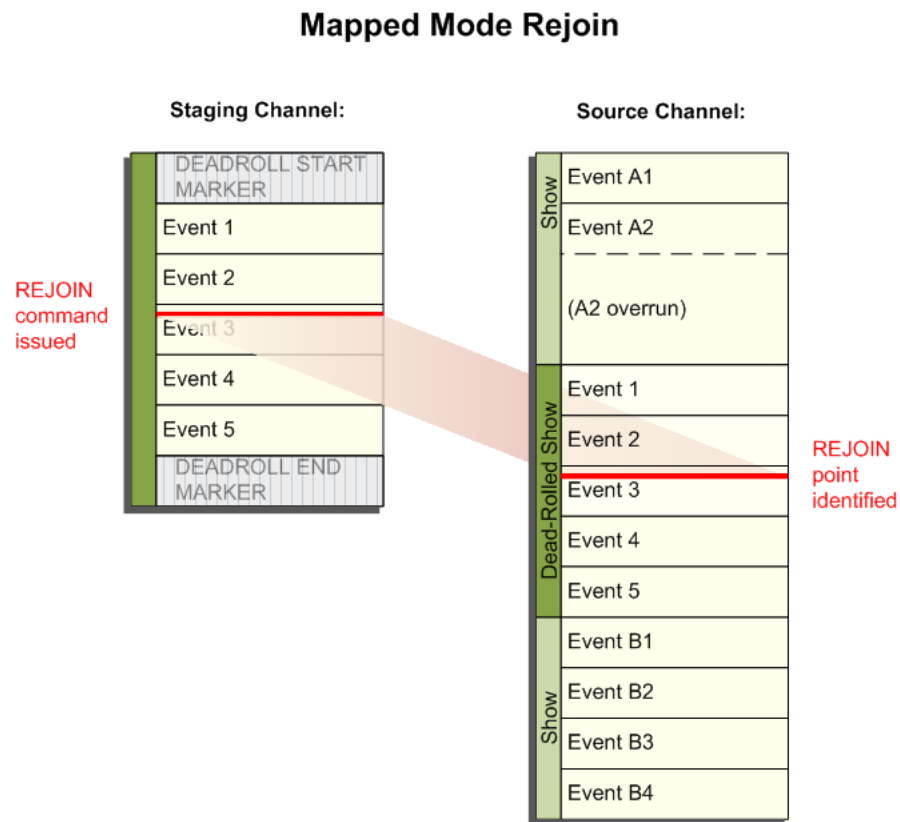


Figure 52 Mapped Rejoin Mode Concept

It is a static mode that synchronises Origin Events on the Source Channel to the Dead-Rolled Counterpart Events on the Staging Channel in order to maintain an accurate one to one mapping - by referencing a single point in time in the Dead-Roll Set relative to an event at the point of the rejoin instruction, this mode identifies precisely where to resume an event on the Source Channel (the Rejoined Event) thereby preserving schedule time.

No events are copied from the Staging Channel when using the Mapped Rejoin mode - the Rejoined Event, and all that follow, are the Origin Events on the Source Channel.

**Important:** Mapped mode offers the highest performance, and is recommended for use in all rejoin cases. A Mapped mode rejoin will fail if changes have been made to the schedule on either the Source Channel or the Staging Channel, with one exception: a Mapped Rejoin is supported following a Take Live, despite the insertion of an event onto the Source Channel.

**Note:** The duration of the Rejoined Event is reduced in order to absorb the Rejoin Delay and accommodate the broadcast of the Bumper Event.

**Note:** Events on the Staging Channel are Counterparts of the Origin Events on the Source Channel, and as such they are allocated new OIDs. A table is maintained by CFC in order to associate the OID of the Origin Event with that of the Counterpart Event. In Mapped Rejoin mode, the Dead-Roll is only used as a time reference for the rejoin, the Origin Events will always retain their original OIDs.

For information relating to the CFC Markers, refer to Section 4.14.2 CFC Markers.

### Mapped Rejoin Example: Overrun on Source Channel

At the point of the Dead-Roll instruction, the Staging Channel appears as shown in Fig. 53.

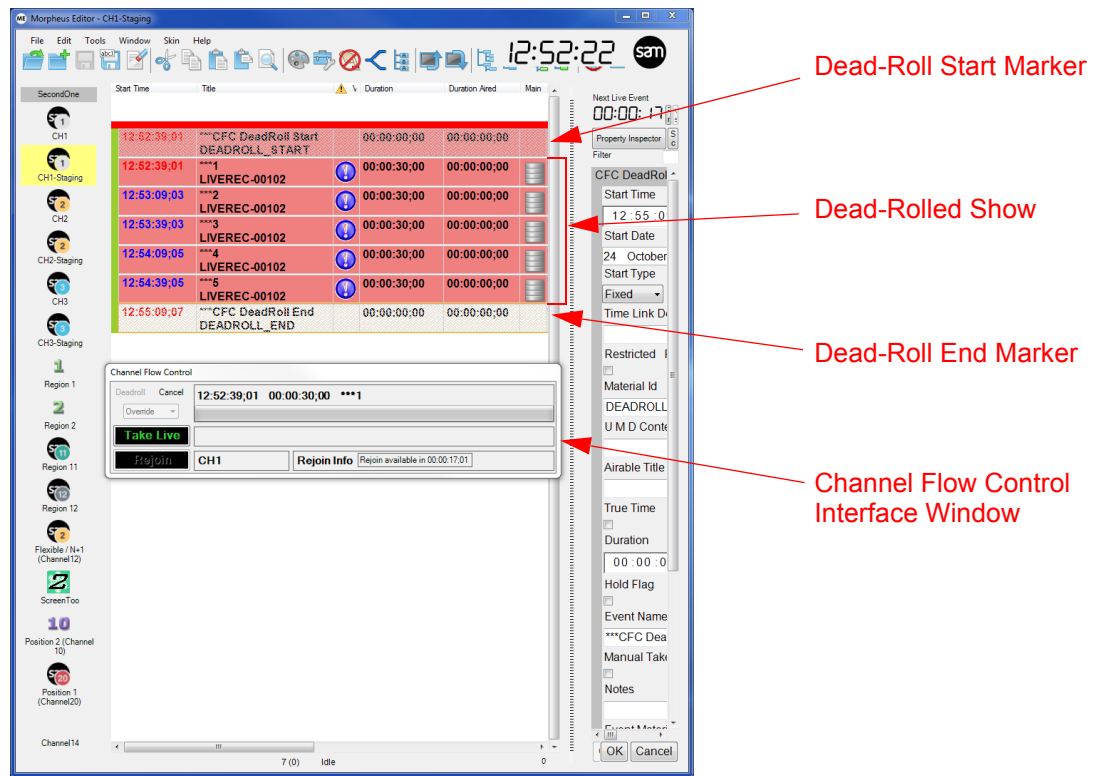


Figure 53 Mapped Rejoin Example: Staging Channel Schedule (Dead-Roll)



Event A2 has been allowed to overrun by manually placing it on hold. Events 1- 5 have been Dead-Rolled.

At the point of the rejoin in event 3, the following occurs on the Source Channel:

1. The hold is removed from the overrunning PGM event (A2), allowing it to air for the duration of the Rejoin Delay and is then followed by the Bumper Event.
2. Events 1 and 2 have already Dead-Aired on the Staging Channel, and are therefore disabled on the Source Channel by the system.
3. Event 3 goes to air at the point that it would have been had there been no overrun, and the events that follow play out according to the original scheduled time.

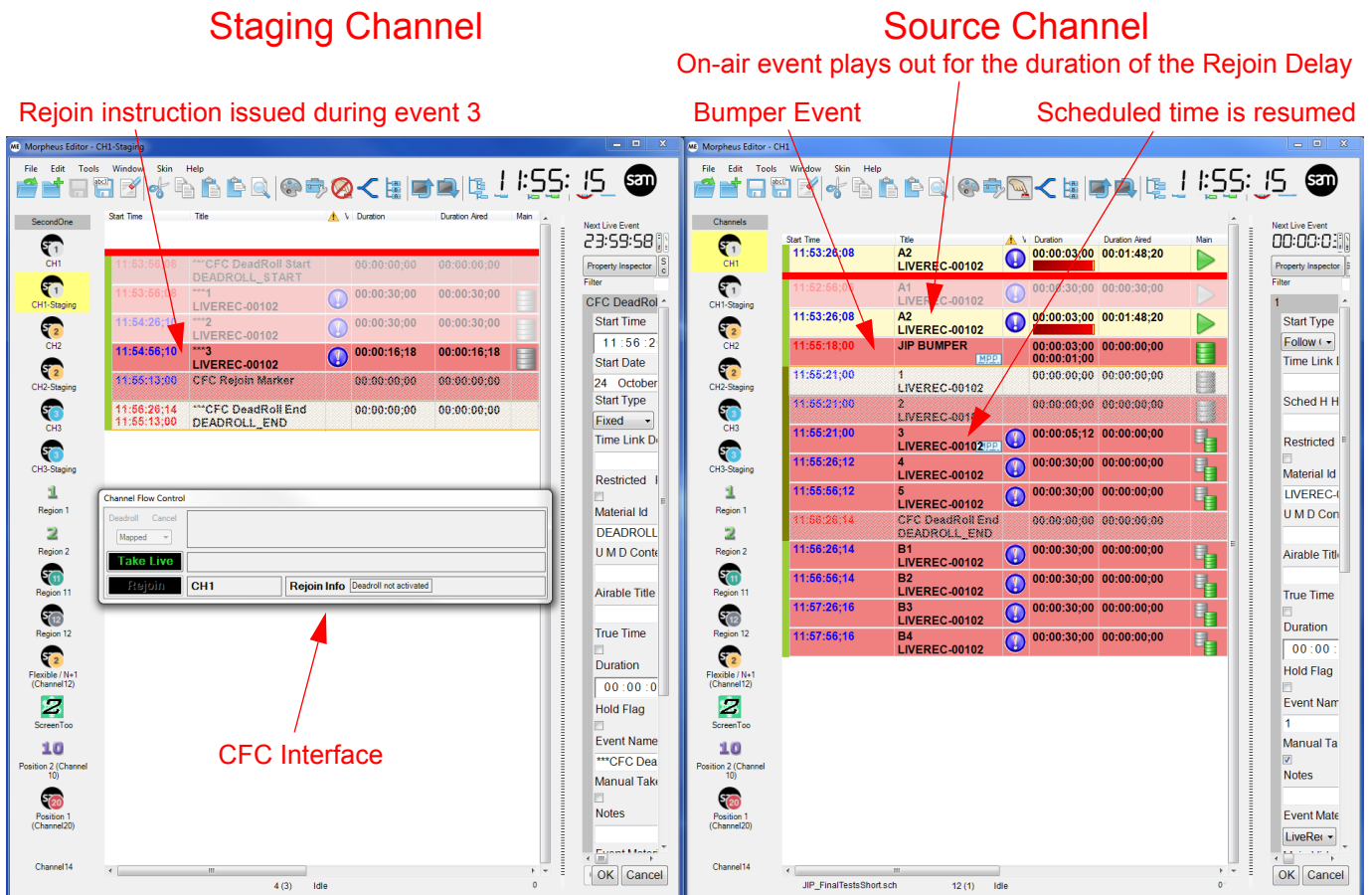


Figure 54 Mapped Mode Rejoin: Overrun on the Source Channel

**Note:** This example is based on a Dead-Roll. In the case of a Take Live, no event is required to be on hold if rejoining before the end of the inserted live event on the Source Channel.

## 4.15 Legacy Join In Progress

**Note:** The Legacy Join In Progress will be disabled if the Channel Flow Control - Join In Progress (CFC-JIP) is configured.

When 'Join In Progress' is applied to an event, the relevant device appears to be started but not cut to air until another event ends. For example, if a live event over runs, it may be better to lose part of the next event rather than delay the whole schedule.

Join In Progress allows the next event to start and, when it is eventually cut to air, placed at the point it would have been if the live event had not over run.

The device is not started. Instead, the inpoint (refer to page 190) of the material is adjusted continually over time and, when the joined event eventually runs, the material starts at the calculated inpoint.

The preroll time (refer to page 213) for the device has to elapse.

The schedule has to be in the 'hold' state (refer to page 104) for the Join In Progress function to be available.

Morpheus prevents the Join In Progress function from joining an event less than 30 seconds from the end.

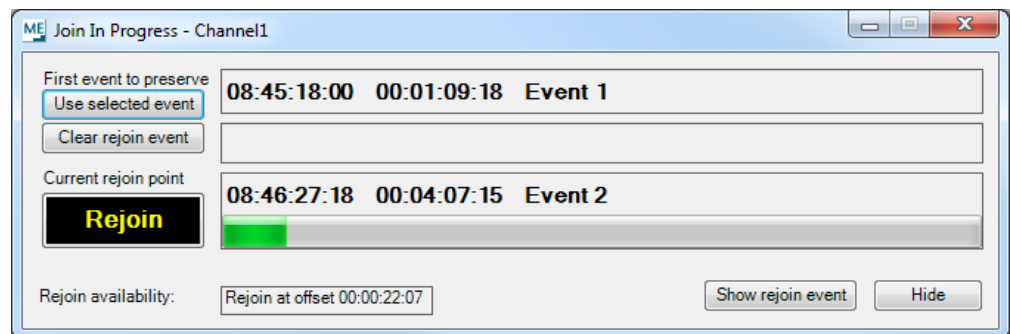
**Note:** If Join In Progress is activated, its use is recorded in the as-run log (refer to page 93).

### 4.15.1 Using Join in Progress

1. From the **Tools** menu, select **Join in Progress**.

The **Join in Progress** dialog box is displayed.

2. Select the relevant event.



**Figure 55** The Join In Progress Dialog Box

3. When the original time of the event has passed, the **Rejoin** option becomes available. Click **Rejoin** to continue.

### 4.15.2 Bumper Events

Morpheus can be configured to automatically insert and play out a bumper event prior to joining the playlist in progress.

A bumper event is a brief announcement, usually between two and 15 seconds. For example “We now rejoin [Film Name]”.

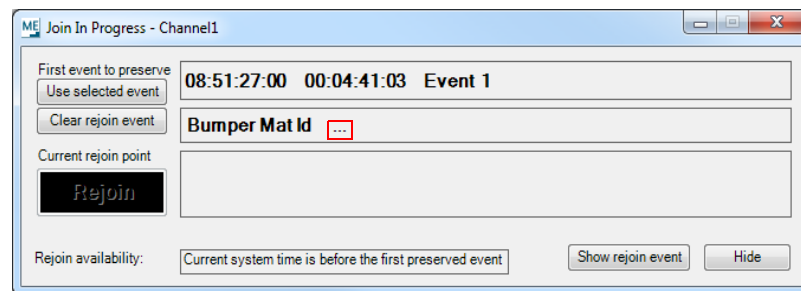
When the operator clicks **Rejoin**, the bumper event becomes the preset event (the event that follows the on-air event).

When the bumper event is taken to air, the new preset event is the event to join in progress.

The start time and SOM (start of material) of the rejoined event are adjusted appropriately.

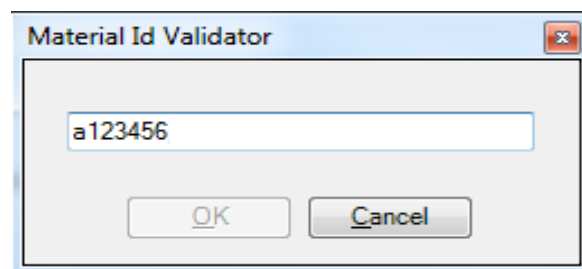
To change the bumper material:

1. Click on the ellipsis button (...) as shown below:



**Figure 56** Changing the bumper material ID

2. Enter a new material ID as shown in the example below:



**Figure 57** Selecting a bumper material ID

The material ID is only accepted if it exists in the Media Management database.

3. Click **OK** or **Cancel** as required.

### 4.15.3 Join In Progress Example

In the following example, the event that follows the live event is in manual take mode (refer to page 190). **Join In Progress** is selected and **Use selected event** is selected from the Join In Progress dialog box. The **Rejoin** option (under **Clear rejoin point**) is not yet available.

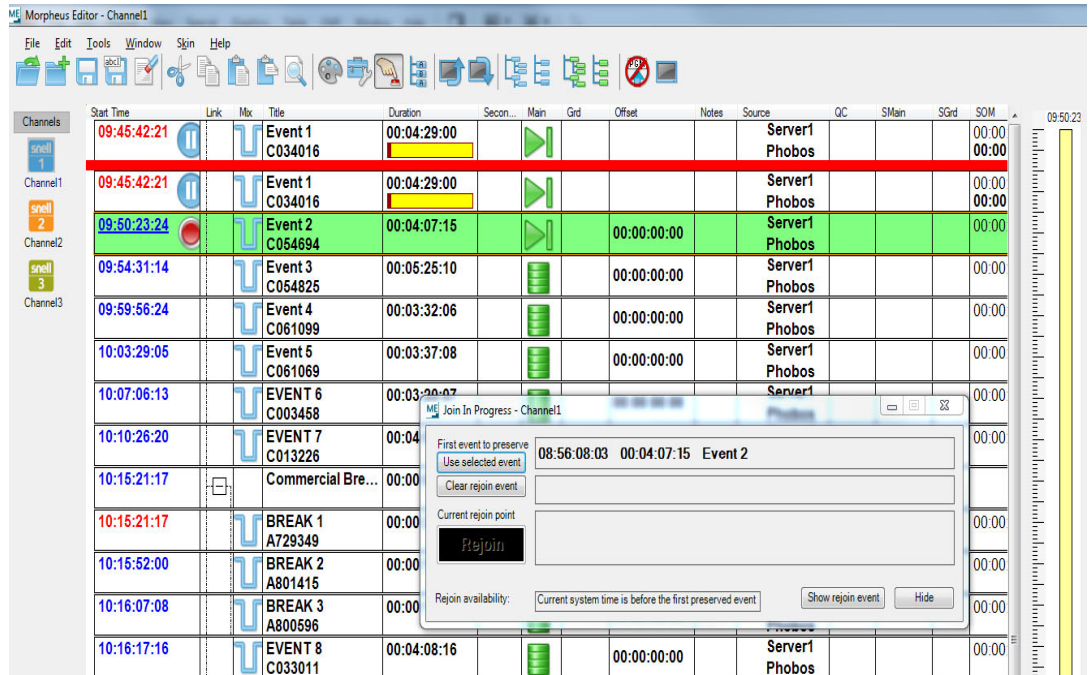


Figure 58 Join In Progress - Rejoin Not Available

In the next image, the original end time of the **first event to preserve** (in the Join In Progress dialog box) has passed. The progress bar shows the progress of the on-air event. The **Rejoin** option is now available.

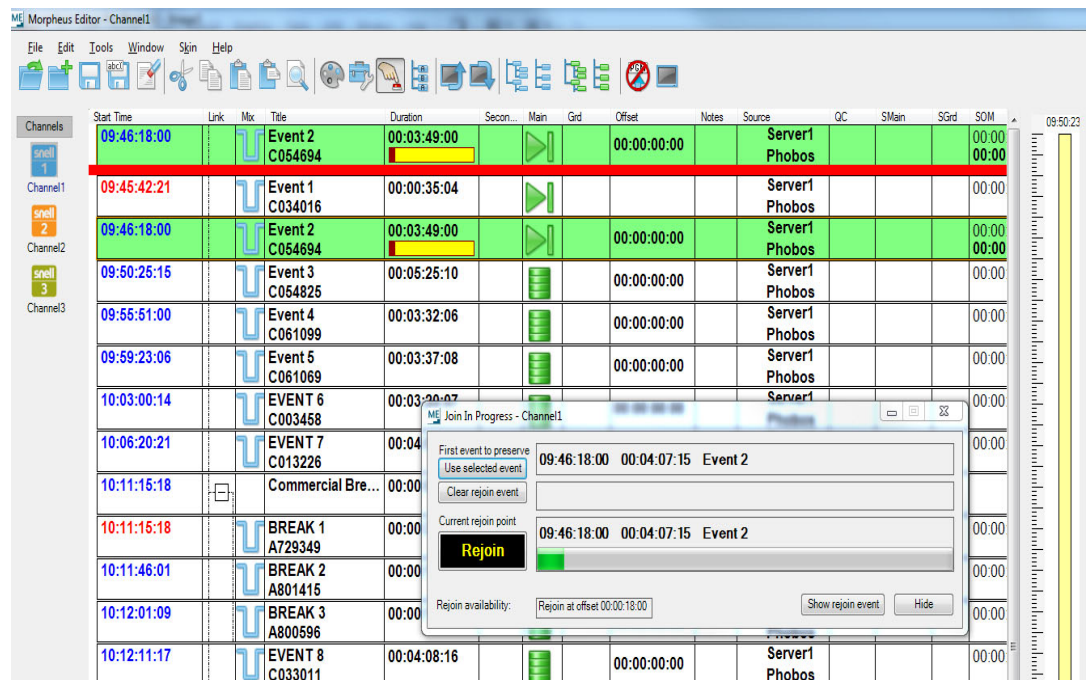


Figure 59 Join In Progress - Rejoin Available

## 4.16 Timelink Hierarchy

This option allows the operator to set a timelink hierarchy template for the schedule. When there are many timelink declarations and references in a large schedule, it is sometimes possible to inadvertently create an invalid relationship between the 'master' and 'slave' events. Using a hierarchy template prevents this situation. Refer to the Morpheus Engineer's Manual for information on creating a new template.

To select a template:

1. Click **Tools - > Timelink Hierarchy**.
2. Select a template from the list. Morpheus then applies the template to the schedule.

The behavior of an event that, according to the template, has an invalid timelink reference depends on the 'Timelink orphaned references' setting in the System configuration screen in the Configurator.

## 4.17 The AsRun Log

When an event has played, it is greyed out for one minute - the time may vary, depending on the configuration of the system.

The event is then removed from the schedule and placed in the 'AsRun' database by the As Run DB Service (refer to page 214).

**Note:** The AsRunDbService must be running as a Host Shell service in order for events to be removed from the schedule on the Editor

Depending on the system configuration, an 'as run log' may be created at regular intervals and placed in the folder **//Morpheus** or a configured folder.

The as run log name takes the following format:

<Channel name>\_yyyy-mm-dd-nn.sch

**Note:** When using a Panoplay system, the Event Journal Collector Service needs to be running in order to create as-run logs. Refer to the Morpheus Engineer's Manual for further information.

## 4.18 Reviewing Events for Air

This feature ensures that each commercial in a break header is correct within its context before being played out. For example, it can be important to prevent commercials containing characters from a television programme from being shown during or around the television programme itself.

An operator can review and mark a commercial break's location in a schedule as valid in advance of going to air. The results of the check appear in the Validation column in the Editor. If a commercial is subsequently moved or deleted within a break, the validation status is updated.

To configure this feature, refer to the Morpheus Engineer's Manual.

To review a break and mark it as valid:

1. Right-click on the break header. The following menu is displayed:

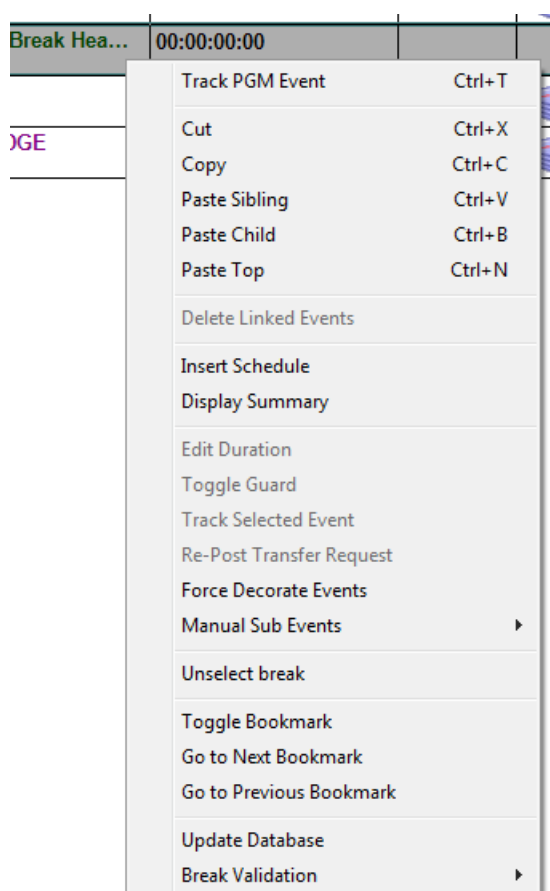
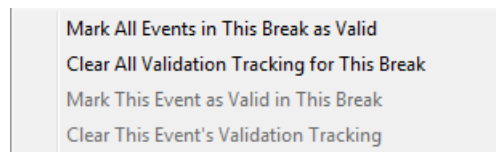


Figure 60 Break Validation Menu

2. Hover the mouse over Break Validation (at the bottom on the menu) to refer to the Commercial Break Validation menu as shown below:



**Figure 61 Marking a Break as Valid**

3. To approve a break, click **Mark All Events in This Break as Valid**. The Commercial Is Valid icon is displayed in the Validation column. The validation settings for a break can be removed by clicking **Clear All Validation Tracking for This Break**.

The individual commercials within a break can be marked as valid in the current context by clicking **Mark This Event as Valid in This Break**. The Commercial Is Valid icon is displayed in the Validation column. Clear a commercial's validation settings by clicking **Clear This Event's Validation Tracking**.

## 4.19 Natural Priority Order

Top-level events in a chain have a natural order priority, meaning that an event higher in the chain has priority over an event further down the chain. If a top-level main event has an absolute event next (after it in natural order), the absolute event's start time determines the end time of the previous event - unless it causes the previous event's duration to be zero. In this case, the previous event has priority and the absolute event is given a new actual start time that is different from the scheduled start time but equal to the previous event's start time plus its duration. In effect, the absolute event's start time is the value it would have been if it was a follow on event.

In addition, when the absolute event is the preset event, because the actual start time of the event is different from the scheduled start time, the event becomes a manual event and the channel is put into hold, thus requiring some manual intervention to progress the schedule.

When a main event has a fixed start time and is in manual hold, Morpheus treats the event as a manual event with a follow-on start time and does not truncate the previous event as shown below:





09:05:41:03			Event 4 C061099	00:03:32:06
09:07:13:09 09:09:13:09			Event 5 C061069	00:03:37:08

Figure 62 Natural Order Priority



## 5. Manual Intervention Panel (MIP)

The 'Manual Intervention Panel' (referred to as MIP throughout this section) enables the operator to override events on the schedule.

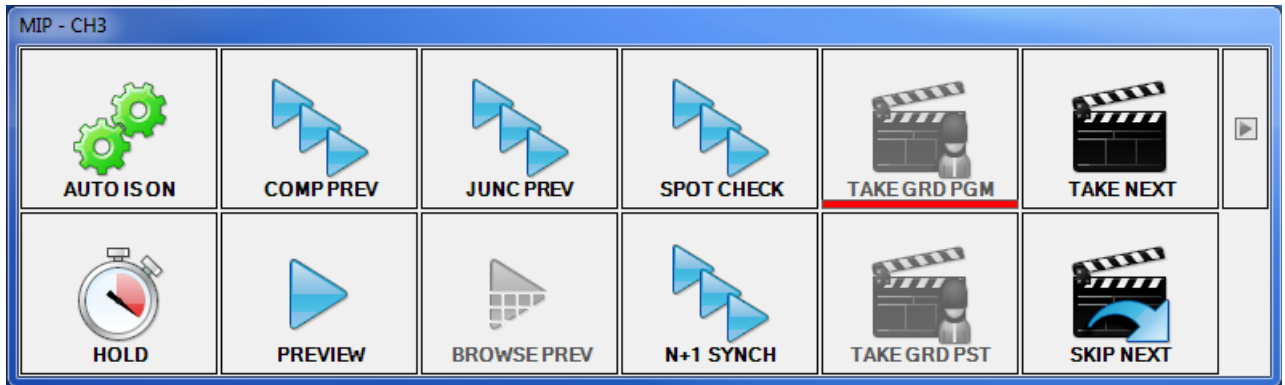


Figure 63 Manual Intervention Panel


There are several ways in which the MIP window can be opened:

1. From the **Window** menu, select option 5: **MIP**.
2. On the toolbar, click on the **Show MIP** icon.



3. Press **F9**.

To close the MIP, do one of the following:

- Click on the cross at the top of the MIP window. 
- On the toolbar, click **Hide MIP**.



### Resizing the MIP Window

The MIP window can be resized in exactly the same way as any other standard window, and in doing so all of the visible buttons are resized proportionally. Additionally, a different sized MIP window can be created for each channel.

When the expand button is pressed, the Gang Take channel box is displayed without resizing the existing window - all buttons are re-proportioned into the existing window area. Gang Take is described in Section 5.2.7.1 Gang Take.

The resizing of the MIP window allows it to be expanded to the full extent of a touch sensitive screen, for example.

## 5.1 MIP Extension

Figure 63 shows the default buttons on the MIP. Additional buttons may appear at the bottom of the MIP as shown in Figure 64. These buttons are included in an 'MIP Extension file'.

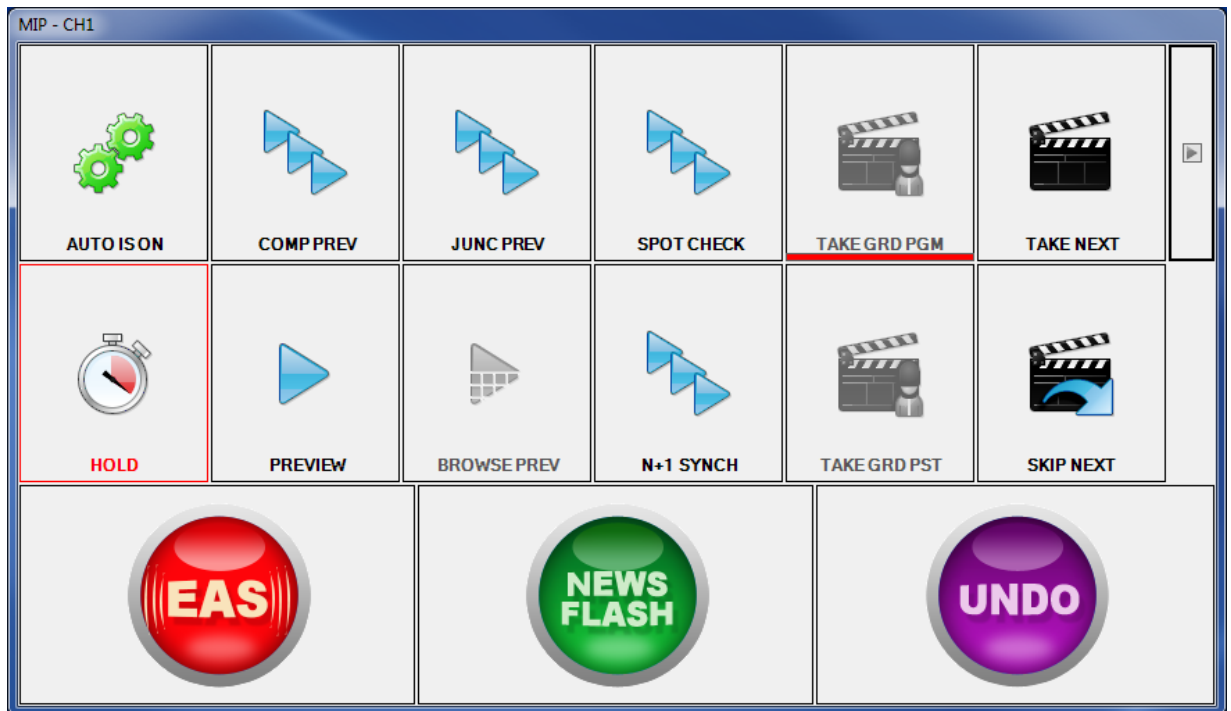


Figure 64 MIP Extension

## 5.2 MIP Function Buttons

### 5.2.1 AUTO IS ON

The default mode for Morpheus and indicates that all devices are receiving communication.

In order to disable automation, click **AUTO IS ON**. The button name changes to AUTO IS OFF - this is also displayed on the status bar. The schedule still runs while automation is off, but no commands are issued.

To switch automation back on, click **AUTO IS ON**.

**Note:**

The Editor may be configured so that automation is always on and cannot be switched off. In this case, the **AUTO IS ON** button is greyed out.

### 5.2.2 COMP PREV (Compound Preview)

Allows the previewing of a sequence of events, according to the resources available in the flexible channel (refer to page 107).

To use compound preview, select the required events and click **COMP PREV**.

To release the compound preview status from the flexible channel, click on the relevant channel icon on the channel bar and click on the **RELEASE** button on the MIP.

### 5.2.3 JUNC PREV (Junction Preview)

Allows junctions to be previewed in order to ensure that transitions, for example, will play out as intended.

Similarly to **COMP PREV** (refer to page 99), it allows junctions to be previewed according to the resources available in the flexible channel (refer to page 107).

**JUNC PREV** plays the beginning of one item and the end of the next. The amount of time that is played depends on the system configuration.

To use junction preview, select the required events and click **JUNC PREV**.

To release the junction preview status from the flexible channel, click on the relevant channel icon on the channel bar and click on the **RELEASE** button on the MIP.

### 5.2.4 SPOT CHECK

Similar functionality to **COMP PREV** (refer to page 99), except that it removes repetitions of material.

**SPOT CHECK** can be used according to the resources available in the flexible channel (refer to page 107).

To use Spot Check, select the required events and click **SPOT CHECK**.

To release the junction preview status from the flexible channel, click on the relevant channel icon on the channel bar and click on the **RELEASE** button on the MIP.

## 5.2.5 TAKE GRD PGM (Take Guard Programme)

Click **TAKE GRD PGM** to activate the guard for the on-air event (refer to 'Guard Source' on page 33).

All events using the same device as the on-air event are switched to the guard.

In the **Source** column on the schedule, the guard source is displayed in red text.

**Note:** To replace the guard device with the main device, click **TAKE GUARD PGM** again.

**Note:** If the channel has been configured with a 'dummy' Guard Source, then this button is disabled. Refer to Section 5.2.5.1

### 5.2.5.1 'Dummy' Guard Source

A feature to provide for continuous playout when media, specified in an event on the schedule, is missing or unavailable. In the absence of the specified material on the main source, the MaterialID is substituted with an alternative from a 'dummy' guard source at a point before going to air - validation warnings will be posted in the validation column of the Editor to this effect.

This is an automated process that cannot be overridden by an Operator.

**Note:** A 'dummy' guard source cannot be used as a main or a real guard source. When the **Dummy Source** checkbox is ticked, the following are disabled in order to prevent a Take Guard from being performed on the source:

- The **Toggle Guard** right-click menu option in the Editor
- **Take Guard PGM** and **Take Guard PST** buttons on the MIP

When configured with a 'dummy' guard source, the main source cannot also have a real guard source.

### 5.2.5.2 Toggle Guard

**Toggle Guard** is available from the right-click menu - it is displayed when right-clicking on a highlighted event on the schedule). When selecting **Toggle Guard**, all events using the same device as the highlighted event are switched to the guard source.

**Note:** If the channel has been configured with a 'dummy' Guard Source, then this option is disabled. Refer to Section 5.2.5.1

### 5.2.6 TAKE GRD PST (Take Guard Preset)

Click **TAKE GRD PST** to activate the guard (refer to 'Guard Source' on page 33) for the preset event (the event that follows the on-air event).

All events using the same device as the preset event are switched to the guard.

In the **Source** column on the schedule, the guard device is displayed in red text.

**Note:** To replace the guard device with the main device, click **TAKE GUARD PGM** again.

**Note:** If the channel has been configured with a 'dummy' Guard Source, then this button is disabled. Refer to Section 5.2.5.1

### 5.2.7 TAKE NEXT

Click **TAKE NEXT** to take the on-air event off air and place the preset event on air (the preset event is the event that follows the on-air event).

**Note:** If the preset event is on the same server port, there will be a slight delay depending on what 'preroll' has been set for the device.

A video server is sent a 'play' command before the event's start time to allow for latency. This is called the 'pre-roll' time.

A VTR is not capable of instantaneous, stable playout. It typically requires a few seconds' preroll to guarantee a stable output at the desired inpoint (refer to 'Inpoint' on page 185).

If the schedule is not running, click **TAKE NEXT** to start it. If the preset event is not yet cued up, the current event is still taken off air, and, while the new event cues up, the output is black.

A **TAKE NEXT** causes all the times for subsequent follow-on events to be recalculated up to the next fixed event (refer to 'Follow-on and Fixed Events' on page 117).

If there is a fixed event later in the schedule, there will be an under-run (gap) immediately before it.

The 'as-run log' reflects the schedule as it is played out (refer to 'The As-Run Log' on page 93). The shortened duration of one event and the earlier start times of subsequent events appear in the log after clicking **TAKE NEXT**.

### 5.2.7.1 Gang Take

An arrow is displayed next to the **TAKE NEXT** button - it displays (or hides) check boxes for each channel and allows a 'gang take' to be performed (Figure 65).

In order to be visible in the MIP, channels must have been previously configured to participate in a gang take.

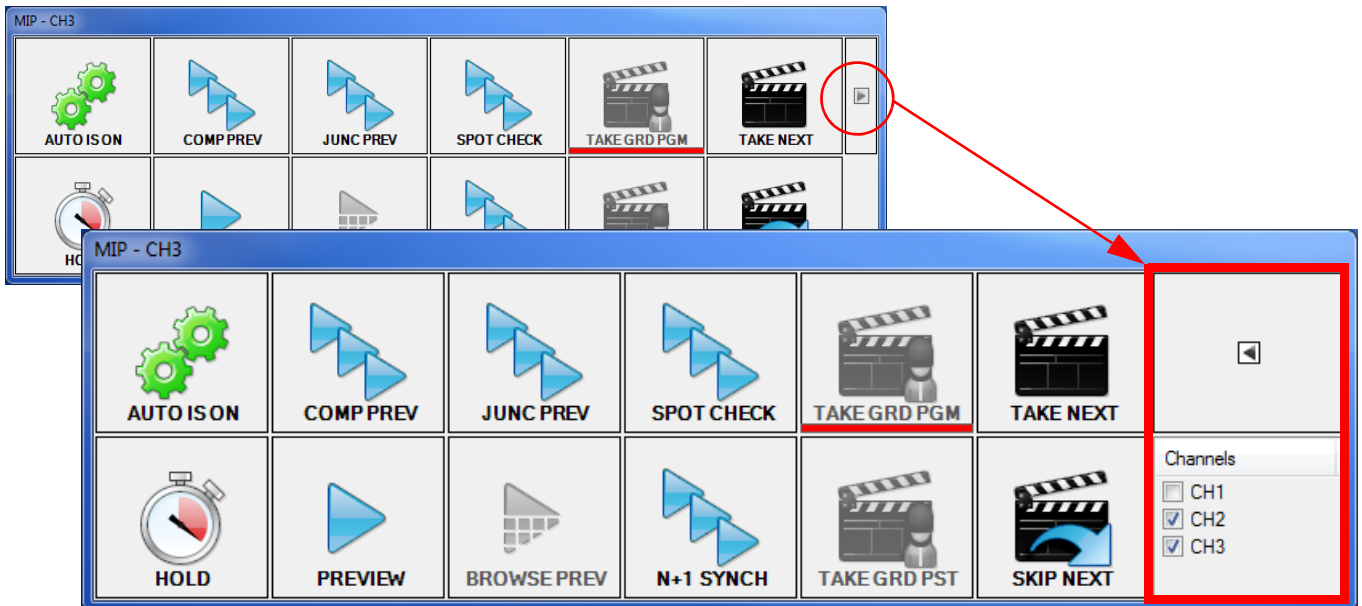


Figure 65 Gang Take

A gang take allows the use of **TAKE NEXT** on a number of channels simultaneously.

Select the channels on which to perform a gang take and click **TAKE NEXT**.

**Note:**

Depending on the Editor configuration, the **Gang Take** button can appear next to the **Skip Next** button instead of the **Take Next** button.

### 5.2.7.2 Multisystem Control

The **Multisystem Control** option allows a take to be performed on channels that are processed by more than one EventStore.

1. From the **Tools** menu on the Editor window, select **Multisystem Control**.

The **Multisystem Gang Take** window is displayed.

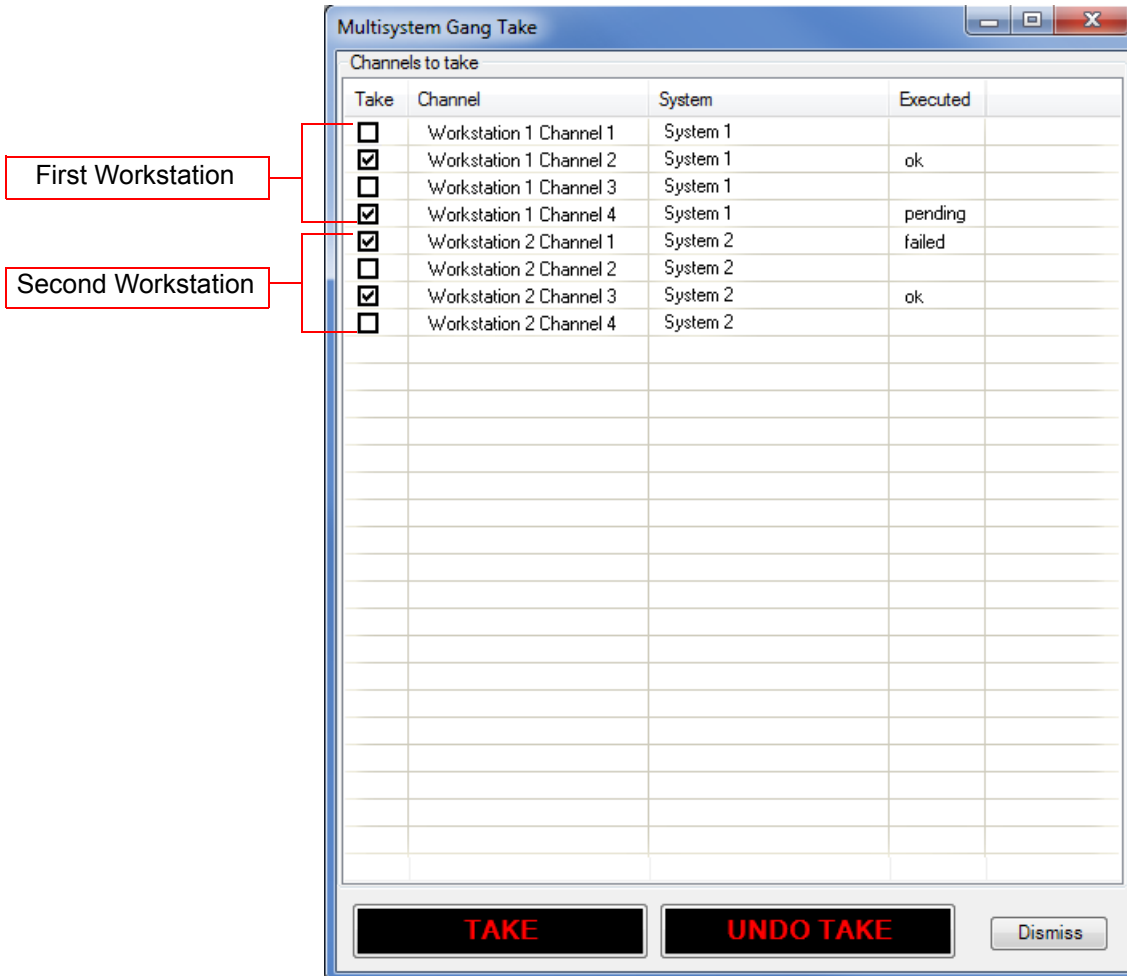


Figure 66 Multisystem Gang Take Window

2. Select the check boxes for each channel to perform a take on.
3. Click **Take** (to reverse the take, click **Undo Take**).

The status of the take is displayed in the **Executed** column.

### 5.2.8 HOLD

Click **HOLD** to put the on-air event on hold.

'HOLD' is displayed in red on the status bar and a pause icon appears in the on-air event's Start Time field.



The event remains on hold until **HOLD** is clicked again or **TAKE NEXT** is clicked.

Clicking **HOLD** causes the start times of all subsequent follow-on events, to be recalculated continuously up to the next fixed event (refer to 'Follow-on and Fixed Events' on page 117). Fixed events may get out of sequence.

**HOLD** is equivalent to putting the preset event (the event that follows the on-air event) into 'manual take' mode. Refer to 'Manual Take' on page 190. The following icon appears in the preset event's Start Time field.



**Note:**

Hold takes no account of the content or length of the item. This means that unwanted content could be broadcast, or, if the item runs out, black or a freeze frame could appear.

### 5.2.9 PREVIEW

Select an event in the schedule and then click **PREVIEW** to preview it on its scheduled device.

**Note:**

**PREVIEW** requires the device to be free. If it is not, a different device can be selected using the event's **Source** field in the schedule or the **Main Video Source/Main Audio Source** fields in the Property Inspector (refer to Chapter 3.2.8 Event Field: Source, 'Property Inspector' on page 166 and 'Main Video Source/Main Audio Source' on page 190).

To cancel preview, click **RECUE** on the MIP.

Depending on the configuration of the Editor, whilst switching to another channel when previewing an item, the following message may be displayed

*'Changing channels whilst previewing will cause the current preview to be re-cued, are you sure you want to do this?'*

If **Yes** is clicked to change to the other channel, the Preview window closes when returning to the original channel. Alternatively, the Editor may be configured so that the preview window remains open when returning to the original channel and the message is not displayed.



### 5.2.10 N+1 SYNCH

This button relates to the 'N+1 resilience mode' in which a channel is configured to be a 'flexible channel'.

Click **N+1 SYNCH** to transfer the current schedule, including the on-air event with its current inpoint (refer to page 185) to the flexible channel.

This then cues up and plays automatically.

### 5.2.11 SKIP NEXT

Delete the preset event (the event that follows the on-air event) and replace it with the event after it. It is important to ensure that there is enough time for the new preset event to cue up.

**Note:** Typical use is when there is a known problem with the preset event, the device playing it, or if the schedule is over-running.

### 5.2.12 RELEASE

A function button that is displayed on the MIP for the flexible channel (see below) if any of the following have been applied:

- Junction Preview (refer to 'Junc Prev' on page 99).
- Compound Preview (refer to 'Comp Prev' on page 99).
- Spot Check (refer to 'Spot Check' on page 99).

A flexible channel is a 'spare' channel that has its own hardware. It can be used as a backup for any other channel. It is a good way of achieving resilience to channel failure. The same channel can also be used as a preview channel.

Click **RELEASE** to clear the items from the flexible channel.

### 5.2.13 'BXF Tertiary' and 'BXF N+1' Synchronisation

Schedule synchronisation mechanisms for the purpose of providing short-term channel failover capability. When activated, the schedule is copied from the source channel to a single target channel that has been selected by the system from all of those of type 'Flexible' that are available.

Upon the successful synchronisation of the source channel with the target channel, the following message is displayed, the details of which should be noted:

*'PerformNPlusOne for channel <source channel> allocated on system <target system name> channel <target channel name>'*

**Note:** Once either synchronisation method is active, the button relating to the other is greyed out, thereby preventing it from being triggered.

If the synchronisation is unsuccessful, the following message is displayed:

*'PerformNPlusOne time out for channel <source channel>'*

**Note:** The syntax of the messages given above is identical regardless of the selected synchronisation method.

To cancel, click on the button that relates to the active synchronisation method on either the source or the target channel - the following message is displayed on the local channel (where the channel / system names relate to the local system):

*Channel <name> on system <name > released*

**Note:** The schedule on the target system is not removed following a cancellation of the active synchronisation method - this remains a manual operation.

#### 5.2.13.1 BXF Tertiary

Start channel synchronisation of type 'BXF Tertiary'. The source channel schedule is copied to the target channel; the target channel is updated thereafter with any changes that occur on the source channel.

If configured, a descriptive banner may also appear across the source and target channels that have been synchronised. - this is specific to the BXF Tertiary synchronisation method.

#### 5.2.13.2 BXF N+1

Start channel synchronisation of type 'BXF N+1'. A snapshot of the source channel at the start time of the synchronisation is copied to a target channel. The Flexible channel is not updated with any changes that may occur on the source channel.

### 5.3 Morpheus Access Panel

The Morpheus Access Panel is a hardware panel with buttons configured to provide MIP functionality using scripts.



Figure 67 Example Morpheus Access Panel

For further information on this option, please contact a Grass Valley representative.

## 6. Event Types and Timings

There are several types of event in Morpheus. These include:

- Primary events (see below).
- Secondary events (see below).
- Header events (refer to page 112).
- Follow-on events (refer to page 121).
- Fixed events (refer to page 122).

### 6.1 Primary and Secondary Events

A 'primary event' (also called a 'main' or 'parent' event) is a top level event. It may have secondary events beneath it or may be a single event on the schedule.

A 'secondary event' (also called a 'child' event) is associated with a primary event. One or more of its parameters are dependent on those of the primary event. It may be a sub event of a primary event or a sub event of another secondary event.

#### Example

A primary event may have secondary events to:

- Start server ports and VTs from the right inpoint (refer to page 185).
- Stop the server ports and VTs
- Make a mixer selection.







Primary Event	15:27:43:04		<b>PRIMARY EVENT A123456</b>	00:01:05:00	
Secondary Event	15:27:43:04		Channel1 DSK Event	00:01:05:00	
Secondary Event of 'System Default - Audio'	15:28:48:04		Channel1 Audio Over Ev...	00:01:05:00	
	15:28:48:04		Subtitles	00:00:00:00	

Figure 68 Example Primary and Secondary Events

### 6.1.1 Displaying/Hiding Secondary Events

If an event has secondary events, a plus sign is displayed in the **Link** field in that event's row (refer to page 27). Icons may appear in the **Secondary Content** field (refer to Chapter 3.2.7 Event Field: Secondary Content), depending on the type of secondary event (refer to page 109). The status of the event is also indicated in this field.

- To display a secondary event, click on the plus sign in the **Link** field in the relevant primary event row.
- To hide a secondary event, click on the minus sign.
- To hide all secondary content in a schedule, click **Collapse All** on the toolbar.



- To display all secondary content in a schedule, click **Expand All** on the toolbar.



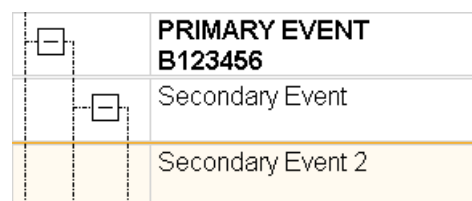
### 6.1.2 Parent / Child Relationships

An event can have several levels. For example, a primary event may have several secondary events. The secondary events may have further secondary events below them.

Each level is described below:

- **Parent** - an event that has one or more lower level events.
- **Child** - an event that has a higher level event.
- **Sibling** - an event that is on the same level as another event.

An event can be both a parent and a child. In the following example, Secondary Event 1 is the child of PRIMARY EVENT and the parent of Secondary Event 2.



**Figure 69 Parent / Child Relationship**

## 6.2 Secondary Event Types

There are many types of secondary event. Four types are described below.

- DSK event
- DVE event
- GPI event
- Audio over event

### 6.2.1 DSK Event

A 'DSK' (**downstream keyer**) event controls the superimposition of a video signal, such as a logo, over the main programme.

Examples are DSK events are:

- A station logo keyed over a whole programme.
- A station logo keyed over the first 20 seconds of a programme then fading out.
- A 'coming next' strap, cutting in one minute from the end of a programme, lasting 15 seconds and then fading out.

### 6.2.2 DVE Event

A 'DVE' (**digital video effects**) event controls a DVE move, such as a squeeze, spin, roll, page turn or any of the wide range of moves that exist. This would normally be done using the optional DVE in the mixer.

The move number is displayed in the **Effect No** field on the Property Inspector (refer to page 166).

Examples of DVE events are:

- Credits squeezed to half width at the end of a programme.
- Spin & condense a final still to a point in the centre of the screen.

### 6.2.3 GPI Events

'GPI' (General Purpose Interface) is a facility, found on some equipment, that enables it to be controlled by an external switch. In Morpheus, the control card is the switch, a cable connects this to the equipment, and the operation of the switch is a timed event in the Morpheus schedule. Usually the function needs the GPI to stay active for as long as the function is required. Some equipment has an 'on' GPI and an 'off' GPI.

Examples of GPI events are:

- Activation of an ARC (Aspect Ratio Converter) if a specific programme needs it.
- Activation of a logo inserter.
- Insertion of cue tones (could be used for downstream switching of, say, a transmitter function).

### 6.2.4 Audio Over Events

An 'audio-over' event is one that plays a sound over the main programme sound. It could be live or recorded. It is mixed using the programme audio mixer that also comes under automation control, just as the video mixer does. Audio material may be stored on a separate server.

An example of an audio-over event is the playing a prerecorded announcement over a caption to promote an upcoming programme item.

### 6.2.5 Adding a Secondary Event to the Schedule

A secondary event can be added to the schedule using The Palette (refer to 'The Palette' on page 131 and 'Adding a Secondary Event to the Schedule' on page 140).

### 6.2.6 Manual Sub Events

A 'manual sub event' is a secondary event that an operator must activate.

To create a manual sub event, right-click on the required secondary event and choose **Manual Sub Events > Convert to a Manual SubEvent**. A small red square is displayed in the top left corner of the event's **Main** field.



To cue a manual sub event, right-click on the event and choose **Manual Sub Events > Cue manual subevent** (cueing the event makes the device available). A small green arrow is displayed in the top left corner of the event's **Main** field.



To uncue a manual sub event, choose **Manual Sub Events > Un-Cue manual sub event**.

To take a manual sub event (operate the manual sub event) choose **Manual Sub Events > Take Manual sub event**.

To stop a manual event playing out, choose **Manual Sub Events > End sub event**.

To convert the sub event to a normal event, choose **Manual Sub Events > Convert to a normal sub event**.

**Note:**

Manual sub events only work with sub events that are associated with a device. They cannot therefore be used in a MediaBall that does not have a device in the MediaBall header.

## 6.3 Header Events

A 'header event' is an event that is used as a label or 'wrapper' for other events. The purpose of a header event is to group together other events as a single item. There are three types of header events:

- Break header
- Opt header
- MediaBall header

### 6.3.1 Break Header

A 'break header' is used as a wrapper for the commercials in an advertising break. A break header can be inserted into the schedule, and then add the commercials into it using the Palette. Refer to 'The Palette' on page 131 and 'Adding a Break Header to the Schedule' on page 141 for further information.

**Note:** The maximum number of main events allowed within a break header is 50 events.

#### 6.3.1.1 Displaying / Hiding Break Headers

- To show all break headers in a schedule, click **Expand All Break Headers** on the toolbar.



- To hide all break headers in a schedule, click **Collapse All Break Headers** on the toolbar.





### 6.3.1.2 Alternate Breaks

Depending on the system configuration, it can be possible to schedule consecutive commercial breaks. One of these breaks becomes disabled automatically.

Using the right-click menu, the other break can be disabled, and it is then possible to toggle between that which is enabled and that which is disabled.

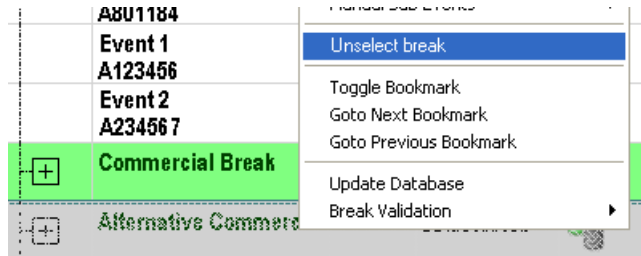
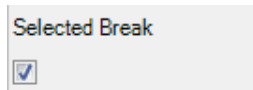


Figure 70 Alternate Breaks

If alternate breaks are configured, the **Selected Break** field is displayed on the Property Inspector (refer to page 166).



### 6.3.1.3 Displaying Next Break Header

Depending on the system configuration, basic information about the next commercial break may be displayed directly above the schedule on a banner, as shown in Figure 71:

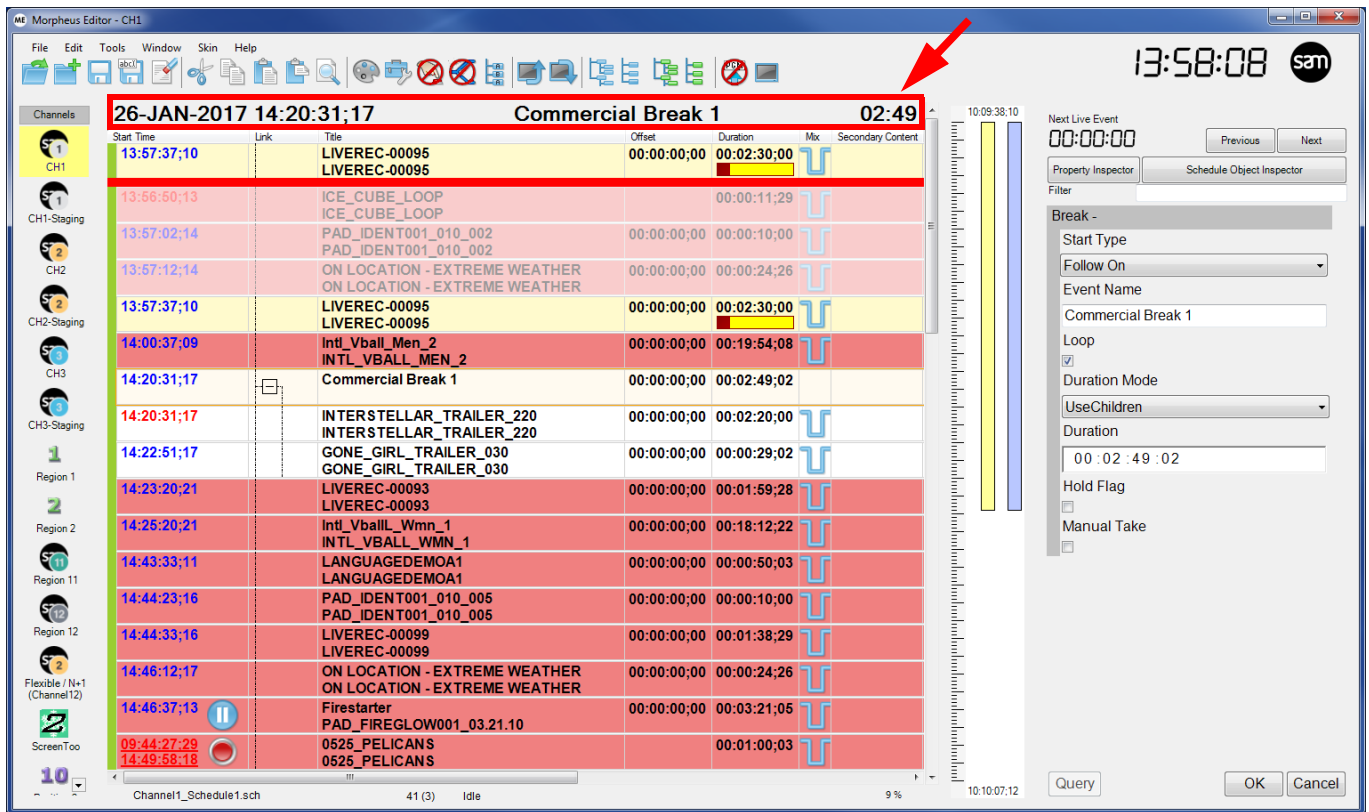


Figure 71 Next Break Banner

The information in the banner includes:

- The date and time when the break is due to play out
- The name of the break header
- The duration of the break

If the banner is displayed, the next commercial break header also automatically expands. It is possible to change the color of the panel background.

Depending on the system configuration, it is also possible to lock all commercial breaks in the schedule so that they cannot be edited by the operator.

### 6.3.2 MediaBall Header

A MediaBall® is a single collection of secondary events (refer to section Section 6.1 Primary and Secondary Events). A MediaBall that contains frequently used material can be created, and then added to a primary event, thus saving time searching for events and adding them individually.

As well as grouping together secondary events, MediaBalls can be used to group other event types. They can, for example, be useful for channel branding and creating a 'house style'.

A typical MediaBall may contain the following:

- Coming up strap.
- Credit squeeze to half width.
- Space filled with a graphic.
- Voice over promoting a later programme.

Add a MediaBall header to the schedule using 'The Palette' (refer to sections Section 7. The Palette and Section 7.7 Adding a MediaBall).

### 6.3.3 Opt Header

An 'opt header' is used to group together events, such as commercials, during an opt-out. For example, a service may have several regions with the same programmes but different commercial breaks.

For this option to work, opt-out channels must be configured in an opt-out group, with a nominated main channel.

When inserting an opt header into a schedule, this header is added to all the other channels in the opt-out group - regional commercials can then be added to each channel separately, thus ensuring that the commercial breaks are synchronised across all the regions.

Add an opt header to the schedule using the Palette (refer to 'The Palette' on page 131 and 'Inserting an Opt Header' on page 143).

**Note:** Only the commercial breaks are visible in the opt channels, and they take their programming from the main channel.

### 6.3.4 Fill Regions

The **Fill Regions** option allows opt headers to be populated in regional channels with material from another schedule.

1. From the **File** menu, choose **Fill Regions**.
2. Under **Regions**, select the check boxes for the appropriate channels.
3. Click **Pick schedule**.

The **Fill opt-out Regions** window is displayed.

4. Browse to the required drive and folder.
5. Select the schedule containing the breaks to load, and click **Open**.
6. Click **Execute**.

A status report is displayed in the centre of the **Fill Out-out Regions** window to show whether the opt headers have been filled successfully.

A report is displayed at the bottom right of the window. If it has a green background, the **Fill Regions** command has been successful.

### 6.4 Fixed and Follow-on Events

There are two event start types:

- Fixed

Characterised by a fixed start time, and remains so even if the timing of a previous event is changed.

- Follow-on (default)

Starts as soon as the previous event has finished. If an earlier event is deleted or inserted, the start time of a follow-on event adjusts accordingly.

They can be applied to a selected event using the **Start Type** field on the Property Inspector (refer to Figure 72 and to Section Section 9. The Property Inspector).

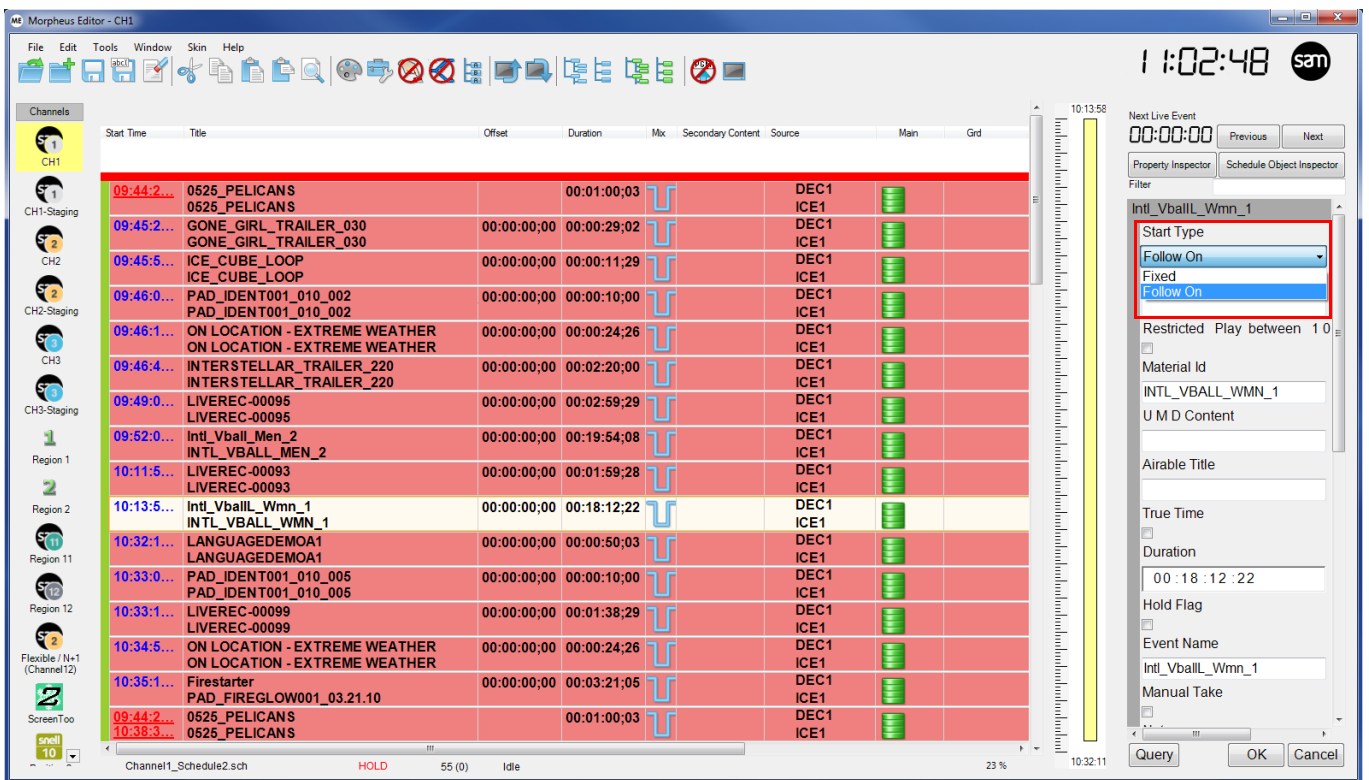


Figure 72 Fixed and Follow-on Events

### 6.4.1 Fixed Events

#### 6.4.1.1 Adding a Fixed Event to the Schedule

Add a fixed event to the schedule using the Palette (refer to 'The Palette' on page 131 and 'Adding a Fixed Event to The Schedule' on page 138).

**Note:** The start type of the first secondary event is always fixed, even if the parent event is a follow-on event (refer to 'Primary and Secondary Events' on page 108).

When creating a schedule, it can be useful to put an event into fixed start mode to preserve the start times of all the events following it - do so using the **Start Type** field in the Property Inspector (refer to 'The Property Inspector' on page 166 and 'Start Type' on page 174).

#### 6.4.1.2 Fixed Event Considerations



The following situations can arise when using fixed events:

- The fixed event is scheduled to begin before the previous event starts.
- **Over Run** - occurs when the fixed event is scheduled to begin during the previous event. Refer to 'Over Run' on page 120
- **Under Run** - occurs when the previous event is scheduled to end earlier than the fixed event's start time. Refer to 'Under Run' on page 120.

If an over run or under run occurs, the event background changes color according to the configuration of the Editor.

#### The Fixed Event is Scheduled to Begin Before the Previous Event Starts

In this instance, as soon as the fixed event becomes the preset event (the event that follows the on-air event) it is set to 'manual take'. It will not run without operator intervention (refer to 'Manual Take' on page 190).

09:47:48:21		EVENT 13 BU50059-01	00:00:11:00	Server1
16:42:37:15 09:47:59:21		JUNCTION EVENT BAS2497-07	00:00:05:00	Server1

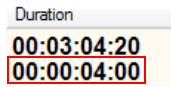
↑

The second timecode shows the earliest time that the event can start, assuming that all preceding events run their full duration

**Note:** Morpheus does not allow events to be run out of sequence. Events are run in schedule order even if an event further down the schedule has an earlier start time than the one about to start.

### Configuration Settings for Over-Runs and Under-Runs

When an over or under run occurs, a second timecode is displayed in the **Duration** field underneath the event's duration. This either shows how much material needs to be removed, in the case of an over run, or the duration of the under run.



There are several configuration settings for this timecode:

- **Show in event previous to fixed event** - The two timecodes appear in the **Duration** field for the event before the fixed event.
- **Show in fixed event** - the two timecodes appear in the **Duration** field for the fixed event.
- **Show overrun for event in hold** - This applies when the on air event is on hold and overruns. When selected, the amount by which the event has overrun is displayed as a white timecode above the event's red countdown progress bar in the **Duration** column. When the event has been released from hold the overrun value is no longer relevant and is removed.
- **Show scheduled duration** - Select this option to display the scheduled duration in the event of an event underrunning or overrunning. If this option is clear, Morpheus shows the currently adjusted duration. In both cases, the amount of time added or subtracted for the event is displayed underneath the event duration.

The images in 'Over Run' and 'Under Run' on page 120 use the **Show in event previous to fixed event** setting.

Over-Run

If the fixed event is scheduled to start during the previous event, it truncates or cuts into it. In this case, the preceding event does not run for its full duration.

16:08:23:07		EVENT 1 A123456	00:02:51:20 -00:00:09:00
16:11:15:02		EVENT 2 A234567	00:03:57:05

The second timecode shows the duration of the overlap, indicating how much material needs to be removed. The minus sign shows that there is an over run.

Under-Run

If the previous event is scheduled to end earlier than the fixed start event, one of the following occurs:

- If the previous event is a server event, this runs to its end. It remains on a still frame or displays black until the fixed event starts.
- If the previous event is a tape event, the tape plays until the fixed event starts. This could result in unwanted material being broadcast.

16:17:28:07		EVENT 1 A123456	00:00:23:20 00:00:23:00
16:17:52:02		EVENT 2 A234567	00:03:57:05

The second timecode shows the duration of the under run. This helps operators to choose appropriate material.

Under-Run and Over-Run Segment Icons

If the last segment in a show is under running or over running, the next event contains a + or - icon as appropriate as shown in the example below:



10:40:00:00		Segment 5 Segment 5	00:12:12:00	01:21:22:00
10:51:12:00		Segment 6 Segment 6	00:07:39:00 -00:01:00:00	01:32:43:00

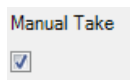
Figure 73 Under-Run and Over-Run Segment Icons



## 6.4.2 Follow-on Events

### 6.4.2.1 Manual Follow-on Event

A follow-on event can be set to start manually by selecting the **Manual Take** check box (refer to page 190) on the Property Inspector.



This means that user intervention is required.

### 6.4.2.2 Adding a Follow-on Event to the Schedule

Add a follow-on event to the schedule using the Palette (refer to 'The Palette' on page 131 and 'Adding a Follow-on Event to the Schedule' on page 137).

## 6.5 The Event Ruler

The 'event ruler' is displayed between the schedule and the Property Inspector (refer to page 166).

It shows the timing relationship between primary and secondary events (refer to page 108).

The functionality and appearance of the event ruler depends on the skin (classic, light or dark) that is applied to the Editor.

### 6.5.1 Classic Event Ruler

The classic event ruler contains yellow and blue bars whose length represents the event's duration and whose position represents the relative timing:

- To show timing details for a primary event and its first level of secondary events, click on the primary event. The primary event is shown in yellow and the secondary event in blue.
- To show information for a secondary event and its children, click on the secondary event. The secondary event is shown in yellow and its children in blue.

A primary event with no children is shown in yellow.

Time in the event ruler flows downwards. The start time is shown at the top of the event ruler and the end time at the bottom. The start and end times appear in **hh:mm:ss:ff** (hours, minutes, seconds and frames).

If there is an overlap between two secondary events, the overlapping region is displayed in darker blue.

Hovering the mouse pointer over a bar in the event ruler displays the event title, start time and duration in a pop-up.

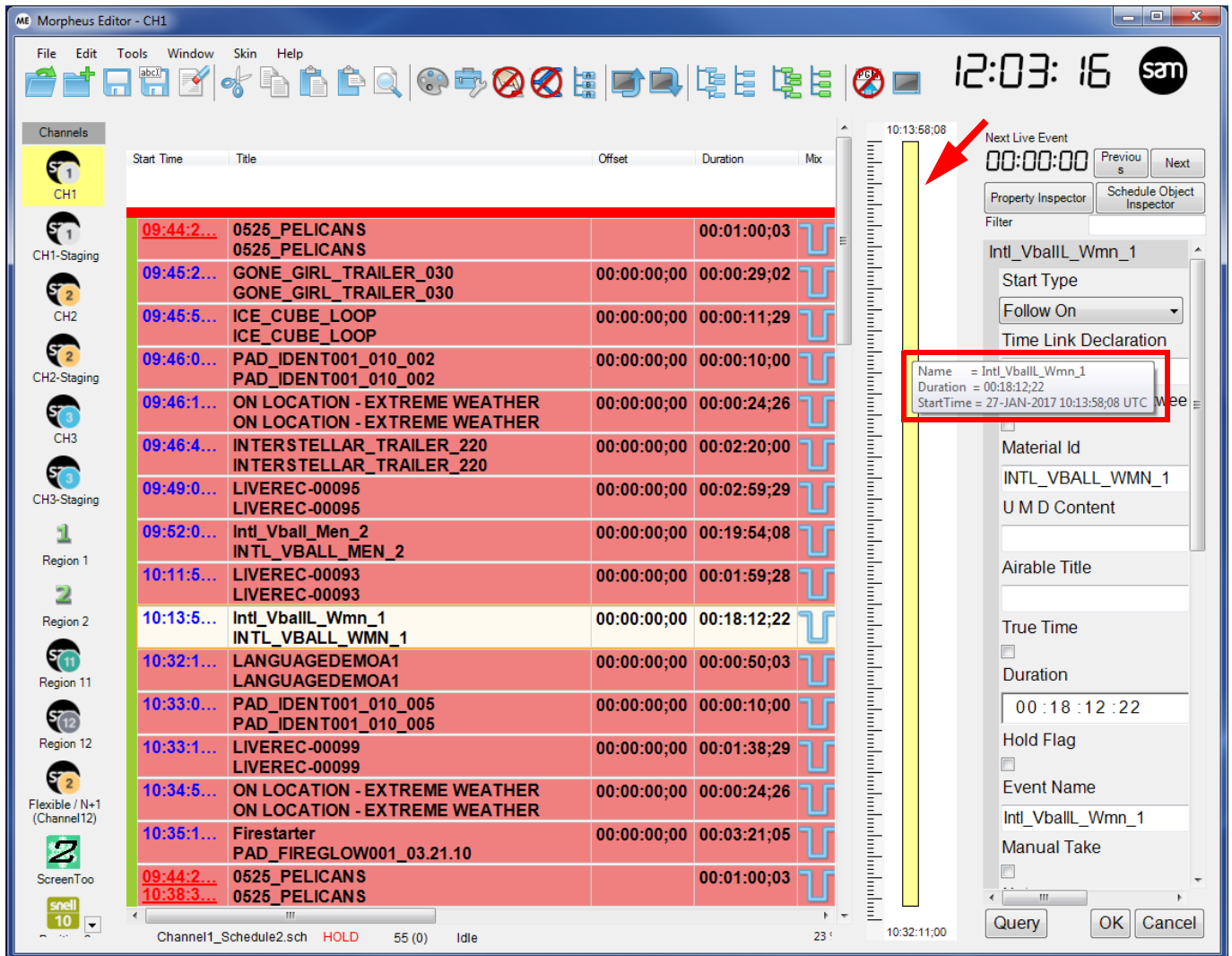


Figure 74 Event Ruler: Classic Skin

If secondary events overlap, it is possible to cycle through the data for the overlapping events by right-clicking the overlap cycles.

**Note:** The start and end times of secondary events can be changed using the **Offset** and **End Time Offset** fields in the Property Inspector (refer to 'The Property Inspector' on page 166, 'Offset' on page 172 and 'End Time Offset' on page 191).

### 6.5.2 Event Ruler: Light and Dark Skins

This event ruler also contains bars whose length represents an event's duration but it is more configurable and comprehensive than the classic ruler. As well as the main event, it also shows the material event as a parallel bar as shown below:

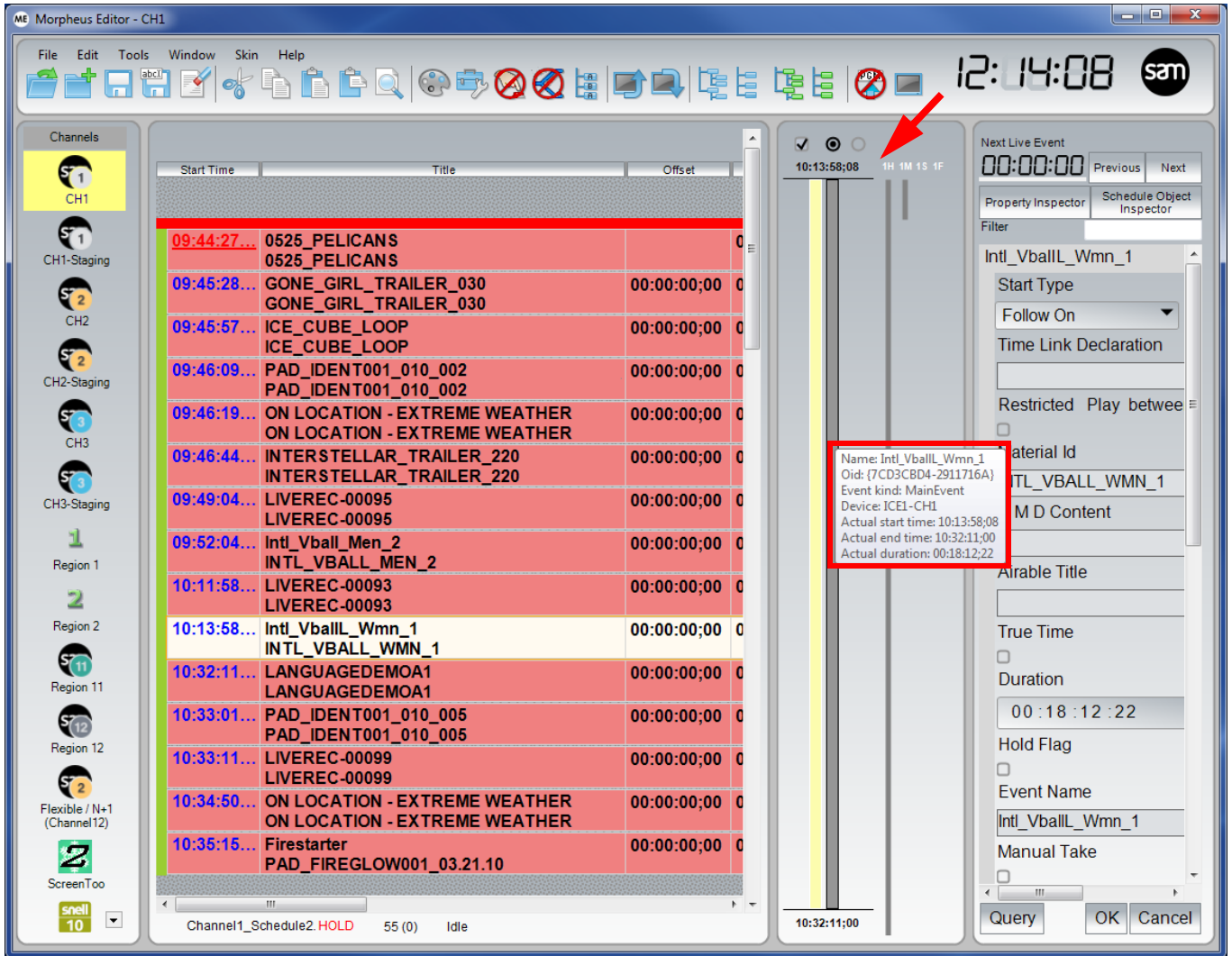


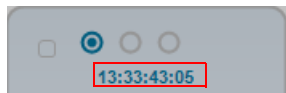
Figure 75 Event Ruler: Light and Dark Skins

When hovering the mouse over an event, its color changes to yellow and the event details appear in a pop-up window. The event details include:

- Event name
- Event kind (for example, BreakHeader)
- Device
- Actual start time
- Actual end time
- Actual duration

### 6.5.2.1 Event Times

The starting time of the earliest event is displayed at the top of the ruler as shown below:



This can be the starting time of a child event if it begins before the main (parent) event. The latest time that an event ends is displayed at the bottom of the ruler. This can also be the end time of a child event. The start and end times appear in **hh:mm:ss:ff** (hours, minutes, seconds and frames).

The ruler contains a 'length of time' option as shown in Figure 76:

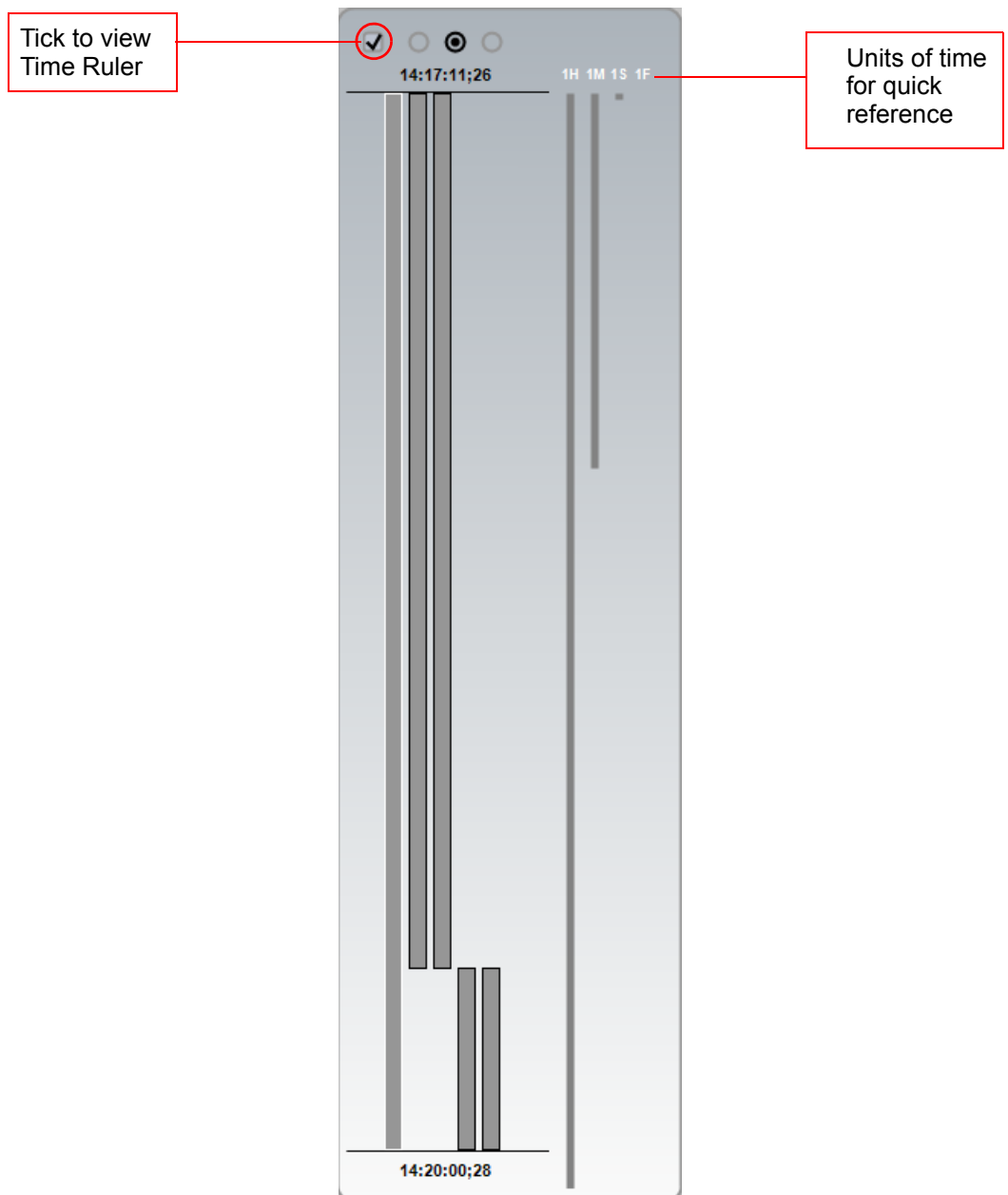


Figure 76 Light and Dark Event Ruler Pane

Selecting this option displays vertical units of time allowing the approximate duration of an event to be seen at a glance.

The available units are:

- **One hour** - displays a vertical bar that represents a timescale of one hour. If an event has a running time of less than one hour, the event bar is shorter than the 'one hour' bar.
- **One minute** - displays a vertical bar that represents a timescale of one minute. If an event has a running time of less than one minute, the event bar is shorter than the 'one minute' bar.
- **One second** - displays a vertical bar that represents a timescale of one second. If an event has a running time of more than one second, the event bar is longer than the 'one second' bar.
- **One frame** - displays a vertical bar that represents a timescale of one frame. If an event has a running time of more than one frame, the event bar is longer than the 'one frame' bar.

### 6.5.2.2 Display options

There are three main display options when using the light and dark skin event ruler.

#### Show All Events

This option displays the selected event and all other events above and below it in the hierarchy (as well as sibling events) as shown in the example below:

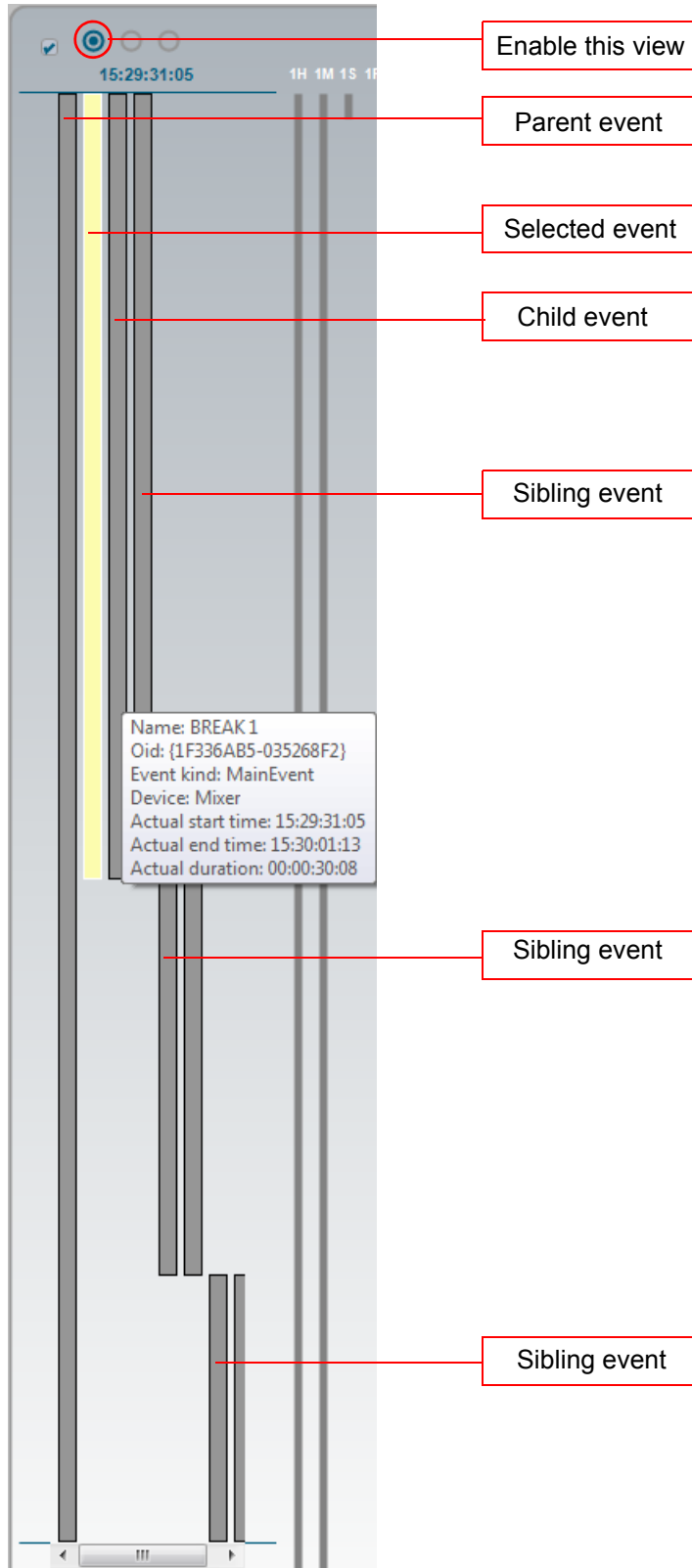


Figure 77 Show All Events Option

Show selected event and all its children

This option displays the selected event on the schedule and all of its children as shown below.

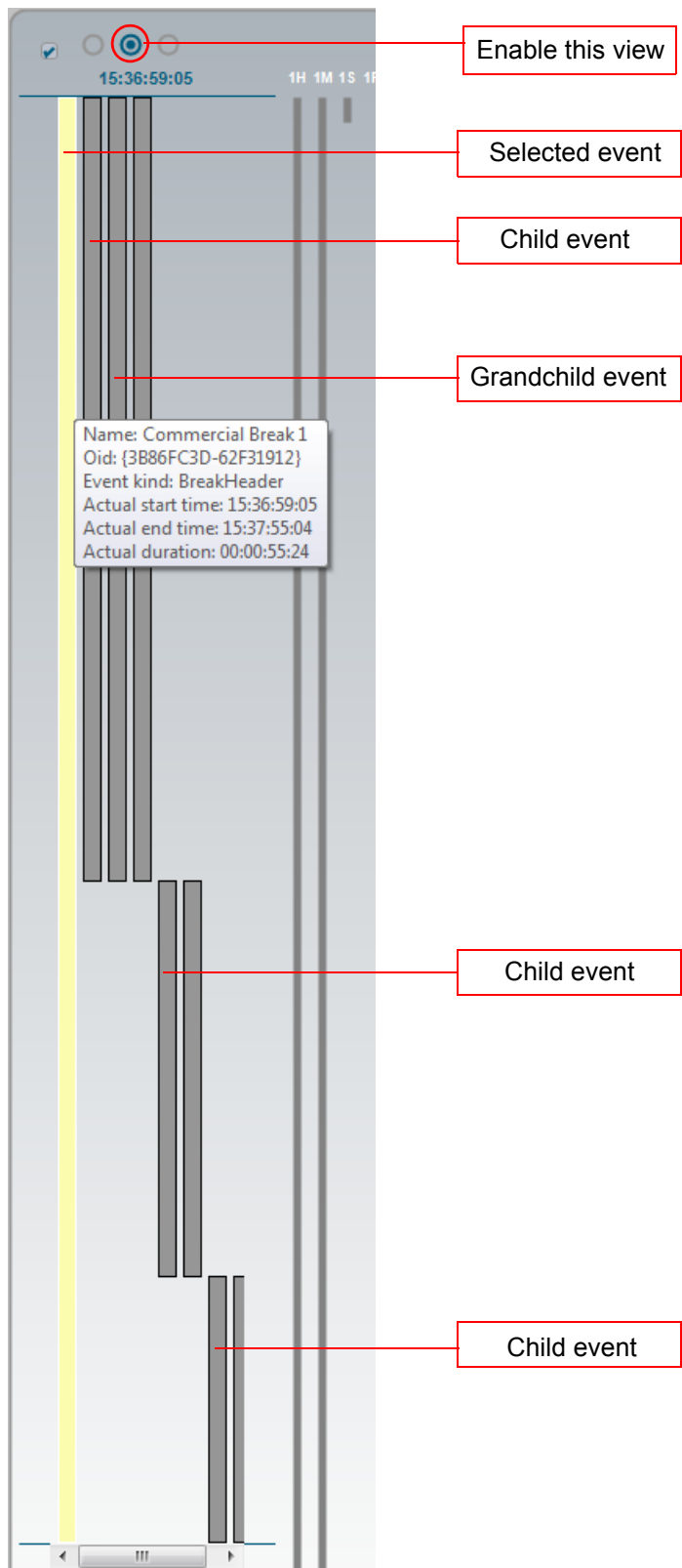


Figure 78 Show Selected Event and All its Children - Example 1



With this option selected, events above the selected event in the hierarchy and siblings are not included as shown in the example below:

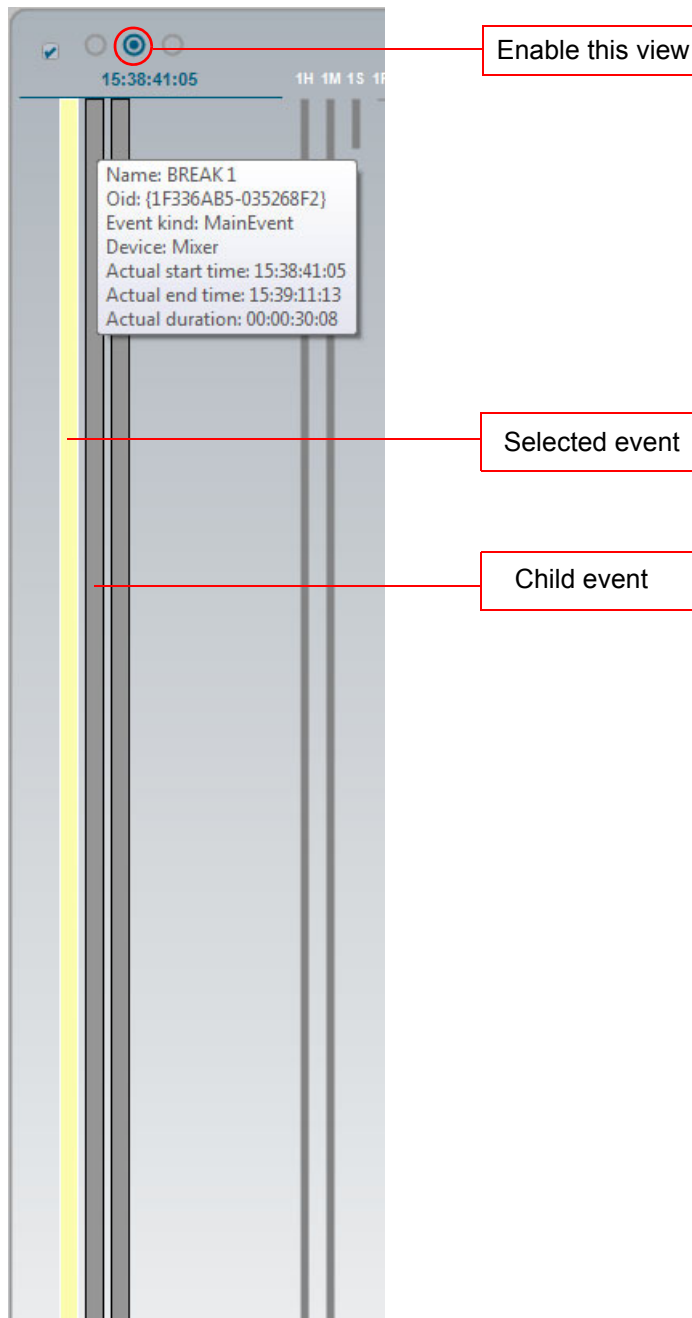


Figure 79 Show Selected Event and All its Children - Example 2

Show Selected Event and its Immediate Children Only

This option displays the selected event and only its immediate children. No parent, sibling or grandchild events are displayed.

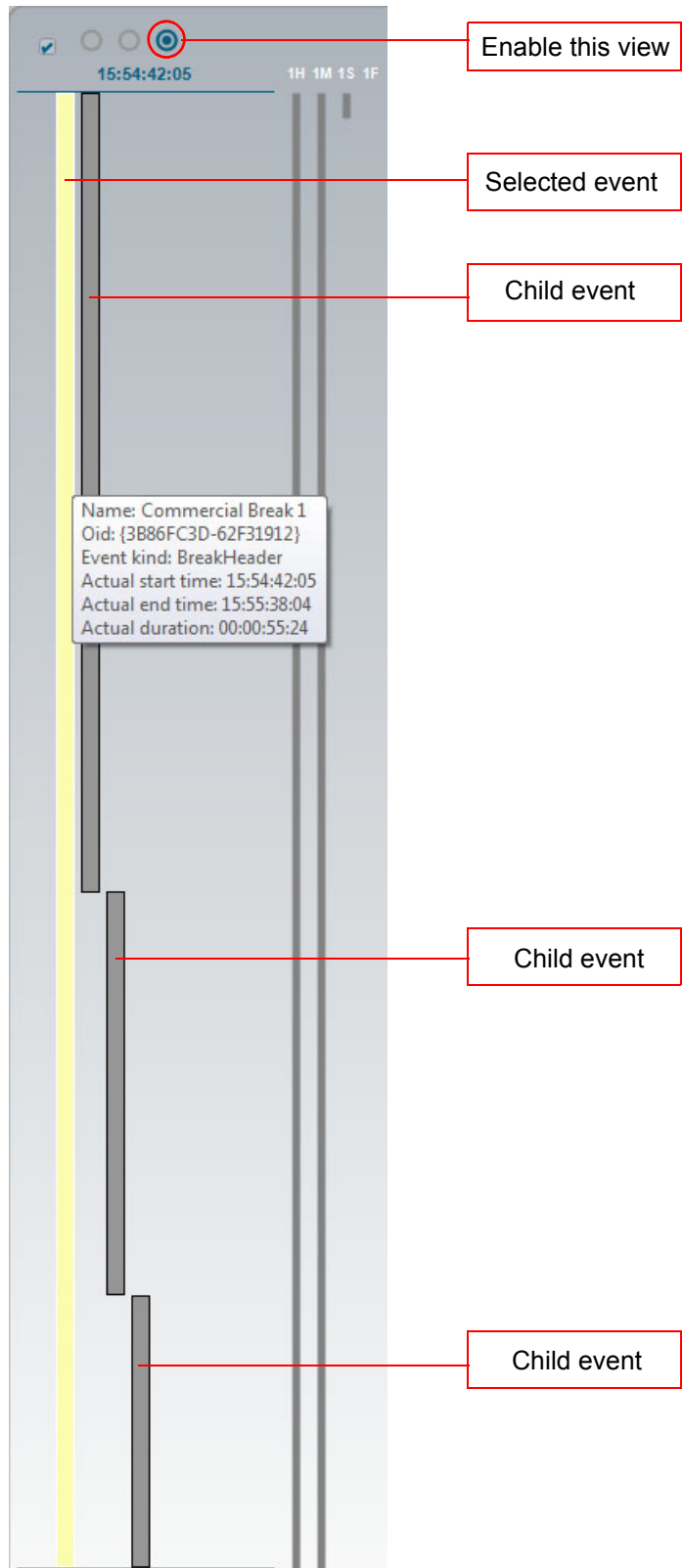


Figure 80 Show Selected Event and its Immediate Children Only

# 7. The Palette

The 'Palette' allows the Morpheus media management database (refer to page 212) to be searched for material. When the material has been found, drag and drop it onto the schedule as an event.

To open the Palette, do one of the following:

- From the **Window** menu, choose **Palette**.
- On the toolbar, click **Palette**.



- Press **F8**.

The Palette window is displayed.

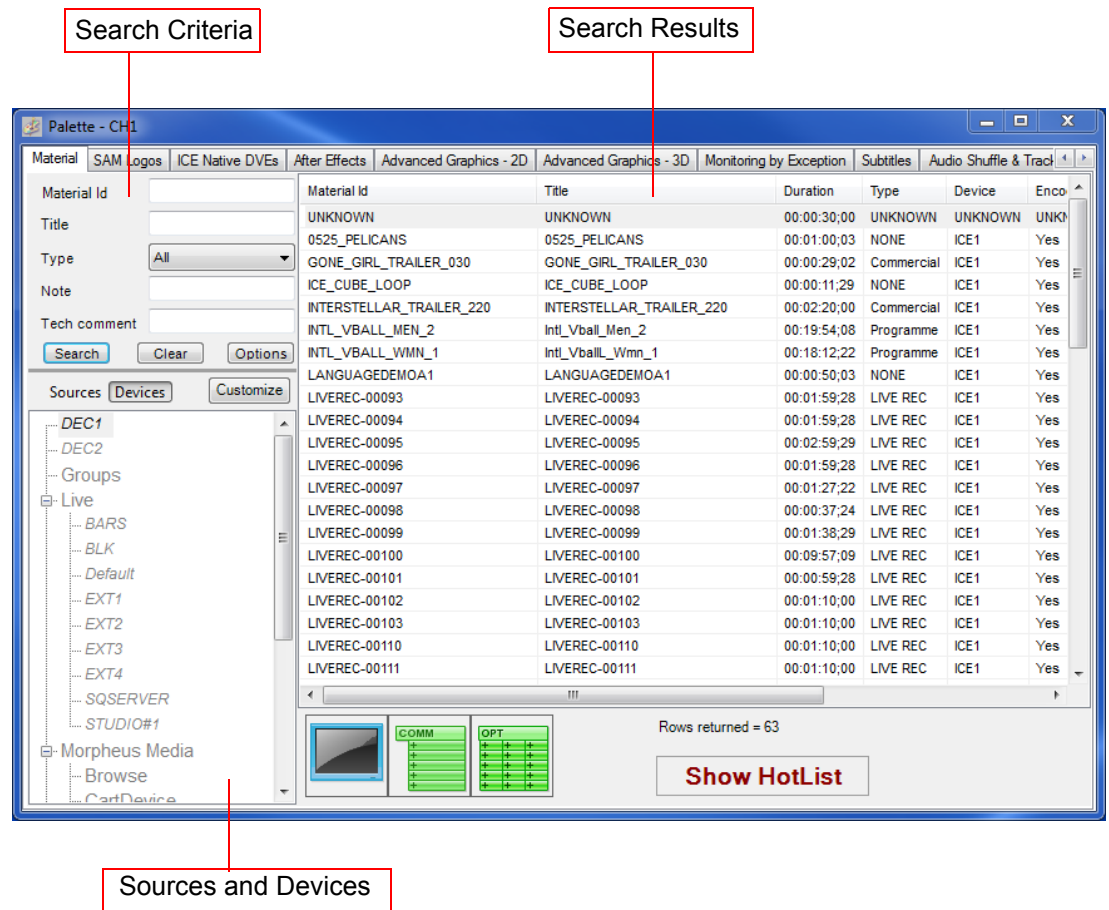


Figure 81 The Palette - Initial View

An unknown event always appears at the top of the search results area. This is a placeholder or default event for modification and has a default duration of 30 seconds.

Material Id	Title	Duration	Type	Device	Encoded
UNKNOWN	UNKNOWN	00:00:30:00	UNKNOWN	UNKNOWN	UNKNOWN

When a live source is selected, the top line's title changes to LIVE (it remains as UNKNOWN for a non-live Source) and its duration becomes that of the selected channel's default main event as shown below:

Material Id	Title	Duration	Type	Device	Encoded
LIVE	UNKNOWN	00:00:00:00	UNKNOWN	UNKNOWN	UNKNOWN

Subsequently, if that item is dropped onto the schedule, its title (either LIVE or UNKNOWN) and duration are retained.

## 7.1 Palette Configuration

Two right click menus are available from different areas of the Palette window:

- **Customise** menu
- **Search Options** menu

### 7.1.1 Palette Appearance and Behaviour: Using the Customise Menu

Right-click on any pane, except in the Search Criteria area.

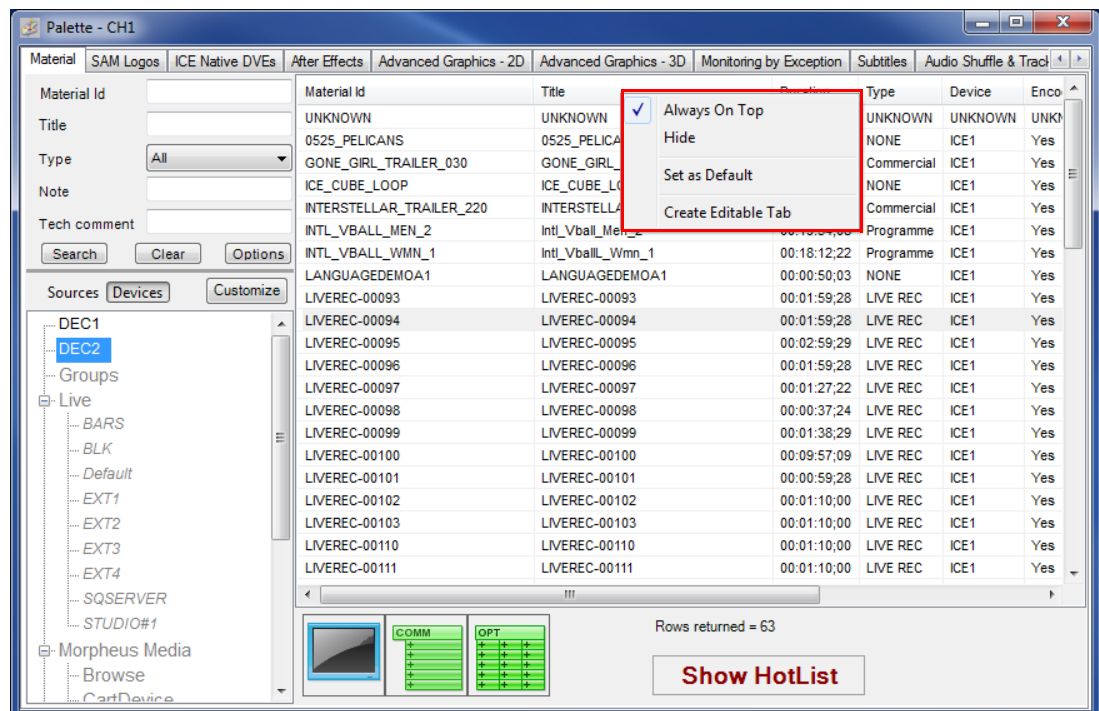


Figure 82 Palette: Customise Menu

#### - Always on Top / Hide

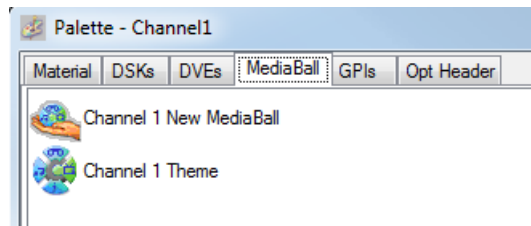
When moving material between the Palette and Editor, it is practical to display the Palette on the top. Ensure that the Palette is never hidden behind the Editor by clicking on **Always on Top** - in order to revert to normal windows behaviour, click on **Hide**.

#### - Set as Default

This parameter only appears in the Customise menu when right clicking in the Sources pane.

### 7.1.1.1 Tabs on the Palette

Depending on the system configuration, several tabs may appear at the top of the Palette window. For example:



**Figure 83 Tabs on the Palette**

The Material tab allows material to be searched for, and for primary events to be added to the schedule (refer to 'Searching for Material' below and 'Adding a Primary Event to the Schedule' on page 137).

The other tabs allow secondary events to be added to the schedule (refer to 'Adding a Secondary Event to the Schedule' on page 140).

## 7.1.2 Searching for Material: Using the Search Options Menu

Click on the **Options** button, or Right click, in the 'Search Criteria' pane.

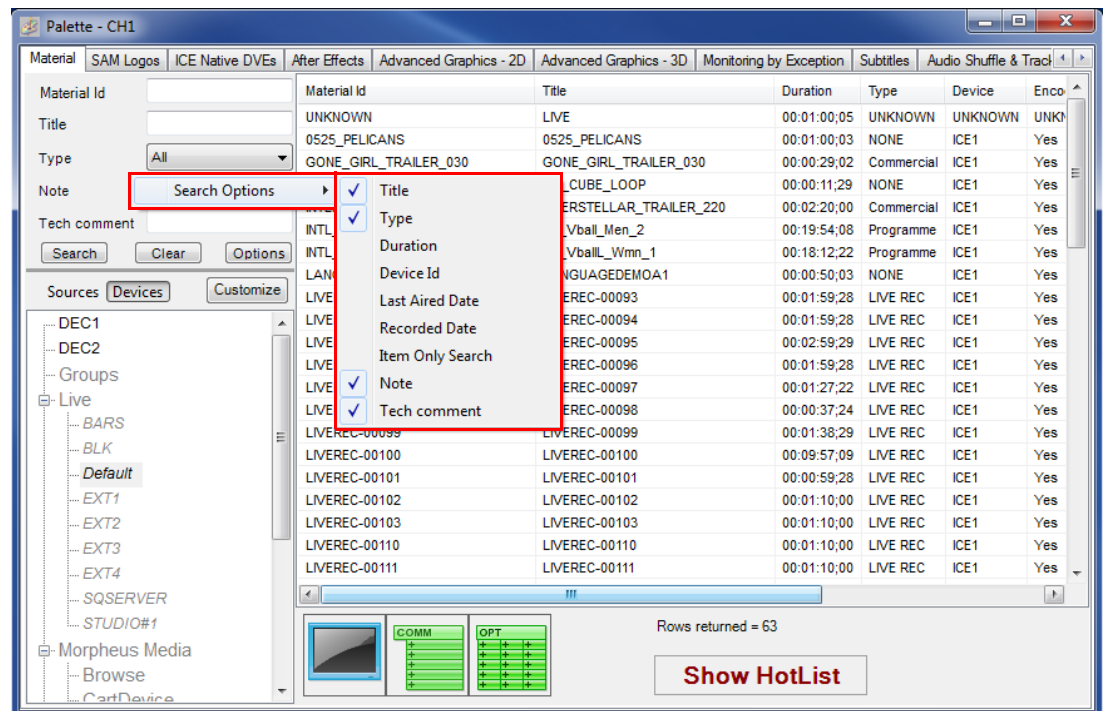


Figure 84 Palette: Customise Menu

Select the fields with which to perform searches for material against a selected source or device - each selected search field is displayed in the Search Criteria pane.

Results are displayed in the Search Results pane, and are limited by default to 1000 rows (configurable). The actual number of rows of results found, up to the configured limit, is displayed below the Search Results pane. Click on a column heading to sort results in ascending or descending order.

### Wildcards

- \_ (underscore): any single alphanumeric character
- % (percent): any number of alphanumeric characters

### Operation

Click on the **Sources** or **Devices** buttons, click on a source / device, then enter a string against one or more of the search criteria, and click on the **Search** button.

Use the **Clear** button to clear all Search Criteria Fields simultaneously in order to perform a different search - the **Clear** button does not remove the search results.

### 7.1.2.1 Search Criteria

- **Title**

Perform a search based upon the title of the material.

- **Type**

Perform a search against a material type - select one of the following from the drop-down menu:

**All:** returns a list that includes all material types.

**Junction:** channel idents and other interstitials

**Programme:** main programme items.

**Commercial:** revenue generating advertisements.

**LiveRec:** material that was recorded live, perhaps using a 'crash record' process.

- **Duration**

Search for material based on a specific duration: enter the required duration in both the From and To fields.

Search for material based upon a duration range: enter the shortest duration in the From field and the longest duration in the To field.

**Note:**

Values can be entered manually or modified using the up and down keyboard keys.

- **Last Aired Date**

Search for material based upon the date it was last aired. Click on the arrow next to the **Recorded Date** field then select from the following:

**Unknown:** the recorded date is not known.

**One week:** search for material with a recorded date that falls within the last week.

**One month:** search for material with a recorded date that falls in the last month.

**Specify dates:** search for material that was recorded within a date range using the From an To calendar dates.

- **Recorded Date**

Search for material based upon the date that it was recorded. Click on the arrow next to the **Recorded Date** field then select from the following:

**Unknown:** the recorded date is not known.

**One week:** search for material with a recorded date that falls within the last week.

**One month:** search for material with a recorded date that falls in the last month.

**Specify dates:** search for material that was recorded within a date range using the From an To calendar dates.



## 7.2 Adding a Primary Event to the Schedule

A primary event can be added to the schedule as a follow-on or fixed event (refer to 'Primary and Secondary Events' on page 108 and 'Follow -on and Fixed Events' on page 117).

### 7.2.1 Adding a Follow-on Event to the Schedule

1. On the Palette, search for the material to be placed on the schedule (refer to Section 7.1.2 Searching for Material: Using the Search Options Menu).
2. From the devices area, select the required device or source.

**Note:** If placing commercials on the schedule, it is recommended that only revenue generating advertisements are used. When using the 'Event Summary' option, the total time of the commercials is displayed. This ensures that the schedule keeps to mandatory guidelines (refer to 'Event Summary' on page 58).

3. Drag the event from the Palette onto the schedule.

The item is placed immediately below the event it is dragged to. If the item is to be placed at the end of the schedule, drag it to the space below the last event.

**Note:** As the event is dragged, the mouse pointer displays the following icons, indicating, respectively, a follow-on event, a default event and a sibling event.



A sibling event is an event that is at the same level as the previous event.

## 7.2.2 Adding a Fixed Event to the Schedule

1. On the Palette, search for the material to be placed on the schedule (refer to Section 7.1.2 Searching for Material: Using the Search Options Menu).
2. From the devices area, select the required device or source.

**Note:** If placing commercials on the schedule, it is recommended that only revenue generating advertisements are used. When using the 'Event Summary' option, the total time of the commercials is displayed. This ensures that the schedule keeps to mandatory guidelines. Refer to 'Event Summary' on page 58.

3. Drag the event from the Palette onto the **Start Time** column on the schedule (refer to 'Start Time' on page 26).

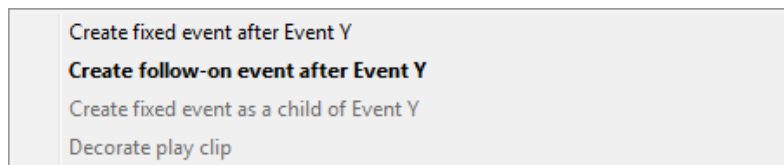
**Note:** As the event is dragged, the mouse pointer displays the following icons, indicating, respectively, a fixed event, a default event and a sibling event.



A sibling event is an event that is at the same level as the previous event.

## 7.2.3 Right-Click Menu Options

If right-clicking and dragging an event from the Palette onto the schedule, the following menu is displayed. Select the required option from the menu.



**Note:** 'Event Y' is an existing event in the schedule over which the mouse button has been released.

## 7.2.4 Material Type Text Colors

The event title on the schedule shows a different color for each material type. Each color is shown below:

- Programme - blue
- Commercial - magenta
- Junction - red
- Live - brown
- Live record - brown

**Note:** Depending on the configuration of the Editor configuration, the colours on the schedule may vary from those shown in this manual.

### 7.3 Adding a Default Event to the Schedule

A new default event can be added directly to the schedule from the Editor window as follows:

1. Select the event below which the new event is to be placed, and click on the **Add a Default Event** icon on the Toolbar.



A new event appears on the schedule with the title 'Manual Addition'.

## 7.4 Adding a Secondary Event to the Schedule

Refer to 'Primary and Secondary Events' on page 108.

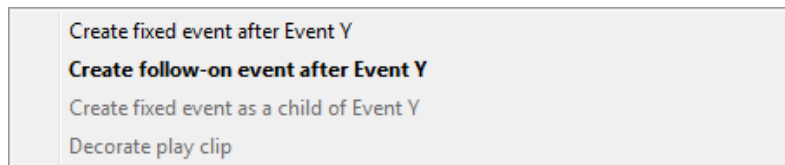
1. On the Palette, click on the relevant tab.
2. Click and drag the required event onto the relevant primary event on the schedule.
3. If necessary, click on the plus symbol in the **Link** field (refer to page 27) for the event to display the secondary event.
4. Edit the event's fields as required in the Property Inspector (refer to page 166).
5. Use the event ruler (refer to page 122) to ensure that the event will behave as expected.

**Note:**

The Editor may be configured so that a secondary event can be added by double-clicking. Highlight the primary event on the schedule and, on the required Palette tab, double-click on the secondary event to be added.

### 7.4.1 Right-click Options

When right-clicking and dragging a secondary event from the Palette onto the schedule, the following menu is displayed. Select the required option from the menu.



### 7.4.2 Adding the Secondary Event to the Palette for Future Use

In order to use the event in the future, create a 'MediaBall' containing that event (refer to 'Adding a MediaBall' on page 144).

## 7.5 Adding a Break Header to the Schedule

For a description of a break header, refer to 'Break Header' on page 112.

On the Palette window, drag the Break Header icon (shown below) onto the event on the schedule that immediately precedes the break.



The break header is added to the schedule and given the title 'Break -'.

**Note:** A break header is disabled on the schedule until it contains a main event.

### 7.5.1 Changing the Title and Duration Mode of the Break Header

#### Change the Title

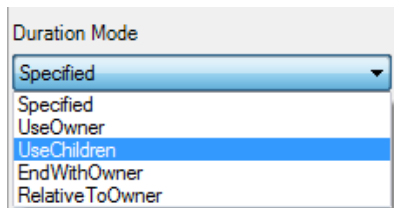
The title of the break header can be changed using the **Event Name** field on the 'Property Inspector' (refer to page 166).

- In the **Event Name** field, type the required name for the break header and click **OK**.

**Note:** The title can also be changed on the schedule. In the **Title** field, double-click on the title, edit the title as required and then press Enter.

#### Change the Duration Mode

To ensure that the duration of the break header matches the total duration of the commercials within it, select **Use Children** from the **Duration Mode** field on the Property Inspector (refer to page 166).



**Note:** This option may not be visible on the Property Inspector. The two most common settings are **Specified** or **Use Children**.

## 7.5.2 Adding Commercials to the Break Header

**Note:**

It is recommended that only revenue generating advertisements are used. When using the 'Event Summary' option, the total time of the commercials is displayed. This ensures that the schedule keeps to mandatory guidelines (refer to 'Event Summary' on page 58).

1. On the Palette, search for the first commercial that is to be placed under the break header (refer to Section 7.1.2 Searching for Material: Using the Search Options Menu).
2. Hold down the right mouse button and drag the commercial from the schedule on to the break header.
3. Release the mouse button to display the following menu:

Create fixed event after System Default - Break Header  
**Create follow-on event after System Default - Break Header**  
Create fixed event as a child of System Default - Break Header  
Decorate play clip

4. Select **Create fixed event as a child of System Default - Break Header**.
5. Continue to add further commercials in this way.

## 7.6 Inserting an Opt Header

(For a description of an opt header, refer to page 112).

**Note:** An opt header has no use in a single channel system, or in a multi channel system where the channels are independent.

### 7.6.1 Adding an Opt Header to the Schedule

- On the Palette, drag the Opt icon onto the event on the schedule below which to insert the opt header.



The opt header is added to the schedule and given the title 'New Opt Header' - it also appears on the opt-out channel.

### 7.6.2 Adding Events to the Opt Header

- On the Palette, search for the first event to be placed under the break header (refer to Section 7.1.2 Searching for Material: Using the Search Options Menu).
- Hold down the right mouse button and drag the event from the schedule on to the break header.
- Release the mouse button to display the following menu:

Create fixed event after New Opt Header  
**Create follow-on event after New Opt Header**  
 Create fixed event as a child of New Opt Header  
 Decorate play clip

- Select **Create fixed event as a child of New Opt Header**.

**Note:** If adding commercials, it is recommended that only revenue generating advertisements are used. When using the 'Event Summary' option, the total time of the commercials is displayed. This ensures that the schedule keeps to mandatory guidelines (refer to 'Event Summary' on page 58).

### 7.6.3 Duration Mismatch

If the opt breaks in the opt-out channels differ, large + and – signs appear against the durations of the break headers to indicate this.



**Note:** Depending on the system configuration, validation icons can appear in the **Validation** column on the schedule if the duration of the opt breaks differs (refer to 'Validation' on page 38).

## 7.7 Adding a MediaBall

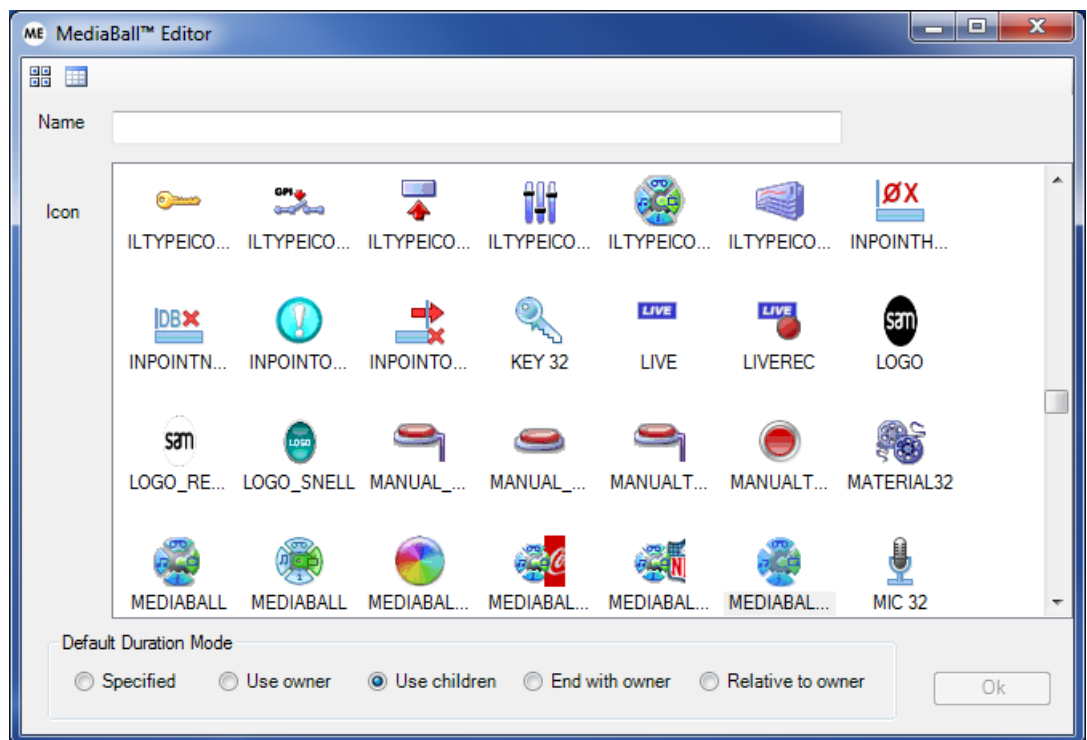
For a description of a MediaBall, refer to 'MediaBall Header' on page 117.

### 7.7.1 Creating a MediaBall

**Note:** MediaBalls can only be created if the used role permits it.

1. On the Palette, click on the MediaBall tab (or another tab if required).
2. On the schedule, highlight the secondary event(s) to be included in the MediaBall (refer to page 43).
3. Point to any of the highlighted events.
4. Hold down the right mouse button and drag the events to a blank area on the MediaBall tab (or other tab).

The **MediaBall™ Editor** window is displayed.



**Figure 85 The MediaBall Editor Window**

5. In the **Name** field, type a name for the MediaBall.
6. From the **Icon** section, click on the required icon.



7. Select the required **Default Duration Mode**:
  - **Independent** - indicates that the duration of the MediaBall is specified independently rather than being inherited from the parent event.
  - **Use Owner** - sets the duration of the MediaBall event to be equal to that of its parent.
  - **Use children** - sets the duration of the parent event to the total duration the child MediaBall events.
  - **End with parent** - sets the MediaBall to end at the same time as the parent event (refer to Primary and Secondary Events on page 108).
  - **Relative to owner** - allows two offsets to be set, one from the start and one from the end of the parent event.

**Note:**

For information on event relationships, refer to Primary and Secondary Events on page 108).

8. Click **OK**.

The new MediaBall is displayed on the tab.

### 7.7.2 Adding a MediaBall to the Schedule

1. On the Palette, click on the MediaBall tab.
2. Drag the required MediaBall onto the required primary event on the schedule (refer to 'Primary and Secondary Events' on page 108).
3. If necessary, click on the plus symbol in the **Link** field (refer to page 27) for the event to expand the Mediaball and ensure it contains the expected items.

The MediaBall header should have the same start time (refer to page 26) and duration (refer to Chapter 3.2.6 Event Field: Duration) as the parent event.

4. Use the event ruler (refer to page 122) to ensure the MediaBall will behave as expected.

## 7.8 The Hotlist

The 'hotlist' is a list of frequently used material - build a hotlist for future use by adding items from the schedule.

### 7.8.1 Displaying the Hotlist

- On the Palette, click on the Material tab.  
The search results area is displayed in 'database query' view.
- To switch to 'hotlist' view and display the hotlist, click on the Show Hotlist button:

**Show HotList**

### 7.8.2 Adding Material to the Hotlist

1. On the schedule, highlight the events to be added to the hotlist (refer to page 43).
2. Point to one of the highlighted items.
3. Hold down the right mouse button and drag the items onto the hotlist.

### 7.8.3 Moving Material From the Hotlist to the Schedule

#### 7.8.3.1 Adding the Material as a Follow-on Event

'Follow-on Events' are covered on page 121.

1. On the hotlist, point to the event to be moved to the schedule.
2. Drag the event from the hotlist onto the required position on the schedule.

**Note:** Whilst dragging, the mouse pointer displays the following icons, indicating, respectively, a follow-on event, a default event and a sibling event. A sibling event is an event that is at the same level as the previous event.



#### 7.8.3.2 Adding the Material as a Fixed Event

'Fixed Events' are covered on page 122.

- On the hotlist, point to the event to be moved to the schedule.
- Drag the event from the hotlist onto the **Start Time** column on the schedule (refer to page 26).

**Note:** Whilst dragging, the mouse pointer displays the following icons, indicating, respectively, a fixed event, a default event and a sibling event. A sibling event is an event that is at the same level as the previous event.



### 7.8.4 Deleting an Item from the Hotlist

1. Click on the item to be deleted.
2. On the keyboard, press **Delete**.

### 7.8.5 Clearing the Hotlist

- To clear all items from the hotlist, click **Clear Hotlist**.

**Note:** The UNKNOWN event remains.

### 7.8.6 Returning to Database Query View

- To return to database query view from the hotlist, click:

**Show DB Query**

## 7.9 Thumbnails

If a Material ID in the Palette is a valid Material ID in a connected Momentum system and a thumbnail image exists, it appears in the Palette as shown below:

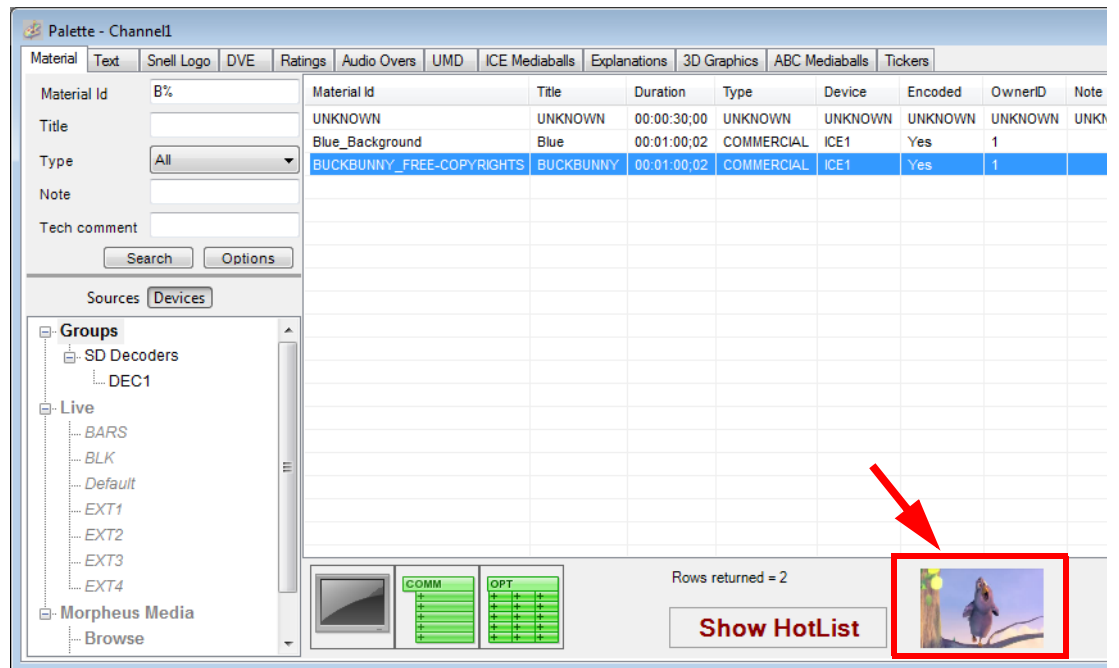


Figure 86 The MediaBall Editor Dialog Box

If the Material ID in the Palette is a valid Material ID in the Momentum system but it does not have a thumbnail image, the default icon is displayed:



If the Material ID in the Palette does not exist in the Momentum system, no thumbnail image or icon is displayed.

## 8. The Commercial Hotlist

The Commercial Hotlist provides a way of manipulating content in a channel's playlist quickly, usually during a live event. Using the Commercial Hotlist, a change can be made to a break in one channel that will ripple through to linked breaks in other channels. This means that it is not necessary to make changes individually across channels.

Using the Commercial Hotlist, it is possible to perform the following actions:

- Add or delete material across channels from future breaks or from the on air break.
- Return immediately from a break to the live programme, regardless of the point in the material.
- Return from a break to a live programme but allow the playing material to finish.
- Replace a break on the schedule with another on the Commercial Hotlist.
- Move a break to the preset position on the schedule.
- Add a break across all channels.
- Add material to any selected unplayed break on a single channel or multiple channels.
- Remove material from an unplayed break.
- Divide a break at a specific time.
- Add breaks and schedules to the Commercial Hotlist that can later be added across channels.
- Load and edit schedules generated by the BXF Schedule service.

### 8.1 Displaying the Commercial Hotlist

From the **Tools** menu, choose **Commercial Hotlist**.

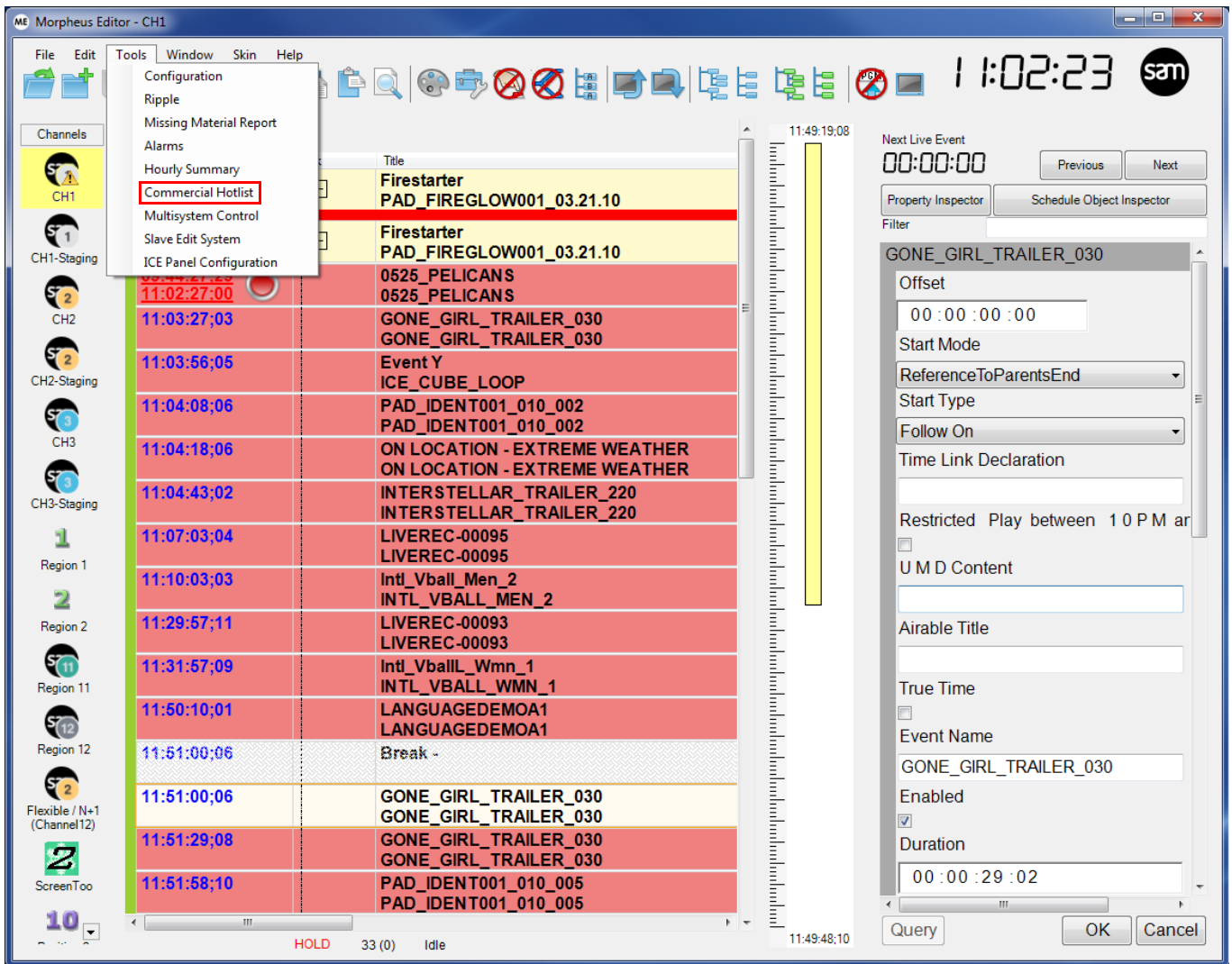
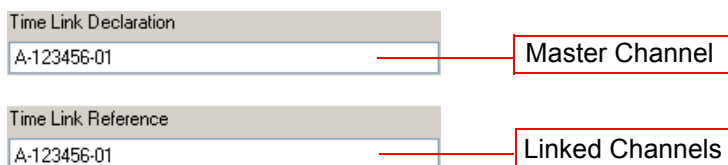


Figure 87 Morpheus Editor Tools Menu

### 8.2 Timelinking

In order for the changes to ripple through to other channels, the breaks use the **Time Link Declaration** and **Time Link Reference** fields on the Property Inspector. For more information, refer to 'Time Link Declaration/Time Link Reference' on page 187.



### 8.3 The Commercial Hotlist Window

This section contains information on the Commercial Hotlist Window.

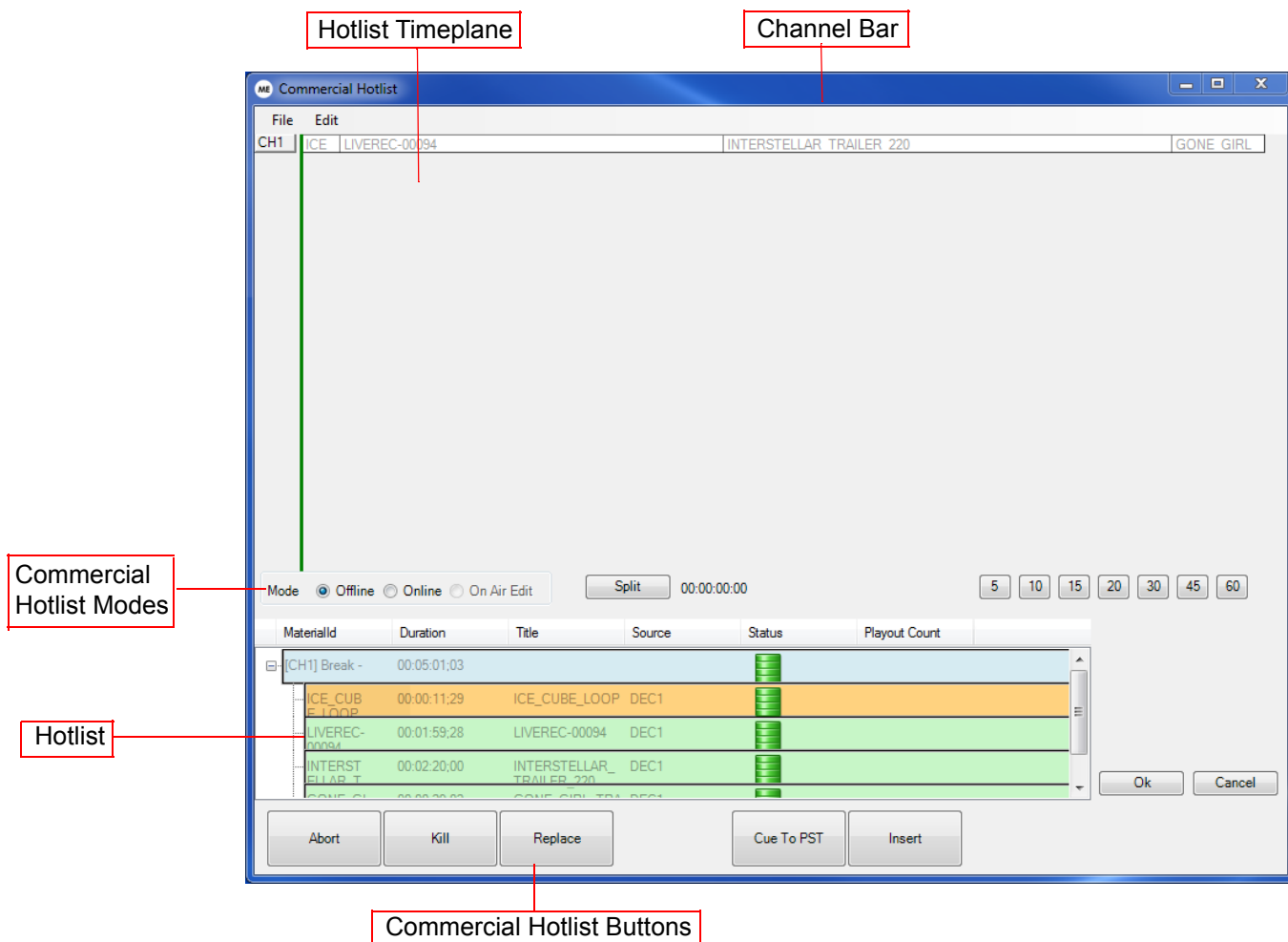


Figure 88 The Commercial Hotlist Window

#### 8.3.1 Hotlist Timeplane

Provided that the Commercial Hotlist is configured to show the Hotlist Timeplane, it is displayed in the top section of the window. When a break is selected in the Hotlist (see below), its contents appear in the Hotlist Timeplane. For detailed information about the Hotlist Timeplane, refer to Section 8.7 Online Mode.

**Note:** The displayed channel name is dependent upon the configuration of the Commercial Hotlist.

#### 8.3.2 Hotlist

The 'Hotlist' is displayed in the bottom section of the window. It shows breaks from merged schedules. For detailed information about the Hotlist, refer to Section 8.8 Offline Mode.

### 8.3.3 Channel Bar

A channel bar is displayed to the left of the Hotlist Timeplane. This shows each available channel.

### 8.3.4 Commercial Hotlist Modes

One of three modes can be selected when working with the Commercial Hotlist - the mode that is selected determines the options that are available. There three modes are:

- Online - refer to Section 8.7 Online Mode
- Offline - refer to Section 8.8 Offline Mode
- On Air Edit - refer to Section 8.9 On Air Edit Mode

### 8.3.5 Commercial Hotlist Buttons

According to the configuration, the following buttons may be available at the bottom of the Commercial Hotlist window:

- Kill - refer to page 163
- Abort - refer to page 163
- Replace - refer to page 164
- Cue to Air - refer to page 164
- Cue to PST - refer to page 164

## 8.4 Loading a Schedule into the Commercial Hotlist

1. From the Commercial Hotlist **File** menu, select **Load Breaks from Schedule**.  
The **Open** dialog box is displayed.
2. Browse to the drive and folder containing the required schedule.
3. Select the schedule and click **Open**.

The breaks are loaded into the Hotlist at the bottom section of the window.

**Note:** As with the Editor window, barrels appear in the **Status** column to indicate the status of the breaks on the playout device (refer to 'Status Barrels' on page 34).

## 8.5 Clearing the Commercial Hotlist

1. From the **File** menu, choose **Clear Hotlist**.
2. To confirm, click **Yes**.



## 8.6 Search and Replace on the Commercial Hotlist

Events can be searched for on the Commercial Hotlist by Material ID, and the Material IDs can be changed using the **Replace** feature.

To use this feature, click **Edit -> Replace** on the menu toolbar. The following dialog box is displayed:

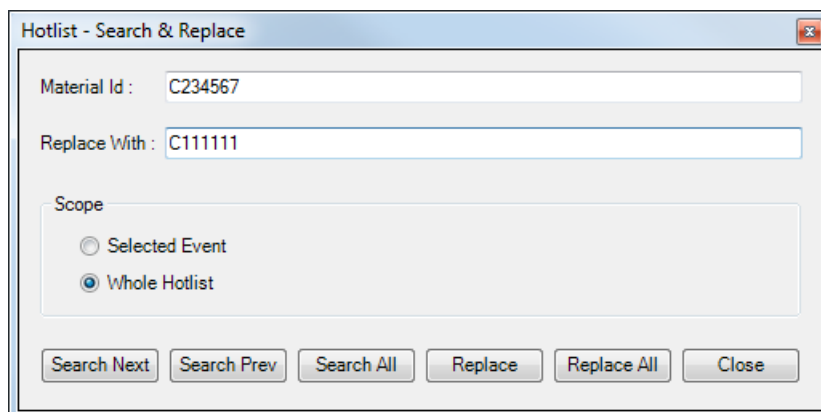
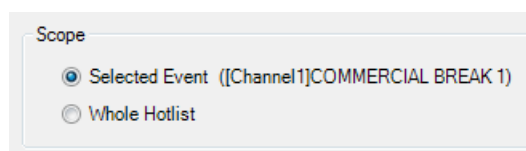


Figure 89 Opt Header Links

### 8.6.1 Hotlist Scope

The search and replace feature can be used on a single event or on the entire hotlist by selecting an option in the **Hotlist Scope** section.

- **Event** - The search and replace feature applies only to the currently selected event in the Commercial Hotlist. The event name appears next to the **Event** option as shown below:



- **Hotlist** - The search and replace feature applies to every event currently in the Commercial Hotlist.

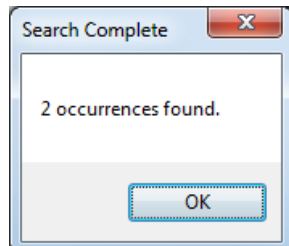
### 8.6.2 Searching for Material

To search for material, enter the Material ID of the item into the **Material ID** text box.

Clicking **Search Next** highlights the next item in the hotlist that matches the Material ID.

Clicking **Search Prev** highlights the previous instance of the item in the hotlist.

Clicking **Search All** displays a pop-up window containing the number of instances of the material that have been found in the hotlist as shown in the example below:



### 8.6.3 Replacing Material IDs

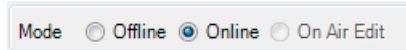
To replace the Material ID of an event:

1. Click on the event in the Commercial Hotlist.
2. Enter the Material ID that to be replaced in the Material ID text box.
3. Enter the Material ID that will replace it in the **Replace With** text box.
4. Click **Replace** to change the event Material ID. Click **Replace All** to change the Material IDs of all matching events.

## 8.7 Online Mode

Online mode links the Editor schedule and Hotlist Timeplane. In this mode, any change made to a break on the Hotlist Timeplane (refer to page 151) affects breaks across linked channels. For example, if material is removed from a break, that material is also deleted from breaks in selected linked channels.

To work in online mode, select the Online option button in the **Mode** section.



When selecting a break on the Editor schedule, the corresponding break is displayed on the Hotlist Timeplane. All timelinked channels and their material appear for that break.

In Online mode, the following actions can be performed:

- Add material to a break - refer to 'Adding Material to a Break' below
- Delete material from a break - refer to 'Deleting Material from a Break' on page 156
- Use 'Split' to divide a break at a specific time - refer to 'Using Split' on page 158

### 8.7.1 Adding Material to a Break

In Online mode, material can be added to any selected unplayed break. The material can be added to:

- All linked channels.
- A channel and its respective linked channels.
- Individual channels.

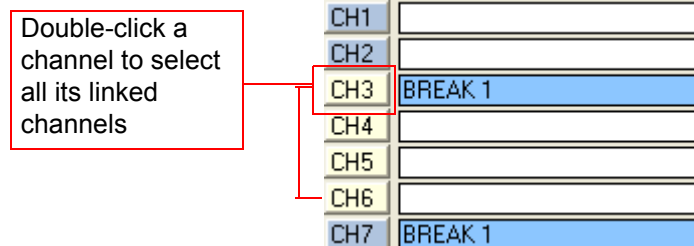
To add material to a break:

1. On the Editor schedule, select the break to edit.

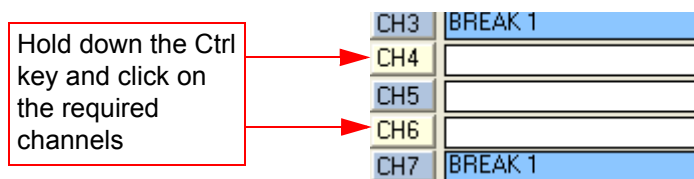
The Hotlist Timeplane shows all material for the selected break across all timelinked channels.

2. On the Hotlist Timeplane, do one of the following:

- To select all linked channels, double-click on the master channel on the channel bar.
- To select a channel and its linked channels, double-click that channel on the channel bar. For example:



- To select individual channels, hold down the Ctrl key and, on the channel bar, click on the required channels. For example:



3. Open the Palette (refer to page 131).
4. On the Palette Devices or Source tab, select a source.
5. Search for the required material (refer to Section 7.1.2 Searching for Material: Using the Search Options Menu).
6. Drag the material from the Palette to the Hotlist Timeplane.

A TV icon and a vertical line are displayed. The vertical line can be green or red:

- Green indicates that the material will play across all channels simultaneously.
- Red indicates that the material will not play simultaneously across all channels.

7. Drag the vertical line to the required position on the Hotlist Timeplane and release the mouse button.

The material drops onto all selected channels. It is added to the Editor automatically and the appropriate server is selected.

**Note:** If the drop is made with a red vertical line, the material is placed after the material it was dropped onto.

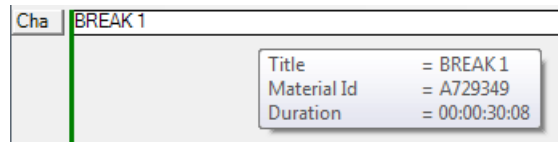
## 8.7.2 Deleting Material From a Break

In Online mode, material can be deleted from any unplayed break.

1. On the Editor schedule, select the break to edit.

The Hotlist Timeplane shows all material for the selected break across all timelinked channels.

Hover the mouse over material on the Hotlist Timeplane in order to display the title, material ID and duration of the material.



2. Select the material to remove:
  - To select individual pieces of material, hold down the **Ctrl** key and click on the material.
  - To select all material with a specific material ID, double-click one piece of material with that ID.
3. Click on **Delete**.

A confirmation message is displayed to show the number of commercials that will be deleted. It also shows that by deleting them the break duration will either be the same across channels or will not match. If a channel has been omitted, it may be necessary to add time in order to ensure that each channel has the correct break duration.

4. To confirm and delete all selected material, click **Yes**.

### 8.7.2.1 Deleting Material from an On Air Break

In order to delete material from a break that is on air, refer to 'Deleting Material from a Break' above. However, the On Air Edit mode option button must be selected first. Refer to Section 8.9 On Air Edit Mode for further information.

### 8.7.3 Using 'Split'

The **Split** button activates a green vertical line on the Hotlist Timeplane. This can be used to divide a break at a specific time.

1. In Online mode, select the required break on the Hotlist Timeplane and then click **Split**.
2. Point to the green vertical line to the right of the channel bar.
3. Click and drag the line to the required position on the break. Its color is either red or green:

Green indicates a uniform outpoint across the break in all channels. This means that the break can be divided in two at the point selected.

Red indicates that the outpoint is not uniform across all channels. This means that on some channels, material may play longer than on others before joining the programme again. The **Split** option does not allow material to be cut short.

**Note:**

An event's outpoint determines at what timepoint, in the tape item or server file, the device stops playing. This would usually be 00:00:00:00 (hours, minutes, seconds, frames) for a server event or 10:00:00:00 for a tape event (depending on the station's method of working).

4. Click **Split** and click **Yes** to confirm.

The break duration changes according to the split point.

### 8.7.4 Viewing Commercials of the Same Duration

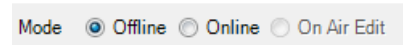
The following buttons allow commercials of equal duration to be viewed in the Hotlist Timeplane. For example, click 10 to show all 10 second commercials.



## 8.8 Offline Mode

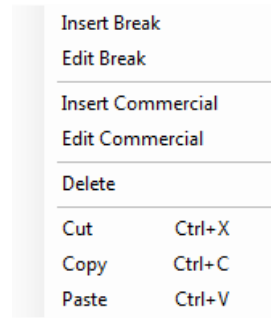
Offline mode refers to the Hotlist at the bottom of the window. When clicking on a break header on the Hotlist, all timelinked channels appear in the Hotlist Timeplane.

To work in Offline mode, select the **Offline** option button in the **Mode** section.



The Hotlist can be expanded to show material for each linked channel.

In Offline mode, breaks and material can be added, edited and deleted using the right-click menu.



Any changes made in the hotlist are not reflected on the Editor schedule.

In order to add a break to the Editor schedule that was created or edited in the Commercial Hotlist, do so using **Replace** (refer to page 164) or **Cue to PST** (refer to page 164).

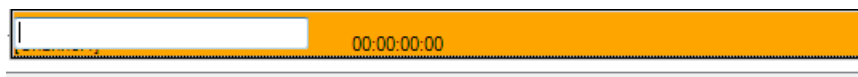
### 8.8.1 Inserting Breaks

It is possible to insert an existing break from the schedule or insert a new break directly into the hotlist.

#### 8.8.1.1 Inserting a New Break into the Hotlist

1. Right-click anywhere on the Hotlist and then choose **Insert Break**.

A new line is displayed on the Hotlist.



2. Type the name of the break and press Enter.

#### 8.8.1.2 Adding a Break from the Schedule to the Commercial Hotlist

1. Point to the required break on the schedule.
2. Right-click and drag the break onto the Hotlist.

## 8.8.2 Inserting Commercials

It is possible to insert a commercial directly into the hotlist, from the Editor Palette or from the hotlist into the schedule.

### 8.8.2.1 Inserting a Commercial from the Commercial Hotlist Interface

1. On the Hotlist, right-click on the break under which to insert the commercial.
2. From the right-click menu, choose **Insert Commercial**.  
The commercial appears below the break.
3. Enter the material ID of the break and press Enter.

**Note:**

By default, the commercial will adopt the Main Video Source defined in the configuration of the Commercial Hotlist. Double click in the Source Column of the commercial in order to display a drop down menu - change the source as required.

### 8.8.2.2 Inserting a Commercial from the Palette

1. Open the Palette (refer to page 131).
2. Search for the commercial to insert (refer to Section 7.1.2 Searching for Material: Using the Search Options Menu).
3. Drag the material from the Palette onto the required break in the Hotlist.

### 8.8.2.3 Inserting a Commercial from the Commercial Hotlist

- Right-click and drag the required commercial from the Hotlist to the required position on the schedule.



## 8.8.3 Editing Breaks and Commercials

It is possible to edit a break or just a commercial.

### 8.8.3.1 Editing a Break

1. Right-click on the break to edit and choose **Edit Break**.  
The cursor appears in the **Material Id** field.
2. Enter the required ID and press Enter.

**Note:** The material ID can also be edited by double-clicking the **Material ID** field.

### 8.8.3.2 Editing a Commercial

1. Right-click on the commercial to edit and choose **Edit Commercial**.
2. Change the MaterialId as required and press Enter.

**Note:** The material ID can also be edited by double-clicking the **Material ID** field.

3. By default, the commercial will adopt the Main Video Source defined in the configuration of the Commercial Hotlist. Double click in the Source Column of the commercial in order to display a drop down menu - change the source as required.

## 8.8.4 Deleting Breaks and Commercials

It is possible to delete a break or just a commercial.

### 8.8.4.1 Deleting a Break

1. Select the break to delete.
2. Right-click on the break and choose **Delete Break**.

**Note:** The break can also be deleted by pressing **Delete** on the keyboard.

### 8.8.4.2 Deleting a Commercial

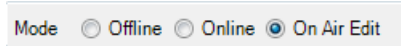
1. Select the commercial to delete.
2. Right-click on the commercial and choose **Delete Commercial**.

**Note:** The break can also be deleted by pressing **Delete** on the keyboard.

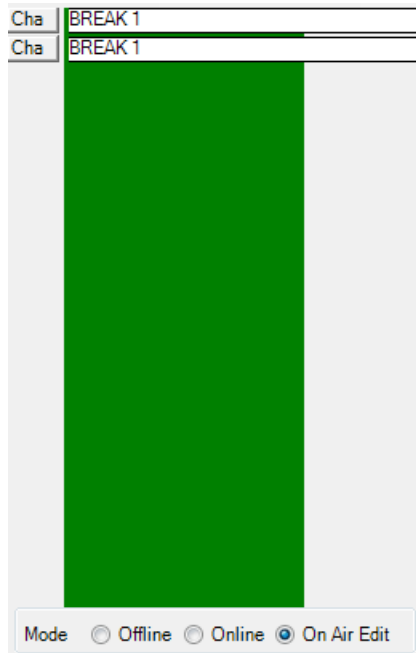
## 8.9 On Air Edit Mode

This option is only available when a break is 'on air' and references a break on another channel using time linking. The On Air Edit mode can also be used in order to make a change to a break that is currently airing.

When a break has gone to air, select the **On Air Edit** option button in the **Mode** section:



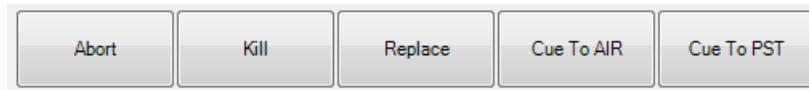
The Hotlist Timeplane displays the content for all channels for the selected (on-air) break. It also shows a green progression bar as the break plays out as shown below:



In this mode, content can be added or removed in an on air break.

## 8.10 Commercial Hotlist Buttons

The Commercial Hotlist buttons appear at the bottom of the Commercial Hotlist window. Each is described below.



### 8.10.1 Kill

Use the **Kill** button when it is necessary to return from a break to the live source, regardless of the point of the material in the break. Kill interrupts all playing content.

1. With the Commercial Hotlist in On Air Edit mode (refer to page 162), select the on air break on the schedule.

The Hotlist Timeplane shows the remaining material in the break.

2. Click **Kill**.

### 8.10.2 Abort

Use the **Abort** button when it is necessary to return from a break to the live source. Unlike Kill, Abort retains the immediate on air material and plays it until completion.

1. With the Commercial Hotlist in On Air Edit mode, select the on air break on the schedule.

The Hotlist Timeplane shows the remaining material in the break.

2. Click **Abort**.

### 8.10.3 Replace

The **Replace** button allows a break on the Editor schedule to be replaced with a break on the Hotlist.

1. With the Commercial Hotlist in Offline mode, select the break to replace on the Editor schedule.
2. On the Hotlist, select the break to replace it with, and click **Replace**.

### 8.10.4 Cue to Air

**Cue to Air** allows a break to be preset with a fixed start time (the preroll period) very shortly in the future, so that the break starts a few seconds after pressing the button. This effectively cues the break to air.

1. On the schedule, select the on air event.
2. In the Hotlist, select the break that to cue.
3. Click **Cue to Air**.

The break is deployed automatically across any linked channels.

### 8.10.5 Cue to PST

**Cue to PST** allows a break to be moved to the preset position on the schedule.

1. On the schedule, select the on air event.
2. In the Hotlist, select the break that to move to the preset position to air.
3. Click **Cue to PST**.

The break is deployed automatically across any linked channels.

**Note:**

Each of these functions only appears as a button on the main Commercial Hotlist window if it is enabled in the Commercial Hotlist configuration.

## 8.11 Transfer Requests

The Commercial Hotlist can be configured to make automatic transfer requests for material that is in the hotlist but is not present on the required devices.

To enable this feature:

1. Click **Edit - > Configuration**.
2. Click on the Database tab.
3. Select the **Enable Transfer Requests** option.
4. Click **OK**.

## 8.12 Locking Hotlist Material

The Commercial Hotlist feature can be configured to lock all material that is currently in the hotlist. This material cannot be transferred or deleted from the current device until it is removed from the hotlist.

To enable this feature:

1. Click **Edit -> Configuration**.
2. Click on the Database tab.
3. Select the **Enable Material Locking** option.
4. Enter a name to identify the material in the hotlist.
5. Click **OK**.

## 9. The Property Inspector

The 'Property Inspector' is displayed on the right-hand side of the Editor window. It displays properties for the event highlighted on the schedule for example, 'Start Type' or 'Duration'.

The parameters that appear on the Property Inspector, the order in which they appear and the properties that can be modified, are applied in the Configurator - it is not normally accessible to operators.

The Property Inspector is divided into parts corresponding to different components of the scheduled event. The parts are separated by a grey bar containing a repeat of the event name. In the following example, the upper part displays properties for the mixer (or main) event, and the lower part shows properties for the playout event.

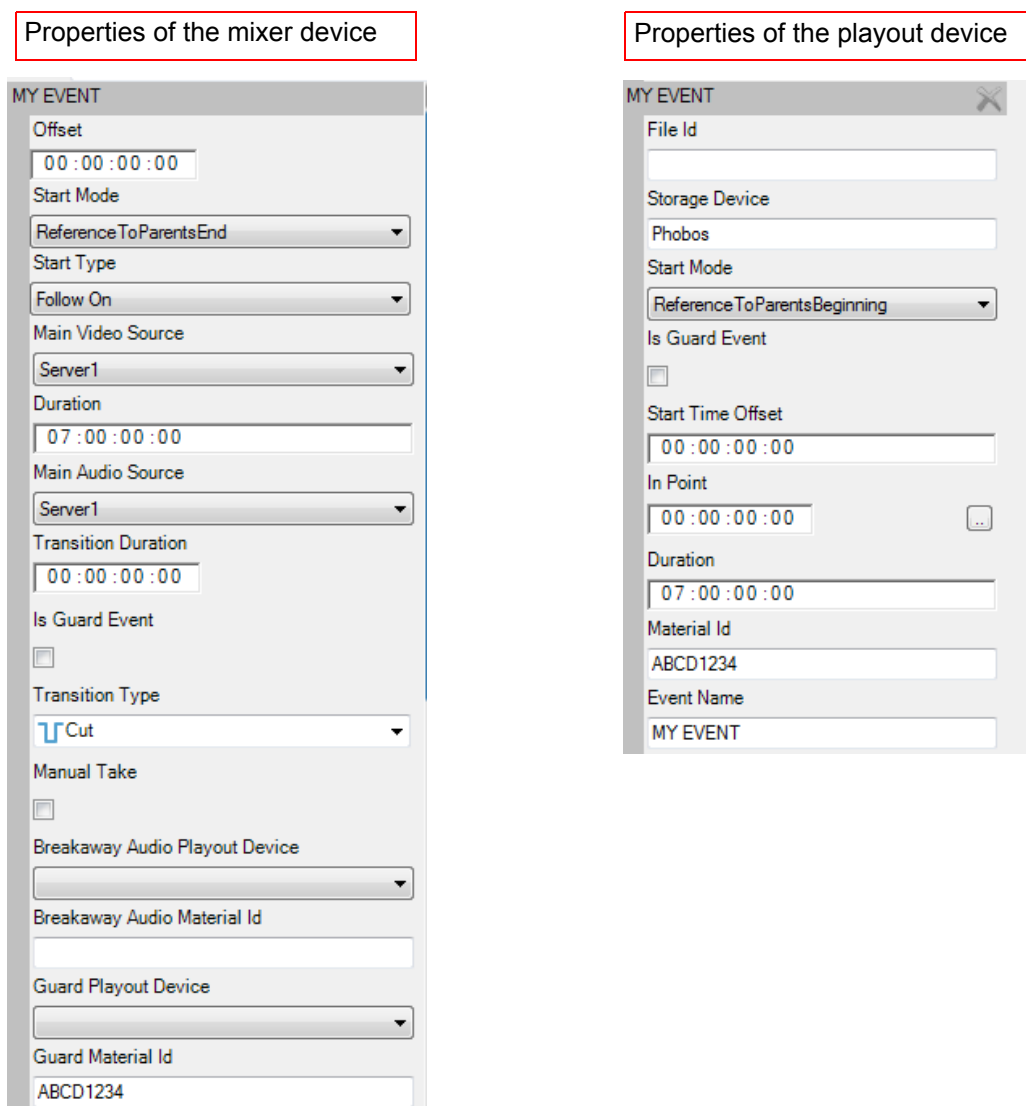
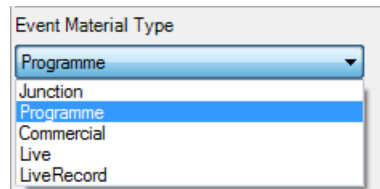


Figure 90 The Property Inspector

## 9.1 Changing Properties

Depending on the system configuration, it may, or may not be, possible to modify the properties for a selected event on the schedule (for information on some of the properties, refer to 'Primary Event Fields on the Property Inspector' on page 174 and 'Secondary Event Fields on the Property Inspector' page 191).

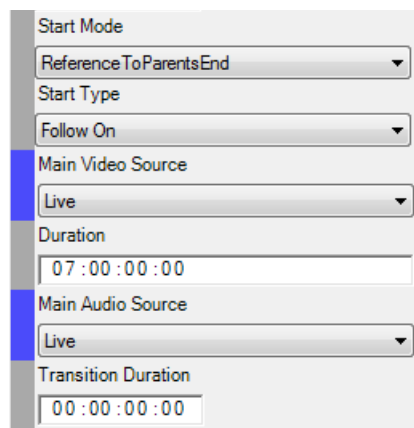
- To change a property, enter the text in the appropriate field or click on the arrow on the field and select an item from the list.



- To change a timecode, either type the required digits in the field or use the up and down arrow keys to increase or decrease the digits.

## 9.2 Accepting/Rejecting Changes

When making changes to properties, a blue bar is displayed to the left of each field:



- To accept the change(s), click **OK** or press Enter.
- To abandon the change(s), click on the blue bar(s), or click **Cancel**.
- If the blue bar remains after clicking **OK**, this shows that the change has not been accepted. Ensure that the value entered is valid for that property.
- If a changed property reverts to its original value, this could be because a system option called 'Decorate Always' has been set using the 'Material Decorator'. This prevents the property from being changed. Refer to 'The Material Decorator' below.

### 9.3 Property Aliases

Some property names on the Property Inspector can be different from their actual property names in the Morpheus system. These aliases are configurable in the Morpheus Configurator application.

### 9.4 The Material Decorator

Some properties on the Property Inspector are 'decorated' (populated) by the Morpheus media management database (refer to page 212) using an application called the 'Material Decorator'. Depending on the system configuration, these properties can include:

- Duration
- In Point
- Material Type
- Title
- Notes
- QC

The Material Decorator has two settings:

- Decorate Always
- Decorate Once Only

#### 9.4.1 Decorate Always

The normal system setting ('Decorate Always) prevents the values for any of the above properties from being changed. If a value on the Property Inspector is modified, once **OK** is clicked the property reverts to its original value.

##### 9.4.1.1 Overriding the Decorate Always Setting

Change a value for a property that is being constantly 'decorated' as follows:

- In the event's **Multipart Programme Id** field, type an identifier and click **OK** (refer to 'Multipart Programme Id' on page 190).



## 9.4.2 Decorate Once Only

The 'Decorate Once Only' system setting overrides the 'Decorate Always' setting and allows the value in the above properties to be changed once the initial decoration has occurred (usually when a schedule is loaded).

### 9.4.2.1 Overriding the Decorate Once Only Setting

After changing a value, it can be returned to its original value in either of the following ways:

- Click **Query**. Refer to 'The Query Button' on the following page.
- Right-click on the event and click **Force Decorate Events**. The Force Decorate Events option may not be enabled on the system.

## 9.5 The Query Button

The **Query** button has two functions:

- Populates blank fields on a scheduled event.
- Resets a field, that is set to 'Decorate Once Only'.

### 9.5.1 Populating Blank Event Fields

Use the **Query** button to populate the following fields on a scheduled event, based on the material ID:

- Title
- Duration
- File ID

The fields that are populated depend on the system configuration.

To populate the fields:

1. In the **Material Id** field, type the material ID.
2. Click **Query**.

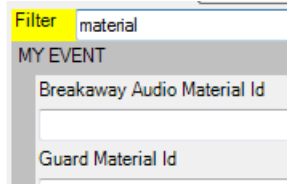
Some or all of the fields listed above are populated. A blue bar is displayed to the left of each relevant field.

3. To replace the fields on the schedule, click **OK** (to abandon the changes, click **Cancel**).

## 9.6 Filtering Fields

The **Filter** property allows a filter to be applied to the fields that appear on the Property Inspector - for example, the filter can be configured to only display fields that start with a particular letter or that contain a specific word.

In the example below, only fields with the word 'Material' are displayed.



## 9.7 Mixer Device Properties

Fields on the mixer device section of the Property Inspector.

### 9.7.1 Offset

An 'offset' is the time difference between the start/end of the primary event and the start of the secondary event.

The offset can be positive or negative:

- A secondary event with a positive offset begins *after* the start/end of the primary event.
- A secondary event with a negative offset begins *before* the start/end of the primary event.

The **Offset** field links to the **Start Mode** field (refer to 'Start Mode' below).

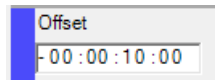
The possible settings for the **Offset** field are shown in the following table:

Start Mode	Positive/Negative Offset	Result
Reference to parent's beginning	Positive	The secondary event begins after the start of the primary event.
	Negative	The secondary event begins before the start of primary event.
Reference to parent's end	Positive	The secondary event begins after the end of the primary event.
	Negative	The secondary event begins before the end of primary event.

**Table 9** Offset Settings

### 9.7.1.1 Changing the Offset

In the **Offset** field for the secondary event, enter the offset in **hh:mm:ss:ff** (hours:minutes:seconds:frames). To set a negative offset, enter a minus sign at the beginning of the **Offset** field.



**Note:**

The offset can also be changed using the **Offset** field on the schedule (refer to Chapter 3.2.4 Event Field: Offset).

To view the effect of the offset, use the event ruler (refer to page 122).

### 9.7.2 Start Mode

Specify whether a secondary event starts at the end or beginning of the parent event. Each option is described below.

**Important:**

A note on terminology.

The term 'Parent' and 'Owner' are entirely interchangeable, except when referring to the Start Mode of a Follow On event, and at any level deeper than the top level, as follows:

- An event Start Type of 'Fixed' establishes a new datum for the start time, therefore the Start Modes ReferenceToParentsBeginning and ReferenceToParentsEnd define 'Parent' as referring to the owner event.
- With an event start type of 'Follow On', the Start Modes ReferenceToParentsBeginning and ReferenceToParentsEnd define 'Parent' as referring to the previous sibling event.

#### 9.7.2.1 Reference to Parent's Beginning

Start the secondary event at the same time as its parent, taking into account any offset (refer to 'Offset' below).

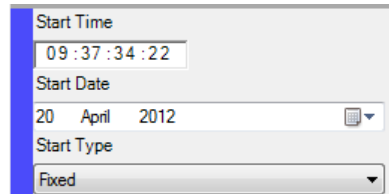
#### 9.7.2.2 Reference to Parent's End

Start the secondary event at the end of the parent event, taking into account any offset (refer to 'Offset' below).

### 9.7.3 Start Type

The **Start Type** of an event can either be **Follow-On** or **Fixed** (refer to 'Follow-on and Fixed Events' on page 117). To change the start type, select the required type from the list.

When **Fixed** is selected from the **Start Type** list, the **Start Time** and **Start Date** fields appear above it. In the **Start Time** field, enter the start time in hours, minutes, seconds and frames. From the **Start Date** field, select the required start date.



### 9.7.4 Main Video Source

This field shows the main video source for the event and can be changed if the system configuration allows it.

### 9.7.5 Duration

This links to the **Duration** field on the schedule (refer to Chapter 3.2.6 Event Field: Duration) and shows how long an event lasts in hours, minutes, seconds and frames.

Use this field to change the duration, if the system configuration allows it. Use caution when increasing the duration - it is likely to result in playing out black. Decreasing the duration truncates the item.

#### 9.7.5.1 Changing the Duration of the On-Air Event

It is not possible to change the duration of the *on-air event* using the **Duration** field on the Property Inspector. The duration can however be changed as follows:

1. Right-click on the on-air event and choose **Edit Duration**.
2. The **Programme event editor** dialog box is displayed, showing the current channel and on-air event title.

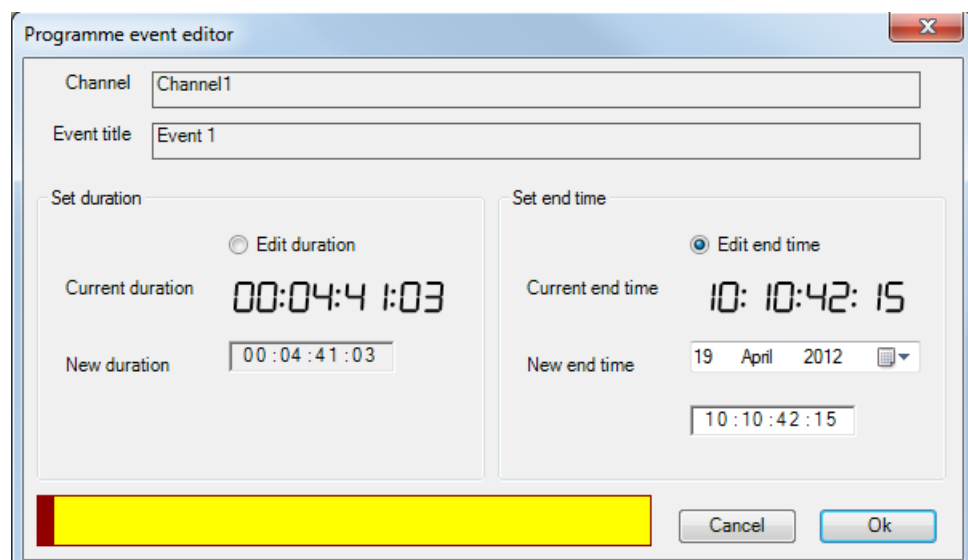
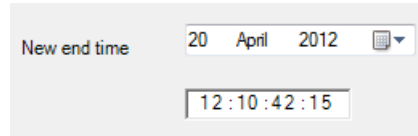


Figure 91 Programme Event Editor Dialog Box

3. Do one of the following:
  - To change the duration of the event, select **Edit duration** (under **Set duration**). Enter the required duration in the **New duration** field.
  - To change the event's end time, select **Edit end time** (under **Set end time**). If required, enter a new date in the field provided or click on the arrow on the date field and select the date from the calendar. In the time field, enter the required end time.



New end time 20 April 2012 [calendar icon]

12:10:42:15

4. Click **OK**.

**Note:**

If the new duration is shorter than the time that has already played out, or if the new end time is in the past, an error message is displayed.

### 9.7.6 Main Audio Source

This field shows the main audio source for the event and can be changed if the system configuration allows it.

### 9.7.7 Transition Duration

A transition is a mixer function that allows different ways of passing from one event to the next, the simplest being a 'cut'. Others include fades, mixes and wipes. More advanced types include DVE transitions.

This field shows how long the transition lasts in hours, minutes, seconds and frames.

Use this field to change the transition duration.

### 9.7.8 Is Guard Event

If a guard source (refer to page 33) is set up for an event, the material event relating to it is shown at the bottom of the Property Inspector with this check box selected.

### 9.7.9 Transition Type

The range of transitions available from the Morpheus Editor depends on the vision mixer that is incorporated in the system. If no mixer is present then only cuts are possible. If a mixer is present but only one server port is available, then any transition that does not involve overlapping of material can be performed, namely cut, V-fade, U-fade, fade and take, take and fade. However to perform a cross fade (also known as X-fade, mix or dissolve) or any kind of wipe, two server ports and a mixer are needed. The **Mix** field on the schedule displays an icon that represents the mixer transition for the start of the event. The default transition is 'Cut'.

If the system configuration allows it, the **Transition Type** drop-down list can be used in order to change the mixer transition.

**Note:**

The transition can also be changed using the **Mix** field on the schedule (refer to Chapter 3.2.5 Event Field: Mix).



When two back-to-back main events are scheduled to play out on the same source, and they are configured for anything other than a transition of type 'cut', then the following will occur:

- The event that is due to transition out is truncated at the start of the transition, thereby producing the effect of a cut
- The event that is transitioning in will do so at the programmed time and according to the configured transition type

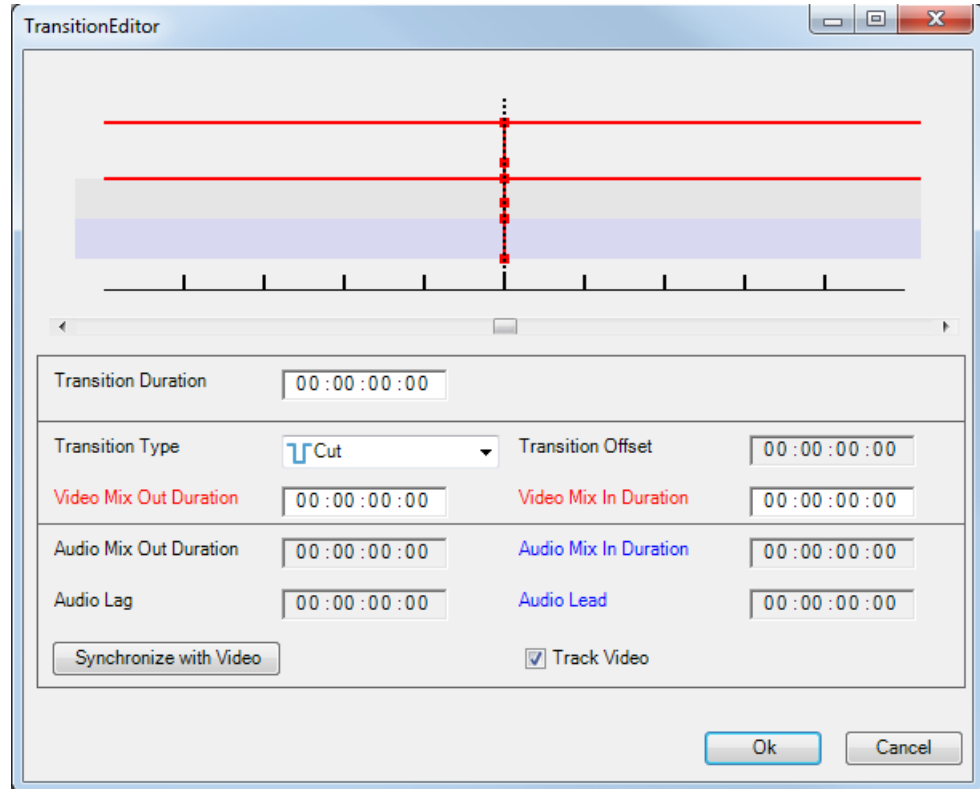


### 9.7.9.1 Transition Editor

Depending on the Editor configuration, the following may appear next to the **Transition Type** field:



- Clicking this displays the **Transition Editor** dialog box.




**Figure 92 Transition Editor Dialog Box**

- Allows transitions to be set up visually. The figures that appear in the fields in the Transition Editor are transferred automatically to the Property Inspector.
- The audio transition tracks the video as long as the **Track Video** check box is selected. The **Synchronise With Video** button does the same thing but it can be changed again afterwards. The maximum duration of any transition is 99 frames in both 625/50 and 525/60 systems.
- Only a small number of mixers support this function.

### 9.7.10 Manual Take

When the **Manual Take** check box is selected on the Property Inspector, the following icon is displayed in the **Start Time** field on the schedule and the start time is underlined.

15:49:41:00 

The event does not run until one of the following actions is performed:

- Click **Take Next** on the Manual Intervention Panel (refer to 'Manual Intervention Panel' on page 97 and 'Take Next' on page 101).
- Clear the **Manual Take** check box.

In manual take mode, the event **Start Time** updates once per second until one of the actions above is performed. The start times of subsequent follow-on events update in the same way up to the next fixed event (refer to 'Follow-on and Fixed Events' on page 117).

**Note:**

- It is common practice to follow a live event with a manual take event.
- If the schedule contains a live event whose duration is uncertain, the **Manual Take** check box for the following item should be checked so that it can be run using **Take Next**.

### 9.7.11 Breakaway Audio Playout Device

Select an external audio device.

### 9.7.12 Breakaway Audio Material ID

Specify an item of material from the external audio device configured above.

### 9.7.13 Guard Playout Device

The device in use for the guard channel.

### 9.7.14 Guard Material ID

Specify an item of material from the guard device configured above.

### 9.7.15 Mix In Duration

The time taken to move from black to the first frame of the next event.

### 9.7.16 Mix Out Duration

The time taken to move from the last frame of an event to black.

### 9.7.17 Transition Offset

The offset from zero when configuring a transition type. Refer to Section 9.7.9 Transition Type for further information.

### 9.7.18 Playout Device

The main playout device for the event.

### 9.7.19 Guard Source

The mixer source for the guard device (e.g. a decoder on an ICE).

### 9.7.20 End Time Offset

The time difference between the end of the secondary event and the end of the primary event.

The **End Time Offset** is used only when the **Duration Mode** is set to **Relative to Owner**. Refer to 'Duration Mode' below.

The end time offset can be negative or positive:

- A positive end time offset means that the secondary event ends *after* the end of the primary event.
- A negative end time offset means that the secondary event ends *before* the end of the primary event.

#### 9.7.20.1 Changing the End Time Offset

- In the **End Time Offset** field, enter the offset in **hh:mm:ss:ff** (hours:minutes:seconds:frames).
- To set a negative offset, enter a minus sign at the beginning of the End Time Offset field.

**Note:**

The ability to enter a negative End Time Offset depends on the system configuration.

### 9.7.21 Aspect Ratio

This is the aspect ratio for the material on the playout device.

### 9.7.22 Event Material Type

This field shows the type of material for the event. There are five types of material: programme, commercial, junction, live and live record. Each is described in the following table.

Material Type	Description
Programme	Main programme items
Commercial	Revenue-generating advertisements
Junction	Channel indents and other interstitials
Live	A live studio item
Live record	An item that was recorded live or crash recorded and may contain, for example, unexpected black

**Table 10 Material Types**

If the system configuration allows it, select the required type from the list.

### 9.7.23 Audio Lag Rate

'Audio lag' is the offset from the start of the selected event to the point at which the audio for the previous event starts to fade out. If the fade out is delayed, this is called 'late lag'. If it is advanced, this is called 'early lag'.

This option determines how fast the audio from an event fades out over the next event.

### 9.7.24 Audio Lag Out

This is the amount of time to keep the audio playing into the next event.

### 9.7.25 Duration Mode

The 'duration mode' of an event determines how its duration is set. The **Duration Mode** field is displayed on the Property Inspector when an event has secondary events. The options are described below. Only one of them, UseChildren, applies to a primary event.

Material Type	Description
Specified	Specifies the duration of the secondary event independently rather than taking the duration from the parent event.
UseOwner	Sets the duration of the secondary event to be equal to that of its owner.
UseChildren	Sets the duration of the parent event to equal the total duration of its child events.  It is generally used for Break Headers (refer to page 112).
EndWithOwner	Causes the secondary event to end at the same time as the primary event.  The start time of the secondary event is determined by an offset from the end of the primary event (refer to 'Offset' on page 172).  The <b>Reference to Parent's End Start Mode</b> is used (refer to 'Start Mode' on page 173).  The duration of the secondary event is the same as the offset.  This should be a negative offset, making the secondary event start before the end of the primary.  This duration mode can also be used with a positive offset and the Start Mode set to <b>Reference to parent's beginning</b> .
RelativeToOwner	Allows two offsets to be set, one from the start and one from the end of the parent event.  This is the only mode that uses the <b>End Time Offset</b> setting (refer to page 191).

**Table 11 Duration Mode Options**

**Note:** The two most common settings are 'Specified' and 'Use Children'.

### 9.7.26 Device

The main playout device for the event.

### 9.7.27 Event Name

This links to the **Title** field on the schedule (refer to Chapter 3.2.3 Event Field: Title) and shows the title of the event. It is possible to change the title if the system configuration allows this.

**Note:** In order to reset the **Event Name/Material ID** properties to their original values, use the **Query** button (refer to page 170).

### 9.7.28 Device Group

This is the group (refer to the Device Manager application) that contains the playout device.

### 9.7.29 Audio Mix In Duration

This is the time it takes for audio to fade up on an event.

### 9.7.30 Multipart Programme Id

The **Multipart Programme Id** field is used to link together segments of a programme. For example, a live item might be split by commercial breaks or a film by a news item.

Type the same identifier in the **Multipart Programme Id** field for each segment.

**Note:** A multipart programme ID must be unique to a specific program within a channel. This means that appended schedules should not contain multipart programme IDs that exist in the previously loaded and active schedule.

For server based material, the Material Decorator (refer to page 168) does not overwrite changes made to fields such as **Duration**.

#### 9.7.30.1 Configuration Options

The manner in which the Multipart Programme ID affects the event depends on the system configuration. One of the following options may be configured:

- **Change next part**

If a segment over runs or under runs, this parameter allows an adjustment to be made to the duration of the next segment.
- **Change next part without shortening**

If a segment under runs, this parameter allows the duration of the next segment to be increased. It prevents the operator from reducing the duration if the segment over runs.
- **Change onward from next part with threshold**

If a segment over runs, this parameter allows the duration of the next segment to be reduced until it reaches the threshold setting (refer to 'Threshold Setting' below), then reduce the duration of the following segment, and so on.
- **Change last part**

If a segment over runs or under runs, this parameter allows the required adjustment to be made to the duration of the last segment in the Multipart Programme ID group.
- **Change backwards from last part with threshold**

If a segment over runs, this parameter allows the duration of the last segment to be reduced until it reaches the threshold setting, then reduce the duration of the penultimate segment, and so on.

#### 9.7.30.2 Threshold Setting (hh:mm:ss:ff)

This is the minimum duration of any segment (the default is 30 seconds).

### **9.7.31 Playout Device Group**

This is the group (refer to the Device Manager application) that contains the playout device.

### **9.7.32 Material Id**

This links to the **Title** field on the schedule (refer to Chapter 3.2.3 Event Field: Title) and shows the material ID of the event. The **Material ID** can be changed if the system configuration allows it.

### **9.7.33 Audio Lag**

'Audio lag' is the offset from the start of the selected event to the point at which the audio for the previous event starts to fade out. If the fade out is delayed, this is called 'late lag'. If it is advanced, this is called 'early lag'.

### **9.7.34 Audio Gain**

The volume of the audio output.

### **9.7.35 Audio Mix Out Duration**

The time it takes for audio to fade down on an event.

### **9.7.36 Audio Lead**

How far ahead the audio starts before the event.

### **9.7.37 Audio Mode**

An option to allow the inputs and outputs to be configured on the selected mixer.

## 9.8 Playout Device Properties

The fields that appear on the playout device section of the Property Inspector.

### 9.8.1 File Id

The **File ID** field shows the name used by Morpheus to locate a file on the video server.

### 9.8.2 Storage Device

The device that contains the material.

### 9.8.3 Start Mode

Use this field to specify whether a secondary event starts at the end or beginning of the parent event. Each option is described below.

**Important:**

A note on terminology.

The term 'Parent' and 'Owner' are entirely interchangeable, except when referring to the Start Mode of a Follow On event, and at any level deeper than the top level, as follows:

- An event Start Type of 'Fixed' establishes a new datum for the start time, therefore the Start Modes ReferenceToParentsBeginning and ReferenceToParentsEnd define 'Parent' as referring to the owner event.
- With an event start type of 'Follow On', the Start Modes ReferenceToParentsBeginning and ReferenceToParentsEnd define 'Parent' as referring to the previous sibling event.

#### 9.8.3.1 Reference to Parent's Beginning

Select this option to start the secondary event at the same time as its parent, taking into account any offset (refer to 'Offset' below).

#### 9.8.3.2 Reference to Parent's End

Select this option to start the secondary event at the end of the parent event, taking into account any offset (refer to 'Offset' below).

### 9.8.4 Is Guard Event

If a guard source (refer to page 33) is set up for an event, the material event relating to it is shown with this check box selected.



### 9.8.5 Start Time Offset

This option sets the offset between the parent event starting and the child event starting afterwards.

### 9.8.6 Inpoint

An event's inpoint determines at which timepoint, in the tape item or server file, the device cues up and plays.

This is normally **00:00:00:00** (hours, minutes, seconds, frames) for a server event or **10:00:00:00** for a tape event (depending on the station's method of working).

#### 9.8.6.1 The Timecode Entry Dialog Box

Click on the button to the right of the **Inpoint** field (Calc) in order to display the Timecode Entry dialog box. This allows the inpoint, outpoint (when the device stops playing) and duration of the event to be changed whilst maintaining a constant relationship between the three values.

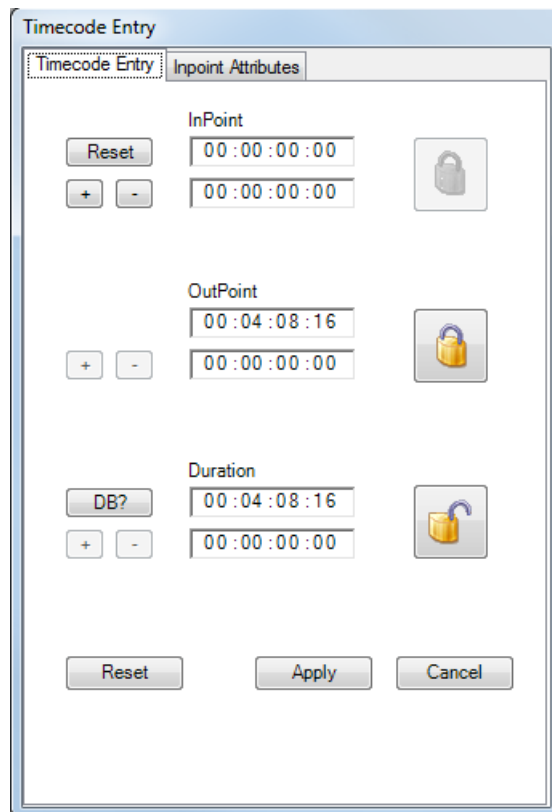


Figure 93 Timecode Entry Dialog Box

- To change the inpoint, outpoint and/or duration enter the new timecode in the fields provided. and click **Apply**.
- To reset the inpoint to the database timecode, click on the **Reset** button next to the **InPoint** field. This also resets the outpoint.
- To reset the duration to the database timecode, click on the **DB?** button next to the **Duration** field.

- To return the timecode fields to their previous values, click on the **Reset** button at the bottom of the database.
- The fields on the Inpoint Attributes tab are for information only and cannot be changed.

**Note:**

If the inpoint/outpoint do not match those in the database, icons may appear in the event's **Validation** field (refer to page 38).

### 9.8.7 Duration

Associated with the **Duration** field on the schedule (refer to Chapter 3.2.6 Event Field: Duration) and shows how long an event lasts in hours, minutes, seconds and frames.

Use this field to change the duration, if the system configuration allows it. Use caution when increasing the duration - it is likely to result in playing out black. Decreasing the duration truncates the item.

### 9.8.8 Material Id

Associated with the **Title** field on the schedule (refer to Chapter 3.2.3 Event Field: Title) and shows the material ID of the event. The **Material ID** can be changed if the system configuration allows it.

### 9.8.9 Event Name

Associated with the **Title** field on the schedule (refer to Chapter 3.2.3 Event Field: Title) and shows the title of the event. The title can be changed if the system configuration allows this.

**Note:**

In order to reset the **Event Name/Material ID** properties to their original values, do so using the **Query** button (refer to page 170).

### 9.8.10 Event Material Type

Displays the type of material for the event. Refer to Section 9.7.22 Event Material Type for further information.

### 9.8.11 End Time Offset

The time difference between the end of the secondary event and the end of the primary event. Refer to Section 9.7.20 End Time Offset for further information.

### 9.8.12 Device Group

The group (refer to the Device Manager application) that contains the playout device.

### 9.8.13 Device

The main playout device for the event.

## 9.9 Miscellaneous properties

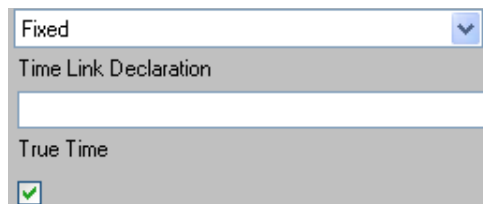
Depending upon the system configuration, the following properties may or may not appear on the Property Inspector.

### 9.9.1 True Time

'True time' is absolute time. Morpheus only takes a fixed event (refer to page 122) to air if it is in the preset position. If it is further down the list, the system issues a warning and two different start times:

- One to indicate the fixed time.
- The other to indicate the earliest time that Morpheus can execute the event. This is based on the events between the preset event and the fixed event.

When a fixed event has the **True Time** check box on the Property Inspector selected, Morpheus begins to disable the events between the preset and the fixed event. The fixed event becomes the preset event and rolls at the fixed time.



The screenshot shows a portion of the Property Inspector interface. At the top, there is a dropdown menu with 'Fixed' selected. Below it is a section titled 'Time Link Declaration' with an empty text input field. Underneath that is a section titled 'True Time' with a checked checkbox.

**Note:** The number of events that are skipped depends on the system setting.

## 9.9.2 Time Link Declaration/Time Link Reference

The **Time Link Declaration** and **Time Link Reference** fields link the start time of events in two different channels (refer to 'Start Time' on page 26). If the start time of the declared event changes, the start time of the referenced event also changes.

The declared event acts as the master. Add a unique alphanumeric code to the **Time Link Declaration** field for the master event. The referenced event acts as the slave. Add the same code to the **Time Link Reference** field for the slave event.

The system sets the start time of the reference events to be the same as the declaring event.

**Note:** The referenced event must be in fixed start mode (refer to page 122). Change the start mode of an event using the **Start Type** field on the Property Inspector (refer to page 174).

The start time of the referenced event always follows that of the declared event, even if this means creating an over run or under run in the schedule. However, the reference events are still subject to the priority rules where an event is not allowed to wholly truncate the previous event - otherwise it adopts a follow-on start time to protect the previous event. In order to reduce the risk of this occurrence, all reference events are treated as **True Time** events. This is a mechanism that disables events that are preventing a True Time event from starting at the specified time. However because the True Time mechanism has a performance cost, it is normally limited to working on a configurable (no more than 10) number of top-level events in a channel.

The automatic change of the referenced event's start time may cause a multiple event overlap. In this case, dual start times are not shown in the **Start Time** field for the referenced event. When the referenced event becomes the preset event, it is not put into manual take mode (refer to page 190). Instead, intervening events are disabled (their durations are made zero and they are 'hatched' out in the Editor window) to eliminate the multiple event overlap. The referenced event still runs at the same time as the declared event.

The linking is at event level and does not imply any global linking between all events in the two channels.

Time linking is only:

- Supported for top-level events
- Applied to start times, not durations
- Supported for channels within the same EventStore

**Note:** Copying and pasting events clears out an Time Link declarations if it is pasted within the same EventStore. However, cutting and pasting preserves Time Link declarations.

### 9.9.2.1 Deleting Timelinked Events

1. Select the master event and do one of the following:
  - Right-click on the event and choose **Delete Linked Events**.
  - Press **Shift+Delete**.
2. To confirm, click **Yes**. Both events are deleted.

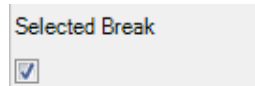
### **9.9.2.2 Timelinking Hierarchy Templates**

When there are many timelink declarations and references in a large schedule, it is sometimes possible to inadvertently create an invalid relationship between the 'master' and 'slave' events. Using a timelink hierarchy template prevents this situation. For further information, refer to Section 4.16 Timelink Hierarchy.

### 9.9.3 Selected Break

Depending on the system configuration, it may be possible to schedule consecutive commercial breaks - one of the breaks will be disabled automatically. Using the right-click menu, the other break can be disabled, and then it becomes possible to toggle between that which is enabled and that which is disabled.

When alternate breaks are enabled, the **Selected Break** check box is displayed on the Property Inspector.



### 9.9.4 Transition Duration

This field shows how long the transition lasts in hours, minutes, seconds and frames.

Use this field to change the transition duration.

### 9.9.5 Notes

This displays any notes that have been added to the event. If a note has been added, the following is displayed in the **Notes** field on the schedule.



- Double-click on the notes icon to display the note.

### 9.9.6 QC/Reviewed

These fields relate to the quality control of an event. Icons indicating the quality control for an event appear in the **QC** field on the schedule (refer to page 37).

### 9.10 Updating the Database

If required, it is possible to make changes to specific event fields and update the Morpheus media management database (refer to page 212) with them.

**Note:** The changes only apply to the event on the selected device. For example, if the inpoint (refer to page 190) of a clip on the main server is changed, the inpoint of the same clip on the ingest server does not change.

1. On the schedule, right-click on the required event and choose **Update Database**.

The **Update Database** dialog box is displayed.

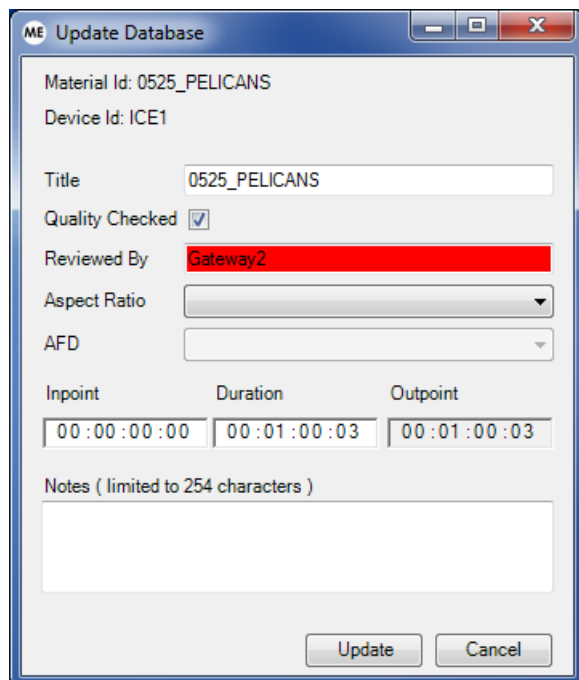


Figure 94 Update Database Dialog Box

2. Edit the fields as required.

**Note:** When changes are made to a field, its background is highlighted in red.

3. Click **Update** to apply the changes to the database.

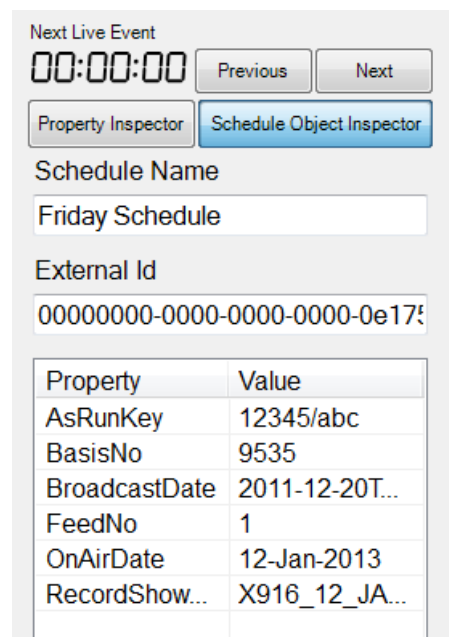
## 9.11 The Schedule Object Inspector

The Schedule Object Inspector contains information on a Schedule Object that is present in the Editor. Morpheus uses Schedule Objects to group together events in a flexible way - for example, on a daily, hourly, or even on a show-by-show basis as required. These Schedule Objects are contained within schedule files.

When a schedule file that is not part of a Schedule Object is loaded into the Editor, Morpheus assigns it a Schedule Information Object ID. On saving the schedule file, the Schedule Information Object ID information remains in the schedule file.

Clicking on an event displays information about the Schedule Object that contains the event on the Schedule Object Inspector.

The Scheduled Object Inspector is displayed next to the Property Inspector as shown in the example below:



**Figure 95 Schedule Inspector Tab**

The information on this tab includes:

- The schedule name
- The external ID (this is a unique identifier for the schedule)
- A set of schedule properties

This information is defined in the schedule file as shown in the example below:

```
<ScheduleInformationList>
<ScheduleInformation Name="Friday Schedule"
ExternalId="00000000-0000-0000-0000-0e1758987404">
<Parameter Name="BasisNo" Value="9535" />
<Parameter Name="BroadcastDate" Value="2011-12-20T00:00:00" />
<Parameter Name="FeedNo" Value="1" />
<Parameter Name="OnAirDate" Value="12-Jan-2013" />
<Parameter Name="RecordShowMatId" Value="X916_12_JAN_2013" />
<Parameter Name="AsRunKey" Value="12345/abc" />
</ScheduleInformation>
</ScheduleInformationList>
```



Properties can include information such as the last time the schedule went to air.

Depending on the Editor configuration, it is possible to edit the parameter values in the Schedule Object Inspector.

### 9.11.1 Editing Schedule Object information

Editable parameters appear in bold, italic text.

To edit a parameter value:

1. Double click on the parameter or right-click on the parameter and select **Edit** as shown below:

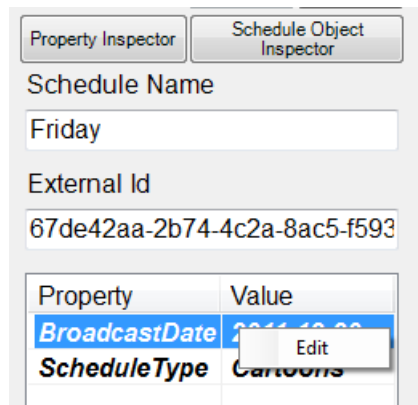


Figure 96 Editing SIO information

2. Replace the parameter value as required.
3. Press **Enter**.

## 10. Missing Material Report

The 'missing material report' checks for and lists the following:

- Missing material
- Material on other devices
- Material requiring ingest
- Events with titles that do not match the titles in the Morpheus media management database (refer to page 212)
- Events with durations that do not match the durations in the database

The missing material report only works on the schedule that is currently loaded.

To display the missing material report:

- From the Editor **Tools** menu, select **Missing Material Report**. The report is displayed as shown below:

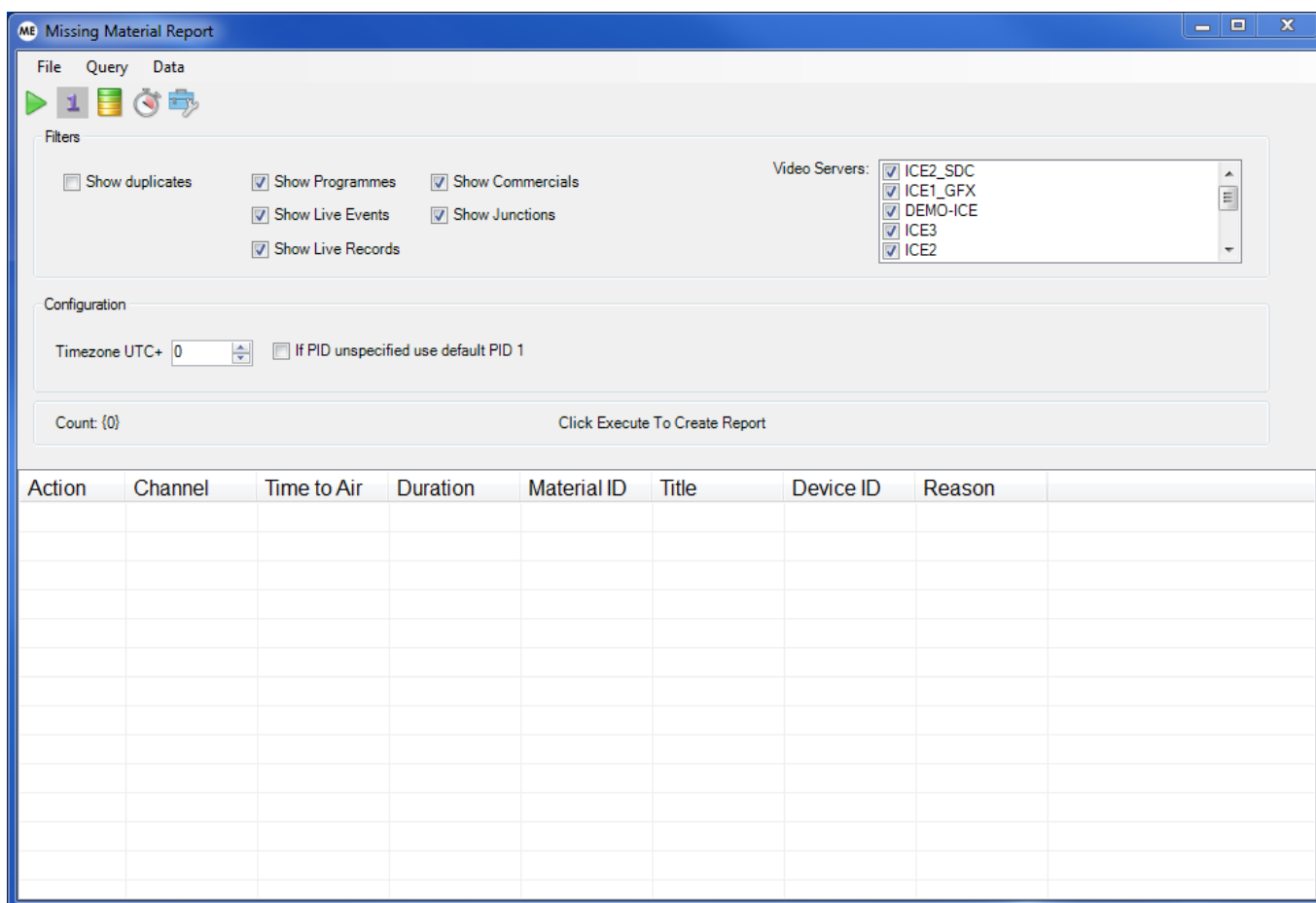


Figure 97 Missing Material Report

**Note:** The columns that appear and the settings available depend on the Editor configuration.

## 10.1 Selecting Channels

When the Missing Material Report starts, there is no data to view. In order to view the missing material, it is necessary to select those channels to be included in the report as follows:

1. Click on the **Channels** button:



2. Select a channel(s) from the list as shown below:

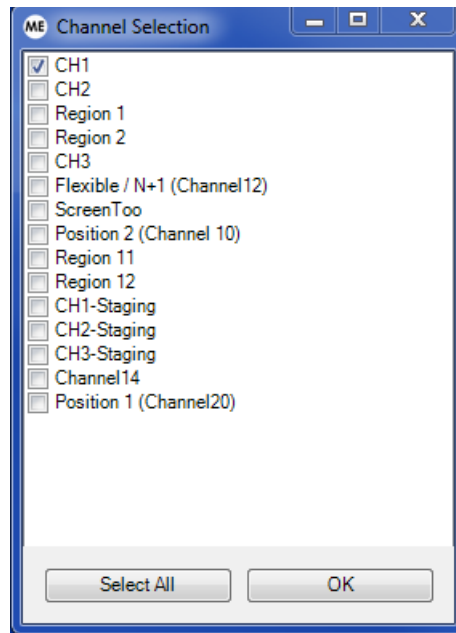


Figure 98 Missing Material Report - Channel Selection Window

3. Click **OK** to save the settings.

## 10.2 Running the Missing Material Report

To run the report and view the missing material:

- Click **Query -> Execute** on the toolbar menu, or click on the Run Report button:



The missing material list is displayed in the main window.

**Note:**

The Missing Material Report can also run in **Auto Update** mode where the report is automatically and periodically updated without the user clicking the **Run Report** button (it can be enabled on the Missing Material Tab in the Editor Configuration window).

## 10.3 Selecting Items

Before performing an action on an item, such as fixing a title or duration, it must be selected as follows:

- Select the check boxes for all relevant items (clear those that are not to be included).
- To select all items, right-click and select **Select All**.
- To clear all items, right-click and select **Select None**.
- To reverse the selection, right-click and select **Invert selection**. All of the items that were selected become deselected and all of the items that were deselected become selected.

## 10.4 Repairing Titles

If the title of an event does not match the title in the database, it is possible to reset the title of events on the schedule as follows:

1. Select the check box(es) for the relevant event(s).
2. Click on the **Repair Titles** button as shown below:



Once the material is repaired, it disappears from the Missing Material Report.

## 10.5 Fix Durations

If the duration of an event does not match the duration in the database, the duration of events on the schedule can be reset as follows:

1. Select the check box(es) for the relevant event(s).
2. Click on the **Repair Durations** button as shown below:



Once the material is repaired, it disappears from the Missing Material Report.

## 10.6 Post Transfers

The **Post Transfers** option enters requests into the 'Transfer Request' table. This is a table in the Morpheus media management database (refer to page 212) that keeps a record of all requests for material to be ingested or moved.

1. Select the check boxes for the relevant item(s).
2. Click on the **Post Transfers** button as shown below:



**Note:**

When a transfer request has been posted, a yellow barrel is displayed in the **Main** column for the event. It is also displayed in the **Grd** column if this is configured to be displayed. refer to 'Status Barrels' on page 34. If the transfer request fails, a cross is displayed on the yellow barrel. If this occurs, the request can be re-issued as follows: right-click on the event and choose **Re-Post Transfer Request**.

## 10.7 Additional Settings

The additional options that appear on the Missing Material Report window are described in this section.

### 10.7.1 Timezone UTC+

This option allows the timezone to be altered by a specified number of hours. For example, to move the timezone ahead 3 hours, enter 3 in the **Timezone UTC+** field. To move the timezone back 4 hours, type -4 in the **Timezone UTC+** field (alternatively, use the up and down arrows to the right of the field).

**Note:**

To apply the change, it is necessary to close the Material Report window and then reopen it.

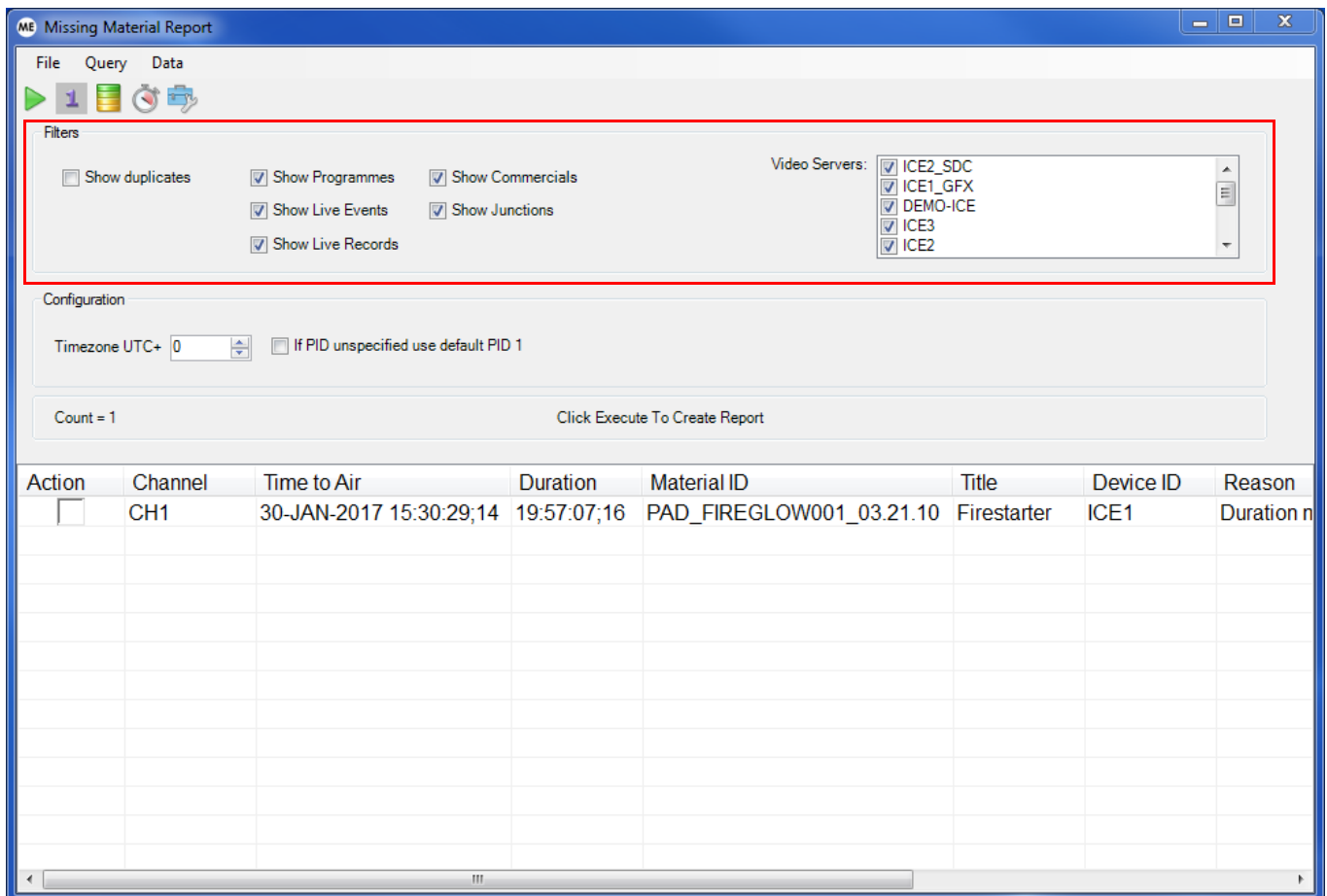
## 10.8 If PID

Unspecified Use Default PID 1

This option configures the PID that is used in a Transfer Request.

## 10.9 Filters

If the 'Enable filters' option is selected in the Editor configuration, the **Filters** panel is displayed on the main window as shown below:



**Figure 99** Missing Material Report Filters

The **Filters** panel contains the following options:

**- Show duplicates**

Display duplicates of material.

**- Show Programmes**

Include Programmes in the results.

**- Show Live Events**

Include Live Events in the results.

**- Show Commercials**

Include Commercials in the results.

**- Show Junctions**

Include Junctions in the results.

**- Video Servers**

Select one or more video servers from the list to include in the results.

**10.10 Printing / Previewing the Report**

To print the report, click **File** on the tool bar menu and then select one of the following options:

- Select the required printer using **Print Setup**.
- Click **Print Preview** to preview the report before printing it.
- Click **Print** to print the report.

**10.11 Exporting to CSV**

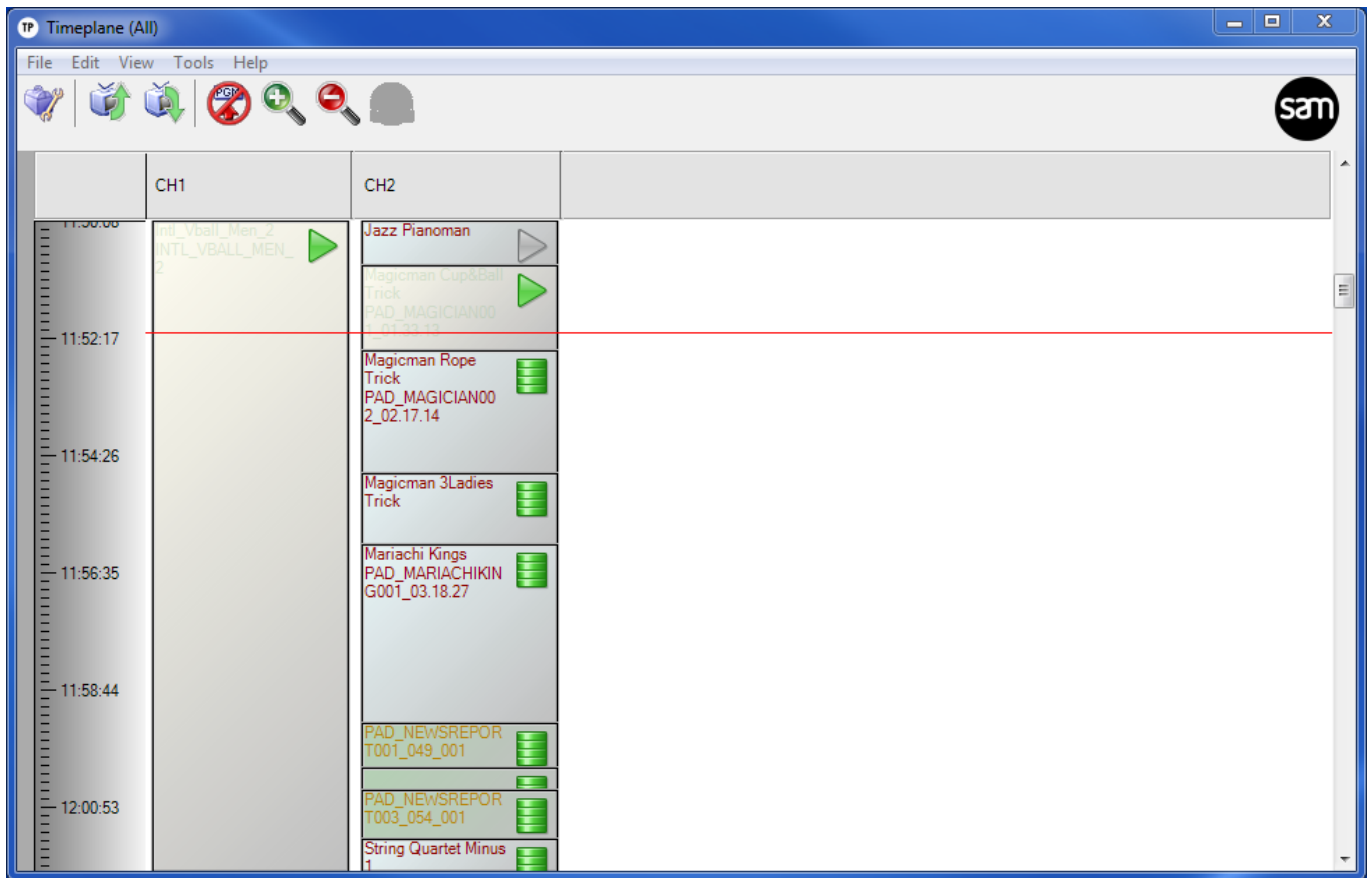
Allows the report to be saved as a **.CSV** file that can be opened in Microsoft Excel, or another application of choice.

To save a report:

1. Click **Data** and then **Export to CSV** on the toolbar menu.
2. Select a file location from the dialog box and click **Save**. The file has the name format: Missing Material <dd-Month-yyyy hhmm>.csv.

## 11. The Timeplane

The 'Timeplane' is a multi-channel schedule display in time-proportional, graphical format. It is possible to zoom in and out to display all channels simultaneously - useful in a multi-region situation with opt-out channels.



**Figure 100** The Timeplane

**Note:**

The Timeplane in Figure 100 has a vertical display. However, it may be configured to show a horizontal display. The options available in the Timeplane depend on the system configuration.



## 11.1 Starting the Timeplane

### 11.1.1 Starting the Timeplane using the Desktop Shortcut

Double-click on the shortcut to open the Timeplane.



### 11.1.2 Starting the Timeplane Using the Morpheus Shortcuts Folder

1. On the desktop, open the **Morpheus Shortcuts** folder and double-click **Timeplane**.  
The **Role Login** dialog box is displayed.
2. Select a **Role Name**, if applicable. The system may be configured to select the role automatically.
3. Enter a **Password**, if applicable and then click **OK**.

## 11.2 Zooming In and Out of the Timeplane Window

- To zoom in, click on the **Zoom In** button on the toolbar.



- To zoom out, click on the **Zoom Out** button on the toolbar.



## 11.3 Moving Around the Timeplane

- To move to the last event on the Timeplane, click on the **Go To Bottom** button on the toolbar.



- To move to the top of the Timeplane, click on the **Go To Top** button on the toolbar.



## 12. Head Up Displays

Morpheus has the following methods of displaying read-only channel information:

- **HydraHUD** - a web-based application that can display the contents of up to 10 channels at once.
- **The HUD** - an application that displays a limited, read-only view of one channel (refer to page 204)

## 12.1 HydraHUD

A web-based application that can run in a Web browser on any machine that has access over a network to the Morpheus server. We recommend Google Chrome as it is the defacto standard browser for all professional Web applications due to its rich feature set.

The screenshot shows a web browser window with the URL `localhost/HydraHUD/Hud?role=Operator`. The page is titled "HUD" and shows the user is logged in as "Operator". The interface displays three channels of event data, each with a table of events and a "Main" status indicator.

My Morpheus, Channel1					My Morpheus, Channel2					My Morpheus, Channel3				
Title	MaterialID	Duration	Device	Main	Title	MaterialID	Duration	Device	Main	Title	MaterialID	Duration	Device	Main
Event 1	C034016	00:04:41:03	HDOMN1	Green Barrels	Event 1	C034016	00:04:41:03	Server2	Green Barrels	Event 1	C034016	00:04:41:03	Server3	Green Barrels
Event 2	C054694	00:04:07:15	HDOMN1	Green Barrels	Event 2	C054694	00:04:07:15	Server2	Green Barrels	Event 2	C054694	00:04:07:15	Server3	Green Barrels
Event 3	C054825	00:05:25:10	HDOMN1	Green Barrels	Event 3	C054825	00:05:25:10	Server2	Green Barrels	Event 3	C054825	00:05:25:10	Server3	Green Barrels
Event 4	C061099	00:03:32:06	HDOMN1	Green Barrels	Event 4	C061099	00:03:32:06	Server2	Green Barrels	Event 4	C061099	00:03:32:06	Server3	Green Barrels
Event 5	C061069	00:03:37:08	HDOMN1	Green Barrels	Event 5	C061069	00:03:37:08	Server2	Green Barrels	Event 5	C061069	00:03:37:08	Server3	Green Barrels

Figure 101 HydraHUD

HydraHUD provides a limited, read-only view of **up to 10** channels with limited event look-ahead (refer to page 210).

The following items of event data are available for each channel:

- Duration
- Start time
- Device
- Main source status (material and device barrels)
- Hold
- Manual Take
- Material ID
- Notes
- Source
- Title
- Transition

For information on installing and configuring HydraHUD, Refer to the Morpheus Engineer's Manual.

### 12.2 The HUD

The 'HUD' gives a limited, read-only view of **one** channel with limited event look-ahead (refer to page 210). It can appear on a separate workstation to the main Morpheus system.

The HUD is a separate instance of the Editor - it is typically used in a public area to provide a view of the next few events in the chosen channel.

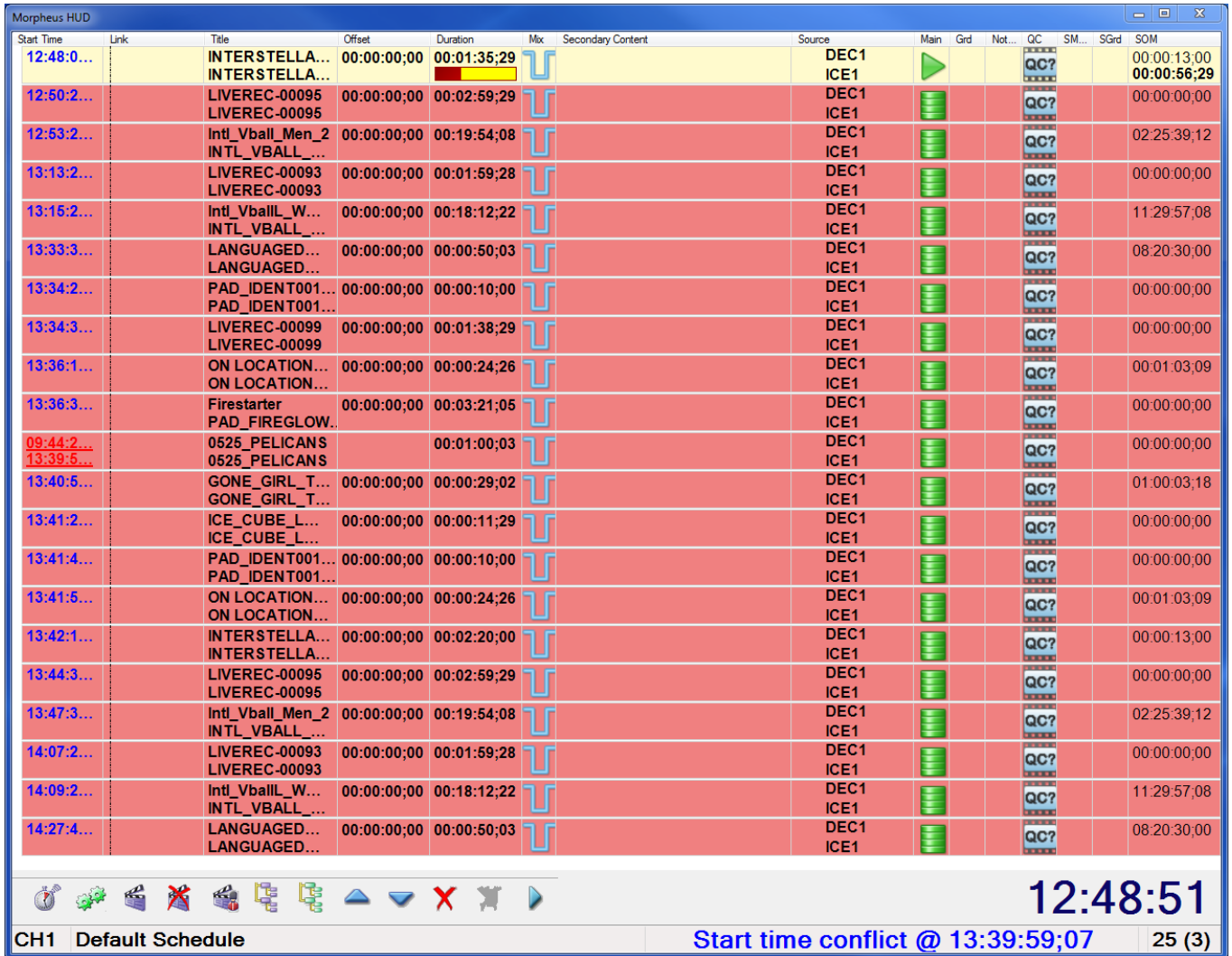


Figure 102 The HUD

It is often used to display imminent events in concise form, using a large font and customised color configuration.

**Note:** Second line information within the event rows may have been suppressed in the configuration.

Error messages are shown in a moving banner at the bottom of the HUD as shown in the example below:

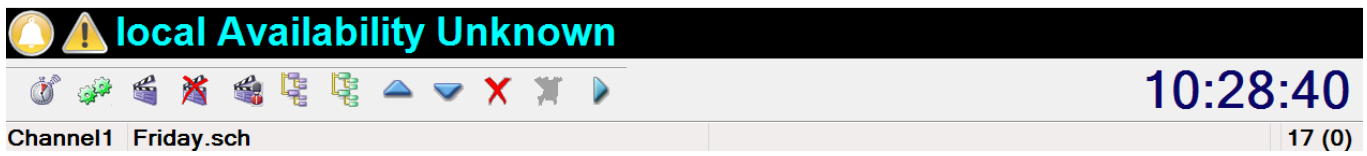


Figure 103 Error Message Banner

Underruns, overruns and start time conflicts are shown on the bottom right-side of the display as shown in the example below:



Figure 104 Underrun error

## 12.2.1 Starting the HUD

### 12.2.1.1 Starting the HUD Using the Desktop Shortcut

- There may have be a shortcut for the HUD on the desktop. If so, double-click on the shortcut to open the HUD.

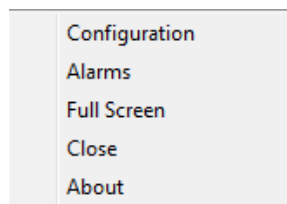


### 12.2.1.2 Starting the HUD using the Morpheus Shortcuts Folder

1. On the desktop, open the **Morpheus Shortcuts** folder.
2. Double-click **HUD**. The **Role Login** dialog box is displayed.
3. Select a **Role name**, if applicable - the system may be configured so that the role is selected automatically.
4. Enter a **Password**, if applicable and then click **OK**.

## 12.2.2 Right-Click Menu

The following menu is displayed when right-clicking the schedule area of the HUD window:



### - Configuration

Access to the configuration menu is password protected. Refer to the Engineer's Manual.

### - Alarms

Display the alarms window.

### - Full Screen / Normal Screen

Use Full Screen Mode to display the HUD. To exit full screen mode click on **Normal Screen** (only displayed when in Full Screen Mode).

### - Close

Shut down the HUD application.

### - About

Display the Morpheus software version and Grass Valley contact information.

### 12.2.3 The HUD Toolbar

The 'toolbar' is displayed at the bottom of the HUD window. Each toolbar button is described in the table below.













Button	Description
	<p>Hold. This puts the on-air event on hold. A hold icon is displayed in the on-air event's <b>Start Time</b> field.</p> <p>The event remains on hold either until either <b>Hold</b> is clicked again or <b>Take Next</b> is clicked (refer to 'Take Next' below).</p>
	<p>Auto On. This is the default mode for Morpheus and indicates that all devices are receiving communication.</p> <p>To disable automation, click <b>Auto On</b>. To switch automation back on, click <b>Auto On</b> again.</p>
	<p>Take Next. This takes the on-air event off air and places the preset event on air (the preset event is the event that follows the on-air event).</p>
	<p>Skip Next. This deletes the preset event and replaces it with the event after it. It is important to ensure that there is enough time for the new preset event to cue up.</p>
	<p>Take Guard. This Activates the guard for the on-air event (refer to 'Guard Source' on page 33).</p> <p>All events using the same device as the on-air event are switched to the guard.</p>
	<p>Explode Sub Events. This shows any secondary events on the schedule (refer to 'Primary and Secondary Events on page 108).</p>
	<p>Explode Breaks. This highlights all the breaks on the schedule.</p>
	<p>Scroll Up. This moves up the schedule to the previous event.</p>
	<p>Scroll Down. This moves down the schedule to the next event.</p>
	<p>Delete. This deletes the highlighted event.</p>
	<p>Undelete. This restores the event that was last deleted.</p>
	<p>Preview. This previews the event on its scheduled device.</p>

Table 12 The HUD Toolbar

## **13. Appendix - Overview of Morpheus Applications and Processes**

This section provides brief information on some of the Morpheus applications and processes that run in the background.

### **13.1 Device Controller Card**

A 'device controller card' is a component of Morpheus that connects directly to controlled broadcast equipment.

It fits in a Grass Valley standard Icon frame and cables from broadcast devices terminate on a rear panel type 1433.



### 13.2 Bridge

The 'Bridge' is an application that connects the device controller cards to the EventStore.

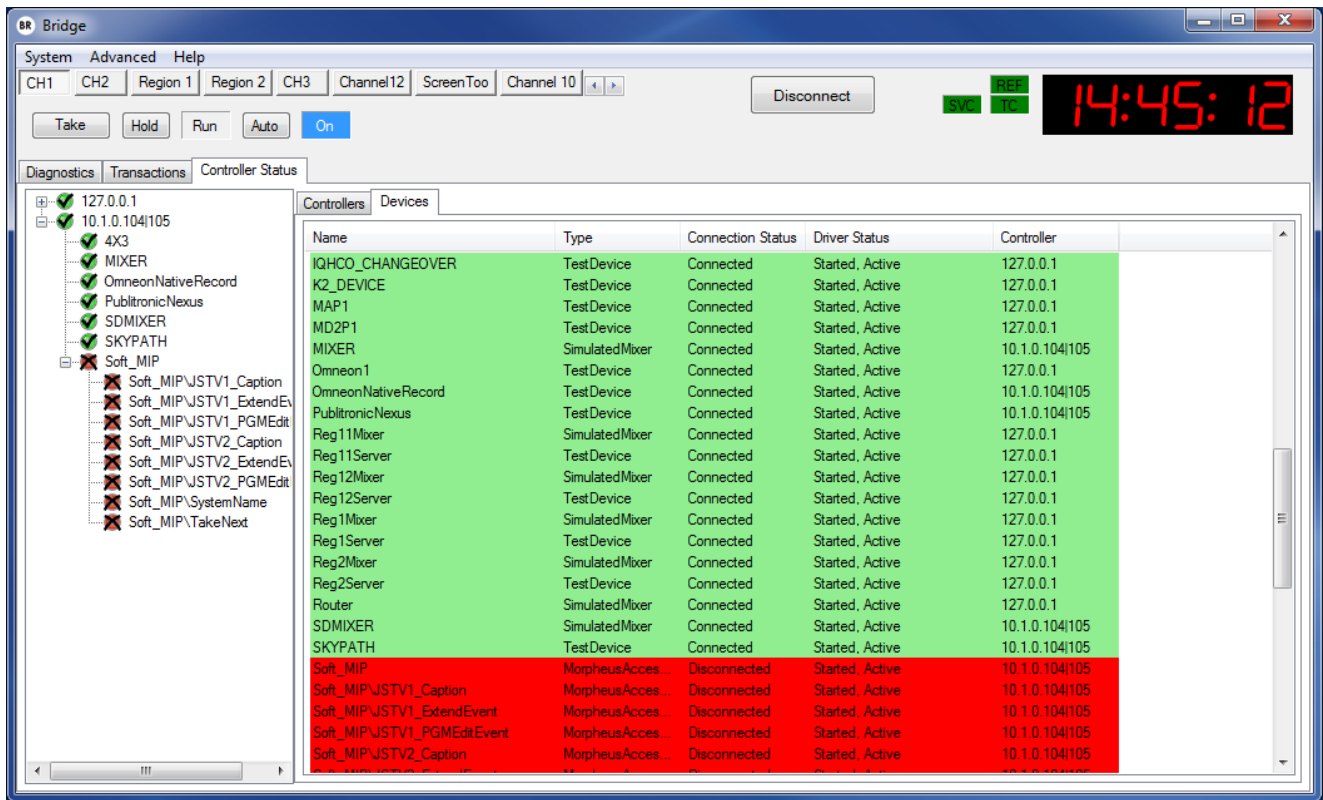


Figure 105 The Bridge

The main functions of the Bridge are as follows:

- To synchronize the device controller(s) with the EventStore, keeping them constantly 'topped up' with event data looking a specified time into the future.
- To discard any event parameters that are not required by the device, for example, the event title would not be needed by a video server.
- To direct event data to the device controller that connects to the device specified in the event and not to the others.
- To receive timecode from the device controllers and pass it to the EventStore.
- To prioritize event data sent to the device controllers.
- To receive device status information from device controllers and update the Event Store accordingly.

The Bridge passes events from the EventStore to the kernel (refer to page 210) of whatever controller card has the right device connected to it, looking ahead in time according to the event look ahead setting (refer to page 210).

#### 13.2.1 Device Status

The device status comes from the device via the controller card (refer to page 208) and the Bridge. It indicates whether a device is connected.

### 13.2.2 Event Look Ahead

The 'event look ahead' is the period of time and minimum number of events that the Bridge uses to look ahead when preloading event data into the device controller cards (refer to page 208).

The look-ahead period is a vital way to ensure output continuity during testing, upgrades or network failures.

The time and number of events are set in the Bridge configuration (a typical setting might be 1 hour and 200 events). The settings depend on a number of factors including the complexity of the schedules, the number of ports used per card, the presence or otherwise of guard devices (refer to page 33) and the need to allow enough time for a successful system restart.

Certain conditions, for example rippling (refer to page 52) involve significant processor power, and the main reason for limiting the event look-ahead is to avoid overloading the device controller cards.

On the schedule, events that fall outside the look ahead period have grey barrels in their **Main** status column, indicating that there is no response from the Bridge. This is because the Bridge cannot provide status information until event data has been loaded into the kernel. This does not happen until the event comes within the event look ahead.

### 13.2.3 Kernel

The 'kernel' is the real-time operating system (OnTime), its configuration, and the Grass Valley software combined with it that runs on the controller card(s) (refer to page 208).

## 13.3 Configurator

The 'Configurator' is the configuration tool for the EventStore.

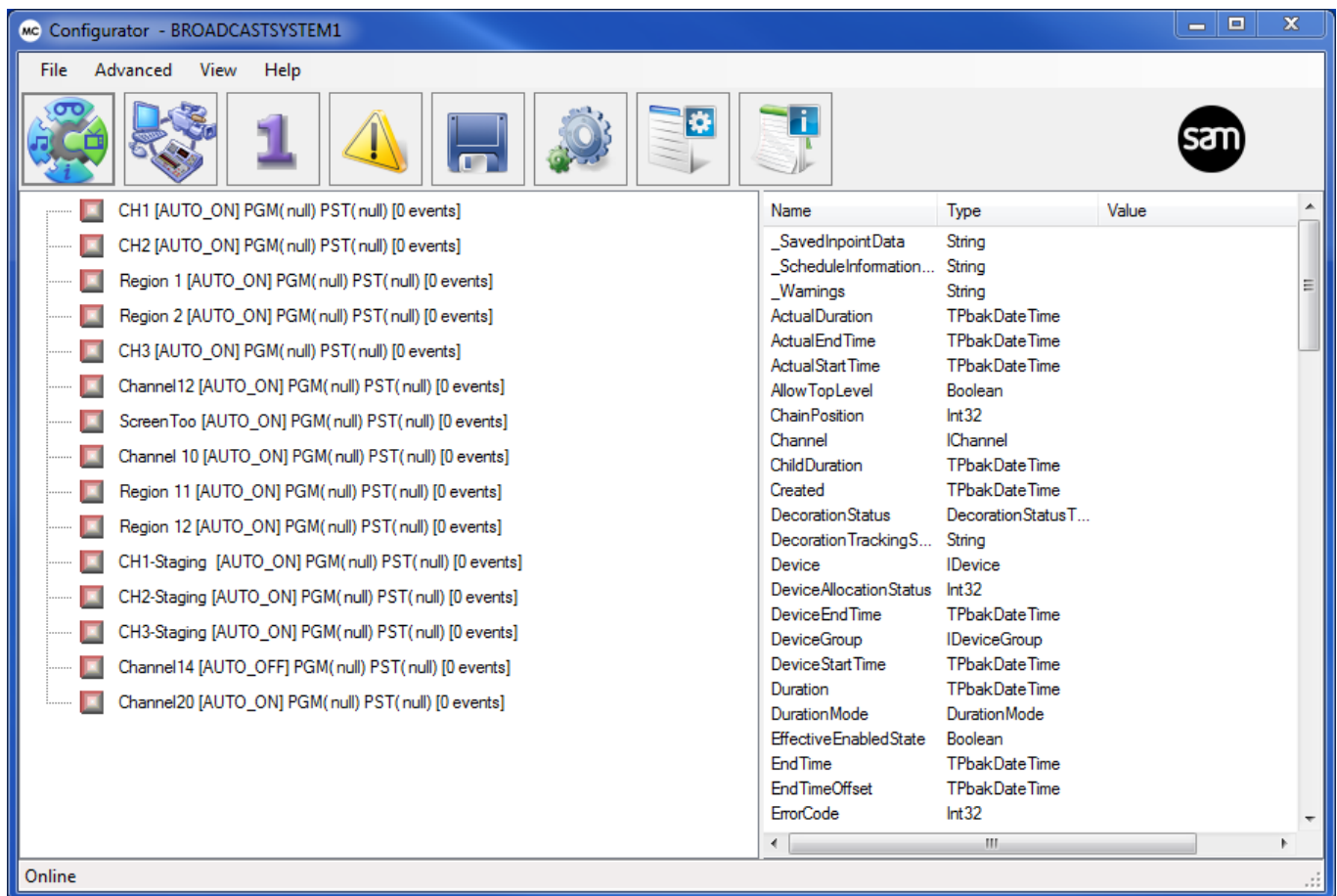


Figure 106 The Configurator

The primary functions of the Configurator:

- Configure and add 'EventTypes' (templates for new events on the schedule)
- Add and delete 'categories' (tabs on the Palette, refer to page 131)
- Move MediaBalls (refer to page 117) from one Palette tab to another
- Delete, edit and clone MediaBalls
- Configure the parameters that appear on the Property Inspector (refer to page 166)
- Configure secondary events (refer to page 108)
- Add, delete and configure 'devices' (pieces of equipment that are controlled by Morpheus)
- Add, delete and configure channels
- Configure alarms
- Save configuration information for the EventStore to a file and import this file, if necessary
- Configure multipart programme (refer to page 190), junction preview (refer to page 99) and rippling hold options (refer to page 52)
- Clear channels

## 13.4 EventStore

The 'EventStore' is where the configuration for all the system's channels is held, together with all the events that are scheduled to play out on those channels. It also performs all timing calculations including automatically determining the timing of the PGM and PST events based on the current time.

The contents of the EventStore are modified in the following conditions:

- A change is made to a channel schedule.
- An event goes into the past.
- A device, channel, EventType or source is added.
- A change is made to the configuration of any of the above.
- A change is made to the configuration of a Morpheus application.
- The Snapshotter (refer to page 216) takes its regular snapshot.
- A MediaBall (refer to page 117) is created.

## 13.5 Morpheus Media Management Database

The Morpheus media management database contains metadata (data about data) for every recording available to the automation system, for example, its title, duration, content, inpoint, format, aspect ratio and filename.

The Morpheus media management system updates the database whenever a media file is moved, copied or deleted by the media management system.

It is an accurate and up-do-date record of what media items are present and available (or potentially available) for playout.

## 13.6 Morpheus Co-operative mode

This mode enables one Morpheus Editor to control channels across multiple Morpheus systems with different EventStore multicast addresses.

The Editor shortcuts must have the following extensions:

- /a <multicast address1> /i "Name of Channel Group1"
- /a <multicast address2> /i "Name of Channel Group2"
- etc...

To use co-operative mode:

1. Launch all of the shortcuts.
2. Set the role permissions for each Editor as required.

One Editor application is displayed that contains the Channel Group names (configured above) in the channel bar on the left.

3. Click on a Channel Group name in order to see the channels for that group.

This feature is not available with the Timeplane application.

## 13.7 Morpheus System Health Monitor

On the Windows taskbar, there may be either a blinking red 'M' icon, or a green static M, to indicate the presence, or otherwise, of system alarms. This functionality is intended solely for support engineers.



## 13.8 Preroll

A video server is sent a 'play' command in advance of the event's start time to allow for latency. This is called the pre-roll time.

A VTR is not capable of instantaneous stable playout and typically requires a few seconds' preroll to guarantee a stable output at the desired inpoint (refer to page 190).

### 13.9 Shell Services Host

'Host Shell Services' is an application within Morpheus that contains various services that can be used by the system. Some of these are described below.

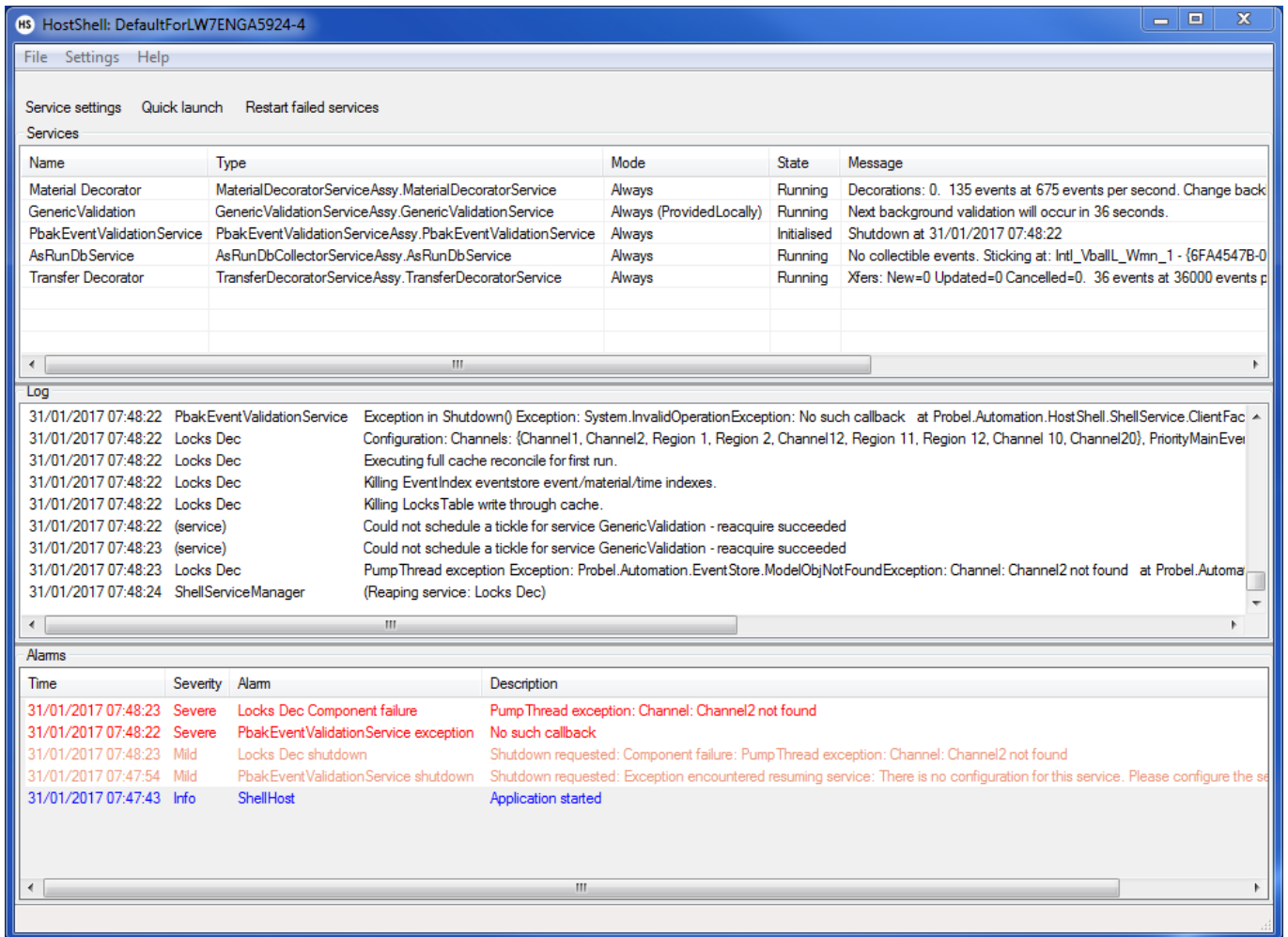


Figure 107 HostShell Services

#### 13.9.1 AsRun DB Service

The 'AsRun DB' service keeps a record of the events that have played out on the schedule and writes this to the 'AsRun' database. The AsRun DB service can work with another application called the 'Automation Database Reporter' to produce 'as run logs' (refer to page 93).

#### 13.9.2 Device Manager Service

This manages the allocation of devices to events in order to make optimum use of resources and eliminate conflicts in a multi channel environment.

### 13.9.3 Material Decorator Service

The Material Decorator populates empty fields in the Editor schedule and EventStore using data from the Morpheus media management database (refer to page 212). The fields that are decorated depend on the Material Decorator configuration.

The service uses the material ID and device ID to query the database and retrieve the relevant information.

The Material Decorator also enters a 'status barrel' (refer to page 34) in the **Main** column on the schedule. This barrel shows the event's 'material status' (for example, whether or not the material is in the database or if a transfer is in progress, refer to 'Transfer Decorator Service' on page 215). It also enters a value for each event's material status into the EventStore.

### 13.9.4 Transfer Decorator Service

The Transfer Decorator Service posts transfer requests for missing material (refer to 'Missing Material Report' on page 194) and reports the status of the transfer. It looks for events in the EventStore that:

- Have not yet started.
- Have a valid material ID specified.
- Have a storage device supplied by the material decorator (refer to page 215).
- Have a playout device specified.
- Have a video server requested as the playout device.
- Have a playout device that is enabled in the Transfer Decorator configuration.
- Have a material status indicating that the required material ID is not available on the chosen device. On the schedule, a red barrel is displayed on the left-hand side of the **Main** column - refer to Chapter 3.2.9 Event Fields: Main & Guard (Grd).

### 13.10 Snapshotter

'Snapshotter' is an application within the EventStore that takes a 'snapshot' of the current model (refer to page 14) and deletes past updates from the 'command queue' (see below).

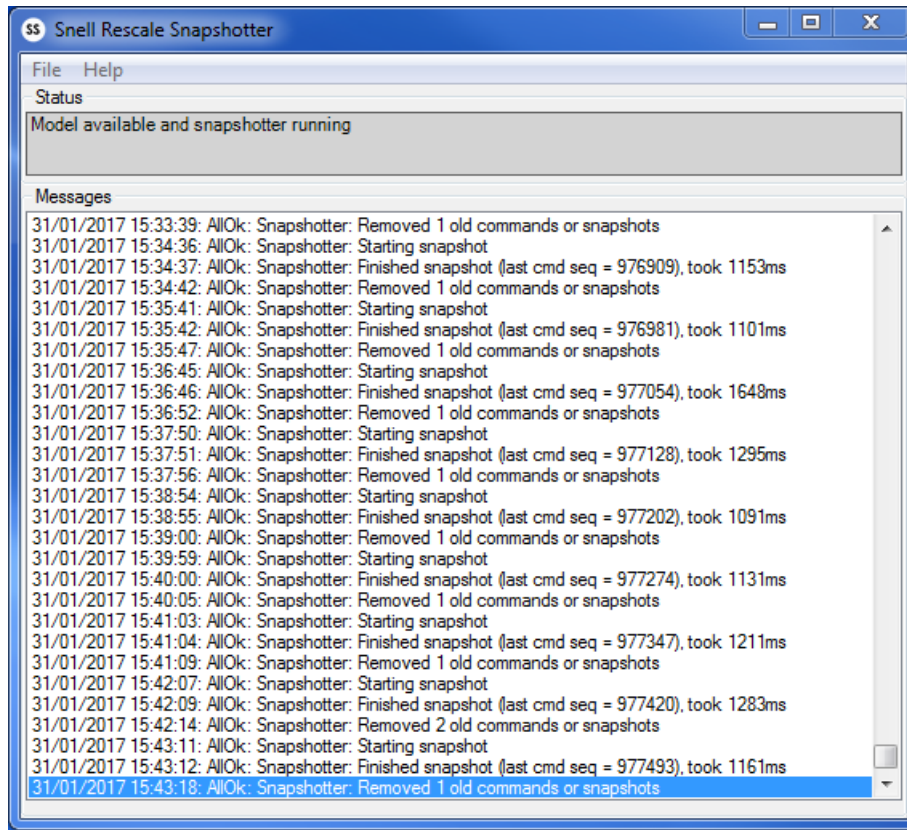


Figure 108 Snapshotter

#### 13.10.1 Model

The 'model' is a term used in Morpheus to denote 'the whole system as it now stands'. It consists of the last snapshot and any subsequent instructions in the command queue (refer to 'Queues' below).

#### 13.10.2 Queues

There are two queues within Morpheus - the 'command queue' and the 'snapshot queue'. These queues are constantly written to a hard drive. This enables full recovery in the event of a server failure. Each is described below.

##### 13.10.2.1 Command Queue

The command queue is one of two queues in the EventStore. It is a store of all transactions (for example, updates or changes) that have been passed to the EventStore since the last snapshot.

##### 13.10.2.2 Snapshot Queue

The snapshot queue contains the last few snapshots from the Snapshotter.



## **14. New Features in this Release**

### **14.1 MOR-5305, 'Duration Aired' Column in the Editor**

Chapter 3.2.15 Event Field: Duration Aired

### **14.2 MOR-5618, Back-to-Back Transitions on the Same Source**

Chapter 3.2.5 Event Field: Mix

Chapter 9.7.9 Transition Type

### **14.3 MOR-5799, Dummy Source**

Chapter 5.2.5.1 'Dummy' Guard Source

### **14.4 MOR-5826, Updated Duration Modes in MediaBall Editor**

Chapter 7.7.1 Creating a MediaBall



## **Grass Valley Technical Support**

For details of our Regional Customer Support Offices please visit the Grass Valley website and navigate to Support> Contact Support.

<https://www.grassvalley.com/support>

## **UK Office**

The department is staffed from 9.00am to 5:30pm Monday to Friday (excluding UK public holidays).

Outside these times, calls will be delivered to voicemail for follow up on the next working day.

Additional support is available outside these hours by purchasing a support contract, details of which are available from the Grass Valley website and through the account manager.

Customers with an existing support contract should call their personalised number, which can be found in the contract, and be ready to provide the contract number and details.