aQ QSIA Scheduling

Functional Outline and User Guide (for specific functional elements)

CONFIDENTIAL DOCUMENT

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aQ QSIA Scheduling Outline

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1 Introduction

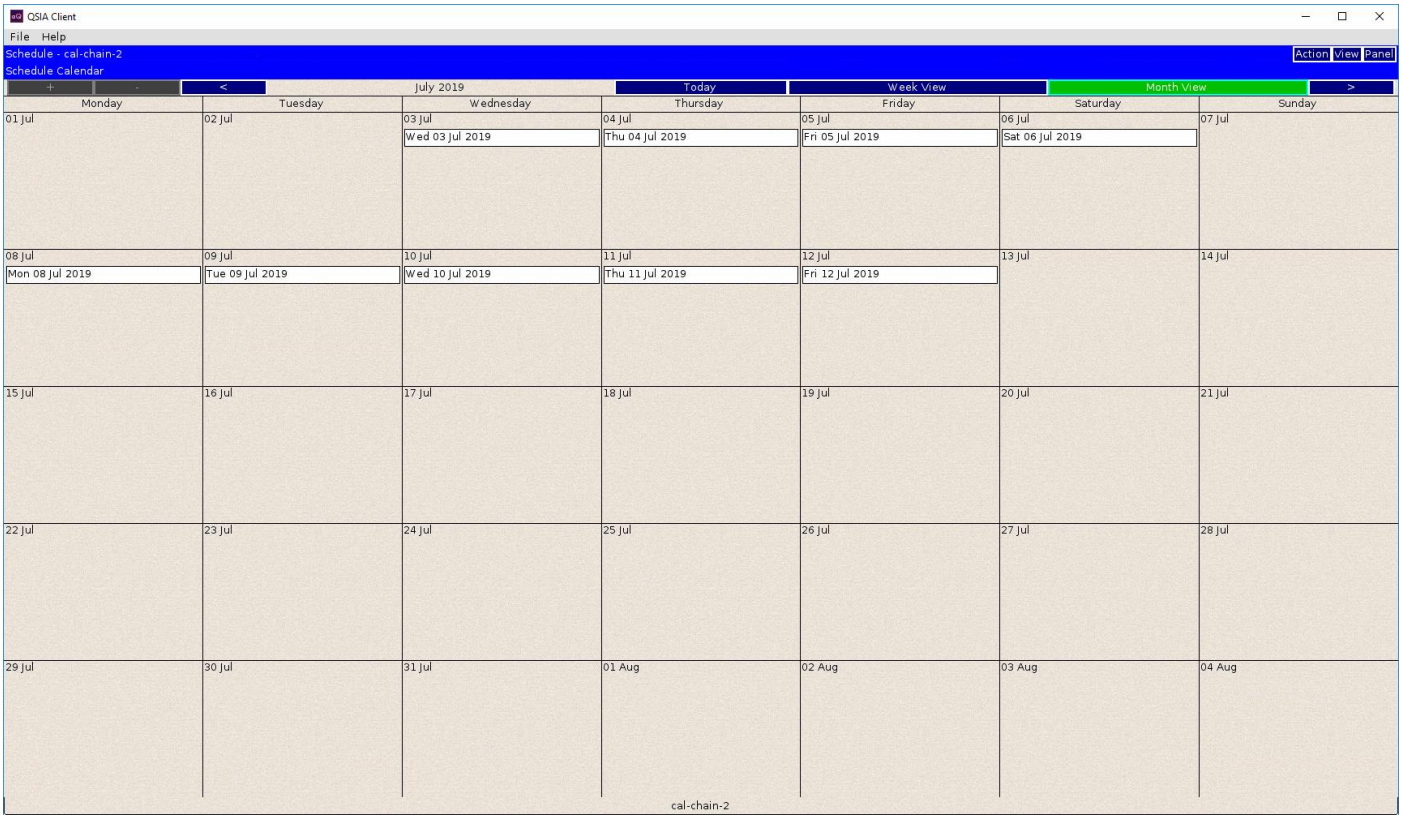
This document provides an outline of aQ's QSIA scheduling functionality, particularly in relation to Calendar Chain (cal-chain) channel scheduling.

2 QSIA Cal-Chain Scheduling

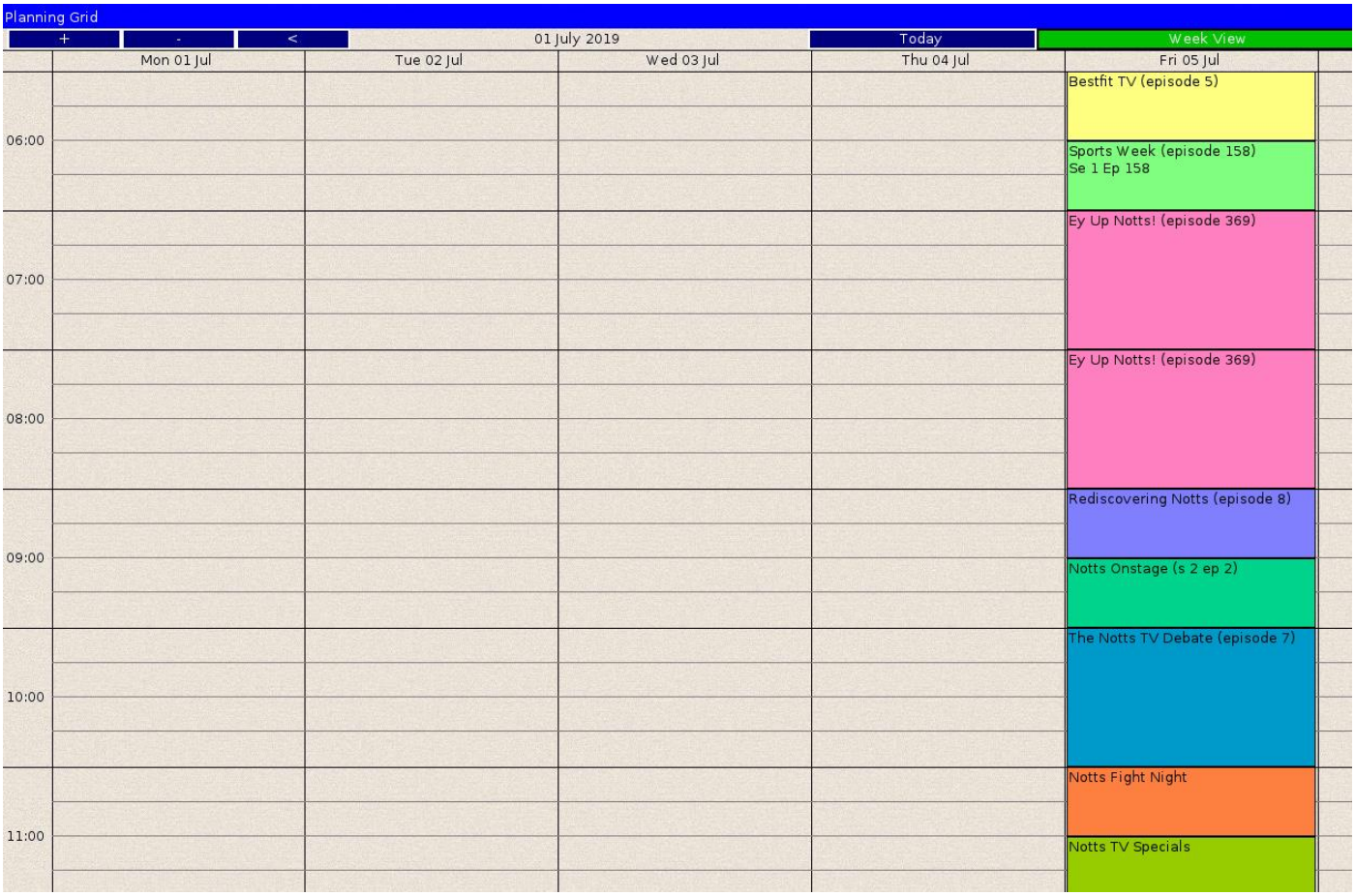
aQ offers a range of its own solutions for scheduling and transmission list preparation, including Tx-Lite, QSIA Schedules, QSIA Calendar Chains (cal-chains) and QSeries Airchains. Regardless of how the original schedule was produced, transmission playout is handled by the Tx-Chain process, which runs dynamically from the selected schedule sequence. Tx-Chain can also operate from schedules produced by third-party scheduling solutions, either directly or via import into one of the native scheduling platforms.

This document relates particularly to cal-chain schedules, which are intended to support full-scale channel scheduling requirements. A channel will normally operate from a single cal-chain, with each day represented by an individual schedule starting at a specified point (normally but not necessarily 06:00), and with the end of one day linked into the next to provide a continuous sequence of events.

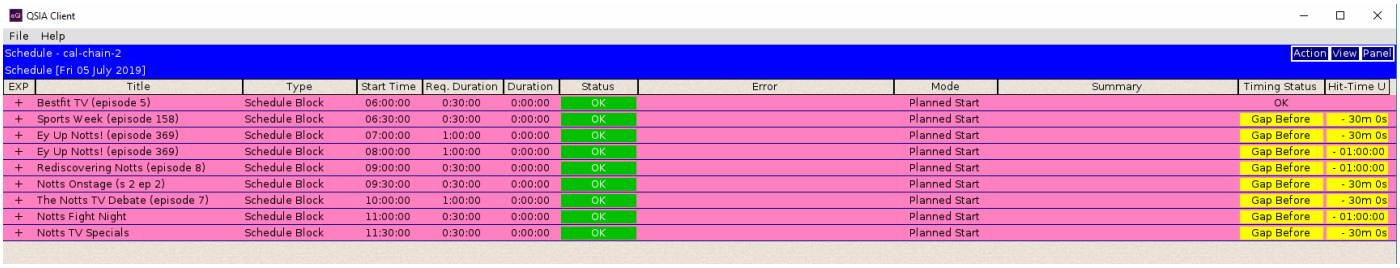
Calendar Chains are built and managed using the QSIA Client application, which can run directly on an aVS server (which is a Linux-based platform) or remotely on any networked Windows PC. The QSIA Client provides a flexible display layout (with different arrangements of panels and contents to suit particular requirements) and offers a number of different views related to cal-chain functionality. In the example below, the month of July has been partially built, with daily schedules available for Wednesday 3rd through until Friday 12th.



A core principle of the cal-chain handling is that only a single schedule should be required, from advance programme planning through until transmission playout – rather than having to transfer information from one system to another and then needing to duplicate updates to keep all of the systems up-to-date. On this basis, a daily cal-chain schedule can be viewed in several different forms and arrangements in order to tailor the displayed information to the current activity. For instance, in the example below a high-level programme-guide style view is available for Friday 5th.

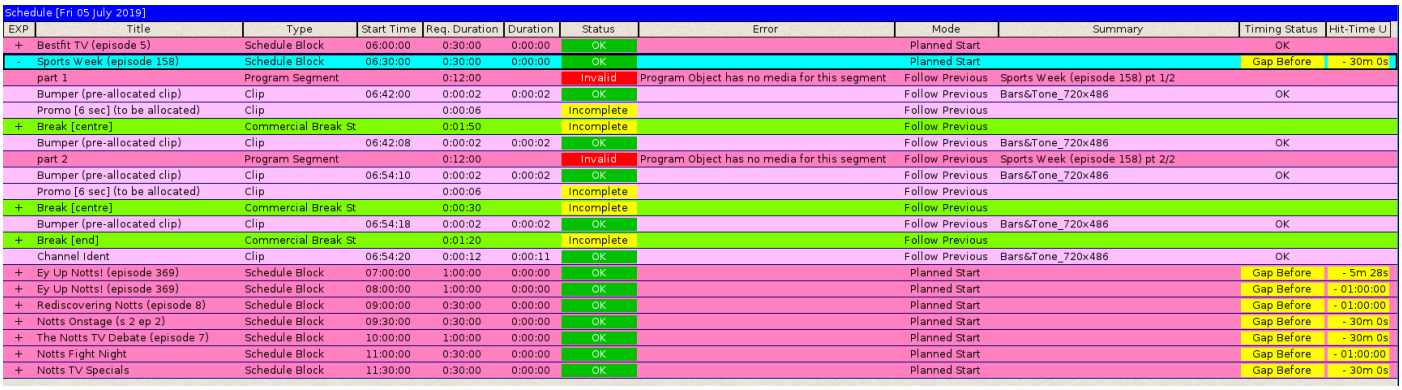


By changing to the Schedule View, it is possible to see the high-level details for the same day, initially at a program level. In this case, time errors are being highlighted as the schedule blocks do not yet contain any detailed event information.



EXP	Title	Type	Start Time	Req. Duration	Duration	Status	Error	Mode	Summary	Timing Status	Hit-Time U
+	Bestfit TV (episode 5)	Schedule Block	06:00:00	0:30:00	0:00:00	OK		Planned Start		OK	
+	Sports Week (episode 158)	Schedule Block	06:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	Ey Up Notts! (episode 369)	Schedule Block	07:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	Ey Up Notts! (episode 369)	Schedule Block	08:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Rediscovering Notts (episode 8)	Schedule Block	09:00:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Notts Onstage (s 2 ep 2)	Schedule Block	09:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	The Notts TV Debate (episode 7)	Schedule Block	10:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	Notts Fight Night	Schedule Block	11:00:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Notts TV Specials	Schedule Block	11:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s

The 'Expand' (EXP) + button on the left-hand side of the list enables individual programs to be expanded. In this case, Sports Week has been expanded to show the parts (segments), breaks and interstitial material that it contains.



EXP	Title	Type	Start Time	Req. Duration	Duration	Status	Error	Mode	Summary	Timing Status	Hit-Time U
+	Bestfit TV (episode 5)	Schedule Block	06:00:00	0:30:00	0:00:00	OK		Planned Start		OK	
-	Sports Week (episode 158)	Schedule Block	06:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
	part 1	Program Segment		0:12:00		Invalid	Program Object has no media for this segment	Follow Previous	Sports Week (episode 158) pt 1/2		
	Bumper (pre-allocated clip)	Clip	06:42:00	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
+	Break [centre]	Commercial Break St		0:01:50		Incomplete		Follow Previous			
	Bumper (pre-allocated clip)	Clip	06:42:08	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	part 2	Program Segment		0:12:00		Invalid	Program Object has no media for this segment	Follow Previous	Sports Week (episode 158) pt 2/2		
	Bumper (pre-allocated clip)	Clip	06:54:10	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
+	Break [centre]	Commercial Break St		0:00:30		Incomplete		Follow Previous			
	Bumper (pre-allocated clip)	Clip	06:54:18	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
+	Break [end]	Commercial Break St		0:01:20		Incomplete		Follow Previous			
	Channel Ident	Clip	06:54:20	0:00:12	0:00:11	OK		Follow Previous	Bars&Tone_720x486	OK	
+	Ey Up Notts! (episode 369)	Schedule Block	07:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 5m 28s
+	Ey Up Notts! (episode 369)	Schedule Block	08:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Rediscovering Notts (episode 8)	Schedule Block	09:00:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Notts Onstage (s 2 ep 2)	Schedule Block	09:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	The Notts TV Debate (episode 7)	Schedule Block	10:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	Notts Fight Night	Schedule Block	11:00:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Notts TV Specials	Schedule Block	11:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s

Breaks can also be expanded to show their contents. In the example below, 'Break 1' has been expanded so that the three commercials can be seen.

	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
-	Break 1 [centre]	Commercial Break St		0:01:50		Incomplete		Follow Previous			
	Ad - Holdan	Clip	06:42:08	0:00:00	0:00:31	OK		Follow Previous	holdan_ad_break		OK
	Ad - Cache Media	Clip	06:42:39	0:00:00	0:00:59	OK		Follow Previous	cachemedia		OK
	Ad - TVBay	Clip	06:43:38	0:00:00	0:00:25	OK		Follow Previous	tvbay_studio_promo		OK
	END of Break [centre]	Commercial Break Er				Invalid	Break Start Invalid	Follow Previous			
	Bumper (pre-allocated clip)	Clip	06:44:04	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486		OK
	part 2	Program Segment		0:12:00		Invalid	Program Object has no media for this segment	Follow Previous	Sports Week (episode 158) pt 2/2		
	Bumper (pre-allocated clip)	Clip	06:56:06	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486		OK

It is possible to add further detail to the view, in terms of showing secondary events. In this example, by enabling the display of secondary events, it is now possible to see bug/logo on and off actions which are associated with each of the program parts.

-	Sports Week (episode 158)	Schedule Block	06:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
	part 1	Program Segment		0:12:00		Invalid	Program Object has no media for this segment	Follow Previous	Sports Week (episode 158) pt 1/2		
	bug on	Simple Action				OK		Follow Previous			
	bug off	Simple Action				OK		Follow Previous			
	Bumper (pre-allocated clip)	Clip	06:42:00	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
+	Break 1 [centre]	Commercial Break St		0:01:50		Incomplete		Follow Previous			
	Bumper (pre-allocated clip)	Clip	06:44:04	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	part 2	Program Segment		0:12:00		Invalid	Program Object has no media for this segment	Follow Previous	Sports Week (episode 158) pt 2/2		
	bug on	Simple Action				OK		Follow Previous			
	bug off	Simple Action				OK		Follow Previous			
	Bumper (pre-allocated clip)	Clip	06:56:06	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
+	Break 2 [centre]	Commercial Break St		0:00:30		Incomplete		Follow Previous			
	Bumper (pre-allocated clip)	Clip	06:56:14	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
+	Break 3 [end]	Commercial Break St		0:01:20		Incomplete		Follow Previous			
	Channel Ident	Clip	06:56:16	0:00:12	0:00:11	OK		Follow Previous	Bars&Tone_720x486	OK	

At this greatest level of detail, it is possible to enter and check all elements related to the transmission of the day's schedule. But at any time the view can be simplified back to program level or to the planning grid. It is important to stress that any changes made in any view apply to the schedule automatically and are therefore reflected in all associated views. In the example below, the 'Specials' and 'Fight Night' programmes have been swapped over in the list, which is also reflected immediately within the planning grid.

Schedule [Fri 05 July 2019]

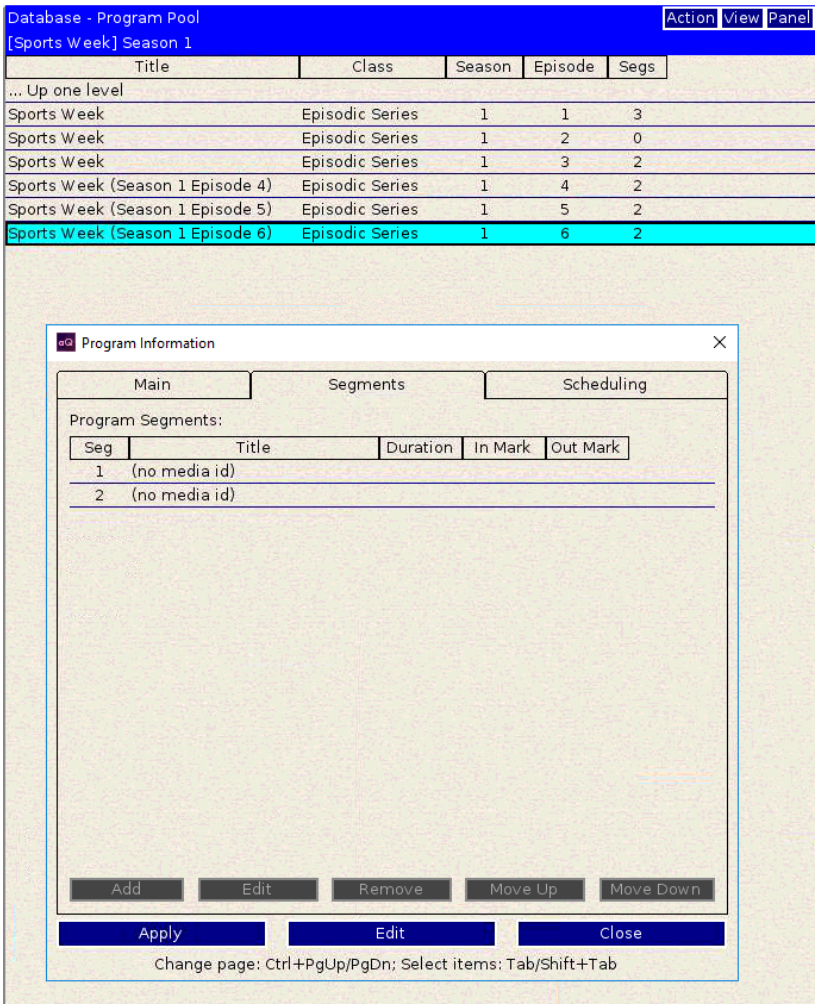
EXP	Title	Type	Start Time	Req. Duration	Duration	Status
+	Bestfit TV (episode 5)	Schedule Block	06:00:00	0:30:00	0:00:00	OK
+	Sports Week (episode 158)	Schedule Block	06:30:00	0:30:00	0:00:00	OK
+	Ey Up Notts! (episode 369)	Schedule Block	07:00:00	1:00:00	0:00:00	OK
+	Ey Up Notts! (episode 369)	Schedule Block	08:00:00	1:00:00	0:00:00	OK
+	Rediscovering Notts (episode 8)	Schedule Block	09:00:00	0:30:00	0:00:00	OK
+	Notts Onstage (s 2 ep 2)	Schedule Block	09:30:00	0:30:00	0:00:00	OK
+	The Notts TV Debate (episode 7)	Schedule Block	10:00:00	1:00:00	0:00:00	OK
+	Notts TV Specials	Schedule Block	11:00:00	0:30:00	0:00:00	OK
+	Notts Fight Night	Schedule Block	11:30:00	0:30:00	0:00:00	OK

3 Specific Workflow Examples

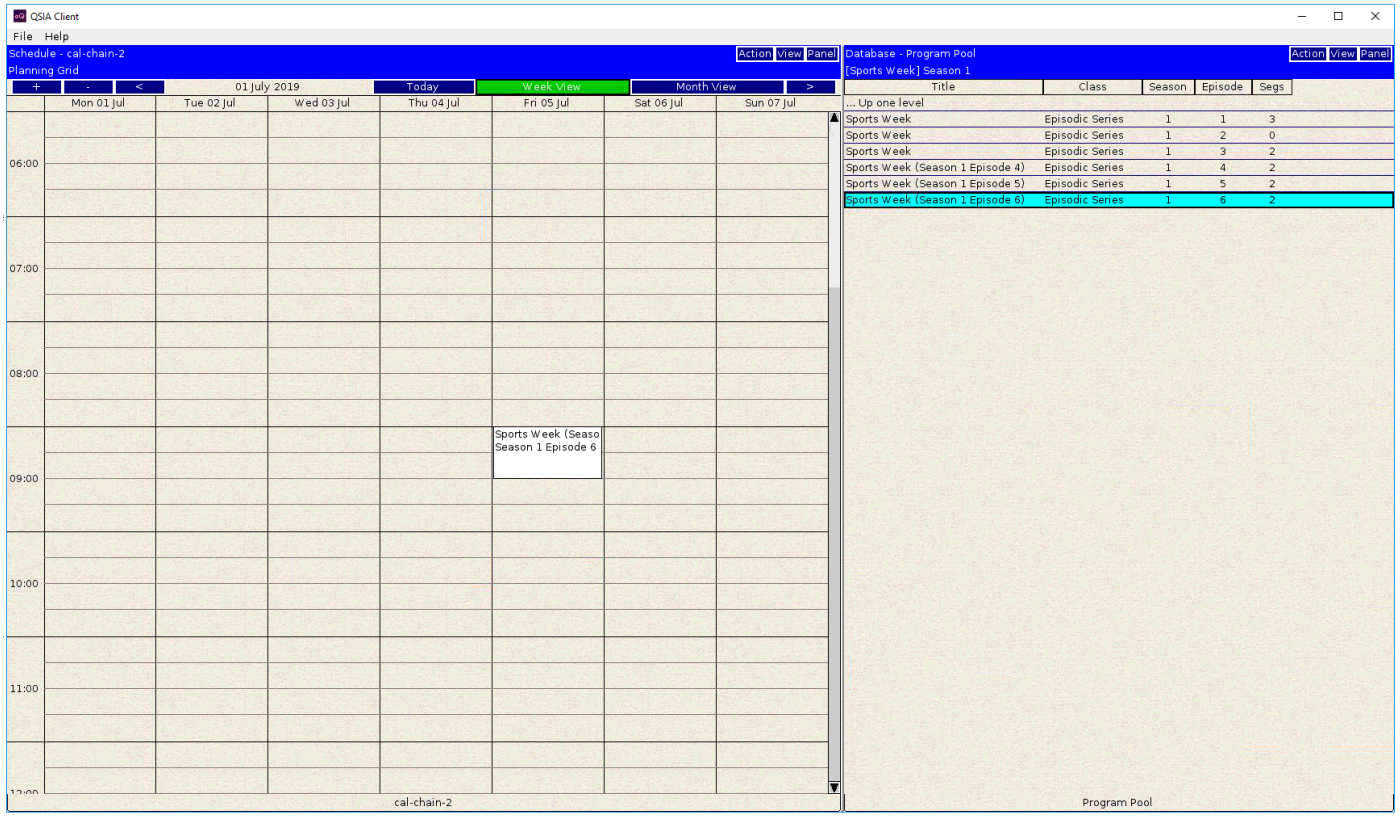
This section provides an outline of specific areas of functionality and/or workflow. Please note that in order to illustrate the specific elements in each section, the examples have been simplified – for instance, so that only part of the schedule for any particular period has been entered.

3.1 Placeholder Scheduling

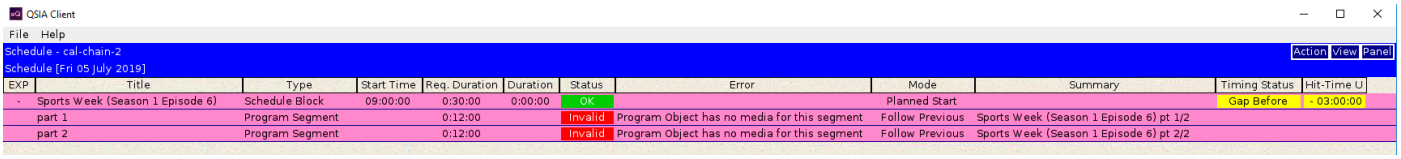
It is perfectly viable to schedule programs before they have media attached. In the example below, the programme 'Sports Week' (Season 1 Episode 6) will be a 30-minute program in two parts, but currently no media is available to allocate to those parts. To enable the programme to be added to the planning grid, two empty parts ('segments') have been created (shown as '(no media id)' below.



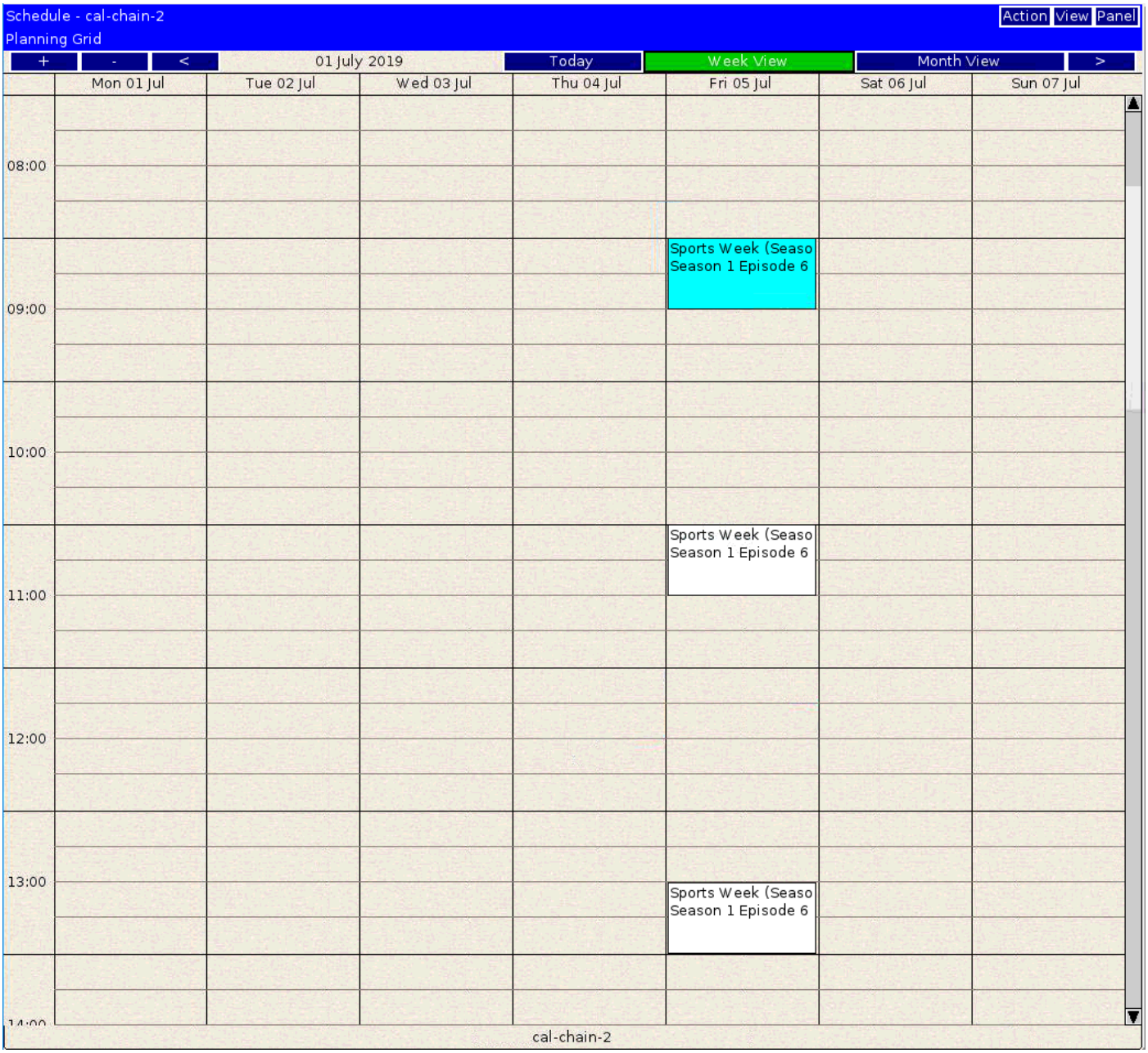
Once the program has been created with the empty segments, it can be dragged directly into the planning grid, where it will be converted to a block of the correct length (30 minutes in this case) automatically.



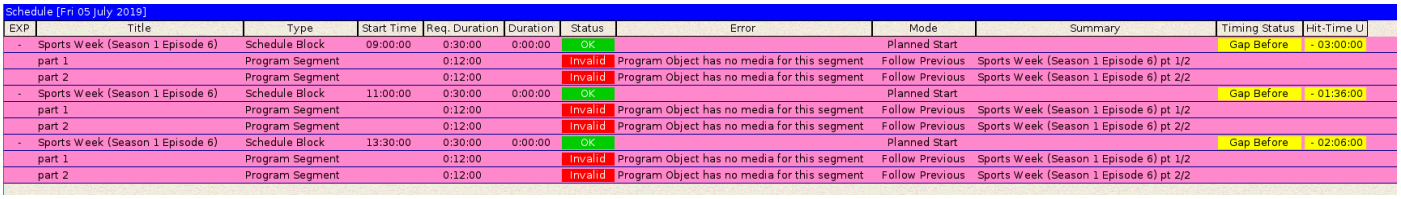
The view can be changed to show the detailed schedule, in which case it can be seen that the two segments are currently invalid as they have no media.



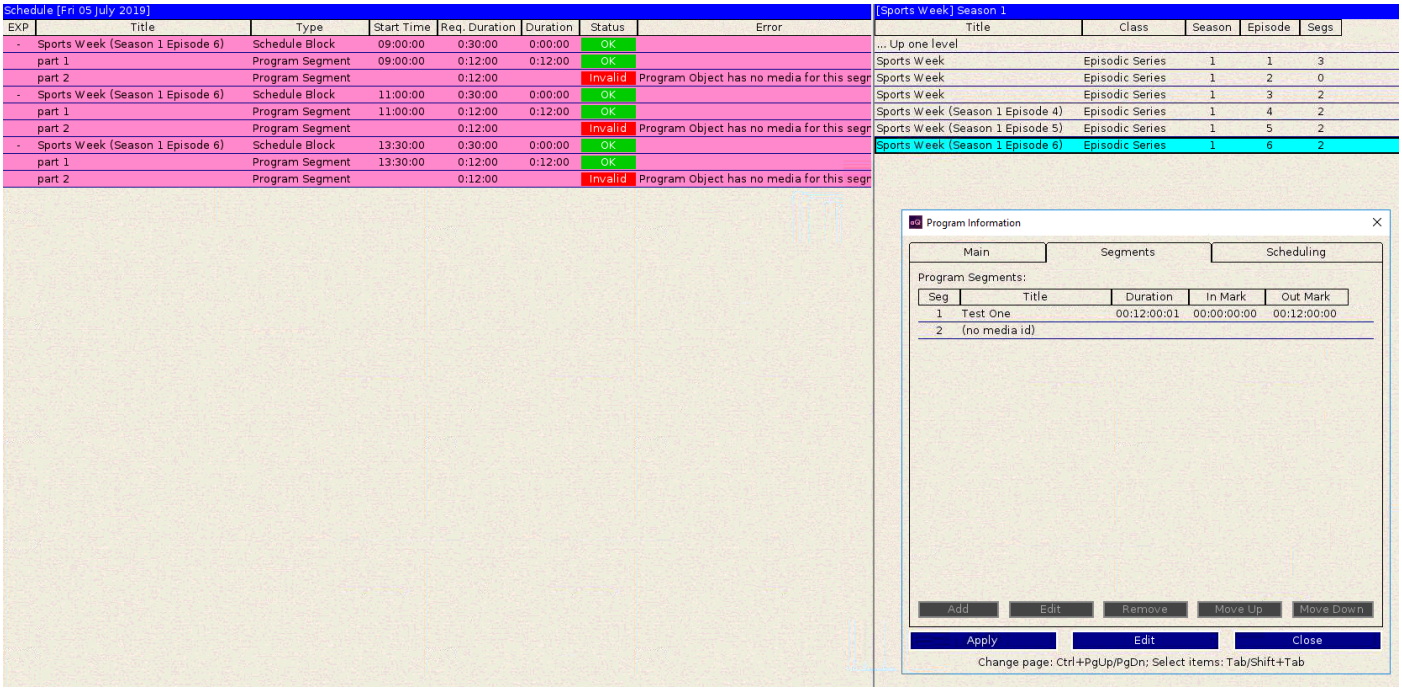
Once the first program block has been entered into the program grid, it can be dragged and dropped to insert new copies. For instance, here new instances have been created at 11:00 and 13:30 on the same day.



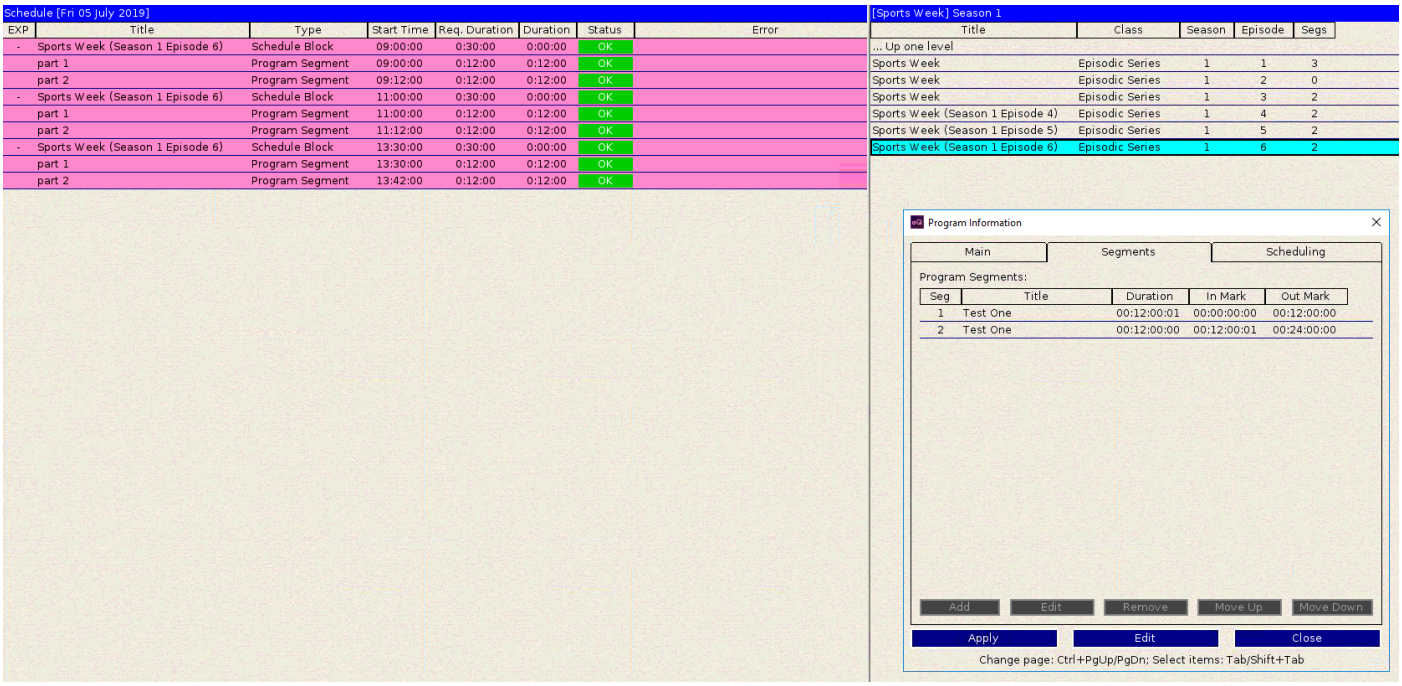
Swapping back to the schedule view shows that all three instances of the programme have invalid segments.



Changing the view again, so that both the detailed schedule and program database are visible, and then opening the details for the Sports Week (S1 Ep6), it can be seen that entering media information for the first segment immediately updates the corresponding events within the schedule – their status changes to be 'valid' as they now have clip details.



Similarly, updating the second part so that it also references clip information will result in the remaining items in the scheduling also becoming valid. Note that in this case the same physical clip ('Test One') has been used, but the segments have been defined using different sets of in- and out-marks. It is equally possible to have each segment refer to a different physical clip.

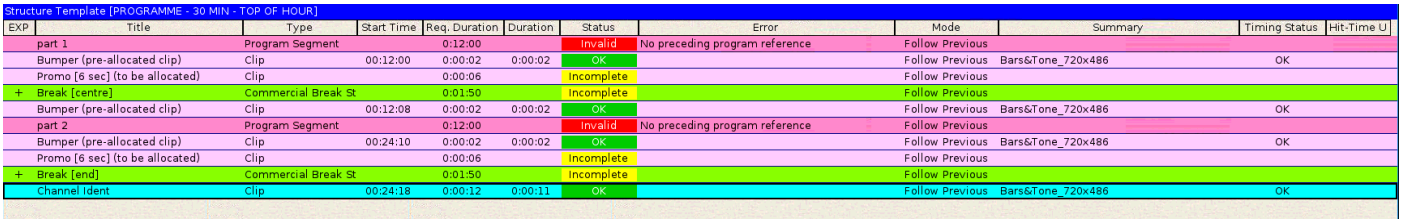


3.2 Structure Templates

When a program is dragged into the planning grid, initially it only exists as a basic program block. Primary (e.g. clips, commercial breaks, live feeds, etc.) and secondary (e.g. graphic event) elements can be added manually at any time, but in most cases a structure template will be applied in order to insert appropriate interstitial material automatically.

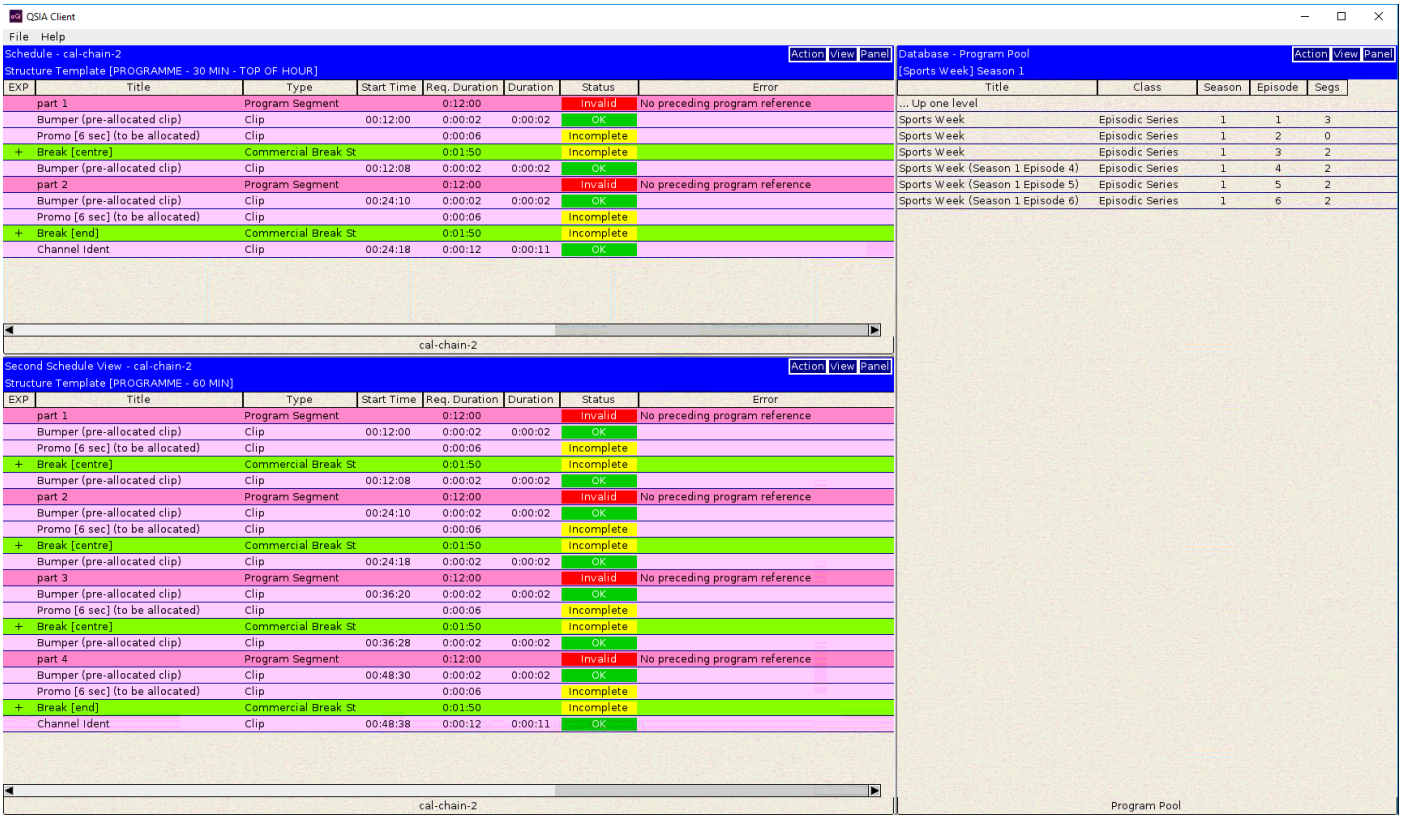
Any number (up to about 65,000) of structure templates can be built, using the same process as creating the main transmission schedules themselves. For instance, the example below consists of a number of elements intended for use in a 30-minute programme slot, including:

- Two programme parts
- Several pre-allocated clips (where the media has already been defined)
- Several clip placeholders (where the actual media will be defined at a later point)
- Two commercial breaks

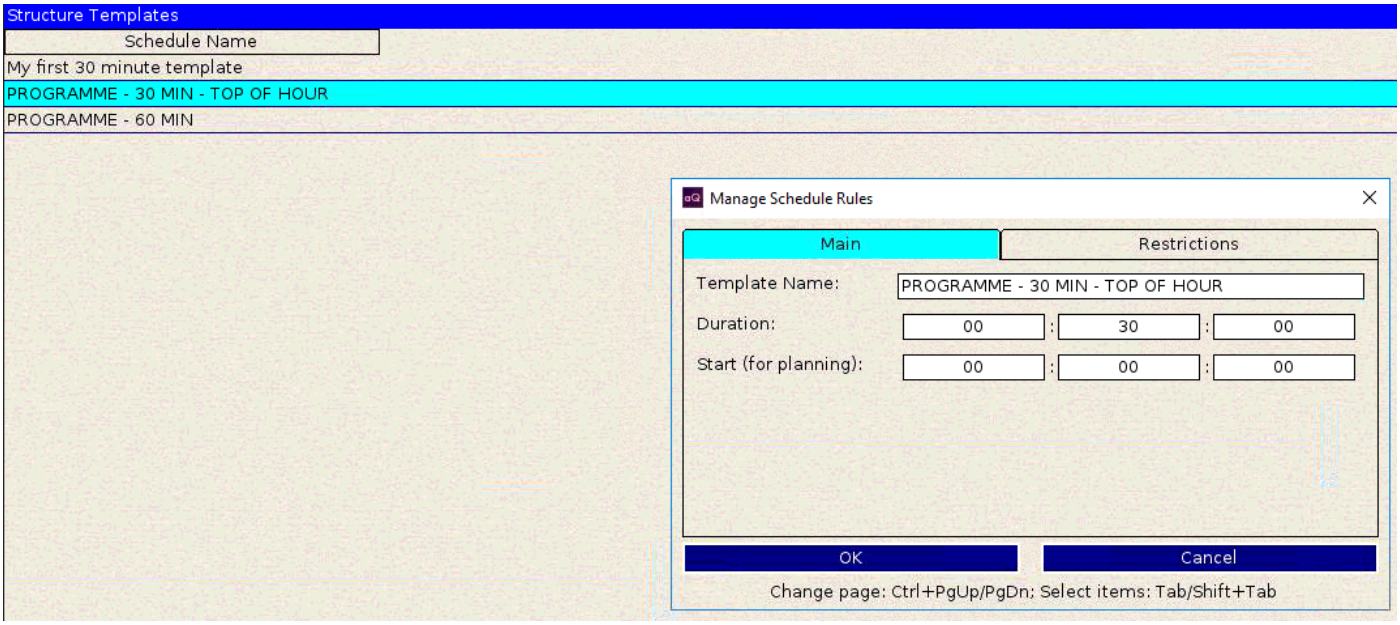

Structure Template [PROGRAMME - 30 MIN - TOP OF HOUR]

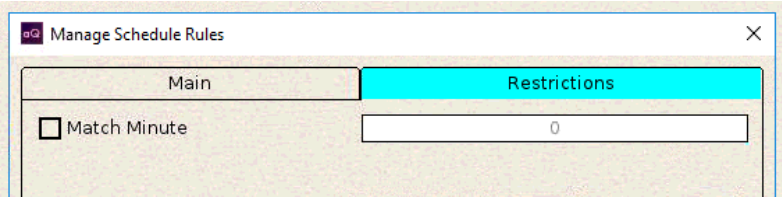
EXP	Title	Type	Start Time	Req. Duration	Duration	Status	Error	Mode	Summary	Timing Status	Hit-Time U
	part 1	Program Segment		0:12:00		Invalid	No preceding program reference	Follow Previous			
	Bumper (pre-allocated clip)	Clip	00:12:00	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
+	Break [centre]	Commercial Break St		0:01:50		Incomplete		Follow Previous			
	Bumper (pre-allocated clip)	Clip	00:12:08	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	part 2	Program Segment		0:12:00		Invalid	No preceding program reference	Follow Previous			
	Bumper (pre-allocated clip)	Clip	00:24:10	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
+	Break [end]	Commercial Break St		0:01:50		Incomplete		Follow Previous			
	Channel Ident	Clip	00:24:18	0:00:12	0:00:11	OK		Follow Previous	Bars&Tone_720x486	OK	

In the example below, two templates are shown, one for a 30-minute programme and one for a 60-minute programme. This screenshot also illustrates the flexibility of the QSIA Scheduling Client application, which in this case has been arranged into three panels – two for structure templates and one for the program database.

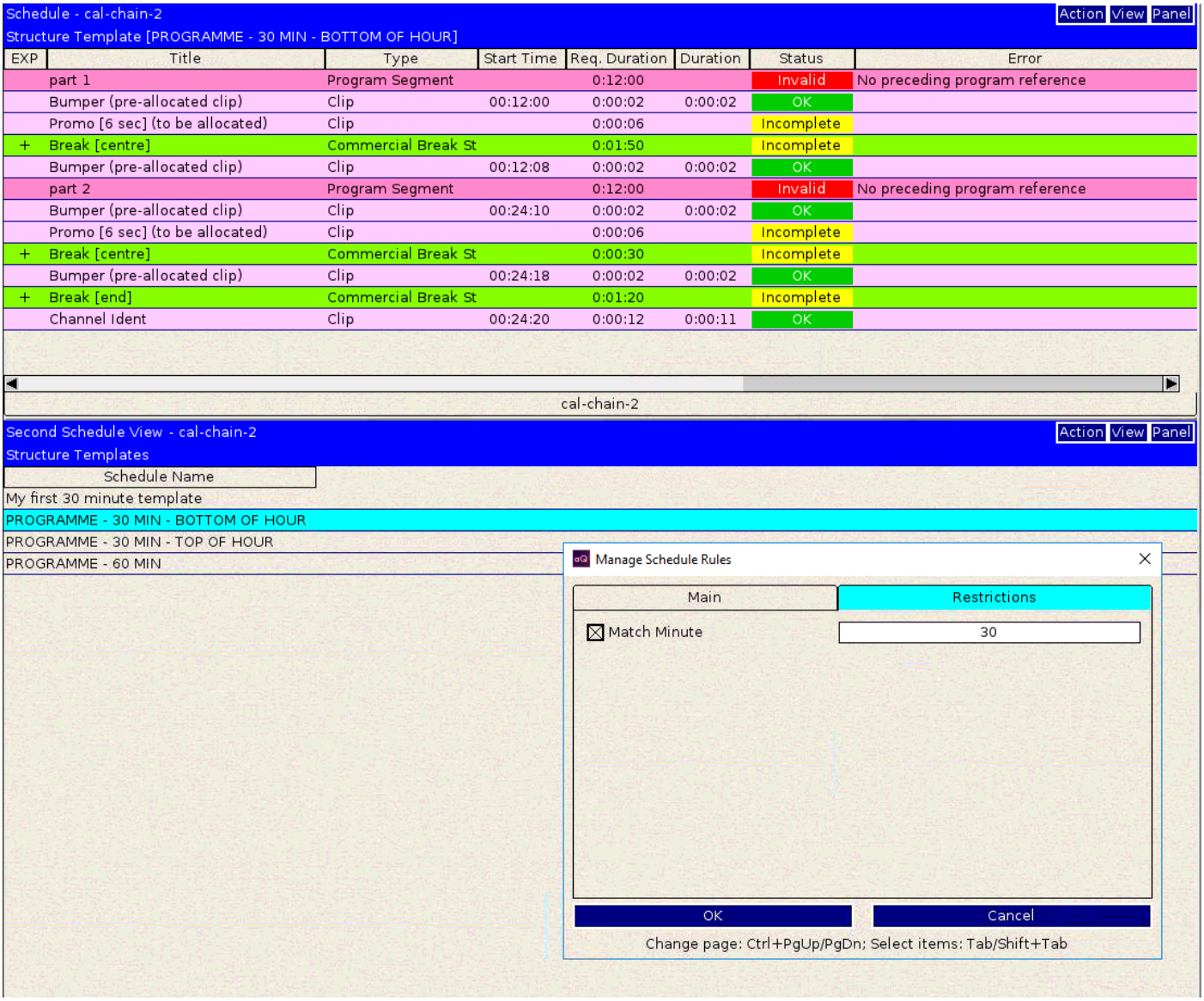


Each template has a set of restrictions associated with it, which help to define when it can be used. The basic property relates to the expected duration of the overall programme, but other definitions can also be applied – including an offset value to define which part of an hour a template relates to.

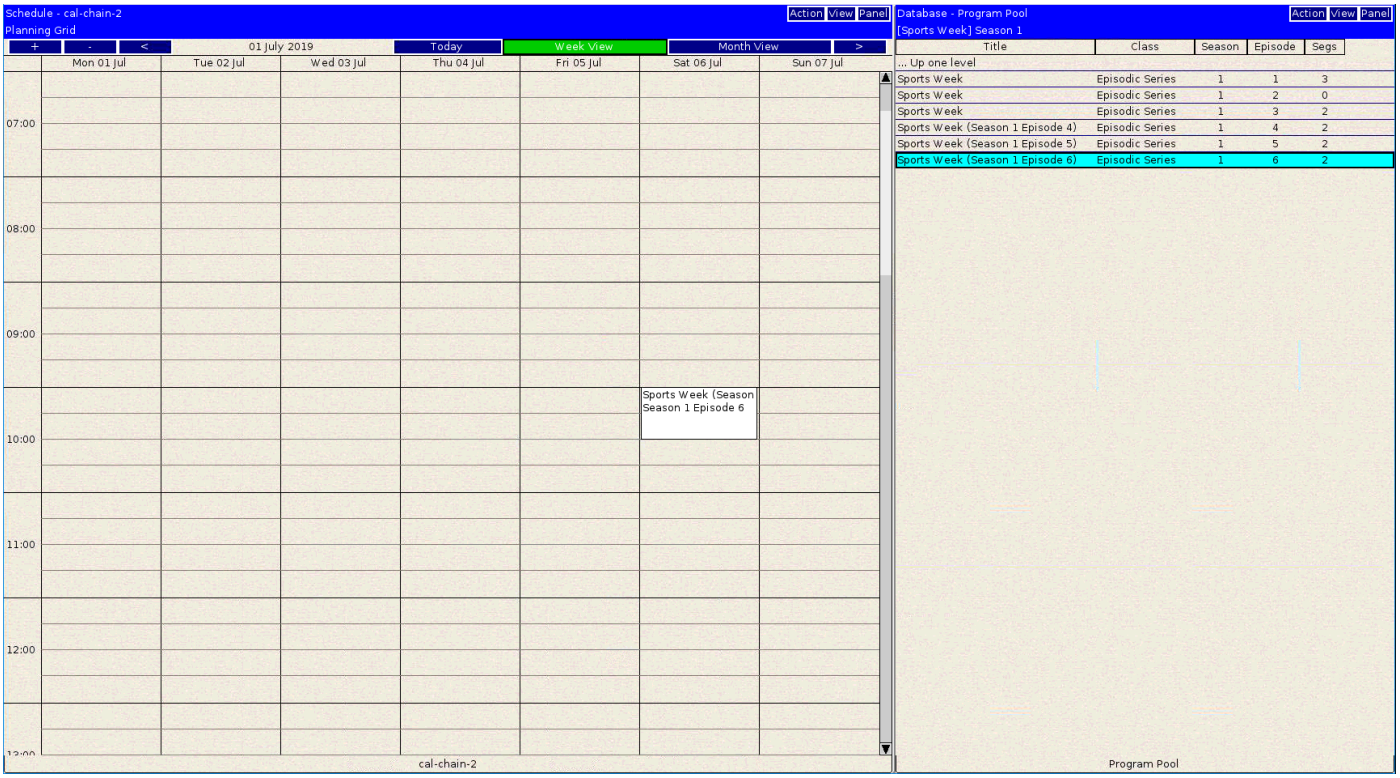




This minute offset means that it is possible to build templates of the same duration, for instance 30 minutes, which are intended to apply to programmes that start at the top or the bottom of the hour. For instance, in the example below the bottom of the hour template includes an additional break.

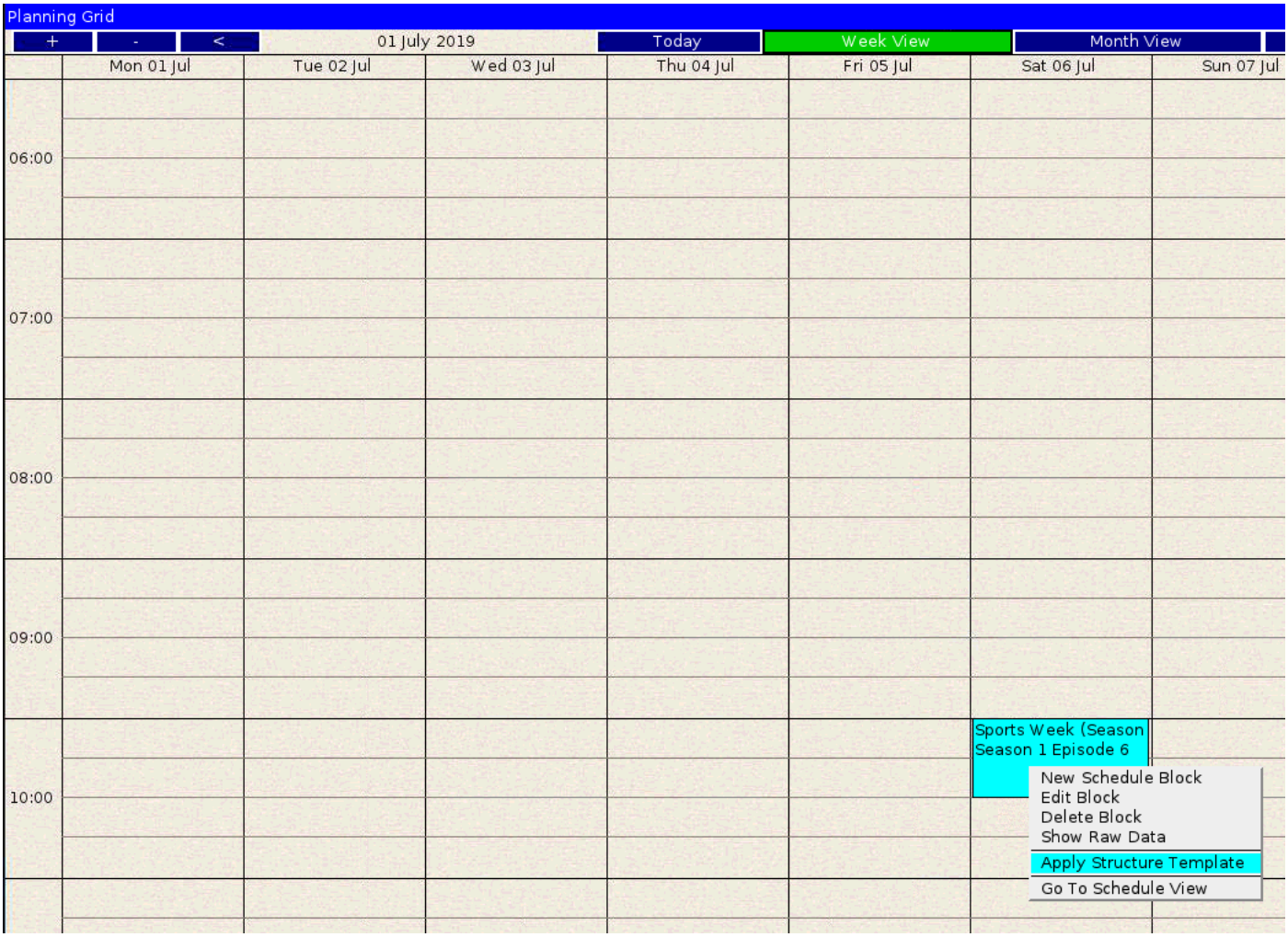


In the screenshot below, an episode of Sports Week (s1 ep6) has been dragged into the planning grid, to produce a new program block of 30 minutes duration at 10:00 on 6th July.

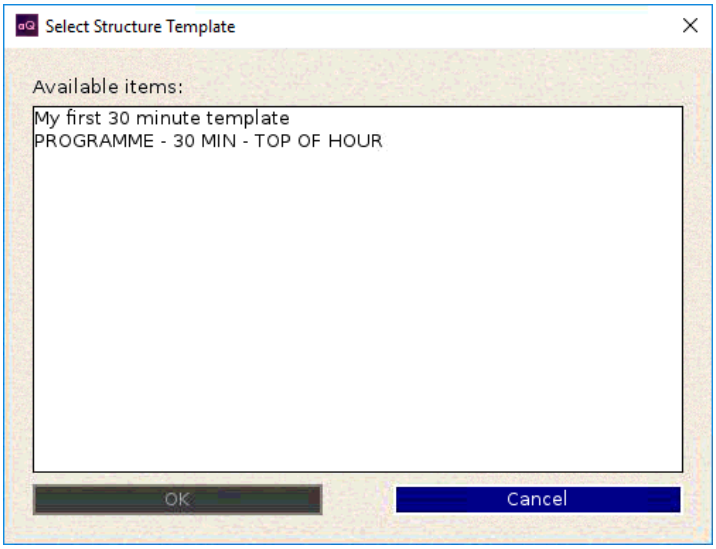


In the first instance, this new program block is empty, as can be seen if the view is changed to show the detailed schedule.

Returning to the planning grid, the new block can be right-clicked to have a structure applied to it.



The properties of the templates will be used to narrow down the selection offered – in this case, there are two 30-minute templates which can be applied to programmes at the top of the hour.



Selecting 'PROGRAMME – 30 MIN – TOP OF HOUR' will apply that template to the empty program block, inserting appropriate content. These new events can be seen by switching back to the detailed view – the block now contains the structure defined by the selected template, i.e. two program segments (which have been allocated media automatically based on the segment definitions within the program), pre-selected bumpers and idents, promo clips still to be defined, plus two breaks (which will be handled through the traffic system).

Schedule [Sat 06 July 2019]

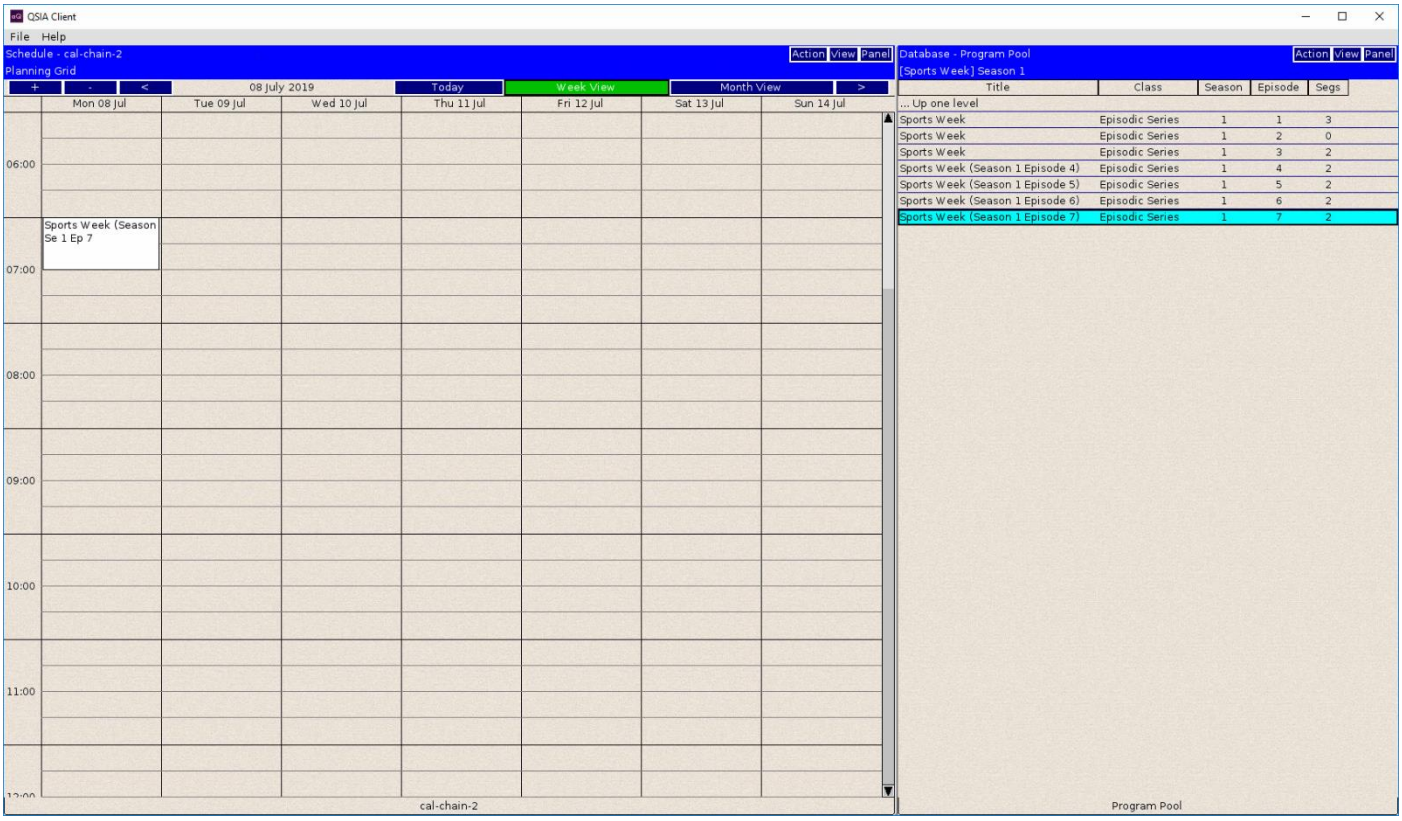
EXP	Title	Type	Start Time	Req. Duration	Duration	Status	Error	Mode	Summary	Timing Status	Hit-Time U
-	Sports Week (Season 1 Episode 6)	Schedule Block	10:00:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 04:00:00
	part 1	Program Segment	10:00:00	0:12:00	0:12:00	OK		Follow Previous	Sports Week (Season 1 Episode 6) pt 1/2	OK	
	Bumper (pre-allocated clip)	Clip	10:12:00	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
+	Break [centre]	Commercial Break St		0:01:50		Incomplete		Follow Previous			
	Bumper (pre-allocated clip)	Clip	10:12:08	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	part 2	Program Segment	10:12:10	0:12:00	0:12:00	OK		Follow Previous	Sports Week (Season 1 Episode 6) pt 2/2	OK	
	Bumper (pre-allocated clip)	Clip	10:24:10	0:00:02	0:00:02	OK		Follow Previous	Bars&Tone_720x486	OK	
	Promo [6 sec] (to be allocated)	Clip		0:00:06		Incomplete		Follow Previous			
+	Break [end]	Commercial Break St		0:01:50		Incomplete		Follow Previous			
	Channel Ident	Clip	10:24:18	0:00:12	0:00:11	OK		Follow Previous	Bars&Tone_720x486	OK	

This has effectively provided a complete structure for this 30-minute segment, compared with the empty program block from which is started.

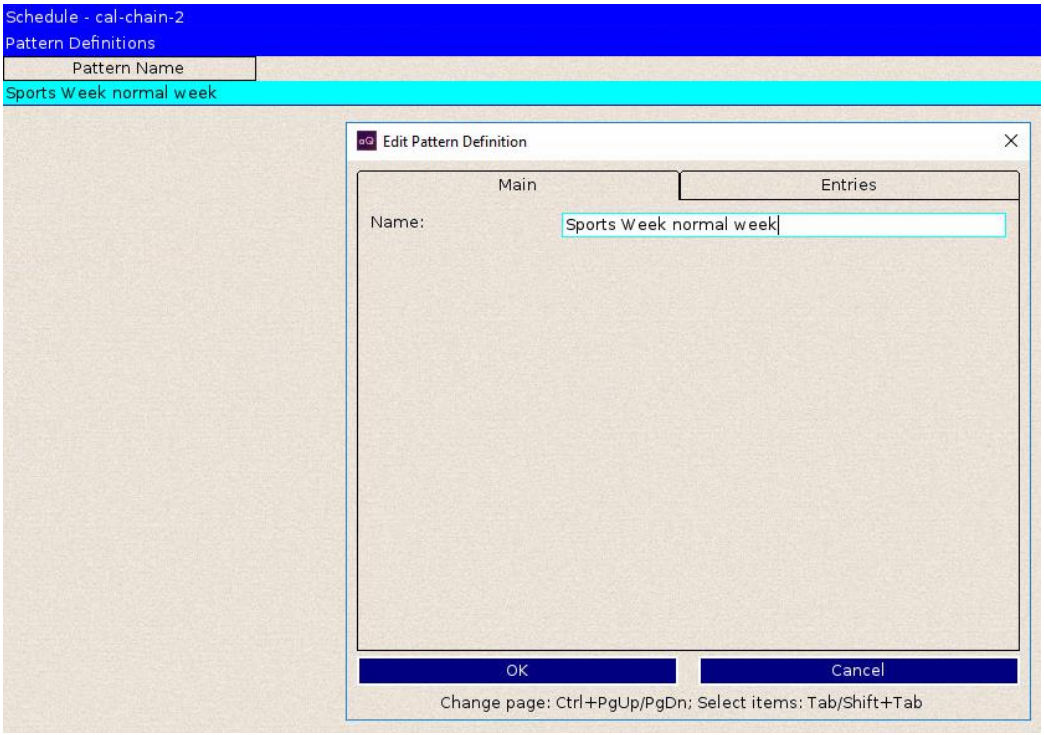
3.3 Schedule Patterns

Schedule Patterns allow program blocks to be inserted into the planning grid automatically, based on a set of entries which define behaviour based on day, time and episode.

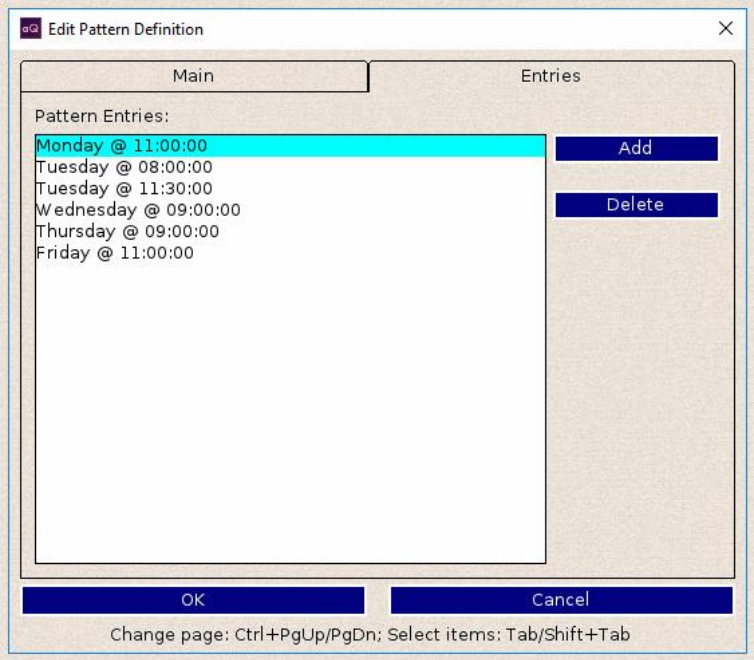
In the example below, the first-run instance of Sports Week (season 1, episode 7) has been added to the planning grid at 07:00 on Monday 8th July.



Any number of pattern definitions can exist, allowing multiple patterns for many programmes. In this case, a partial pattern for 'Sports Week normal week' has been created.

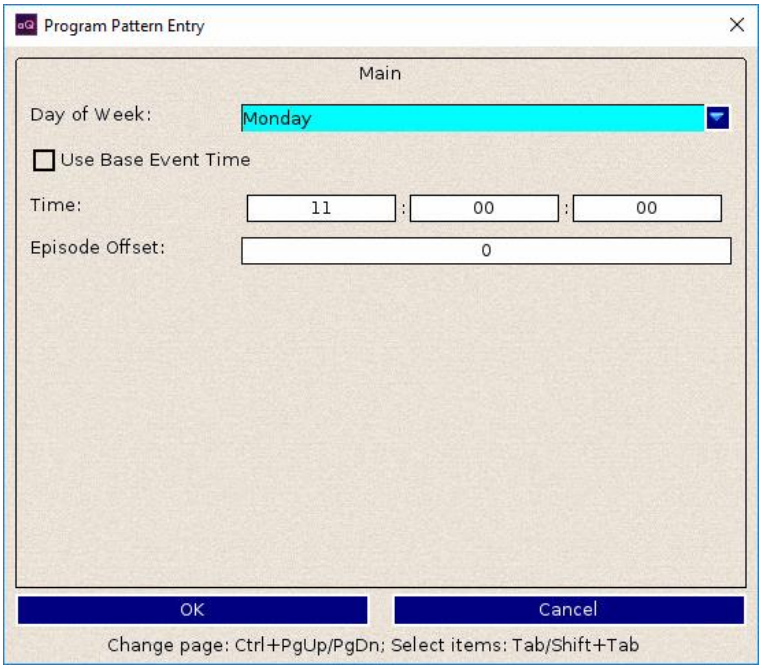


The entries within the pattern define the days and times that new or repeated episodes will be shown. In this partial example, Sports Week will be repeated on Monday at 11:00, Tuesday at 08:00, Tuesday at 11:30, etc.

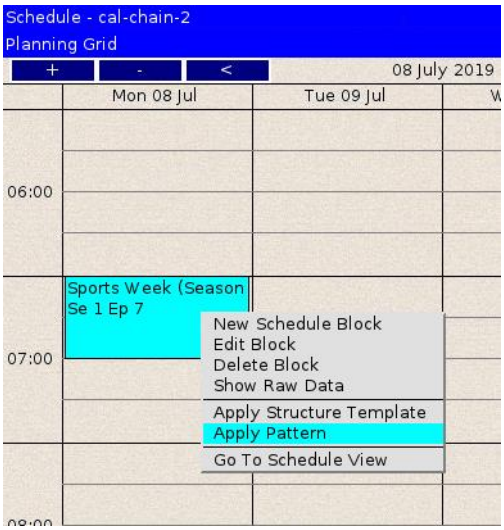


Currently, each pattern entry has a number of parameters (more may be added in the future):

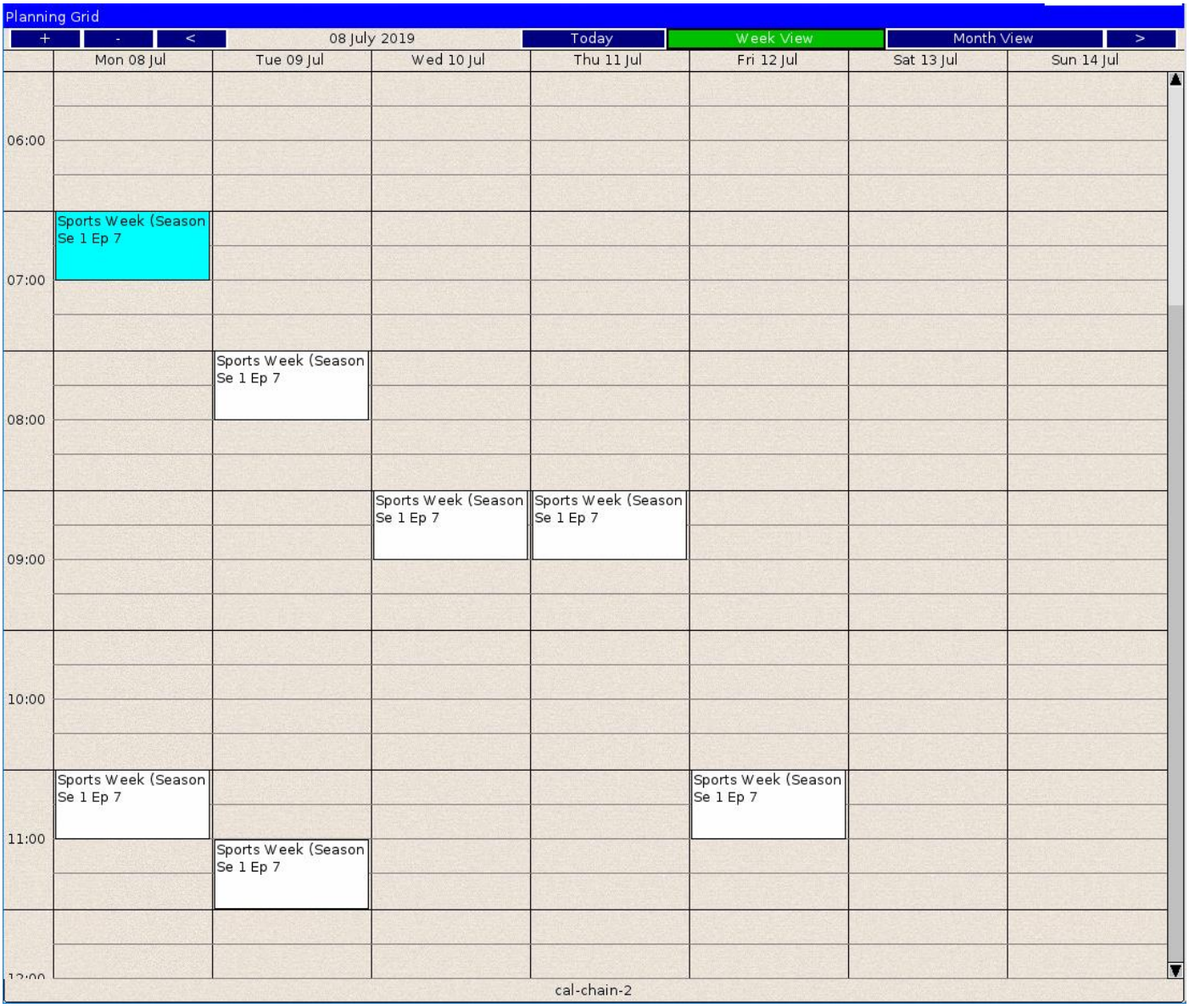
- The day the repeat episode will be created in. This will always be in the future, so if the pattern is applied to a first-run instance on a Wednesday and that pattern contains an entry for Monday, the repeat will be created on the Monday following the selected Wednesday.
- Use Base Event Time option: if checked, the start time of the reference event (i.e. the one selected when the pattern is applied) is used for the repeated episodes. This enables a generic pattern to be created that could be used to repeat the same program at the same time every day, for instance.
- Time: if the option above isn't checked, this is the time at which the new event is to be set to run. At present, the new event is always created to follow the previous event in the schedule with a soft-start time, but an option to set fixed-start time could be added in the future.
- Episode Offset: if non-zero, this is how many episodes in the future the one desired for this repeat will be. For example, starting from episode 4 on a Monday, a pattern might use episode offsets to run episode 5 on a Tuesday, episode 6 on Wednesday and Thursday, then episodes 4, 5 and 6 back-to-back on a Saturday. If an episode doesn't yet exist within the program pool, a new one will be created to ensure that the program reference is set correctly.



The pattern is applied by right-clicking the desired episode to start from – in this case the newly-added Sports Week s1 ep7 on Monday at 07:00 – and choosing 'Apply Pattern'.



This will create new episodes based on the selected pattern – so in this case, six repeats of the same episode have been added to the planning grid.


Planning Grid
+
-
<
08 July 2019
Today
Week View
Month View
>
Mon 08 Jul
Tue 09 Jul
Wed 10 Jul
Thu 11 Jul
Fri 12 Jul
Sat 13 Jul
Sun 14 Jul
06:00
07:00
08:00
09:00
10:00
11:00
Sports Week (Season Se 1 Ep 7
cal-chain-2

4 User Guide for Specific Functional Elements

Previous sections of this document have provided an outline of specific areas of functionality and/or workflow. This section concentrates more on how particular areas of functionality can be used.

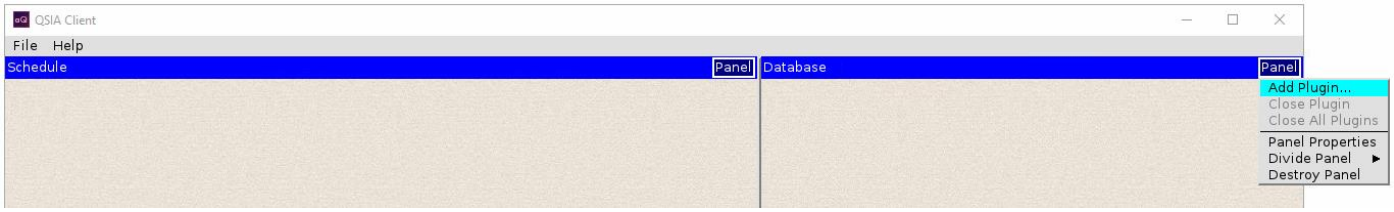
All functionality is demonstrated with the QSIA Client application. General information about the structure and use of that application is provided in a separate guide – 'QSIA Client overview'.

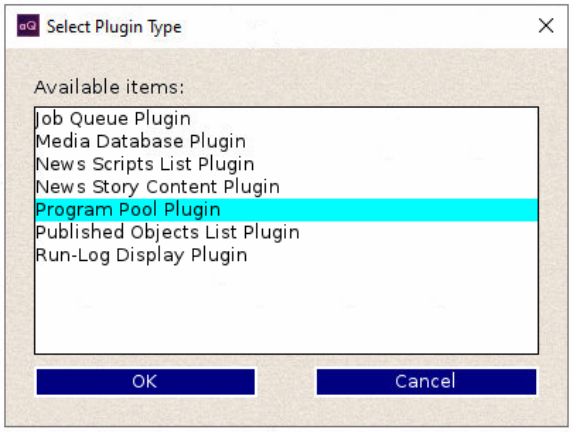
4.1 Program Pool

The Program Pool essentially provides a database of series, single programs and movie content and is displayed as a Plugin within a Panel in the QSIA Client application.

4.1.1 Opening the Program Pool

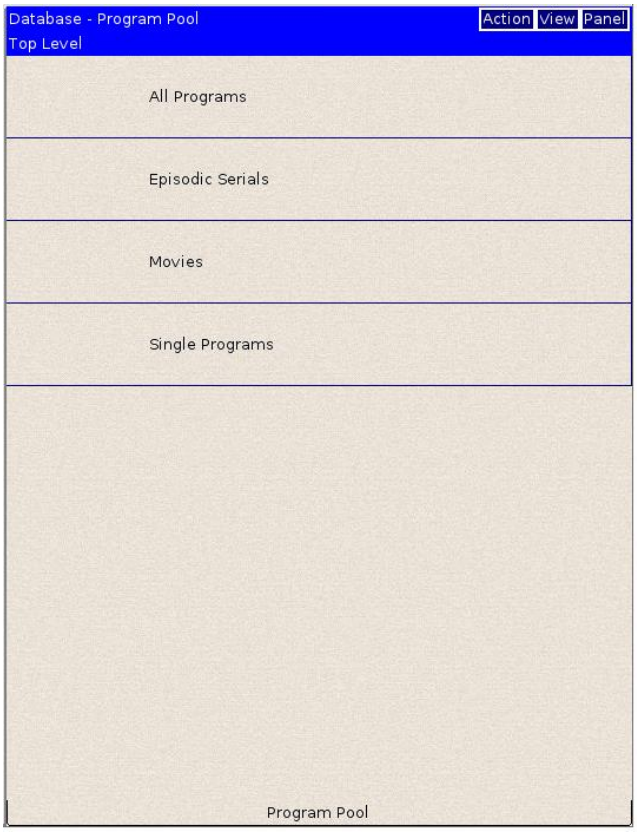
The Program Pool can be opened using the 'Panel' button to 'Add Plugin…' and then selecting 'Program Pool Plugin' from the list of Plugin Types.



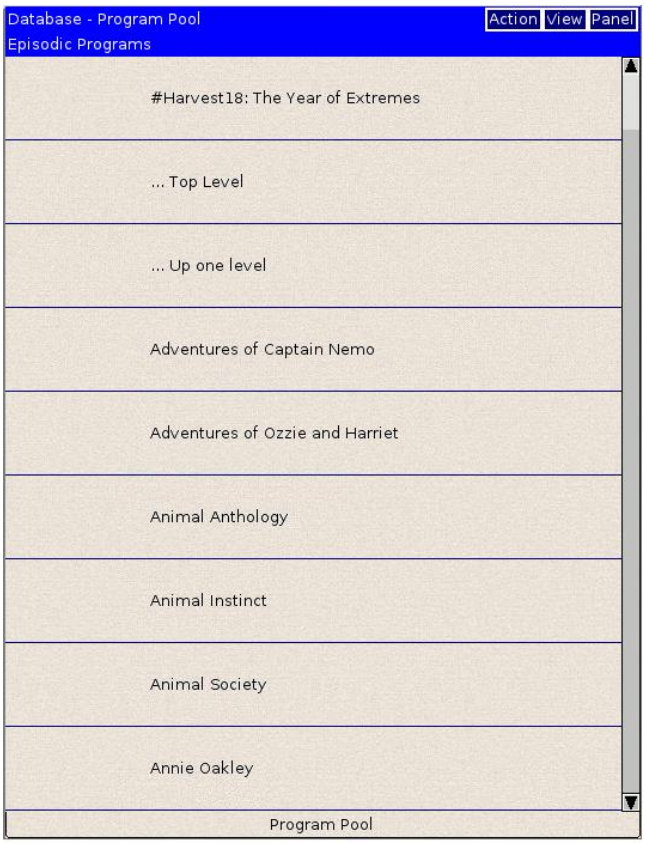


4.1.2 Navigating the Program Pool

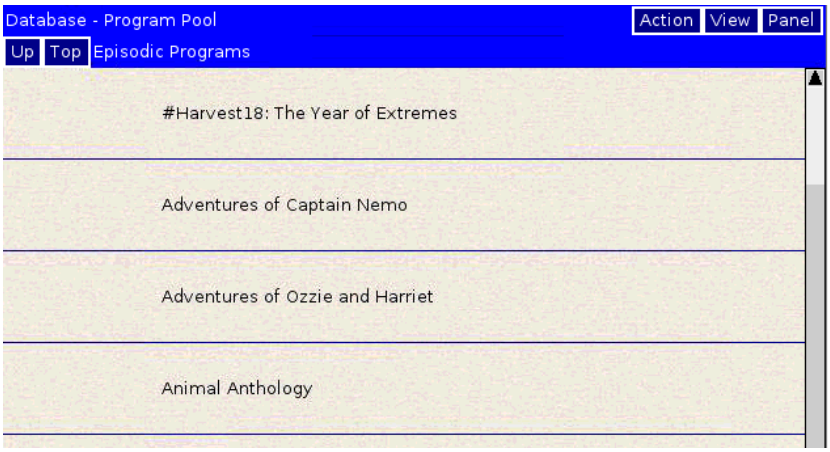
This displays the top level of the Program Pool, with programs grouped into categories (Serials, Movies and Single Programs) and an option to view all programs (although this should be used with care if there are a lot of programs, as it can take a long time to display all information over a slow connection).



Double-clicking one of the options, e.g. 'Episodic Serials' will expand the view to show the contents of that section.

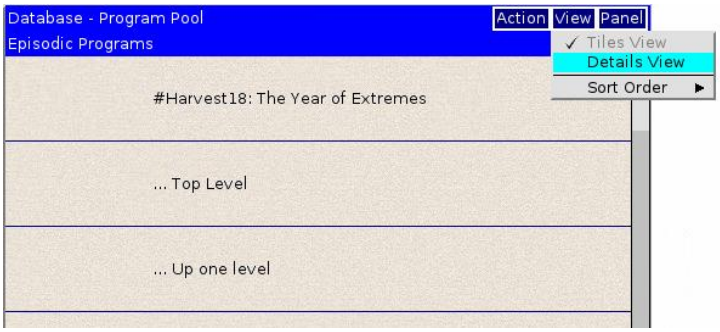


Two buttons will normally be displayed as part of the Program Pool plugin: 'Top', which will return directly to the very top of the Program Pool (i.e. to show Serials, Movies and Single Programs) and 'Up', which will move back up to the previous view.

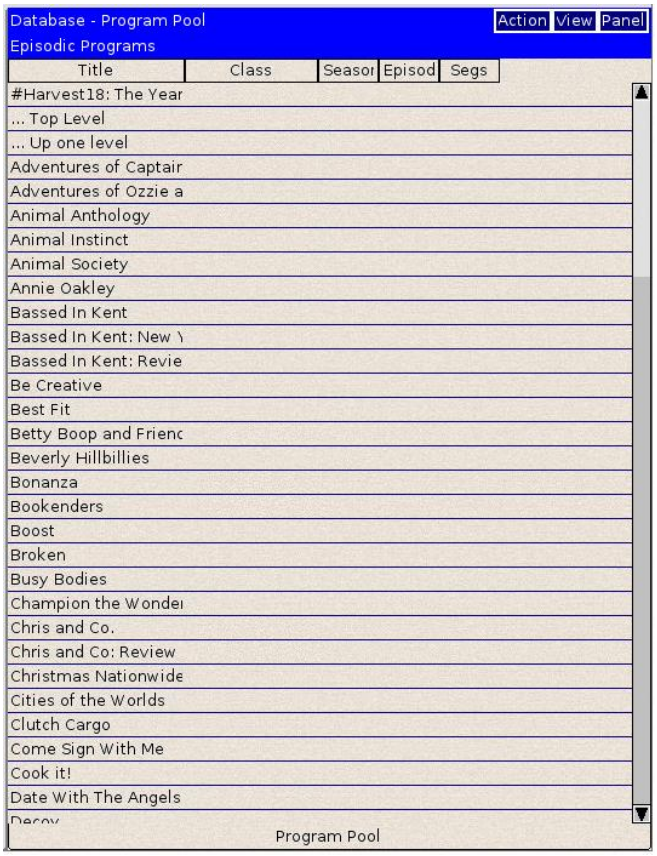


4.1.3 Changing the View

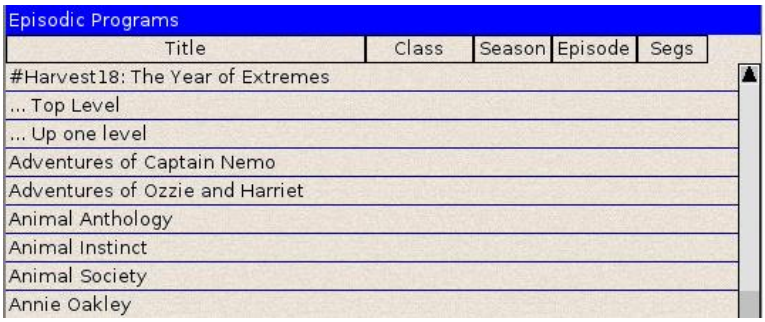
The appearance and order of the content of the program list can be changed via the 'View' button. For instance, the view can be swapped between 'Tiles' (which provides a summary of the content) and 'Details' (which provides information in columns).



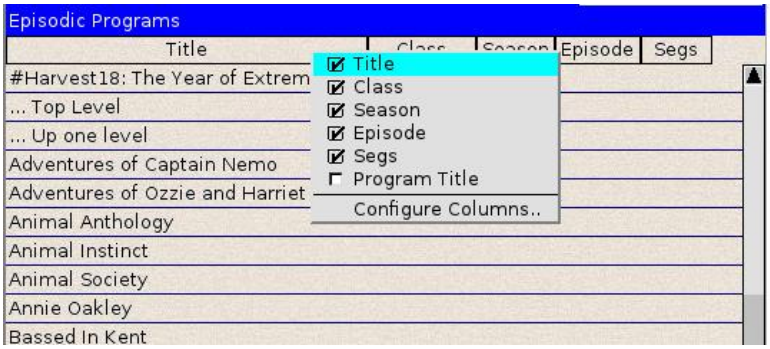
The Details view shows a number of columns, although not all columns will be applicable at all levels.



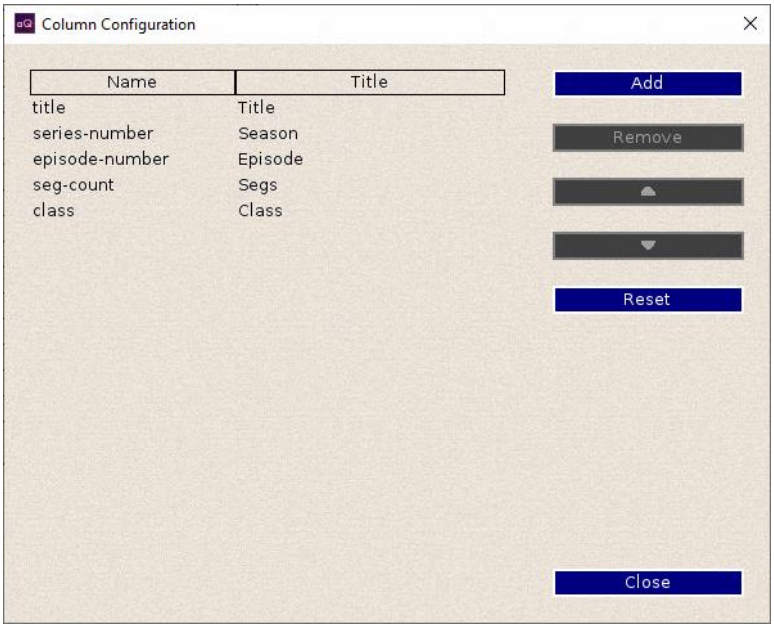
The relative width of the columns can be adjusted by dragging the border between the column headers. In the example below, the Title column has been expanded so that the full title can be seen.



It is also possible to change the columns which are displayed. Right-clicking on any of the column headers will bring up a dialogue which allows individual columns to be shown or hidden via tickboxes.

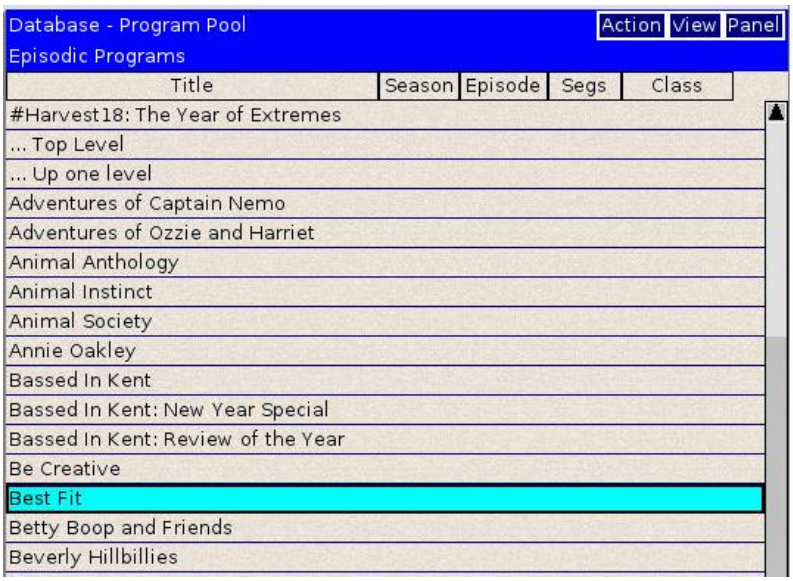


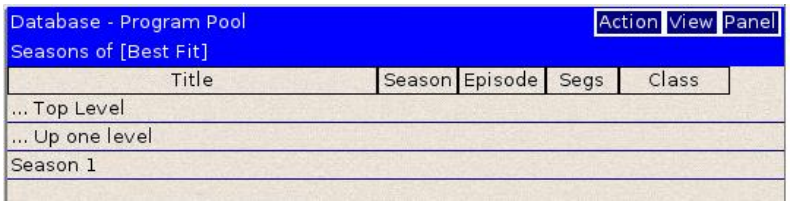
The ‘Configure Columns…’ option provides an alternative mechanism to show or hide columns, and also allows the order of the columns to be changed. In the example below, the ‘class’ column has been moved from second-from-left to the extreme-right of the view.


Column Configuration
Name
Title
title
Title
series-number
Season
episode-number
Episode
seg-count
Segs
class
Class
Add
Remove
Reset
Close

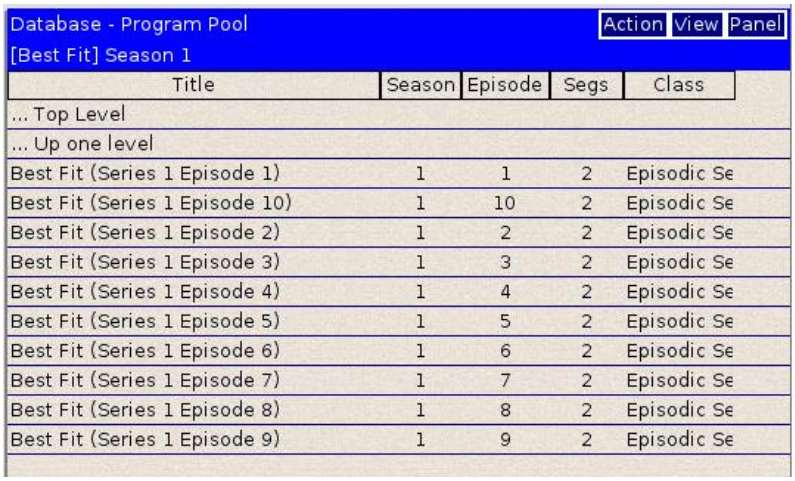
4.1.4 Opening A Program

Double-clicking a program entry will open the contents of that program – i.e. the series and episodes that relate to it. In this example, 'Best Fit' has been expanded to show the single Season that it contains.



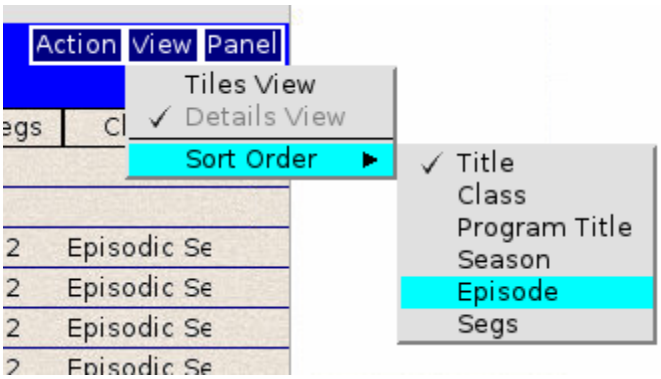


A series/season (in this case Season 1) can be expanded by double-clicking it, in this example to show the 10 individual episodes.



4.1.5 Changing the Order

The current view shows the episodes listed by their name, rather than episode order. This can be changed by using the 'View' button to select 'Sort Order >' and then choosing a new criteria, for instance 'Episode'.



This changes the order of items so that they appear in the correct order of episodes.

Database - Program Pool — Action View Panel

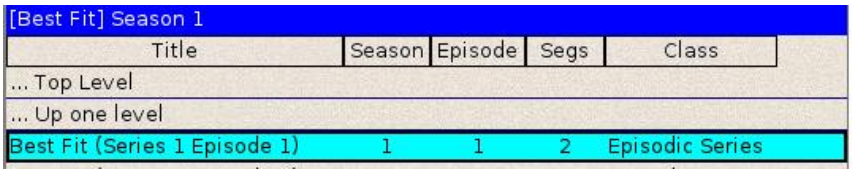
[Best Fit] Season 1

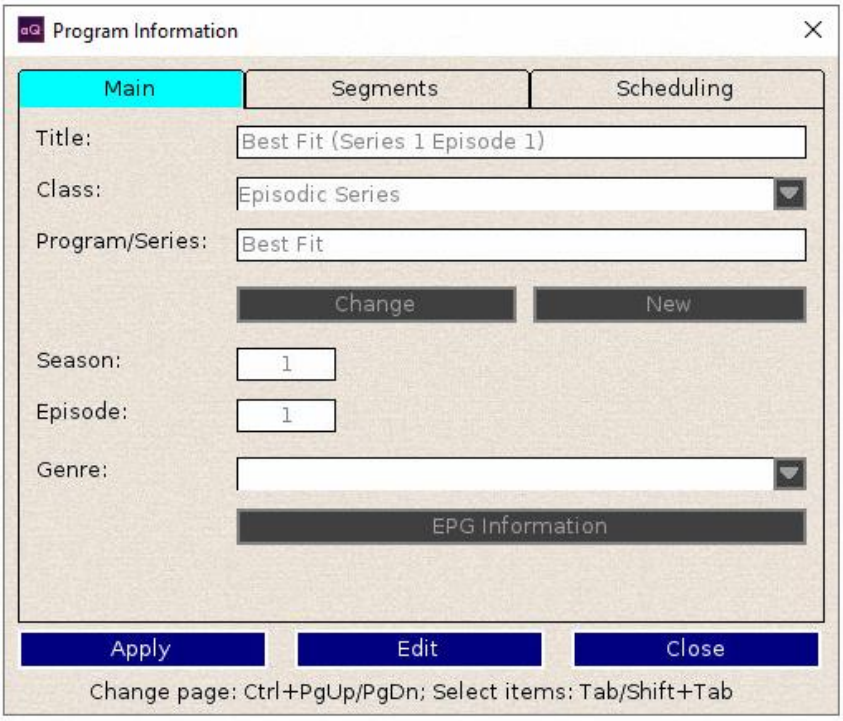
Title	Season	Episode	Segs	Class
... Top Level				
... Up one level				
Best Fit (Series 1 Episode 1)	1	1	2	Episodic Series
Best Fit (Series 1 Episode 2)	1	2	2	Episodic Series
Best Fit (Series 1 Episode 3)	1	3	2	Episodic Series
Best Fit (Series 1 Episode 4)	1	4	2	Episodic Series
Best Fit (Series 1 Episode 5)	1	5	2	Episodic Series
Best Fit (Series 1 Episode 6)	1	6	2	Episodic Series
Best Fit (Series 1 Episode 7)	1	7	2	Episodic Series
Best Fit (Series 1 Episode 8)	1	8	2	Episodic Series
Best Fit (Series 1 Episode 9)	1	9	2	Episodic Series
Best Fit (Series 1 Episode 10)	1	10	2	Episodic Series

The same effect can be achieved by clicking the column header itself, for instance clicking 'Title' to change the order back to alphanumeric rather than episodic.

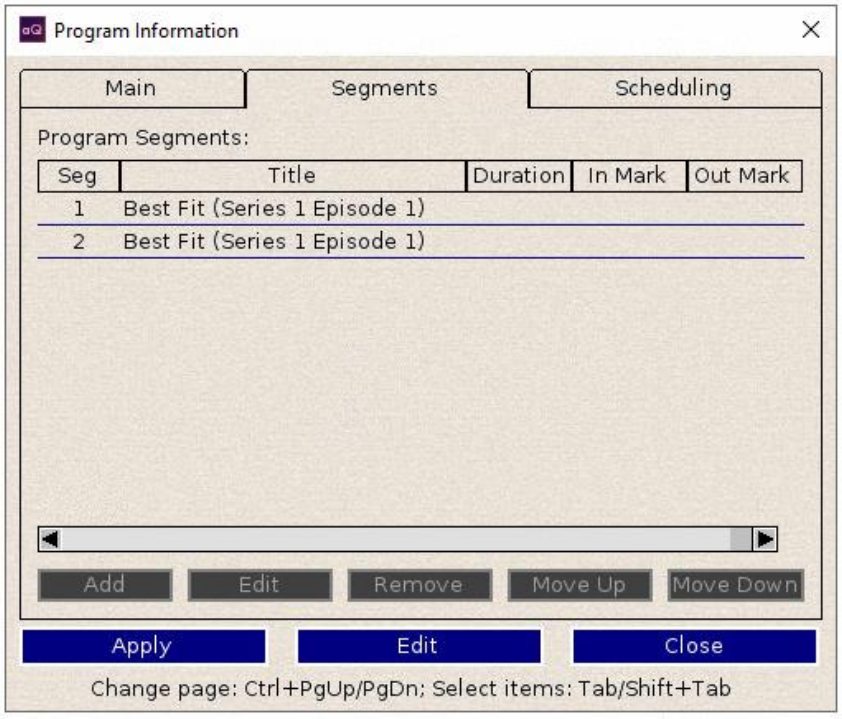
4.1.6 Opening An Episode

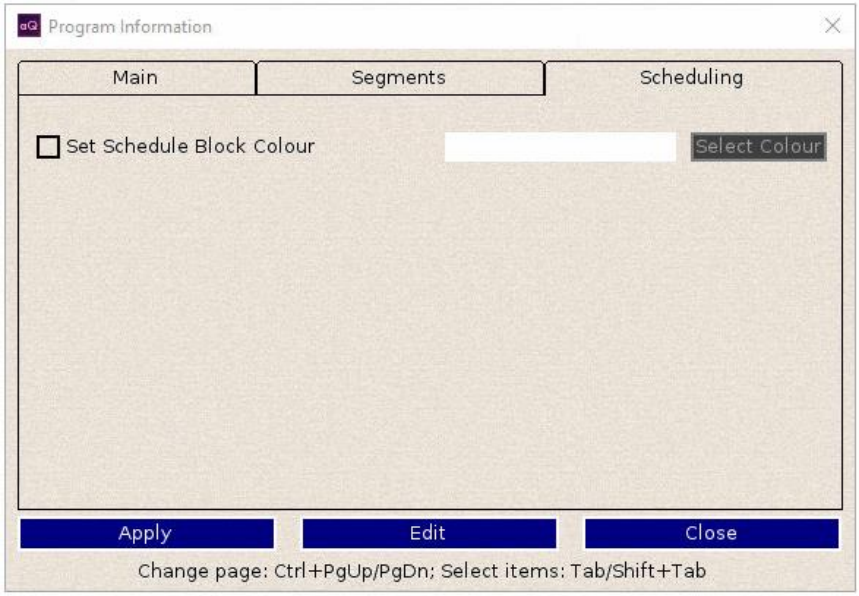
Details for a specific episode can be seen by double-click that item – for instance, 'Best Fit (Series 1 Episode 1)' in the example below.





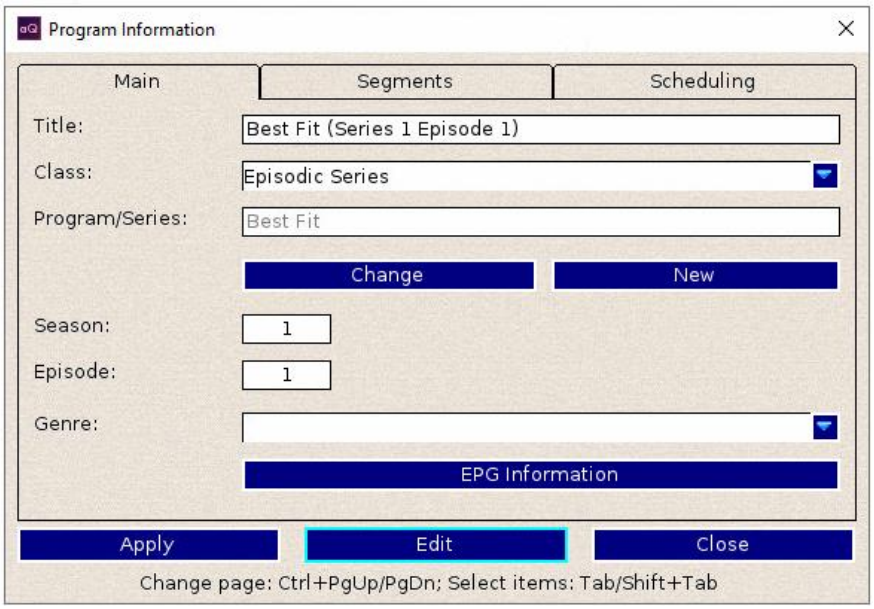
The Program Information dialogue provides details for that episode, including EPG information, Segment (part) details and settings relating to Scheduling. The three tabs at the top of the dialogue provide access to the different sets of details.



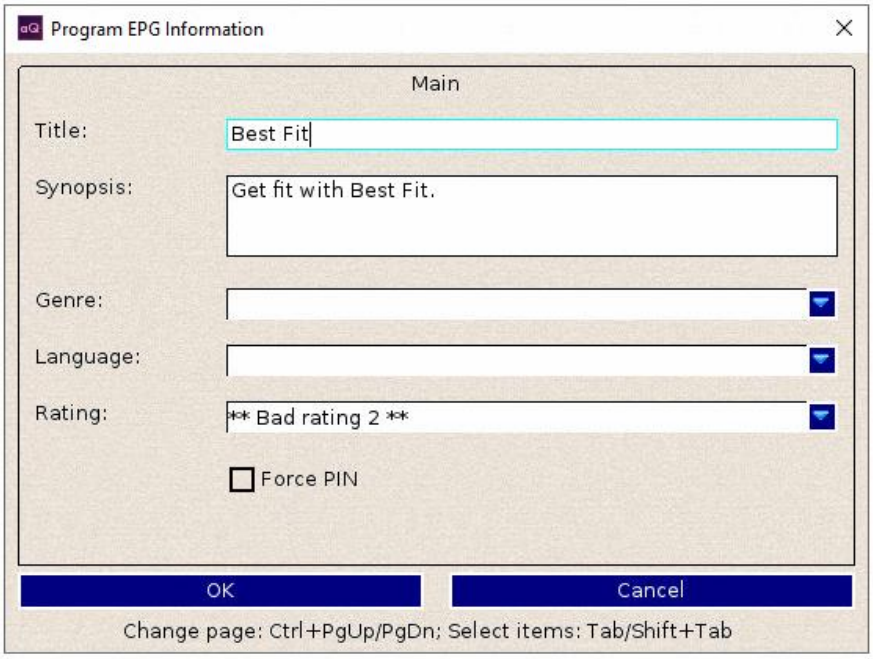

Program Information
Main
Segments
Scheduling
Set Schedule Block Colour
Select Colour
Apply
Edit
Close
Change page: Ctrl+PgUp/PgDn; Select items: Tab/Shift+Tab

4.1.7 Editing Episode Details

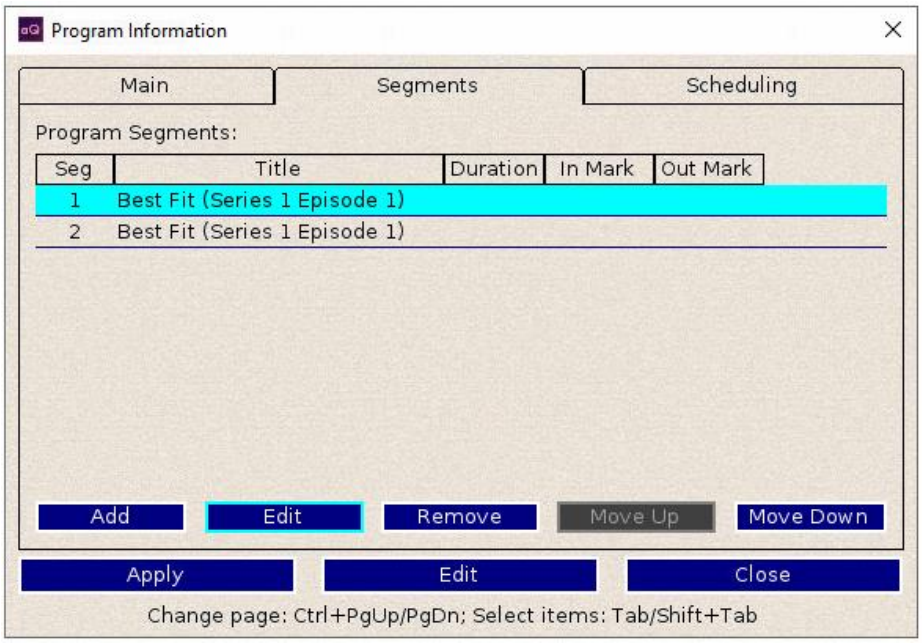
The Program Information dialogues opens as a 'read-only' view, in order to prevent any accidental changes. In order to make any changes, the 'Edit' button must be pressed first, which causes the various action buttons to become enabled.



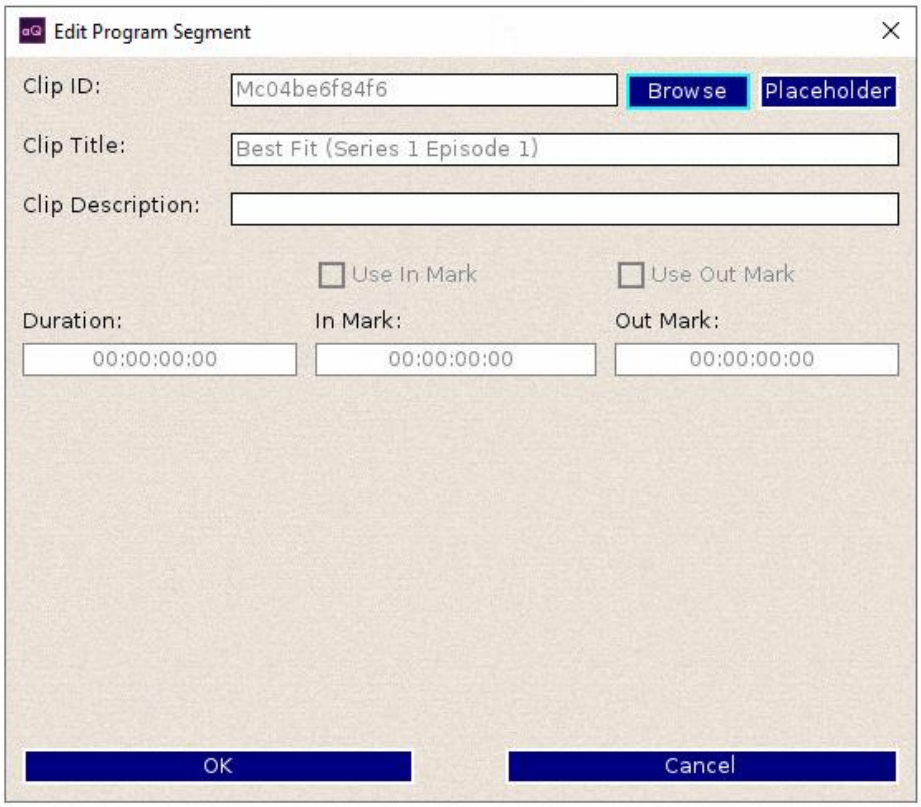
This allows, for instance, the EPG information to be seen and updated via the 'EPG Information' button.



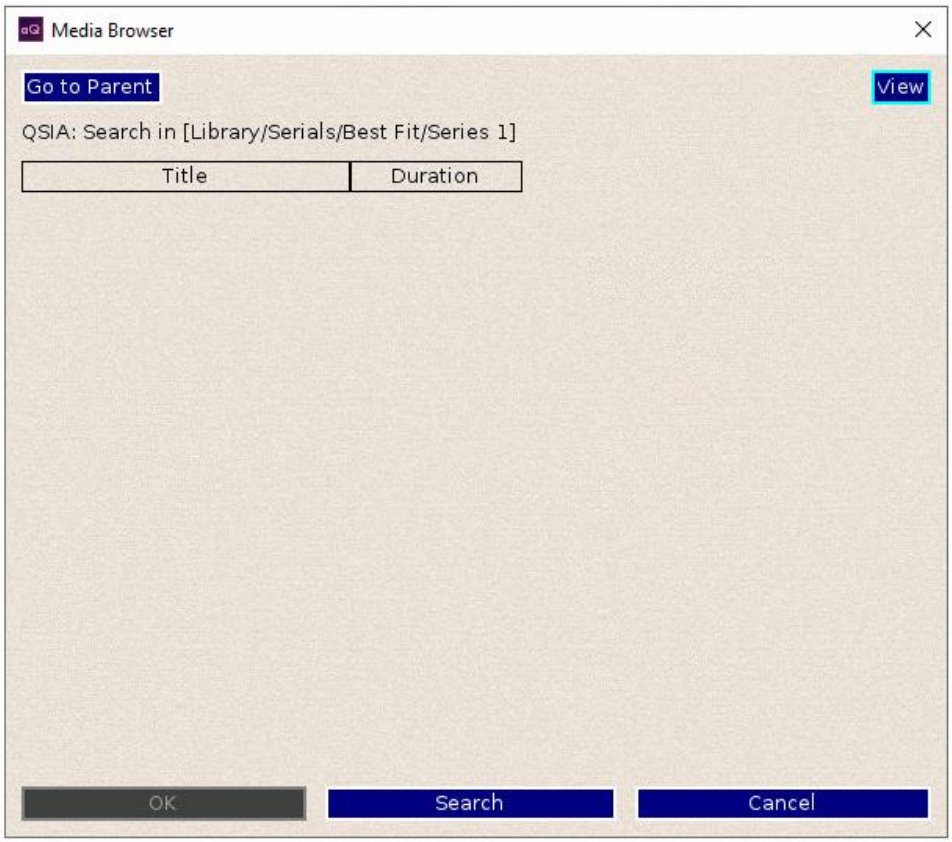
Similarly, part/segment information can be viewed or modified on the Segments tab.



Selecting an appropriate segment and then clicking the 'Edit' button will open the details for that program part.



In this particular example, as the episode has been imported via an export from a third-party system, the Clip ID refers to a placeholder which will be updated once matching content has been added to the system. But if/where required, media can be associated manually via the 'Browse' button, which provides access to the main media database.

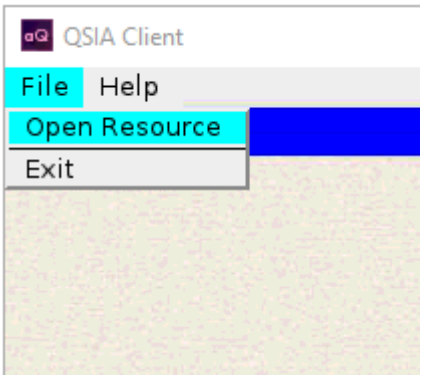


4.2 Calendar Chain Schedule

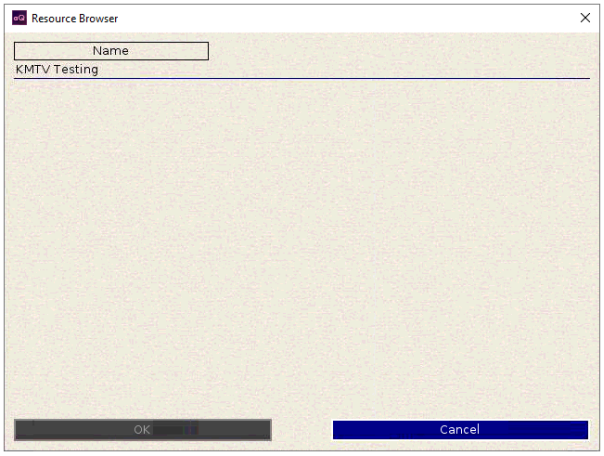
The Calendar Chain ('cal-chain') essentially supports a schedule for the output for an entire channel and is displayed as a Resource within a Panel in the QSIA Client application.

4.2.1 Opening a cal-chain

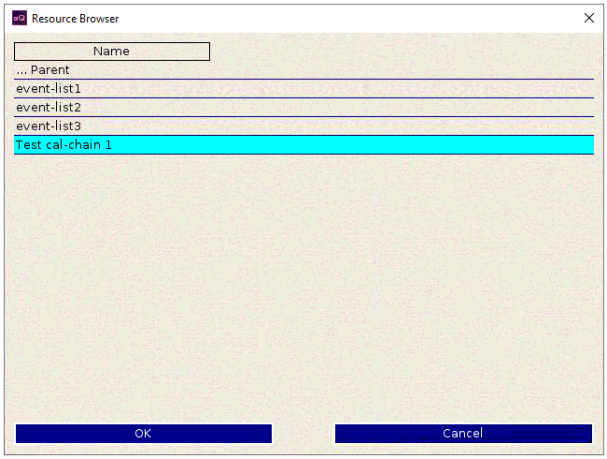
A cal-chain can be opened using the File | Open Resource menu option.



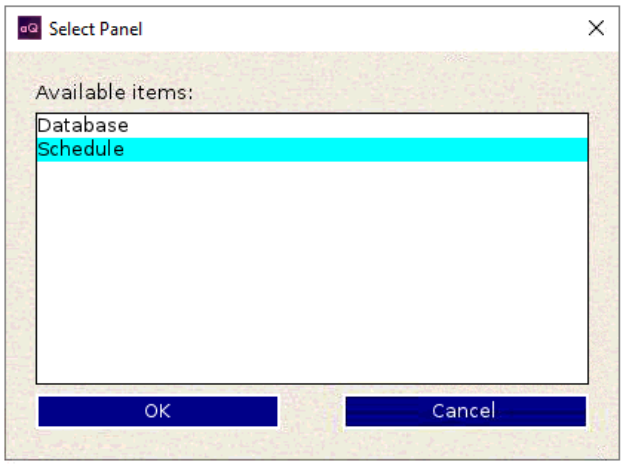
This brings up the Resource Browser. In this example, there is a top-level folder ('KMTV Testing'), and double-clicking that element will expand the list to show the contents of that folder.



In this case, the folder contains three Event Lists (which support a transmission schedule for a specific period of time) and one Calendar Chain (which provides daily schedules for one channel).

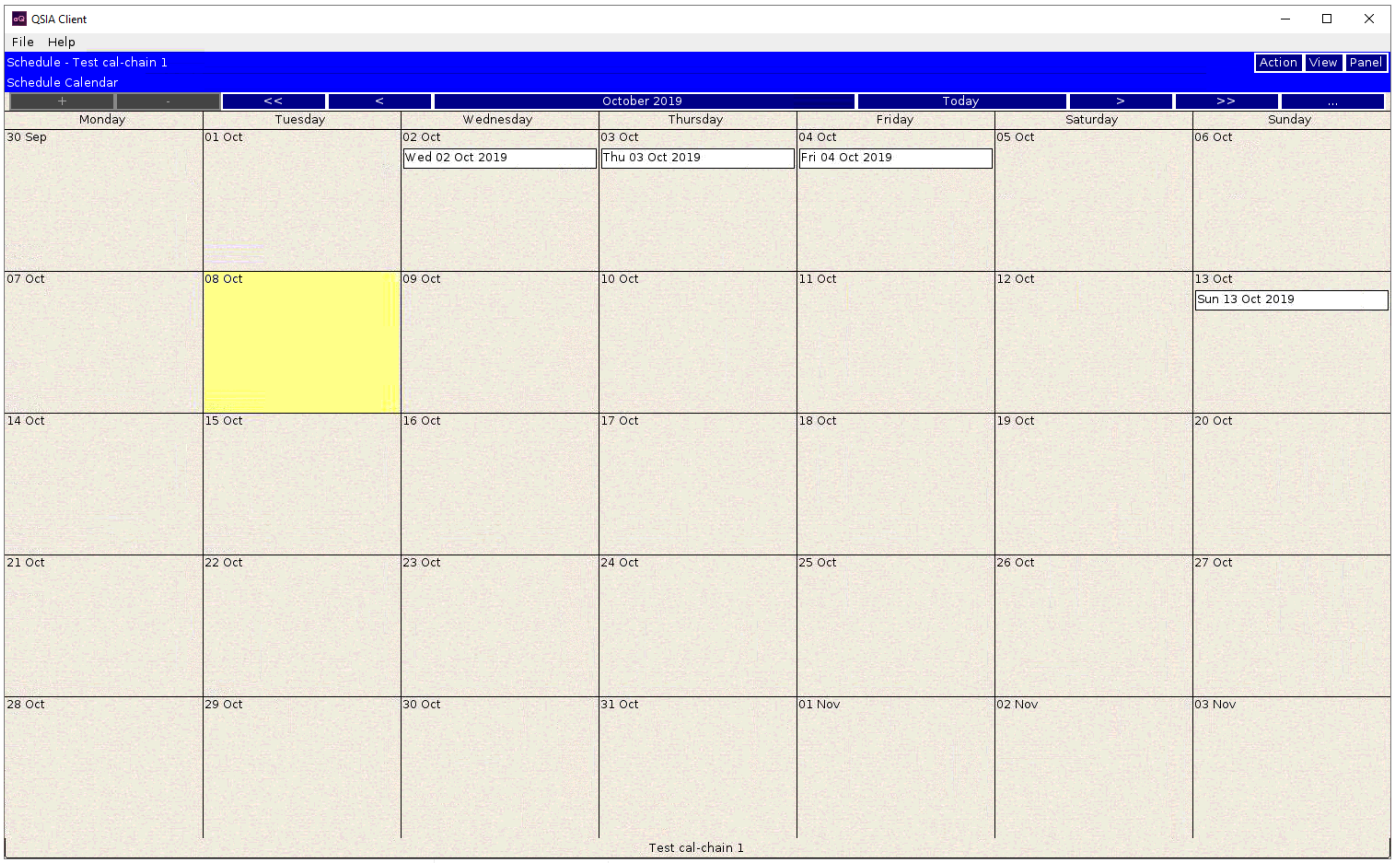


The desired element (in this case 'Test cal-chain 1') should be selected and then opened using the 'OK' button. This may cause a 'Select Panel' to be displayed, which allows the user to choose the panel into which the resource is opened. In this example, the 'Schedule' panel will be used.

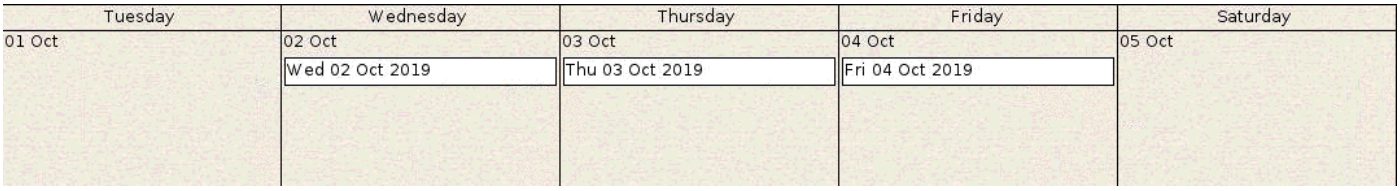


4.2.2 Overview of cal-chain Schedule Calendar

When a cal-chain is opened, it is initially shown in the Schedule Calendar view. This display confirms which days have had schedules associated with them.

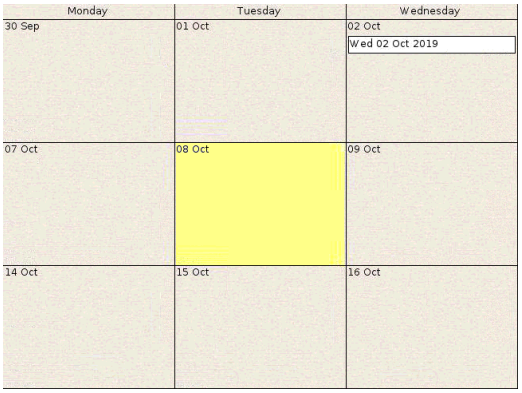


In the example below, daily schedules have been created for Wednesday, Thursday and Friday, but not for Tuesday and Saturday. However, this only indicates whether the corresponding schedule exists and not what is contained within it. A schedule may have been created but is still empty as no content has been added to it.



A schedule for a day will span 24 hours and will start at the time specified as part of the channel's properties – normally 0600.

The yellow highlight indicates today's date – 8th October in this example.



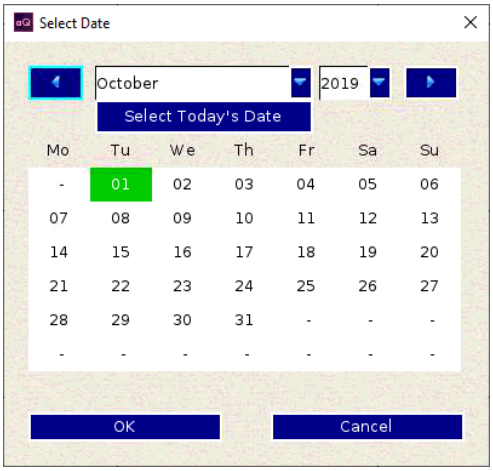
The bar at the top of the view provides a number of view and navigation buttons:

'+' and '-' provide zoom-in and -out capability, although they are not enabled in this view. They are particularly useful within the planning grid, to change the vertical scale used for the layout of timing blocks

'<<' and '>>' move backwards and forwards by a large interval, depending upon the view currently in use.

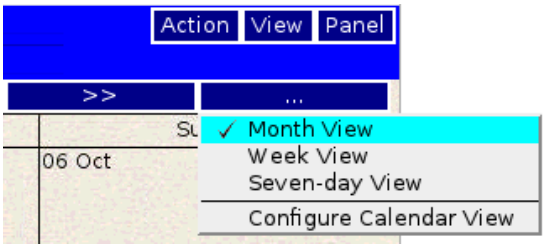
'<' and '>' move backwards and forwards by a small interval, depending upon the view currently in use.

The month button – 'October 2018' in the example – brings up a 'Select Date' calendar to allow a different date to be chosen.



'Today' provides a shortcut to return to the current date, although the result will depend upon the current view.

'…' allows a different view to be selected and also provides direct access to the Calendar configuration dialogue. Three different views are available: Month, Week and Seven-day. Week and Seven-day are similar, in that they each show a full week rather than a full month, but 'Week' will always show Monday to Sunday, whereas Seven-day can be 'slid' sideways one day at a time – which makes it easier to schedule across Sunday to Monday boundaries, where otherwise adjacent days could not be seen together.



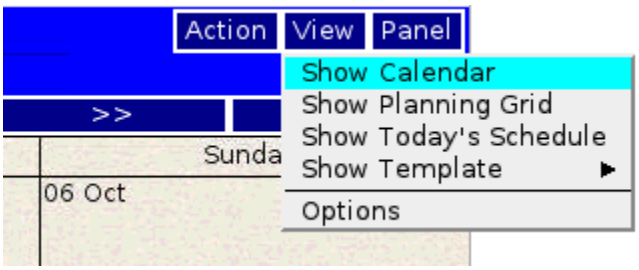
The monthly / weekly views are mainly applicable to different displays – the Month view is most useful in the Schedule Calendar and the Week / Seven-day views are most useful in the Planning Grid.

The view also has an impact on how the navigation buttons operate, as illustrated in the table below.

	Month View	**Week View**	**Seven-day View**
< or >	*Moves by one month*	*Moves by one week*	*Moves by one day*
<< or >>	*Moves by one year*	*Moves by four weeks*	*Moves by a week*

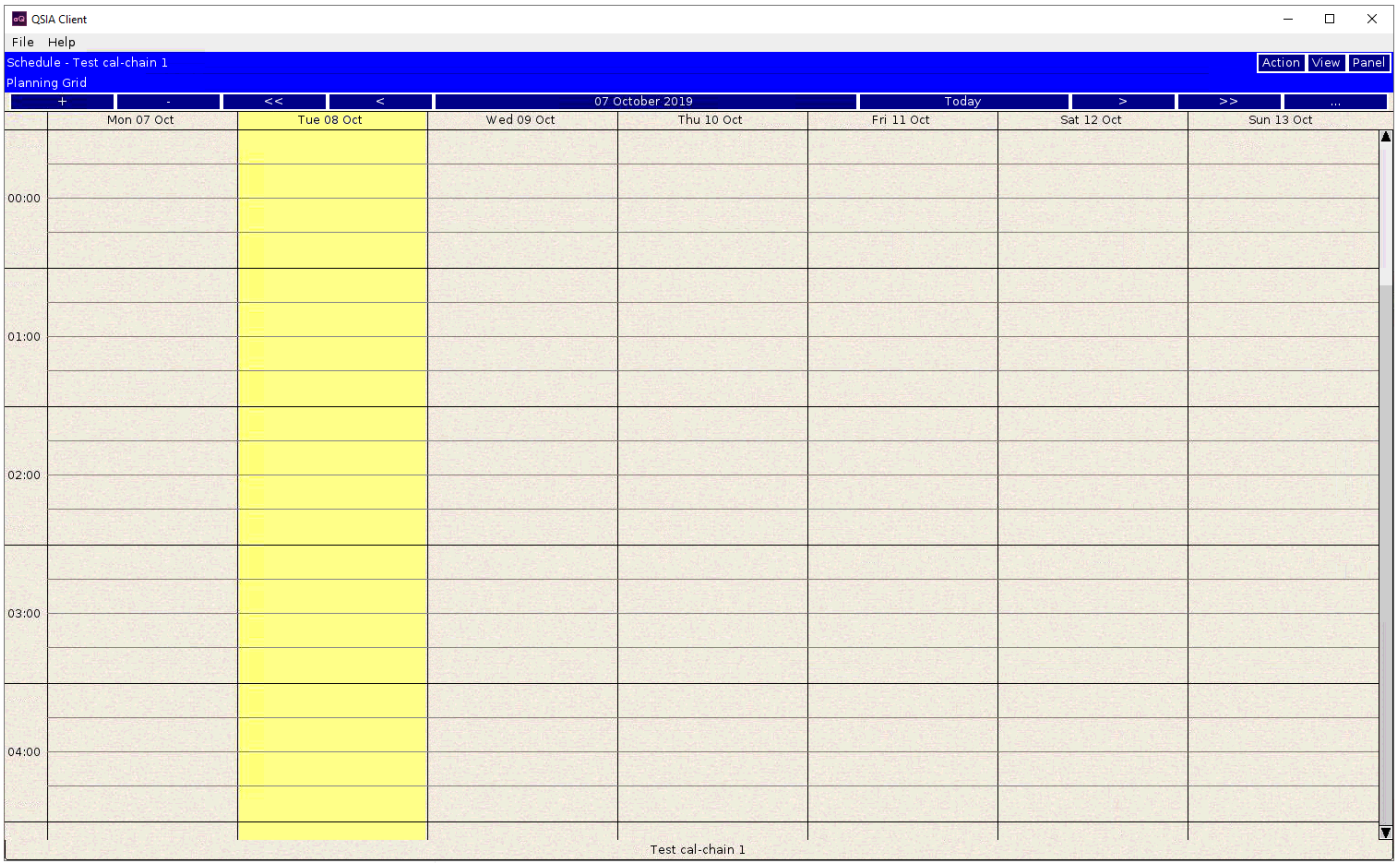
4.2.3 Overview of Schedule Displays

A cal-chain can be displayed in three different ways: Calendar, Planning Grid and Schedule. The current display can be changed using the 'View' button on the right-hand side of the panel.

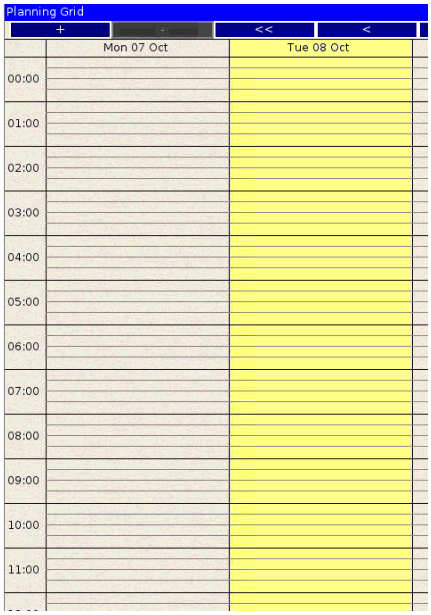


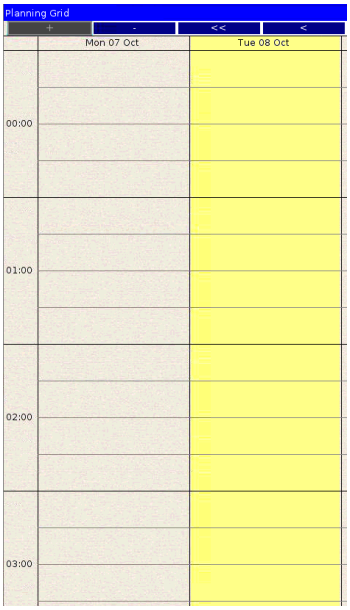
The Schedule Calendar is the default view and has been described above. Under normal circumstances, a view of schedules for a particular calendar month is displayed.

The Planning Grid shows the schedule for seven days side-by-side. Normally the week will begin on a Monday, but changing to Seven-day view would allow a different start day to be selected.

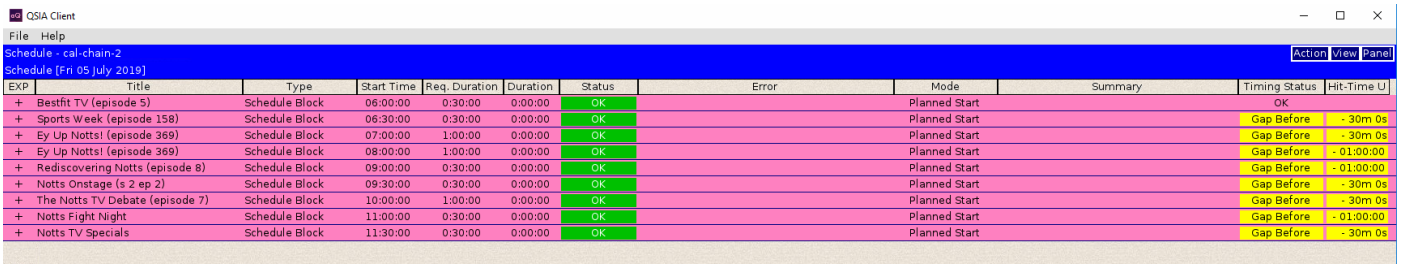


The zoom '+' and '-' buttons become active once the Planning Grid is displayed. These allow the vertical spacing to be adjusted, to show either more detail per item or a larger part of the day. The examples below show the maximum and minimum levels of zoom.





Choosing 'Today's Schedule' will open the detailed schedule view for today's date.

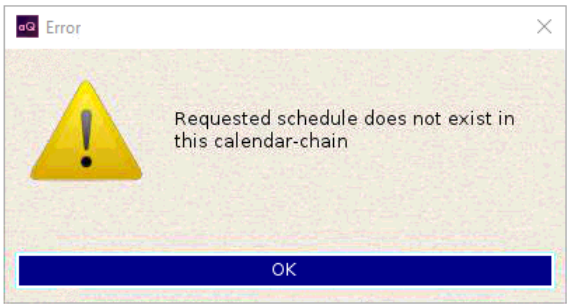


EXP	Title	Type	Start Time	Req. Duration	Duration	Status	Error	Mode	Summary	Timing Status	Hit-Time U
+	Bestfit TV (episode 5)	Schedule Block	06:00:00	0:30:00	0:00:00	OK		Planned Start		OK	
+	Sports Week (episode 158)	Schedule Block	06:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	Ey Up Notts! (episode 369)	Schedule Block	07:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	Ey Up Notts! (episode 369)	Schedule Block	08:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Rediscovering Notts (episode 8)	Schedule Block	09:00:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Notts Onstage (s 2 ep 2)	Schedule Block	09:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	The Notts TV Debate (episode 7)	Schedule Block	10:00:00	1:00:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s
+	Notts Fight Night	Schedule Block	11:00:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 01:00:00
+	Notts TV Specials	Schedule Block	11:30:00	0:30:00	0:00:00	OK		Planned Start		Gap Before	- 30m 0s

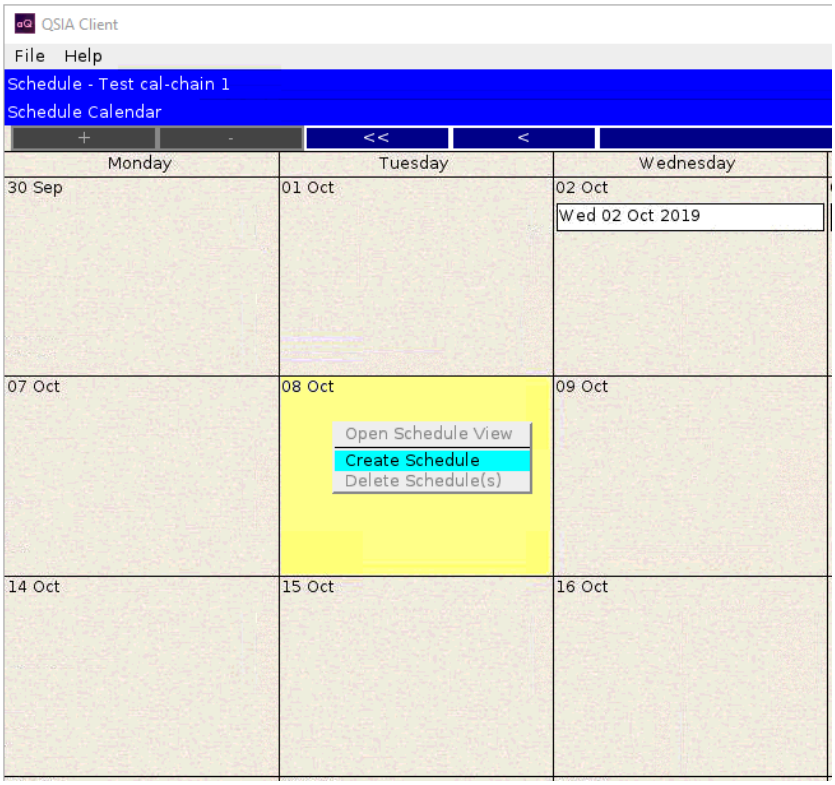
4.2.4 Creation of Schedules

By default, a cal-chain is created as an empty resource and does not contain any daily schedules. Schedules are created as they are required, either manually or automatically as part of a specific workflow process.

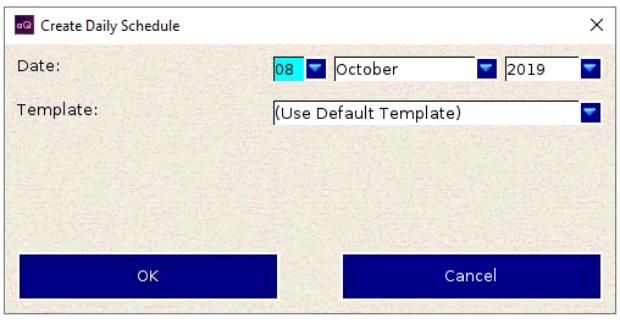
If an attempt is made to open a schedule that doesn't yet exist, an error message will be shown:



If a schedule hasn't already been created as part of an automatic workflow process, it is possible to create one manually via the Schedule Calendar. Right-clicking on a particular day will show a menu including an option to 'Create Schedule'.

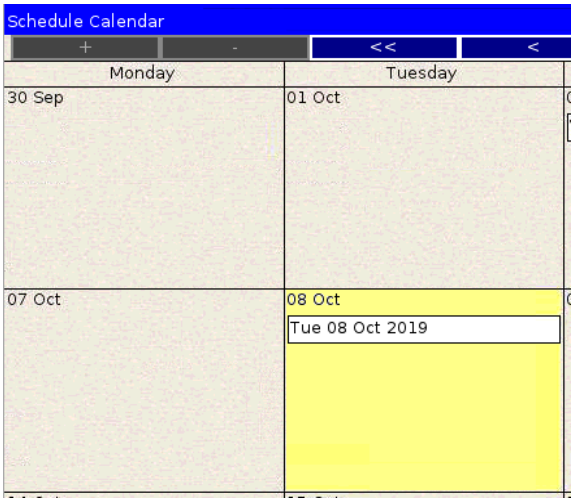


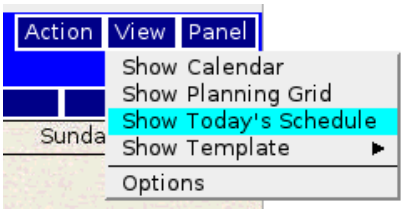
This displays a 'Create Daily Schedule' dialogue which defaults to the selected date, although a different day can be specified if appropriate.

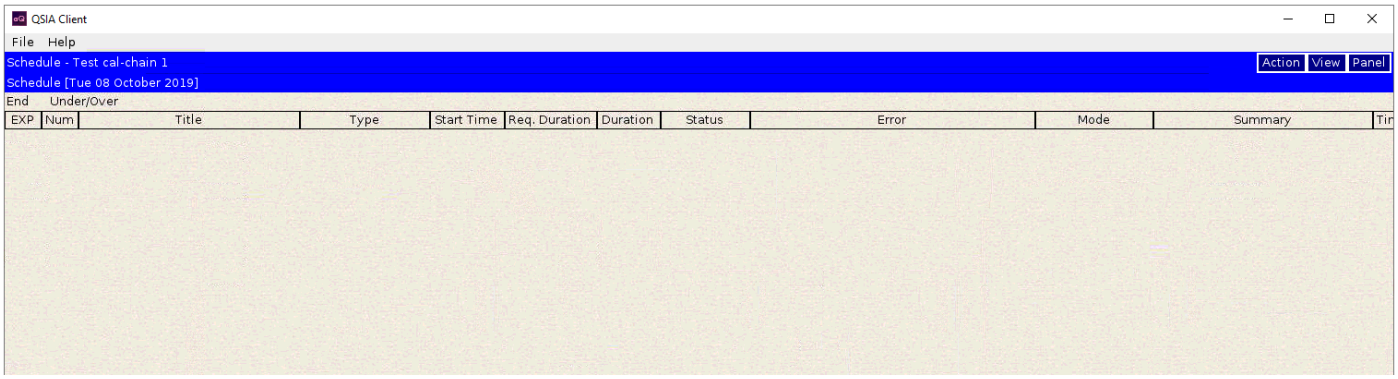


In most cases it is not necessary to select a Template as part of this 'Create' operation.

Once the 'OK' button has been pressed, a new (and empty) schedule will be created for the selected date. In this example, the 8th October (today) has an associated schedule, which means that the View | Show Today's Schedule command will now operate successfully to open the new schedule.





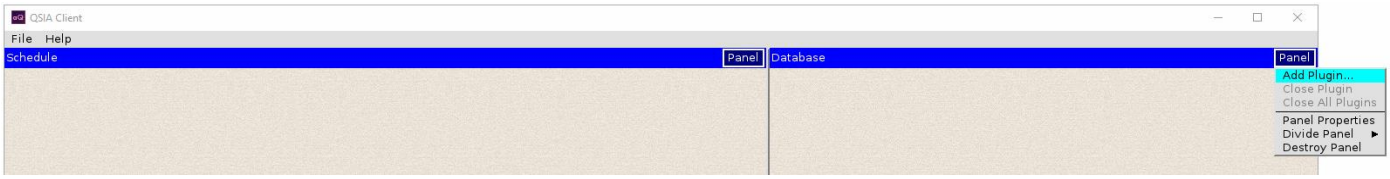


4.3 QSIA Media Database

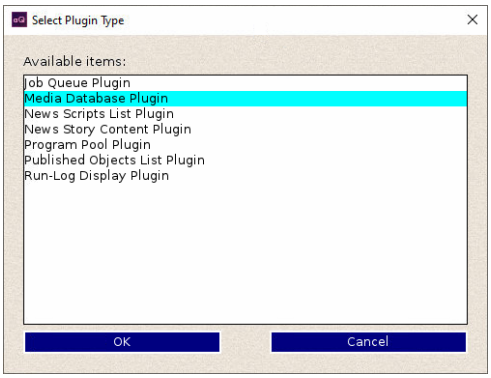
The Media Database holds information about all content for an entire channel and is displayed as a Plugin within a Panel in the QSIA Client application.

4.3.1 Opening the Media Database

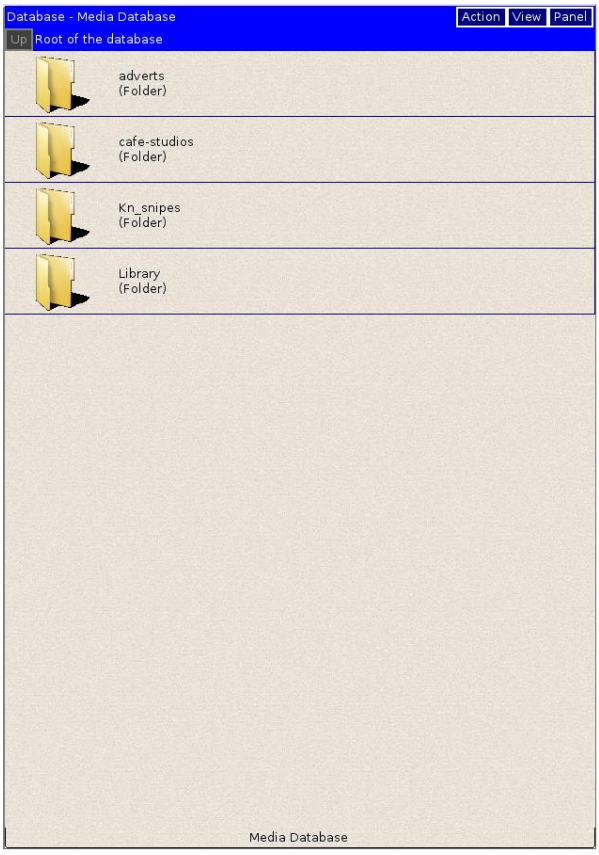
The Media Database can be opened using the Panel | Add Plugin… menu option.



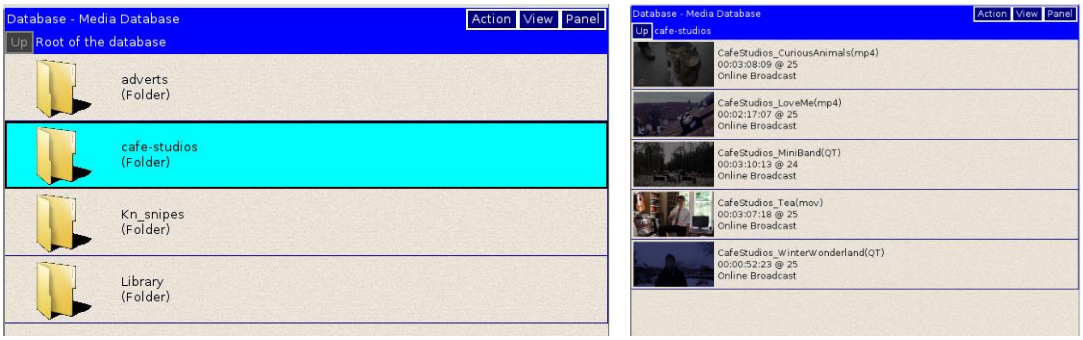
The Media Database Plugin should be selected from the list of Plugin Types:



This causes the Media Database to be opened within the Panel. By default, the database is opened at the very top level (at the 'root of the database') and using the Folder view.



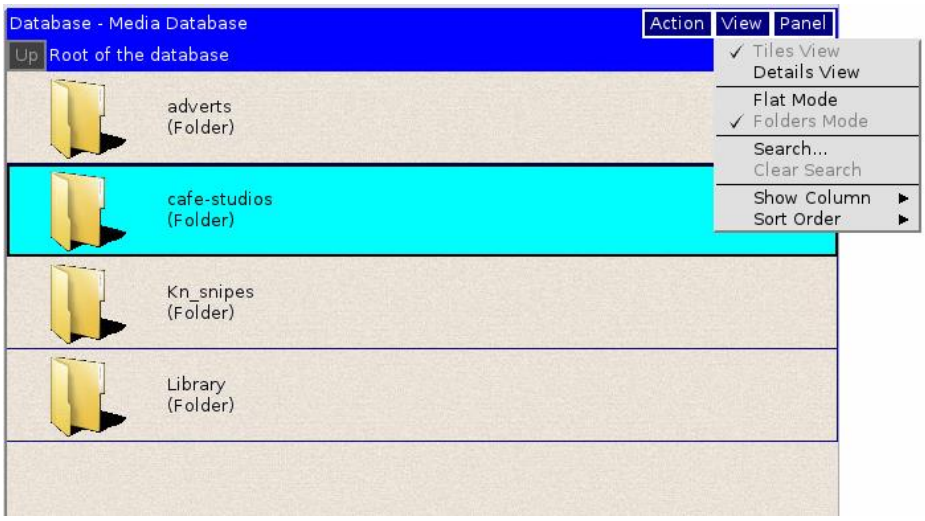
When the database is arranged as folders, i.e. in a multi-layer, directory / sub-directory / file structure, a folder can be opened by double-clicking it. In the example below, the 'cafe-studios' folder has been expanded to show the media files that it contains.



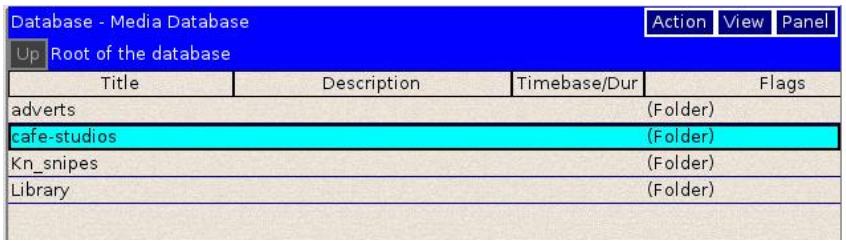
The 'Up' button in the header can be used to navigate back up by one level. The 'Backspace' button provides a shortcut for the same action.

4.3.2 Media Database View options

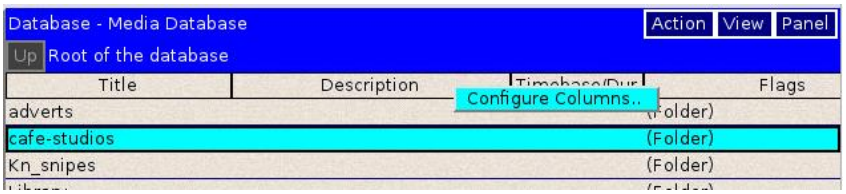
The contents of the Media Database can be viewed in a number of ways, using the menu options accessible via the 'View' button.



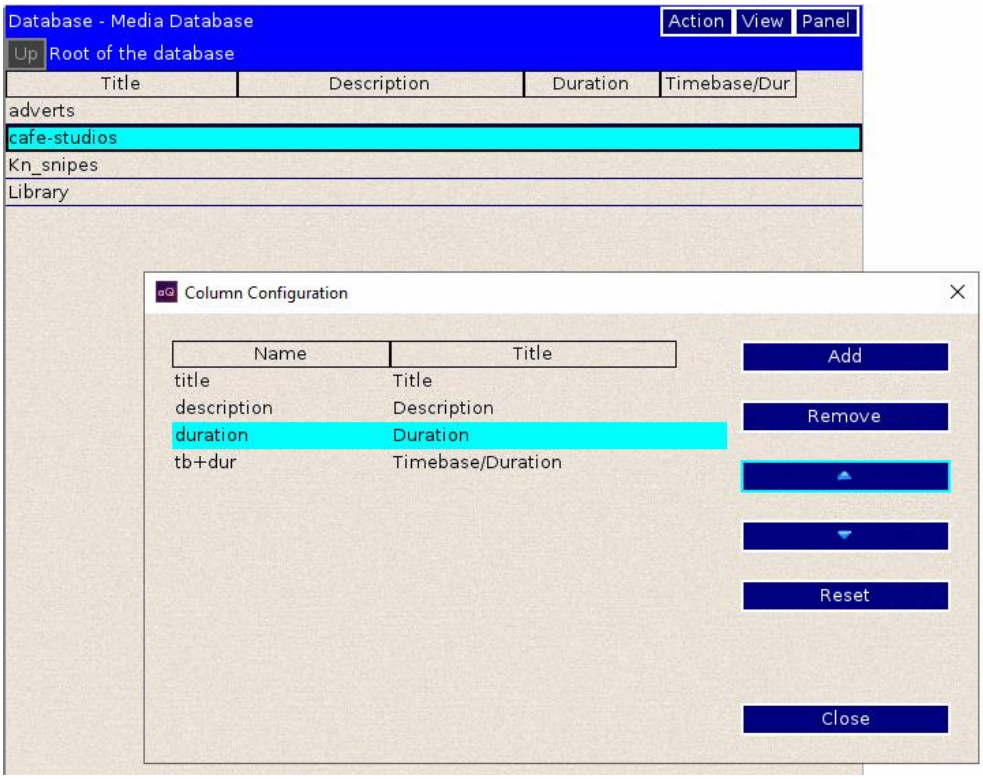
The Details View presents the contents of the database as a list, with configurable columns.



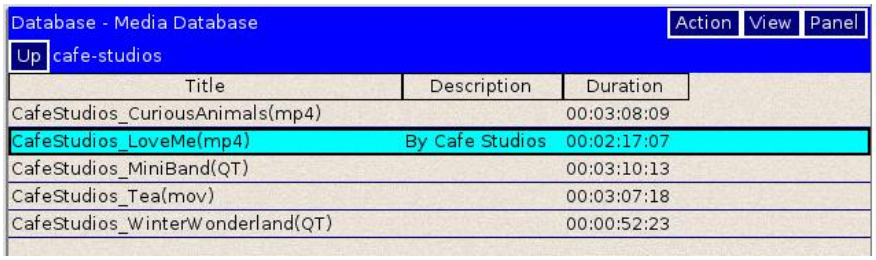
The relative width of the columns can be changed by dragging the divider bars between the column titles. The columns being displayed can be modified by right-clicking one of the headers and choosing 'Configure Columns…'.



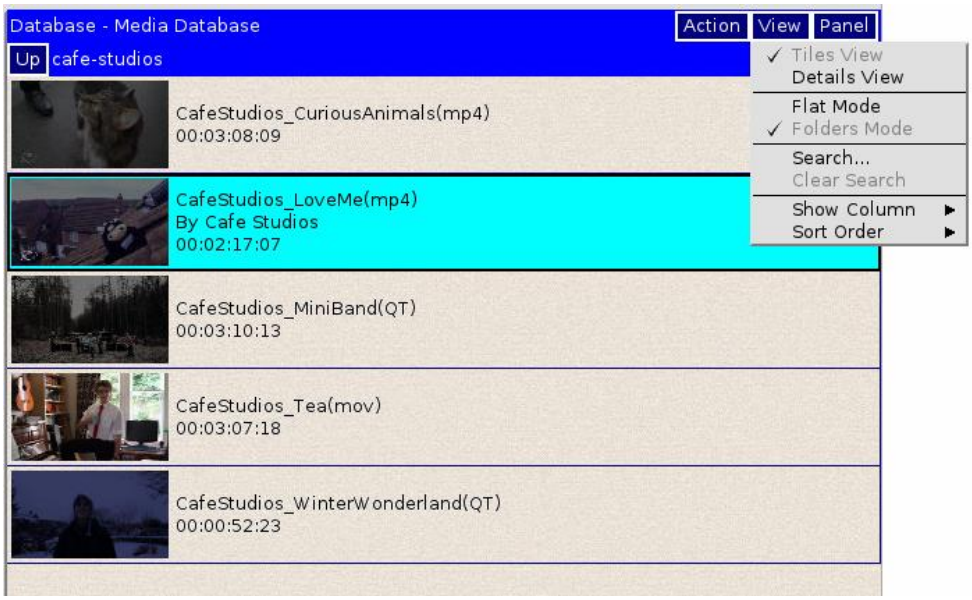
This Column Configuration dialogue allows columns to be added and removed, and for the order of the displayed columns to be changed. In the example below, the 'Flags' column has been removed and the 'Duration' column has been inserted to the left of 'Timebase/Dur'.



In the example below, the 'Timebase/Dur' column has been removed and the 'cafe studios' folder has been opened. The duration for each clip can be seen, along with the description (where present).

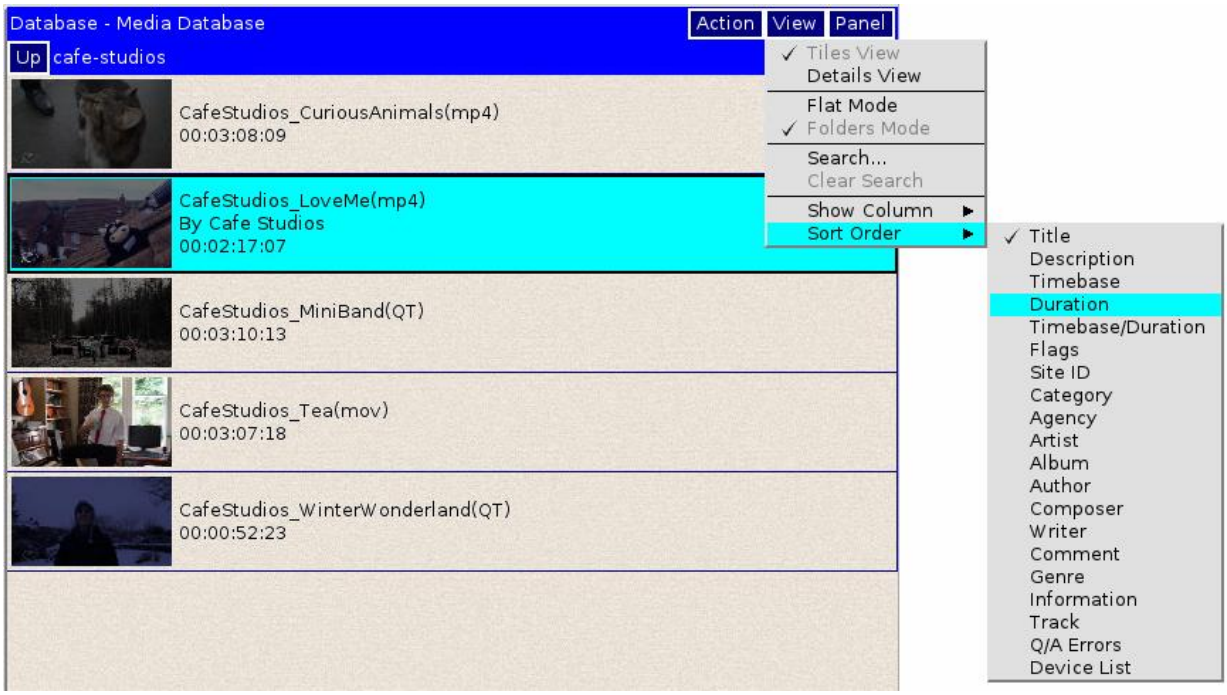


By selecting View | Tiles View, the layout can be changed to show thumbnail images for each item.



This view should be used with care in larger systems, as it can take a long time to download and display large numbers of thumbnails, particularly over slow connections.

In either Tiles or Details View, the order of the items can be changed using the View | Sort Order > menu option.

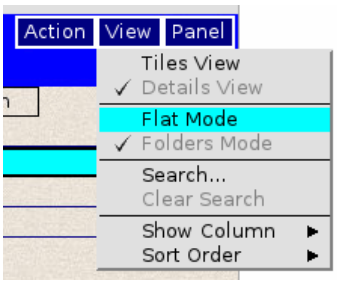


In the example below, the clips have been sorted by their Duration. Setting the sort order will initially sort in ascending order (i.e. shortest clip first), but if the same field is selected again, then the order will reverse (i.e. to show the longest clip first).

In Details View, the same result can be achieved by clicking the column header in order to sort by that column.

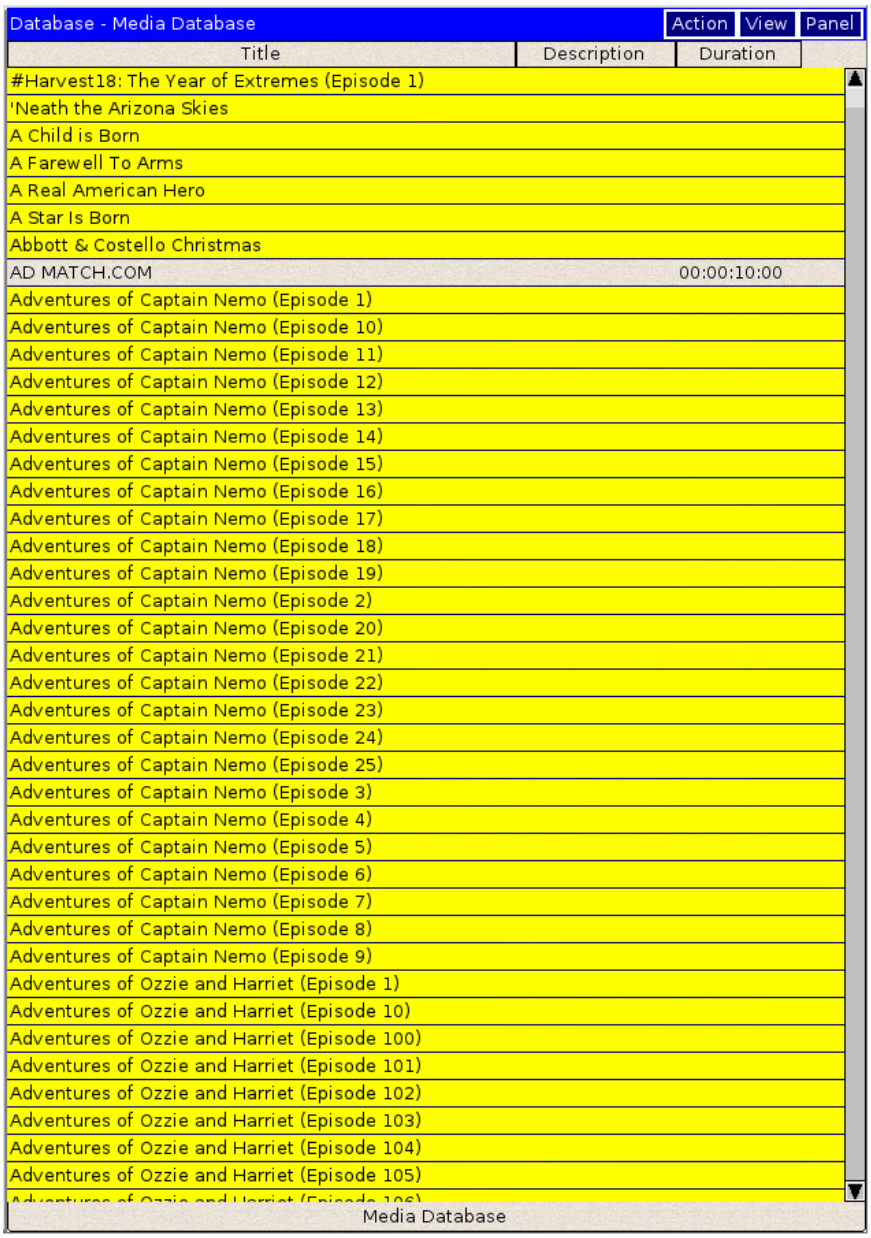
4.3.3 Media Database Mode options

The contents of the Media Database can be arranged in two different ways, using the Mode options accessible via the 'View' button.



By default, the database is shown by its folder structure, as in the examples above. This displays each item at their own particular location within the structure, which might mean that it is necessary to navigate down through several folders in order to locate a particular clip.

The alternative approach is to use Flat mode, which shows all media assets in a single list – i.e. all items are displayed together regardless of their position within the folder structure.



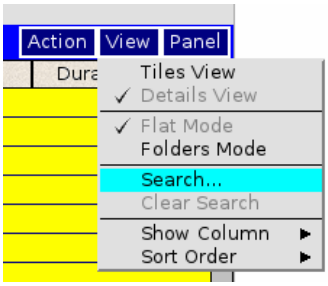
This view should be used with care in larger systems, as it can take a very long time to download and display all of the items, particularly over slow connections.

In the example above, all but one of the items are yellow. These are placeholder items – i.e. they exist within the database but do not yet have media associated with them. In this particular list, the 'AD MATCH.COM' is a complete clip, and can be seen to have a duration of 10 seconds.

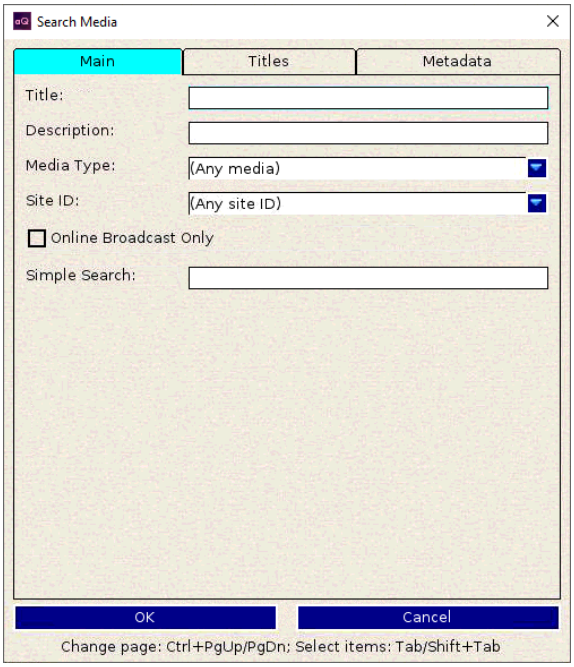
4.3.4 Media Database Search

In large databases there may be so much content that it can be difficult to locate a particular clip or set of clips. The Search function makes this process much easier.

The Search dialogue can be invoked using the View | Search… menu option. The 'F3' function key can also be used as a keyboard shortcut.



The Search Media dialogue allows specific search criteria to be entered.



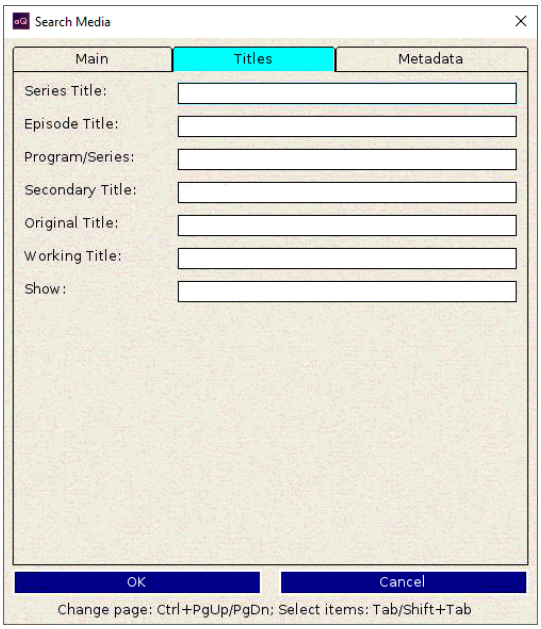
The 'Simple Search' is often the most useful field, as it provides a simple text search across all metadata for each item. For instance, entering "captain" into the 'Title:' field will only return items containing that in their title, whereas "captain" entered into the generic search will return items that contain that term within any metadata field.

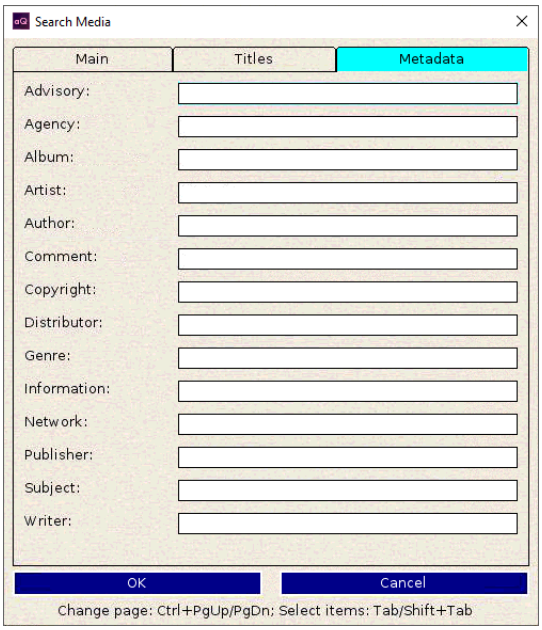
'Media Type:' can be used to limit results to particular types of content, for instance only placeholders, only video, only audio or only images.

'Site ID:' can be used to search for content originating from a specific location, although it may not be used in a single channel operation.

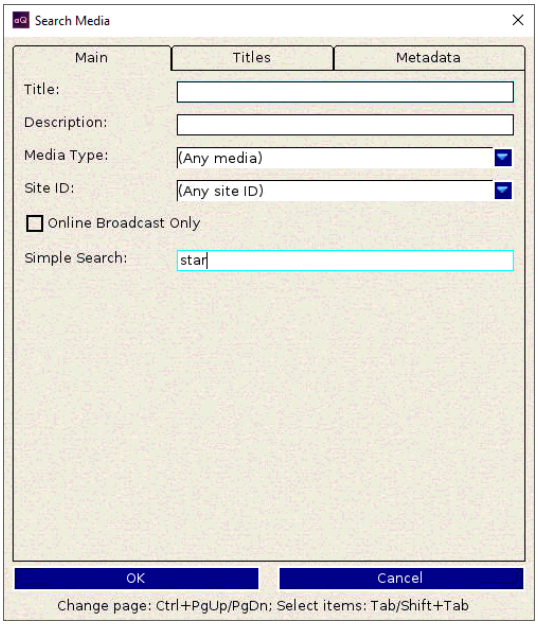
The 'Online Broadcast only' checkbox can be used to return only content that exists, i.e. not placeholder items.

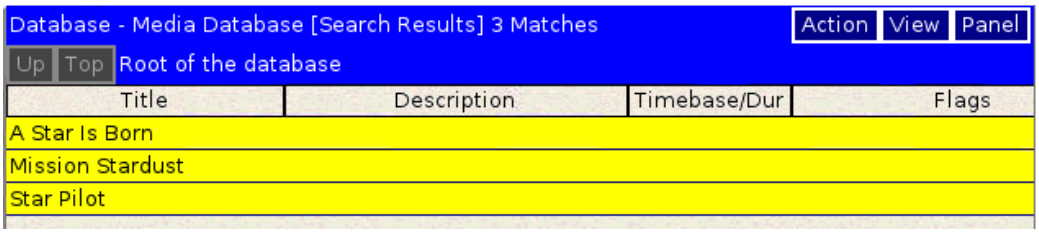
The second and third tabs provide access to additional specific metadata fields. Again, entering a search term into any of these fields will return only those items where the term is contained within that specific field.





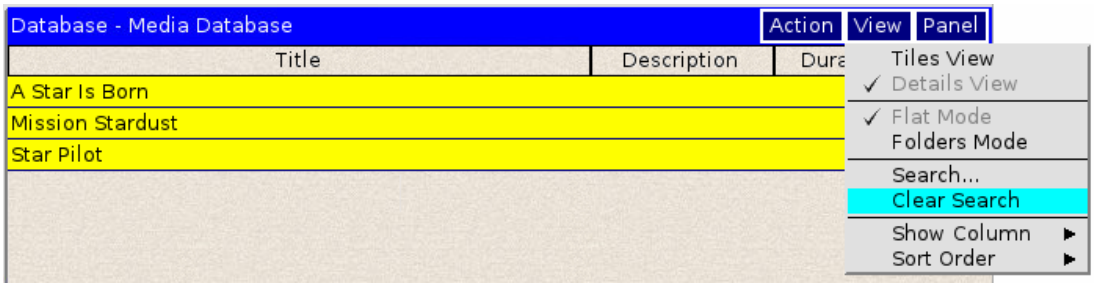
Clicking 'OK' will initiate the search. In the example below, "star" has been entered into the generic search field, and has returned three items, all placeholders, that contain "star" somewhere within their metadata.





The header bar indicates that a search is active and displays the number of matches, three in this example.

The search criteria can be cleared using the View | Clear Search menu option, or 'Ctrl-F3' as a keyboard shortcut. This will refresh the view to show all database items. As with loading the view initially, this can take a long time on a large system, particularly over a slow connection.



4.3.5 Search Criteria

All searches across fields are logically ANDed together across separate fields. So, for example, setting 'Media Type:' to video and entering "red" in the 'Title:' box will find only media that are both video and contain "red" in their title. To confirm, search data can be entered into as many fields as desired and all will be processed.

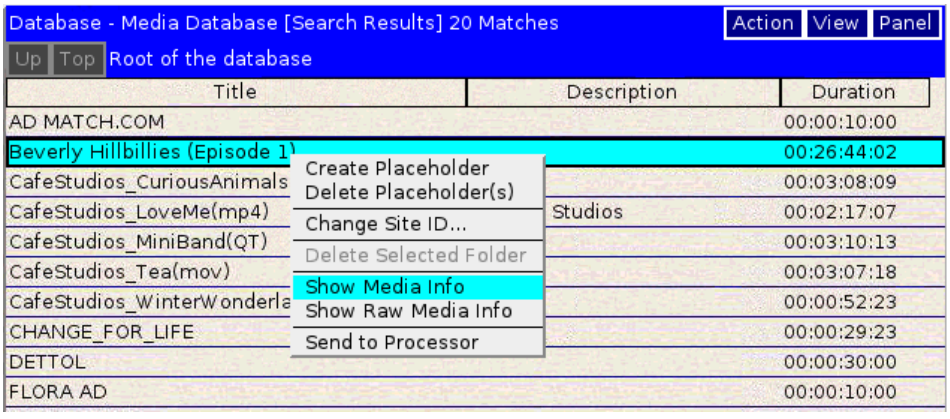
The precise search rules depend on the type of metadata being searched, although most of the metadata attributes are strings using standard string indexing. For these, the search rules are currently simple but relatively powerful:

- Search is not case sensitive – so both "red" and "Red" will return "RED"
- By default, the data string must completely contain the search string, so for example "red" would match "freddy", "red", "reduction", "barred", etc.)
- If the first character of the search string is a caret (^) the search is 'anchored' to the start, so from the previous example "^red" would only return "red" and "reduction" but not "freddy"
- Spaces within the entered string are significant, so for instance "red night" would return "red nights" but not "red tonight".

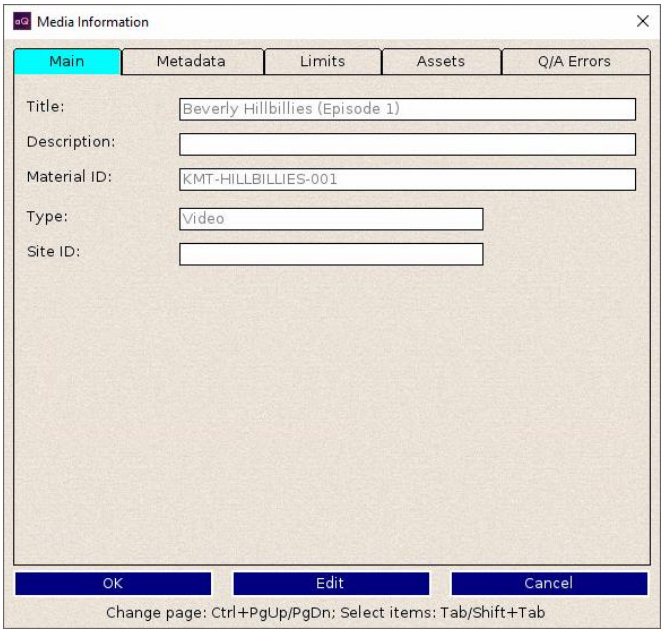
4.3.6 Media Database Item Metadata

Each item in the Media Database contains a set of metadata, including critical information such as title and description, media information such as file name and location and various items of descriptive metadata.

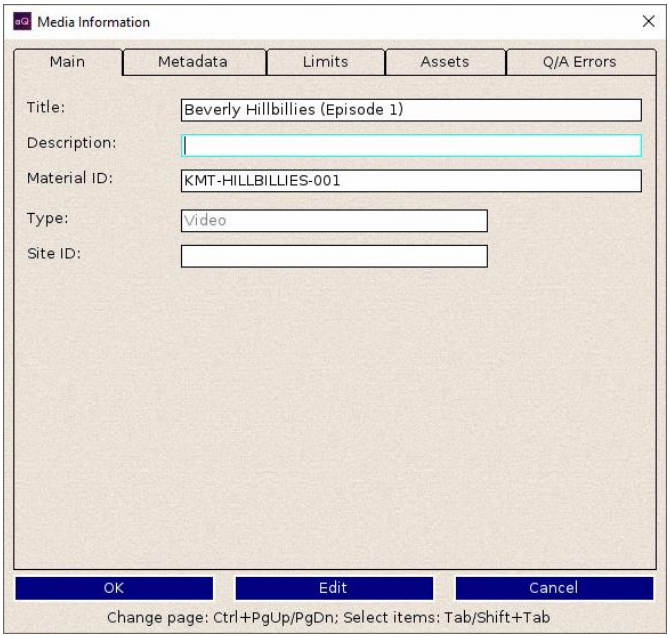
In the example below, the item 'Beverly Hillbillies (Episode 1)' has been highlighted. Double-clicking, or right-clicking and choosing 'Show Media Info', will bring up the Media Information dialogue for that item.



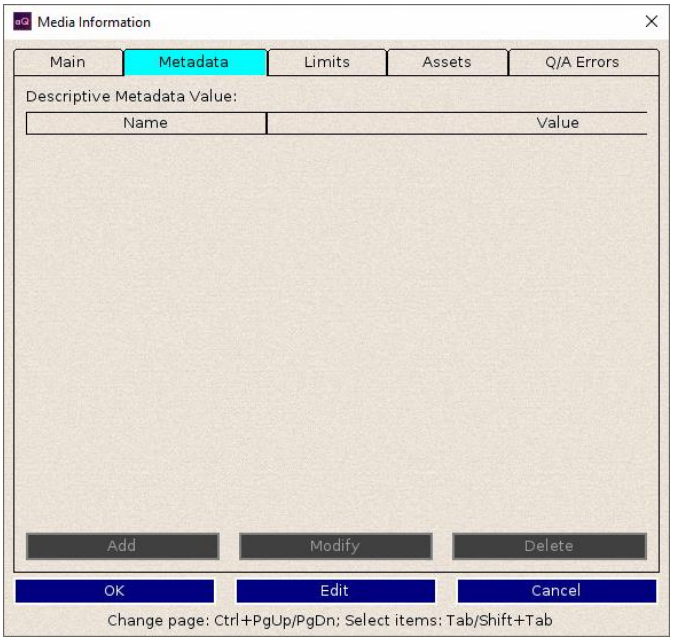
There is a lot of information associated with each item, so the details are distributed across several tabs. The first shows the basic details, including title, description, Material ID, type and originating site.



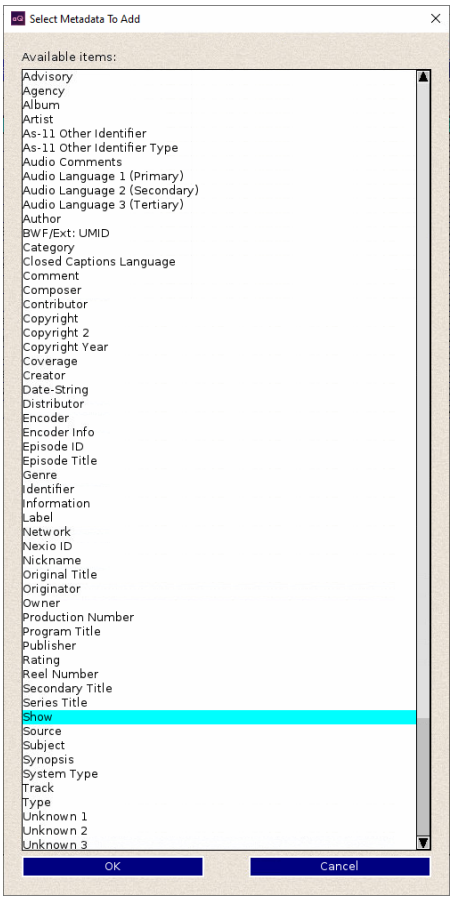
The dialogue opens by default as read-only. If required, information can be added or updated by clicking the 'Edit' button, which causes the fields to be active. The currently selected field is highlighted with a blue border – 'Description:' in the example below.



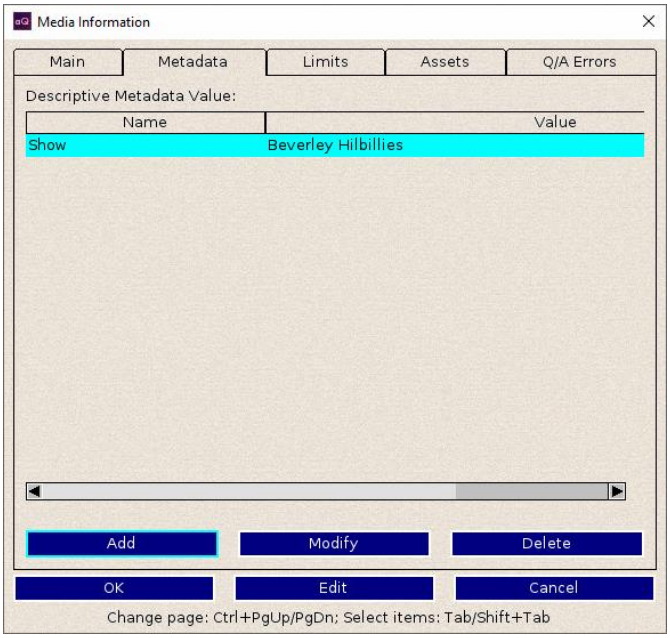
The 'Metadata' tab shows Descriptive Metadata (DM), where it has been entered.



A wide variety of metadata fields are available, and different combinations might be used in different environments. In this example no DM data has been entered so far, but it is straightforward to add information as required. The Media Information dialogue must be enabled for modification using the 'Edit' button, then the DM 'Add' button can be used to bring up the list of all fields.

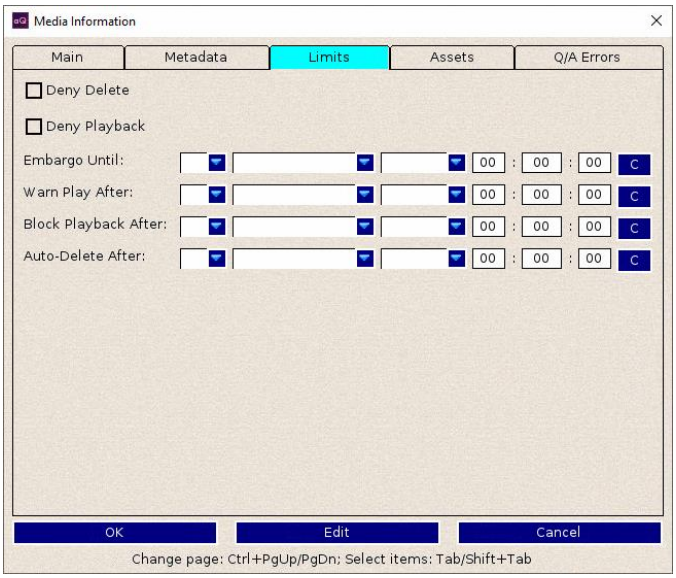


In this example, the 'Show' DM field has been selected and the text "Beverley Hilbillies" has been entered.



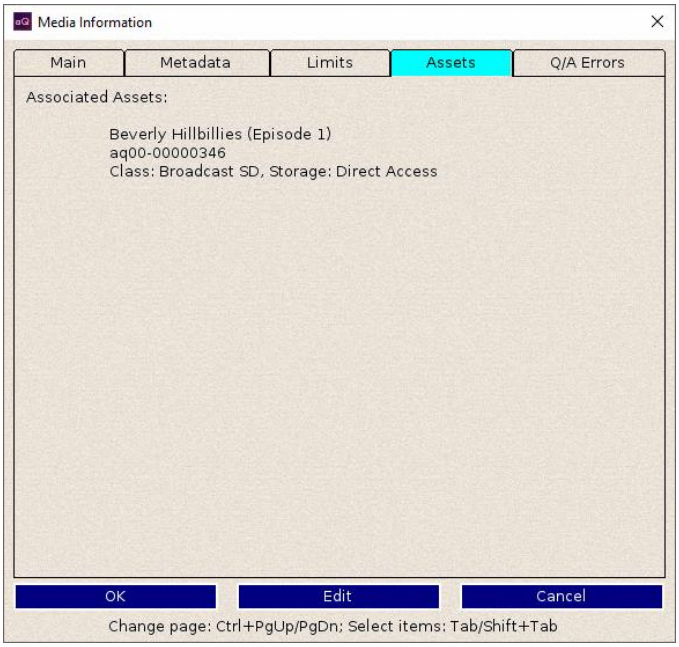
The DM 'Modify' and 'Delete' buttons can be used to change or remove current DM fields.

The 'Limits' tab shows controls relating to the use of the item.

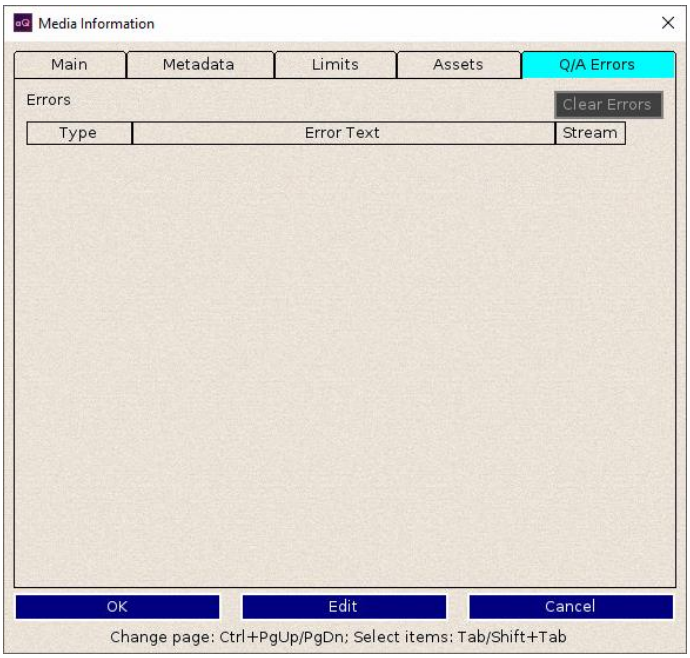


'Deny Delete' prevents the item from being deleted.
'Deny Playback' prevents the item from being played at all.
'Embargo Until:' prevents the item from being played until after the specified date/time.
'Warn Play After:' will provide a warning if the item is played after a specified date/time.
'Block Play After:' will prevent the item from being played after the specified date/time.
'Auto-Delete After:' will delete the item automatically after the specified date/time.

The 'Assets' tab displays information relating to the type and location of media assets relating to this item. These details are for information only and are not editable here.

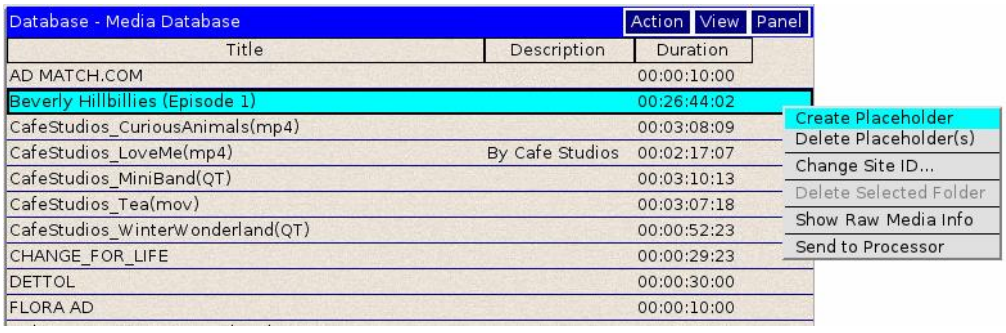


The 'Q/A Errors' tab will show any errors which have been identified by the automatic Quality Assurance processing, although this function is an option and may not be available in every configuration or environment.



If changes have been made, they can be saved by clicking 'OK'. Changes can be discarded by clicking 'Cancel'.

Additional information about any Media Database item can be seen using the 'Show Raw Media Info' option which is available when an item is right-clicked.



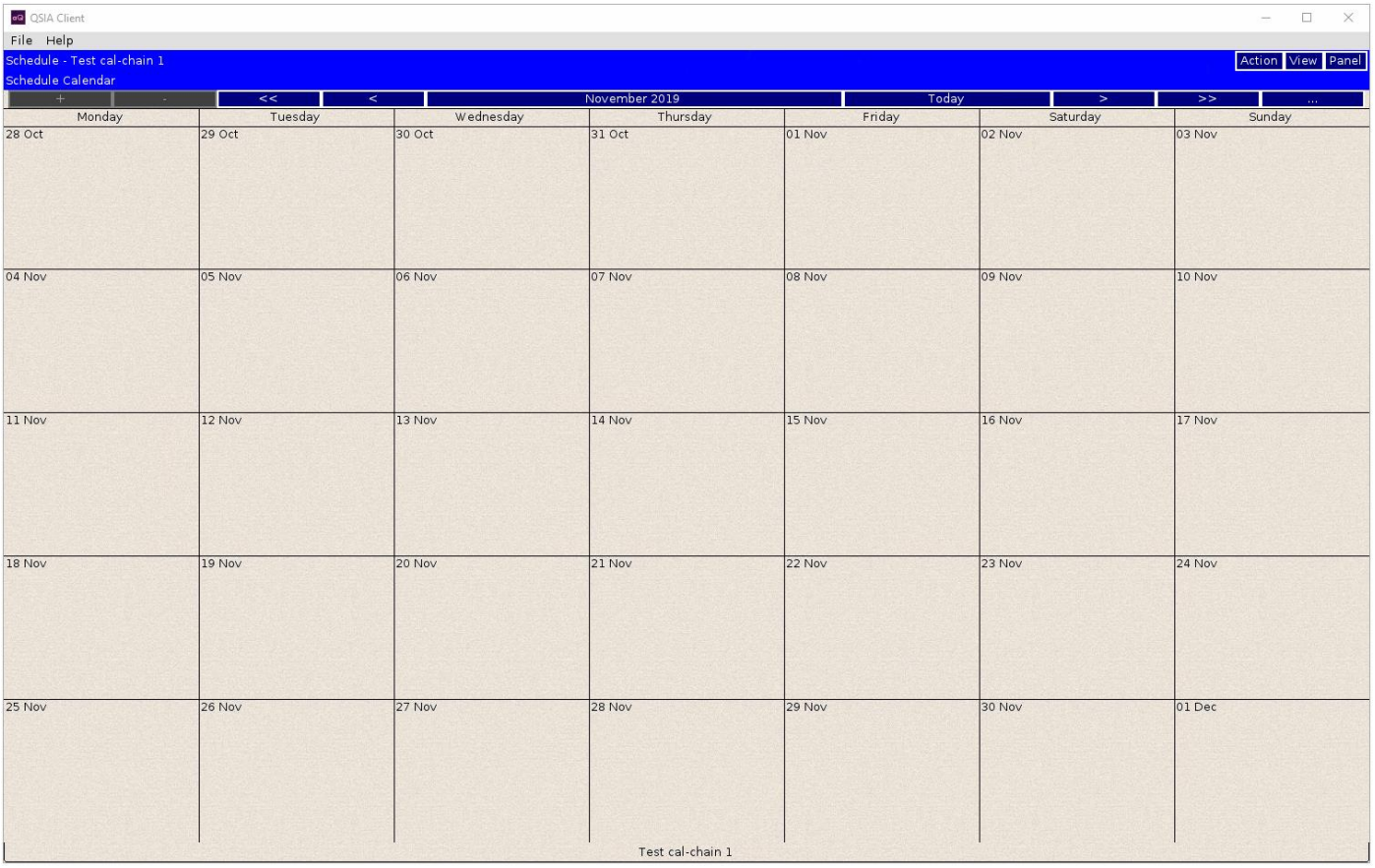
This displays a list of current metadata (both internal and user-editable) for the item. The metadata cannot be modified here, however.

5 Scheduling Workflow Examples

This section provides an outline of functionality and workflow relating to scheduling, particular through the use of a Calendar Chain.

5.1 First view of a Month

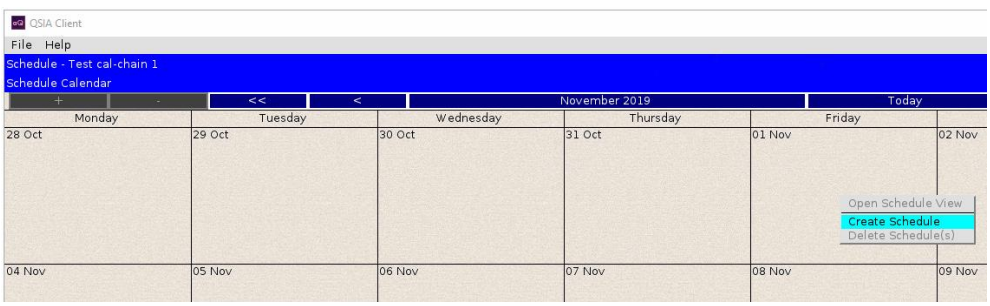
Assuming that scheduling is normally carried on the basis of one calendar month at a time, the first time that a month is accessed it will be completely empty. In the example below, looking at November in the Schedule Calendar, the month is completely empty – no schedules have yet been created for any day.



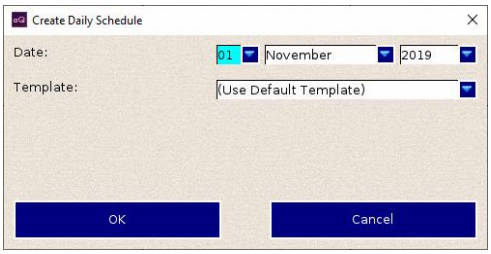
The daily schedules can be created manually where required, or are created automatically when required as a result of specific workflow actions. By the end of the process, once the month has been scheduled completely, every day will have a schedule and every schedule will be complete.

5.1.1 Creating the first Schedule

At least one daily schedule needs to exist in order to start scheduling for the month. As described above, a new schedule can be created manually by right-clicking in an appropriate day (1st November in the example below) and choosing 'Create Schedule'.

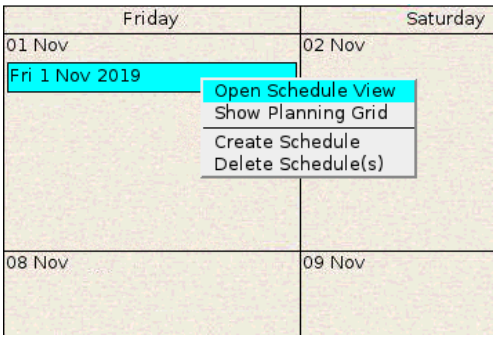


The Date can be changed, if necessary, and the Template should be left as default.

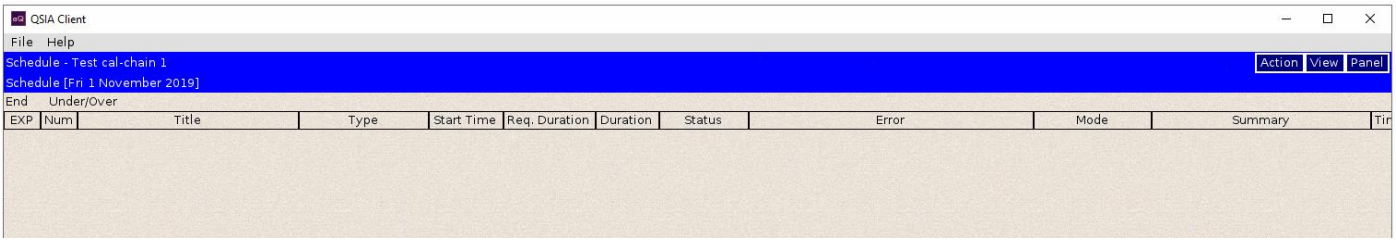


Clicking 'OK' will generate a new schedule, which will be shown on the appropriate day within the Schedule Calendar.

The new, but currently empty, Schedule can be opened by right-clicking the entry and choosing 'Open Schedule View'.



This will show the empty schedule for that day, in this case for 1st November.

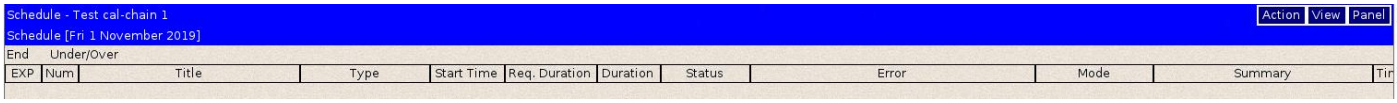


Note that it is also possible to switch directly from a schedule in the Schedule Calendar to the Planning Grid containing that schedule by selecting 'Show Planning Grid' from the right-click menu.

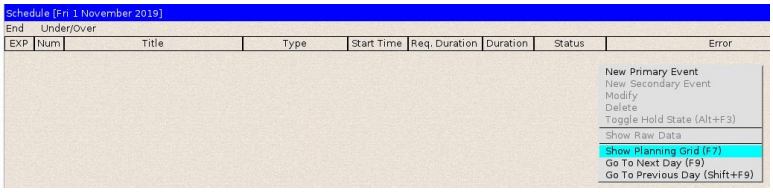
5.2 Switching between Schedule View and Planning Grid

Two main views are useful for cal-chain scheduling activities – the detailed **Schedule View**, which shows the schedule for a single day at a variety of levels, right down to sub-event detail, and the weekly **Planning Grid**, which allows programme scheduling to take place at a high level across multiple days.

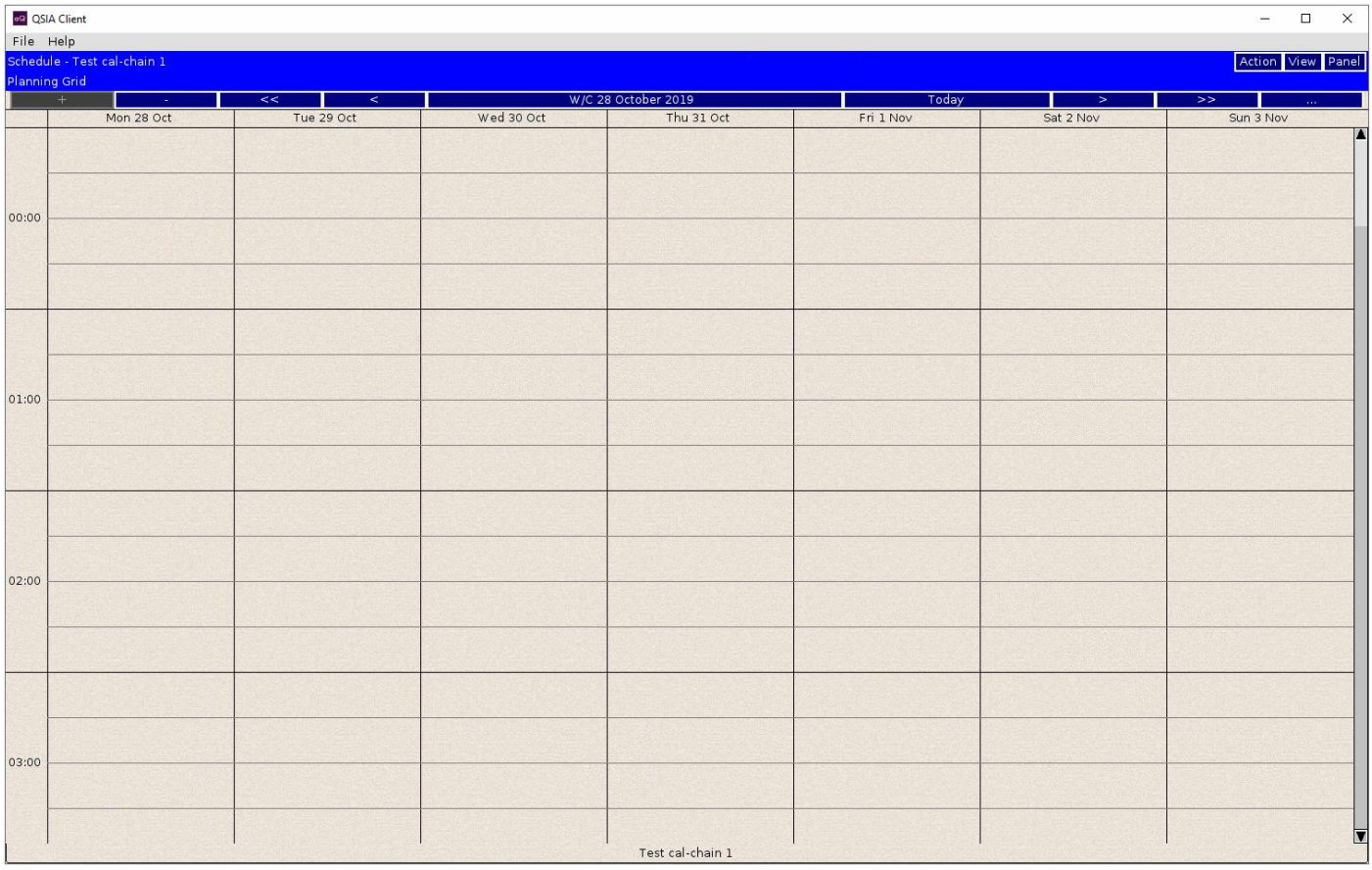
The current schedule day is shown at the top of the Panel – 1st November in this example.



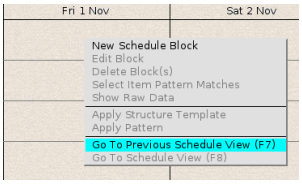
Pressing F7, or right-clicking and selecting 'Show Planning Grid (F7)', will switch to the Planning Grid view instead.



The Planning Grid shows a week at a time, by default from Monday until Sunday. Switching from Schedule View, the Planning Grid opens to show the week that contains the date of the schedule.



Pressing F7 again, or right-clicking and selecting 'Show Previous Schedule View (F7)' will switch back to the Schedule View.

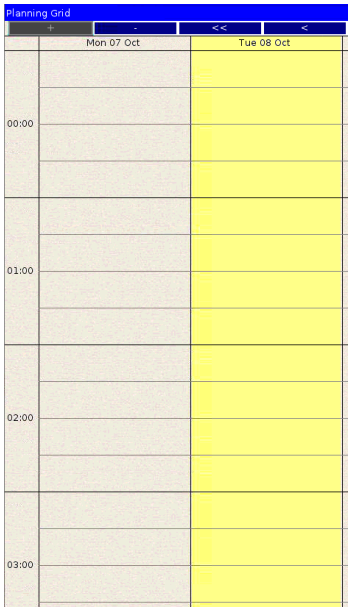


5.3 Using the Planning Grid – Basic Operations

5.3.1 View and Navigation options

The bar at the top of the Planning Grid provides a number of view and navigation buttons:

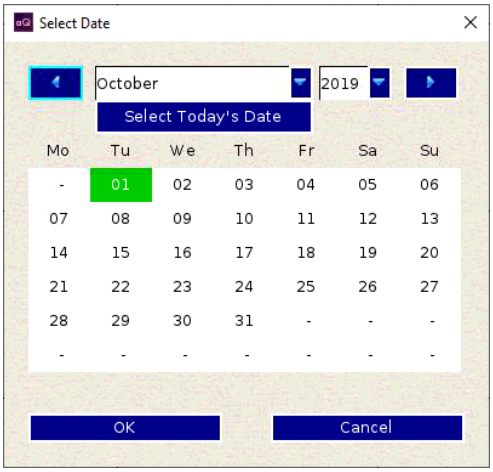
'+' and '-' provide zoom-in and -out capability. They are particularly useful within the planning grid, to change the vertical scale used for the layout of timing blocks. These allow the vertical spacing to be adjusted, to show either more detail per item or a larger part of the day. The examples below show the maximum and minimum levels of zoom.



'<<' and '>>' move backwards and forwards by a large interval, depending upon the view currently in use.

'<' and '>' move backwards and forwards by a small interval, depending upon the view currently in use.

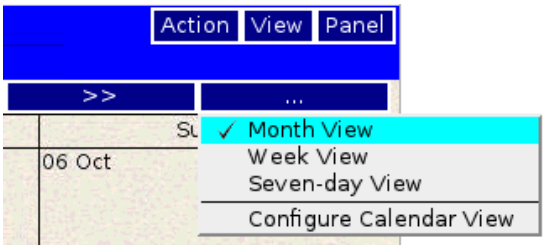
The date button – 'W/c 28 October 2019' in the example, i.e. week commencing 28th October – brings up a 'Select Date' calendar to allow a different date to be chosen.



'Today' provides a shortcut to return to the current date.

'...' allows a different view to be selected and also provides direct access to the Calendar configuration dialogue. Three different views are available: Month, Week and Seven-day. Week and Seven-day are similar, in that they each show a full

week rather than a full month, but 'Week' will always show Monday to Sunday, whereas Seven-day can be 'slid' sideways one day at a time – which makes it easier to schedule across Sunday to Monday boundaries, where otherwise adjacent days could not be seen together.



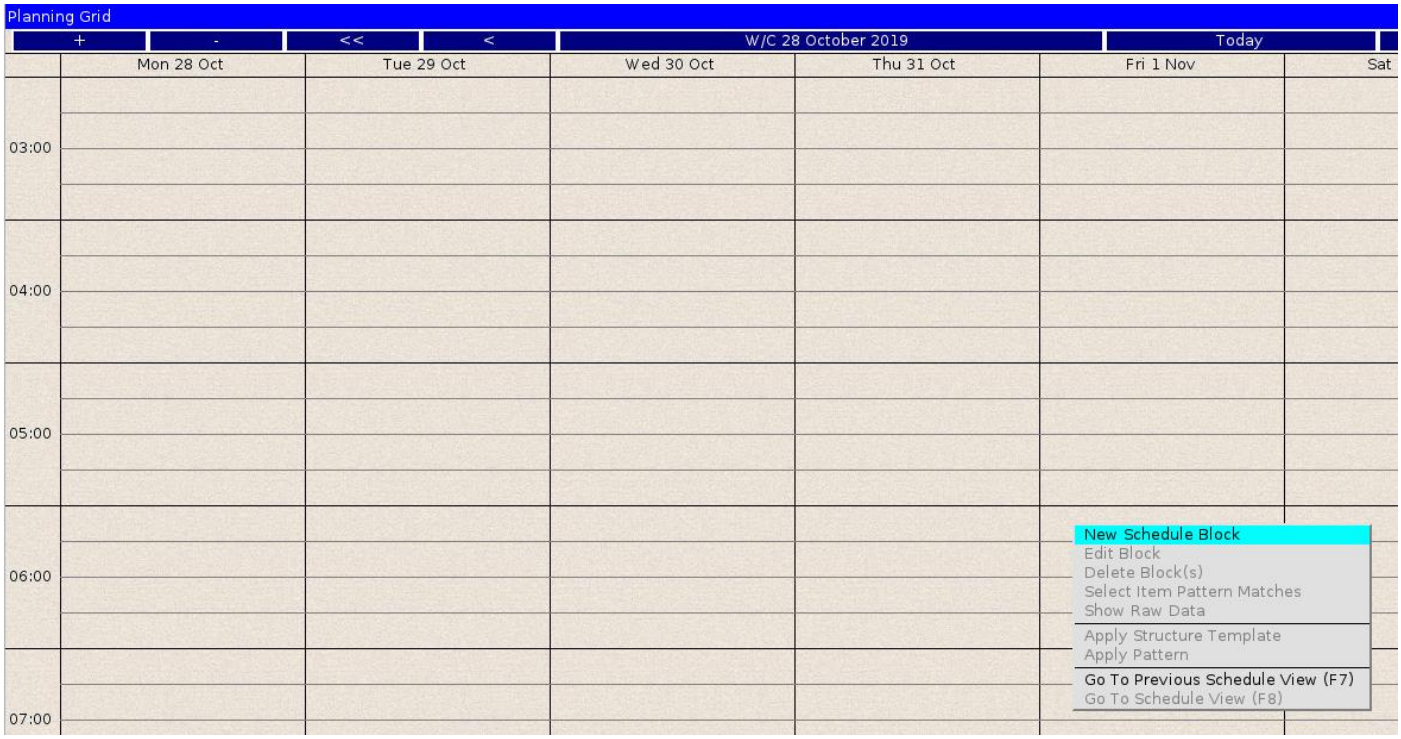
The Planning Grid opens in Week View by default, but Seven-day View can be accessed when required.

The view also has an impact on how the navigation buttons operate, as illustrated in the table below.

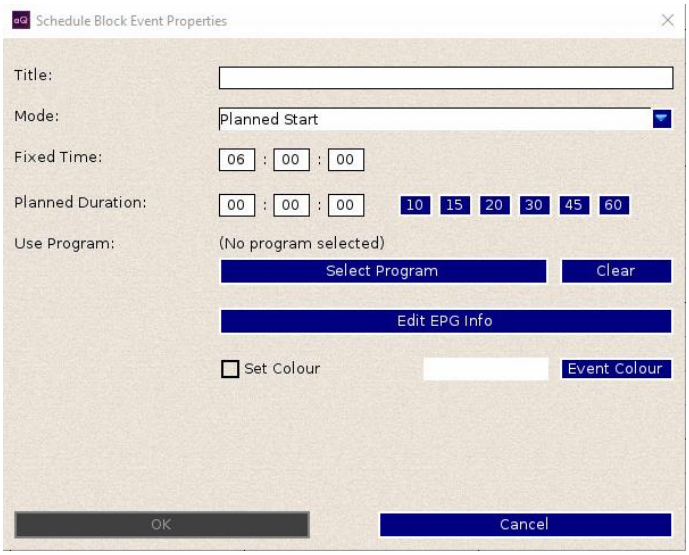
	Month View	Week View	Seven-day View
< or >	*Moves by one month*	*Moves by one week*	*Moves by one day*
<< or >>	*Moves by one year*	*Moves by four weeks*	*Moves by a week*

5.3.2 Creating a Schedule Block manually

There are a number of ways to create elements within the Planning Grid. A block can be created manually by right-clicking in the required location (in this example, at 06:00 on 1st November) and selecting 'New Schedule Block'.



This displays the 'Schedule Block Event Properties' dialogue, which allows the new programme to be set up as required.



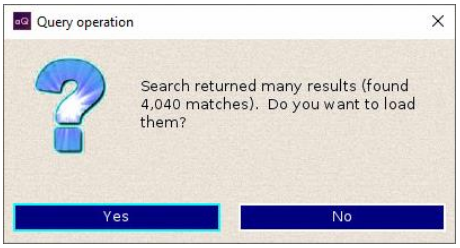
'Title:' allows the title of the programme to be entered, for instance "My 6am Program".

'Mode:' will normally be left as 'Planned Start' when working within the Planning Grid. This allows flexibility to drag programs around within the grid.

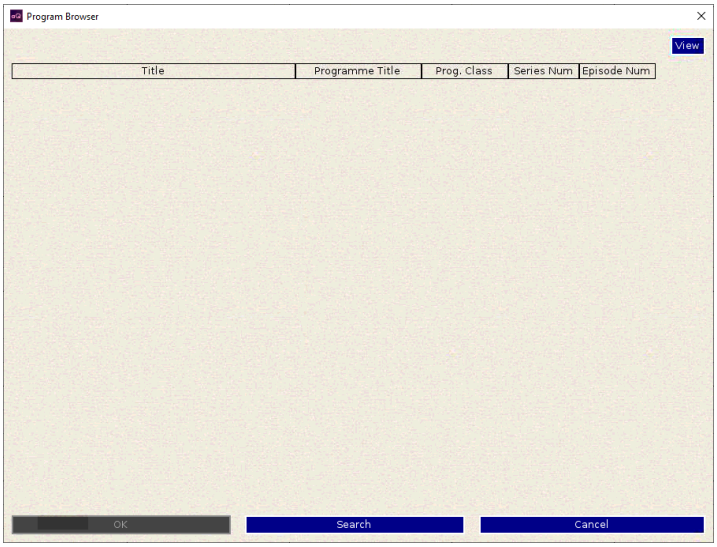
'Fixed Time:' is the start time for the program, which will be based on the position of the cursor when the Schedule Block was created. This can be overridden to a different value if appropriate.

'Planned Duration:' is the expected duration for the program. It can be set by clicking one of the shortcut buttons (e.g. 15 or 30 minutes) or can be entered manually.

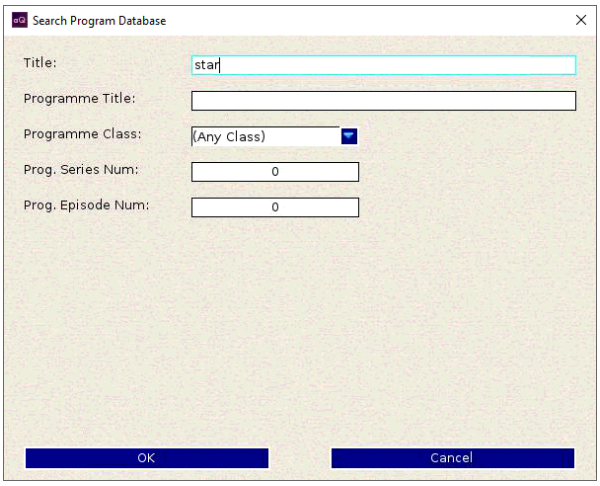
'Select Program' allows a particular program from the Program Pool to be associated with this block. However, this may not be used until later in the planning process. Clicking the 'Select Program' button will display the Program Browser – however, if the database is large, an initial dialogue will check whether all should be displayed (which could take a long time over a slow connection).



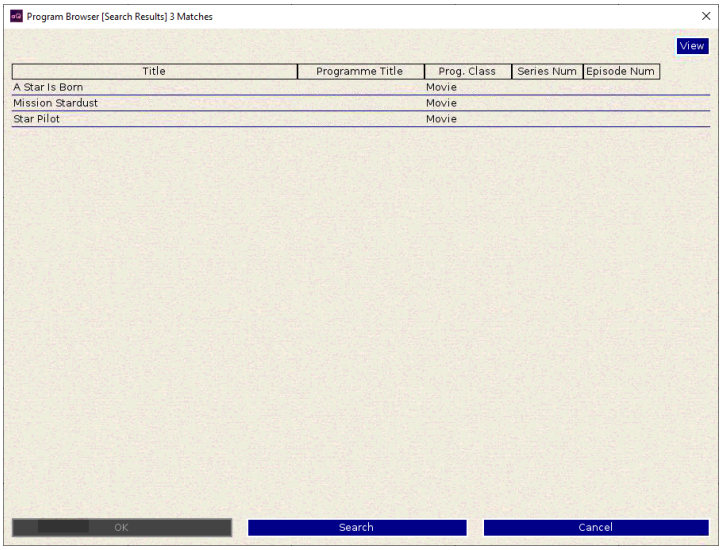
Selecting 'No' will show an empty list within the Program Browser, allowing a specific search to be initiated.



Clicking the 'Search' button will display the 'Search Program Database' dialogue, which provides a number of search fields. For instance, entering "star" into the 'Title:' field will match all programs which contain "star" somewhere within their title.

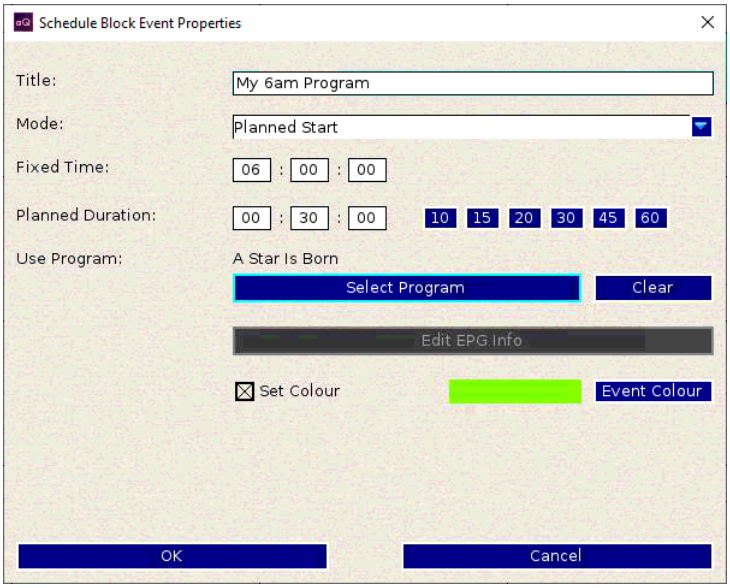


Clicking 'OK' will initiate the search, returning the matching items.

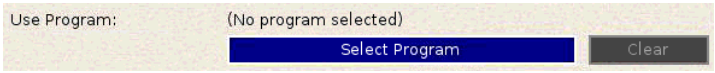


Selecting a program and clicking 'OK' will associate that item with the Schedule Block.

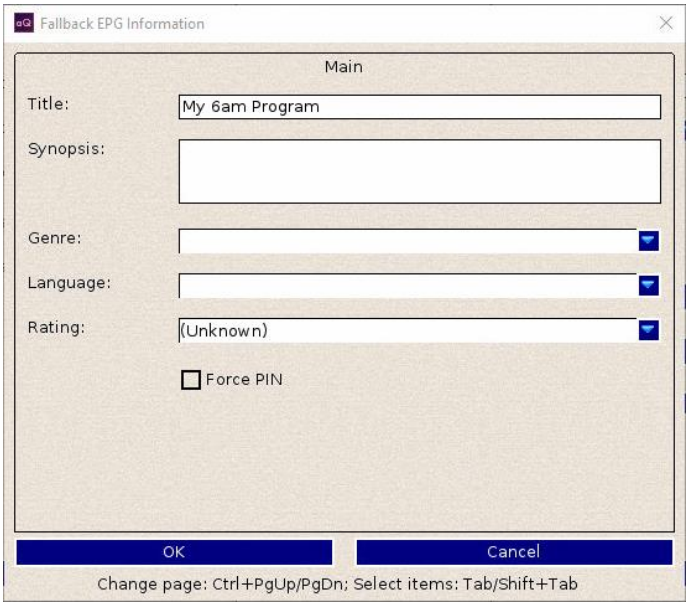
For instance, selecting 'A Start is Born' will show that association within the Schedule Block Event Properties.



The ‘Clear’ button can be used to remove the program association, if required.

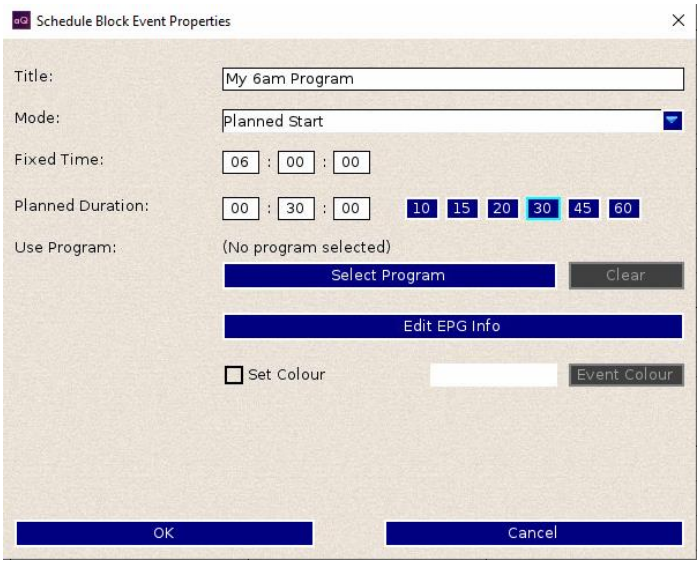


‘Edit EPG Info’ allows default program guide information to be entered. This is useful if the program guide needs to be generated or exported before a formal program has been associated with the block. The default information will be replaced with the real information contained as part of the program pool entry once a formal program has been selected.



The ‘Colour’ options allow the background colour to be set for the block. This is purely cosmetic, but allows different programs to be identified easily within the overall Planning Grid.

The ‘OK’ button only becomes enabled once the minimum required information has been entered: Title and Planned Duration.

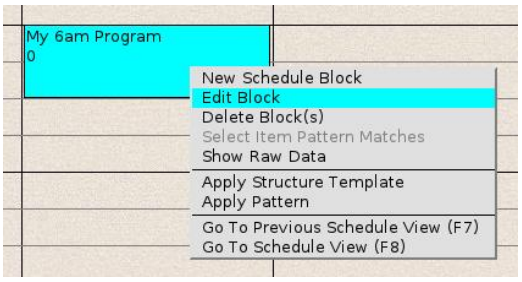


Once OK has been clicked, the new Schedule Block is created in the correct location and with the correct duration as a new element within the Planning Grid.

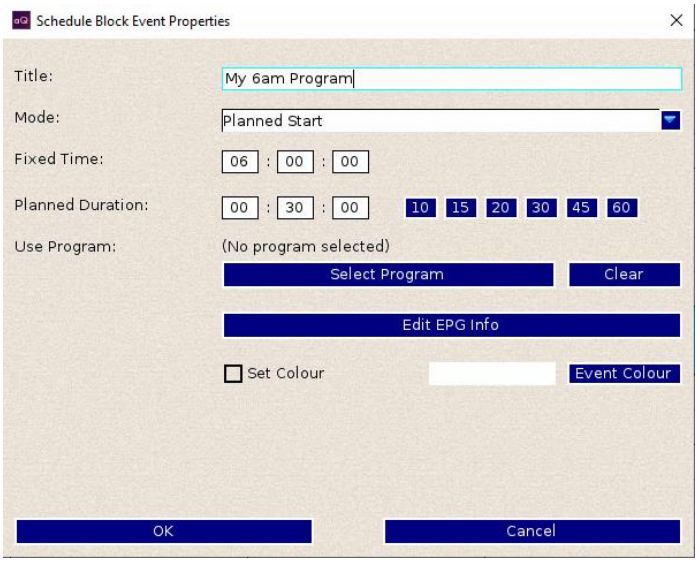
The ‘0’ displayed in this case indicates that the Schedule Block is currently empty – i.e. it doesn’t yet contain any events.

5.3.3 Editing a Schedule Block

An existing block can be modified by double-clicking it or by right-clicking and selecting ‘Edit Block’.

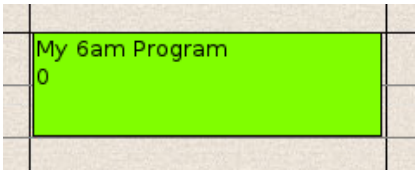


This brings up the Properties dialogue again.



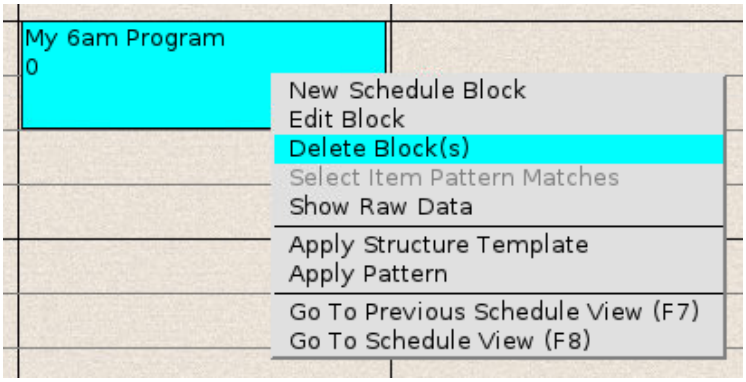
As an example, checking the ‘Set Colour’ checkbox and choosing a colour by clicking the ‘Event Colour’ allows the background colour to be set for the block.

That change is updated when the 'OK' button is clicked, so that the new colour is applied.



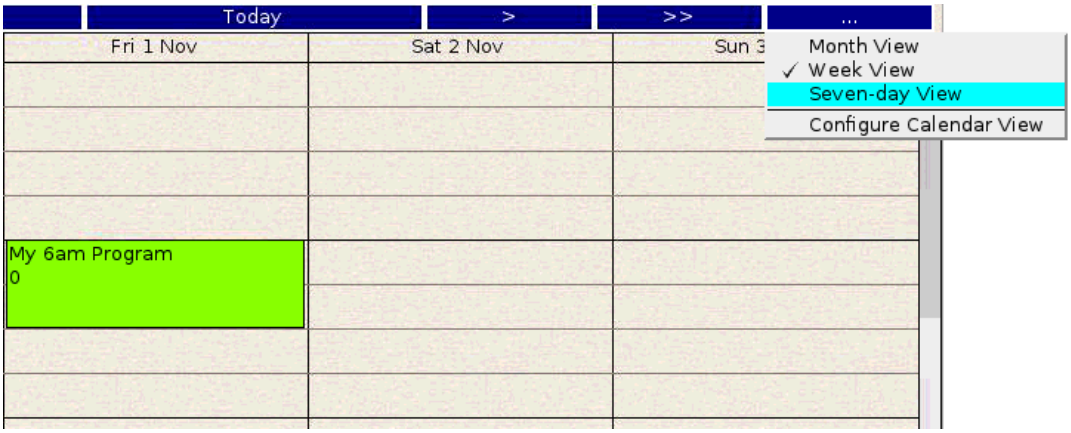
5.3.4 Deleting a Schedule Block

An existing block can be deleted by right-clicking and selecting 'Delete Block(s)'. Specifically, all currently selected blocks will be deleted, not just the one which was clicked.

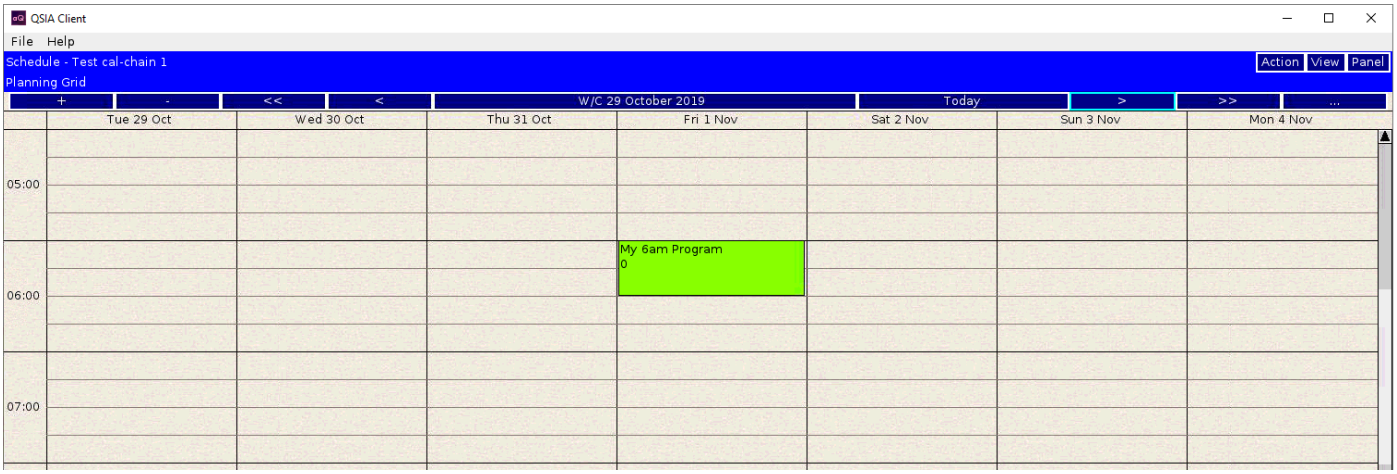


5.3.5 Dragging a Schedule Block (move)

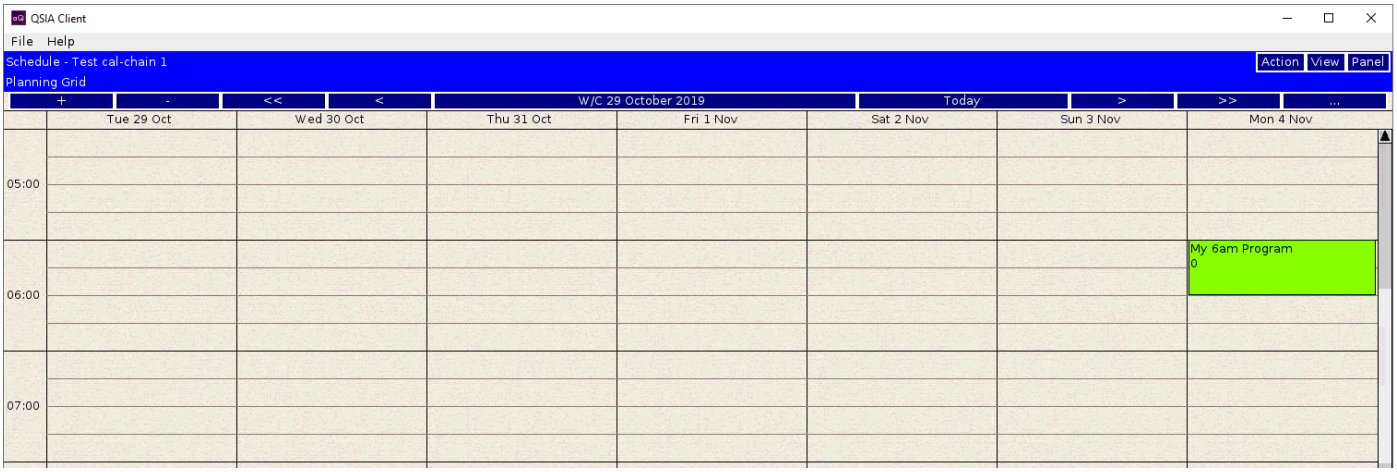
A Schedule Block can be moved or copied to a new timeslot by dragging it within the Planning Grid. For example, the previously created 6am block might need to be moved to Monday 4th November. The easiest way to achieve this is to change to 'Seven-day View' (so that Friday and Monday can be visible at the same time) and then dragging the block into the new position.



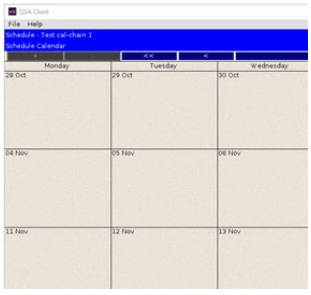
Once 'Seven-day View' has been enabled, the '>' button can be used to scroll sideways by one day, so that the Tuesday through Monday are visible with the Planning Grid.



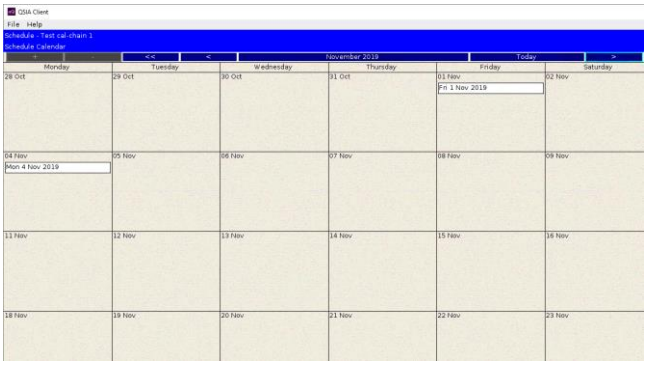
Clicking and then dragging the 'My 6am Program' allows it to be moved to Monday instead of Friday.



In this example, this is the first time that Mon 4 Nov has been used, which meant that no schedule had been created for that day – i.e. the Schedule Calendar view showed that date as having no associated schedule.

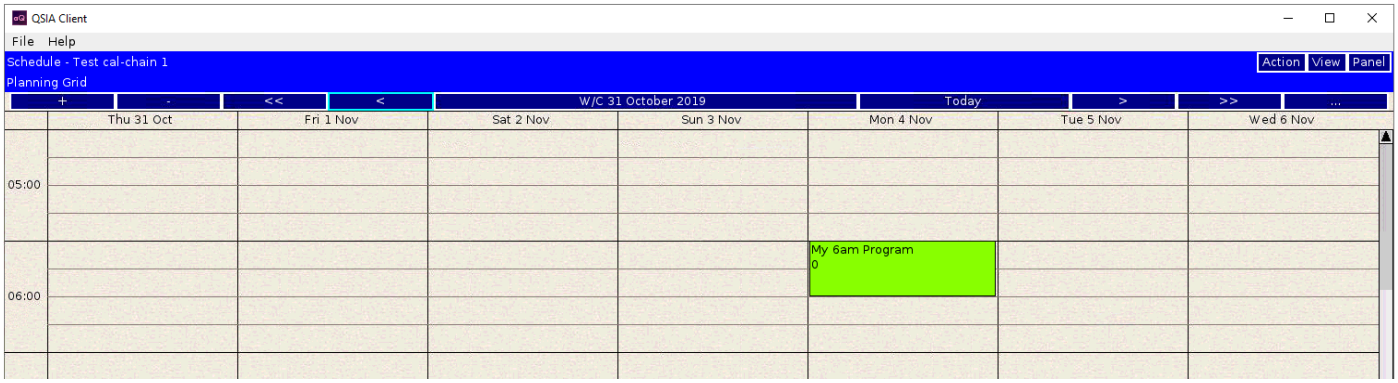


The action of dragging the Schedule Block into the new day caused a new schedule to be created automatically in the background, meaning that the Schedule Calendar does now show schedules for both 1st and 4th November.

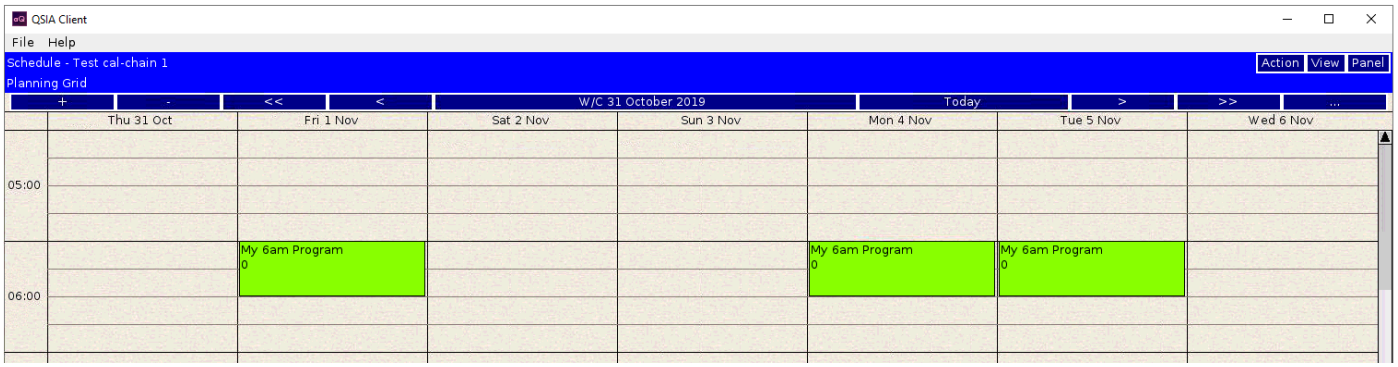


5.3.6 Dragging a Schedule Block (copy)

In the example above, the Schedule Block was moved to a new timeslot on Monday 4th.



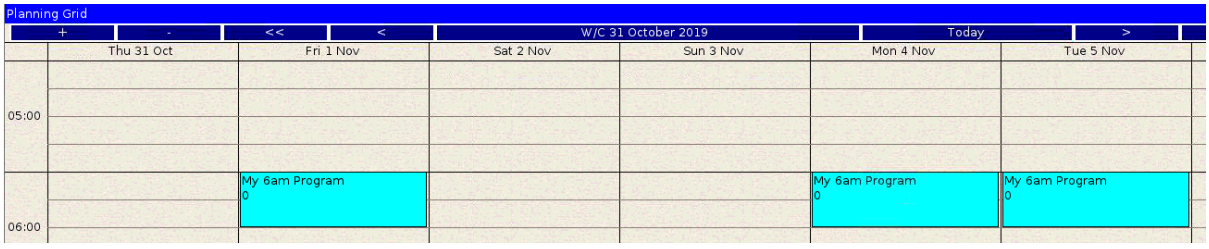
It is also possible to copy a block into a new location. This is achieved by holding down the 'Ctrl' key during the drag operation. In the examples below, the block has been copied twice, initially to Tuesday and then back to Friday. Three instances of the program now exist within the calendar chain, and the copy into Tuesday triggered the automatic creation of the new schedule for that day.



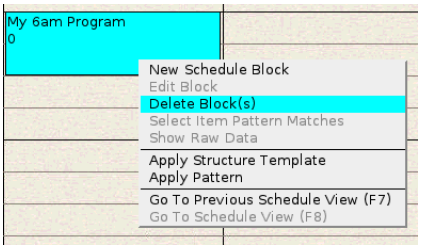
5.3.7 Selecting multiple Schedule Blocks

Certain operations, such as 'delete' can be carried out on multiple Schedule Block at the same time.

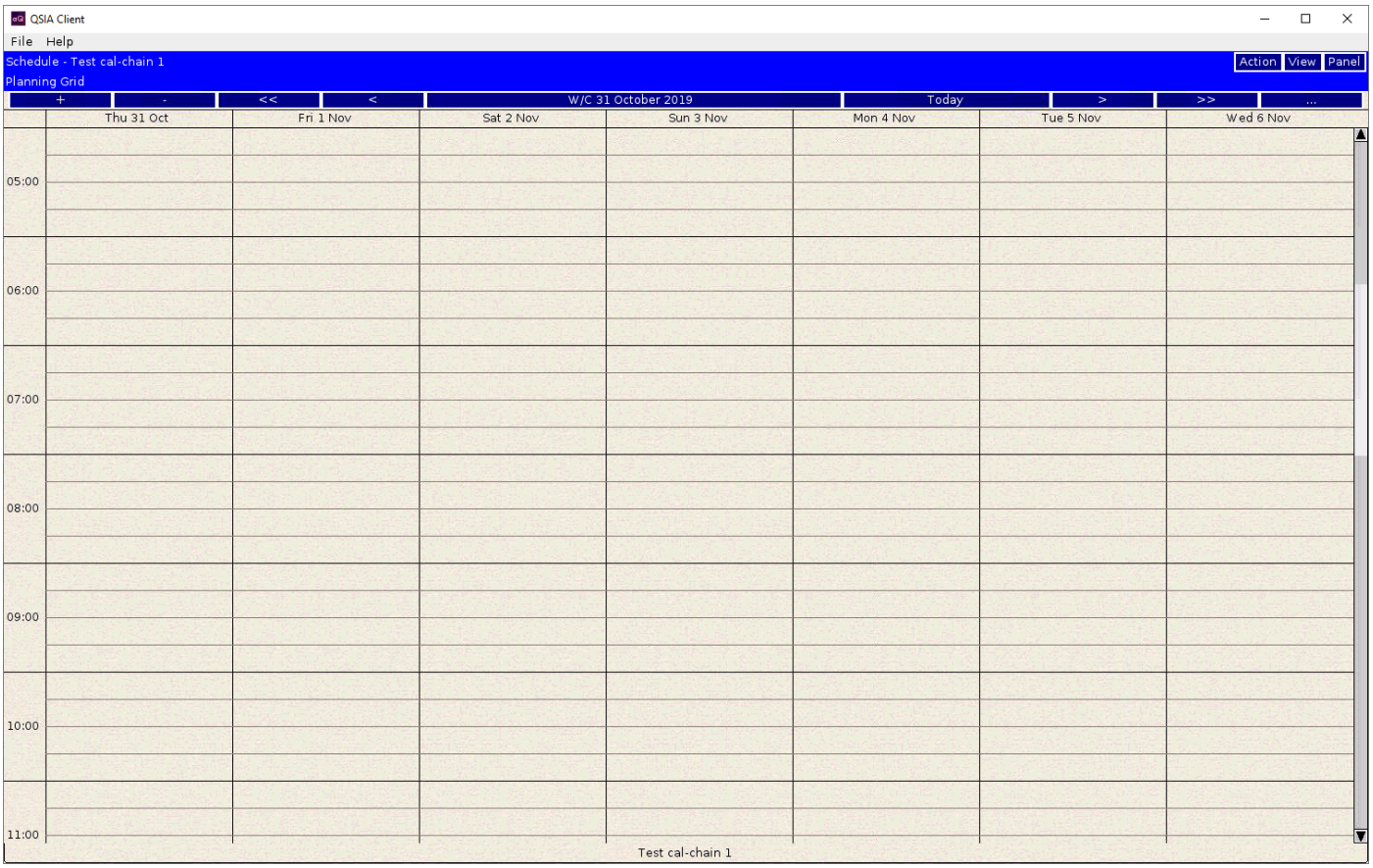
Multiple blocks can be selected by clicking the first, so that it is highlighted in blue, then holding 'Ctrl' whilst clicking the others. In the example below, all three 6am blocks have been selected. The 'Ctrl' key can be used to 'toggle' selection – i.e. Ctrl-clicking an item that is already selected will cause it to be de-selected.



Once multiple blocks have been selected, one of them can be right-clicked to bring up the context menu.



Selecting ‘Delete Block(s)’ will remove all of the blocks after the confirmation check. In this example, the planning grid will for this period will now be blank.

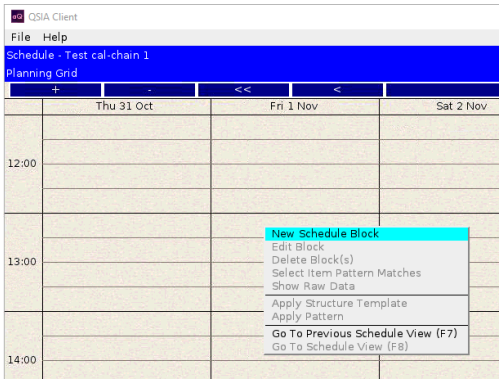


5.4 Planning Grid Workflows

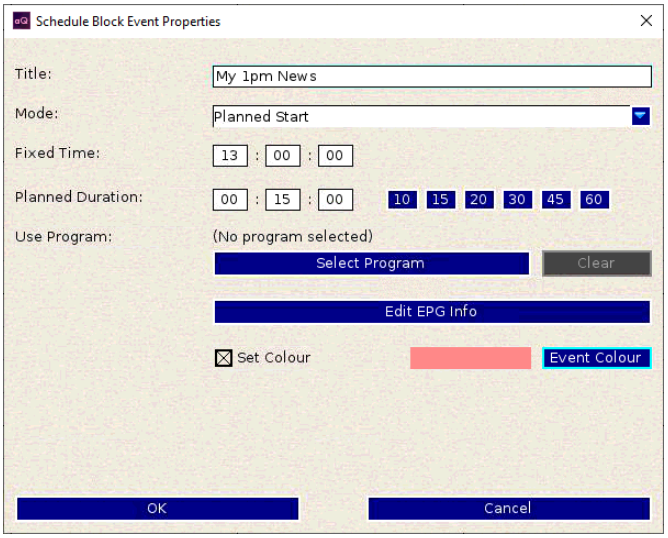
5.4.1 Schedule Patterns

In many cases, it is convenient to be able to schedule the same program as a single operation for the entire month. For instance, it may be necessary to add a 'Lunchtime News' program at 1pm every weekday. This can be achieved by adding the first Schedule Block, e.g. on Friday 1st Nov, and then applying a pattern to have it duplicated for the rest of the month.

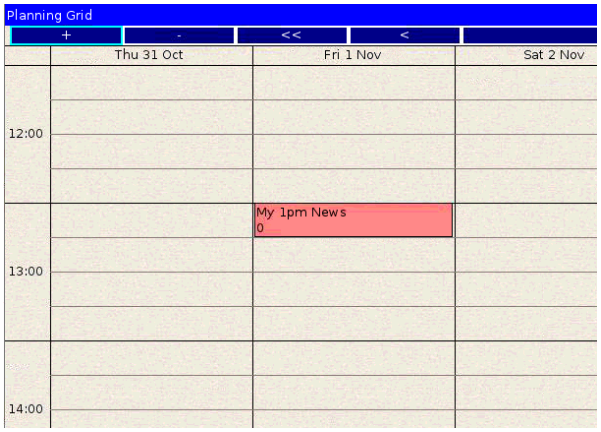
As described above, a new Schedule Block can be added by right-clicking in the appropriate timeslot (just after 13:00 on Fri 1 Nov in this example) and selecting 'New Schedule Block'.



The title, duration and colour have been set for this new event.

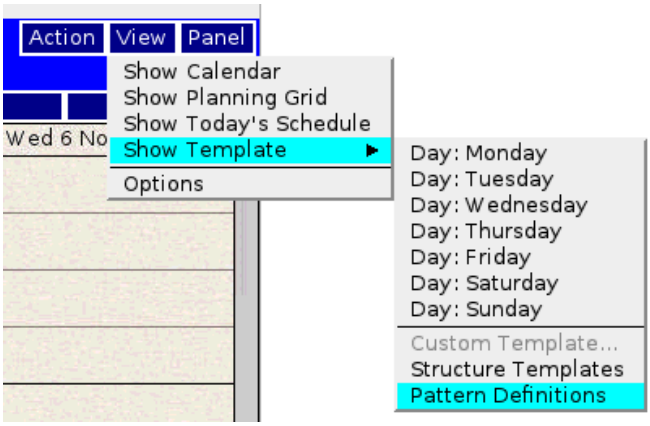


Clicking OK will place the new block into the Planning Grid at the correct location.

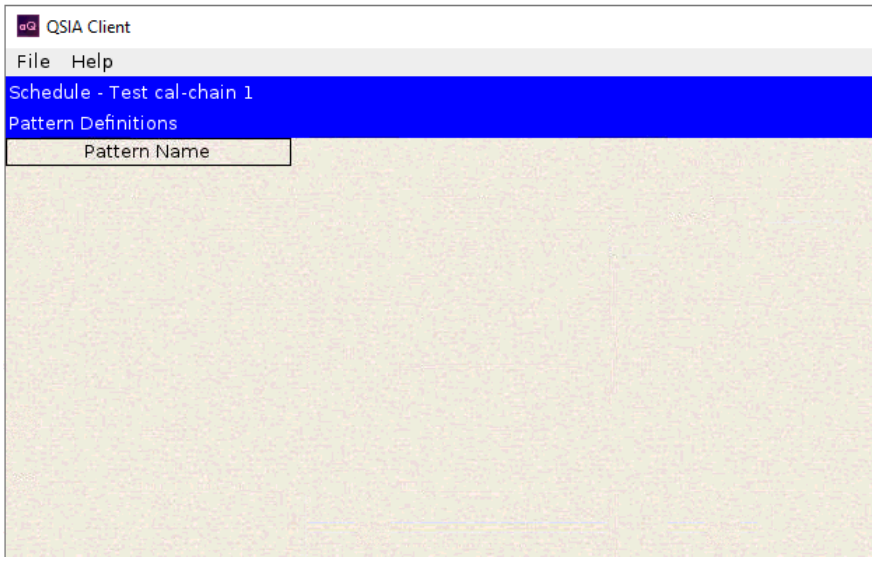


5.4.2 Creating a Schedule Pattern Template

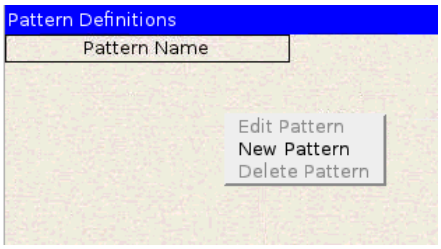
A Pattern Definition Template needs to be created before it can be used for the first time, although this only needs to be done once for each template. The templates are accessible via the View | Show Template > | Pattern Definitions menu option.



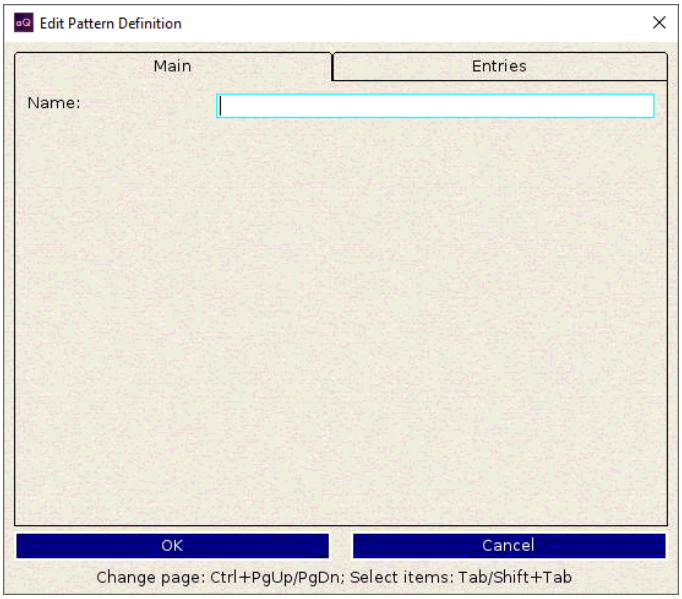
The Pattern Definitions view will be shown, although this will be blank if no templates have been created so far.



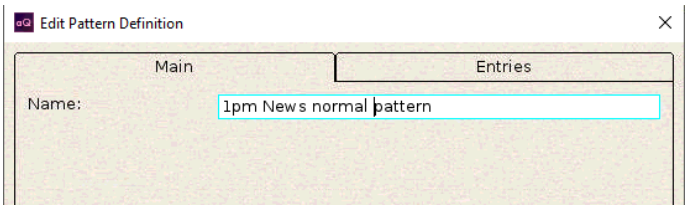
Right-clicking anywhere in the blank area will display the context menu, which allows a new Pattern to be created.



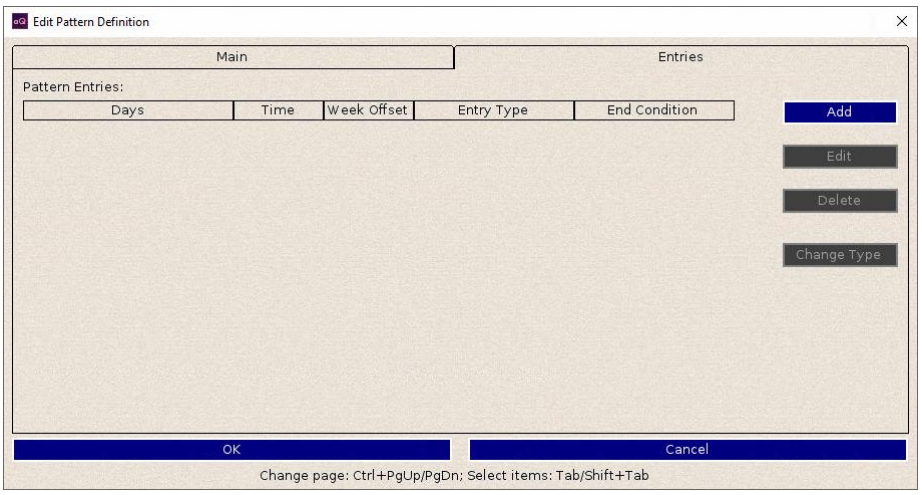
This will display the 'Edit Pattern Definition' dialogue.



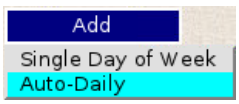
The new pattern must be identified with an appropriate descriptive and meaningful name.



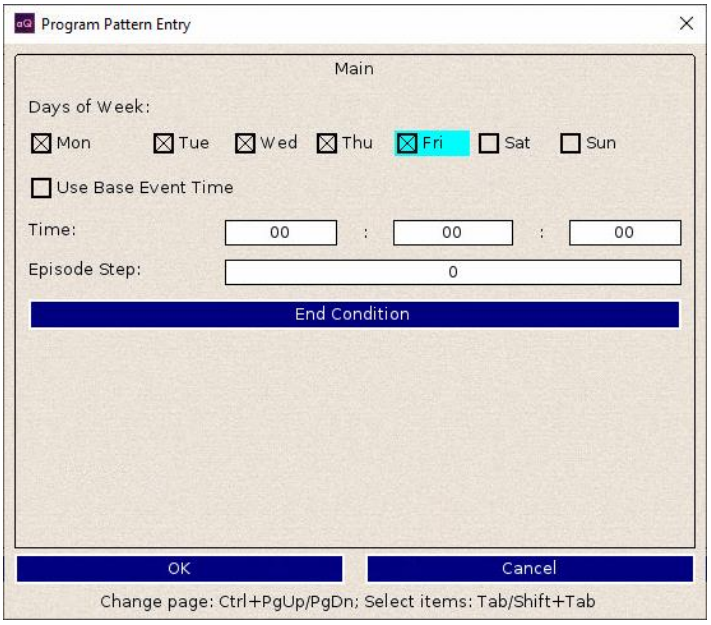
Then the 'Entries' tab can be used to define the repeat criteria. Note that it may be necessary to expand the width of the dialogue to see all of the columns, by dragging the left or right side to enlarge the view.



Clicking 'Add' will show different pattern options, including 'Auto-Daily' which should be used in this instance.



This will display the 'Program Pattern Entry' dialogue for daily repeated items.

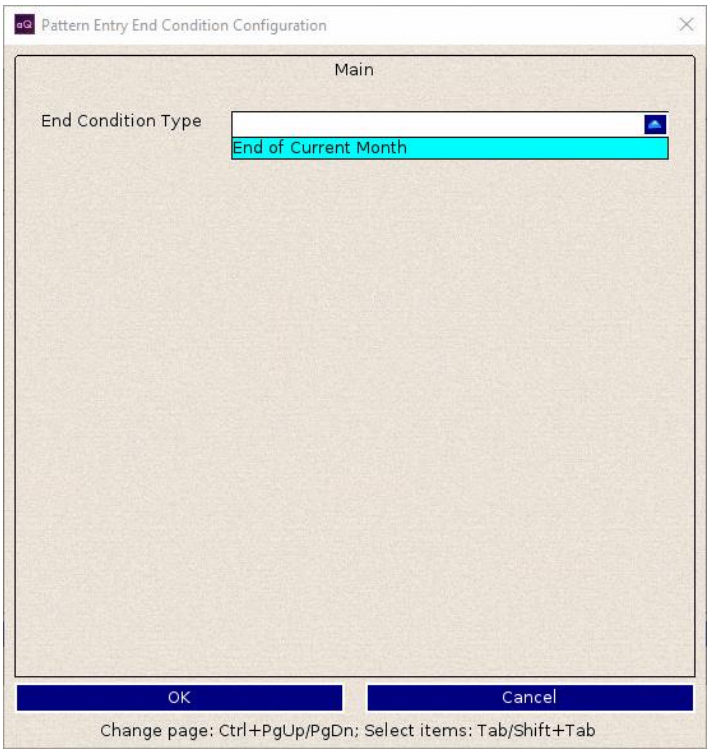


'Days of Week:' defines which days of the week the repeat is to be shown. Multiple days can be selected – in this example the five weekdays.

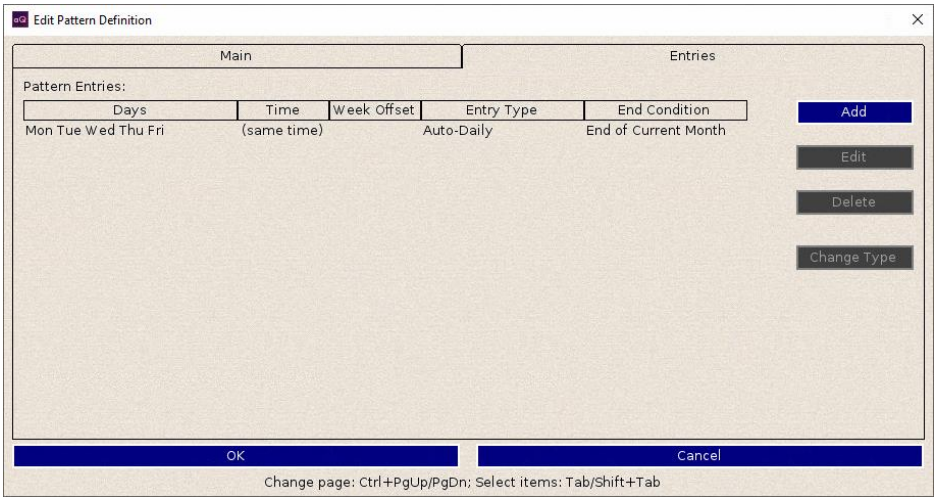
'Use Base Event Time:' allows the start time of the original event to be used for the repeat. If this isn't checked, a specific start time can be set instead, using the 'Time' fields for hours, minutes and seconds.

'Episode Step:' allows the episode number to be defined. In many cases this would be 0, i.e. the repeats would use the same episode as the original. Equally, for a slot which is used every day, the episode might be set to increment by one each day.

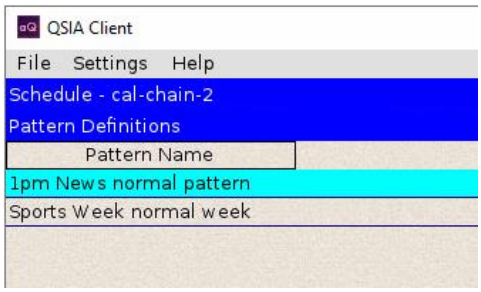
The 'End Condition' button allows the end of the pattern to be defined. In this example, the 'End of Current Month' can be selected, which means that the repeat insertion will stop when the end of the month has been reached.



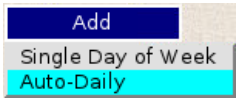
Clicking 'OK' to save the End Condition, and then 'OK' to save the entry details will show the newly created Pattern Entry.



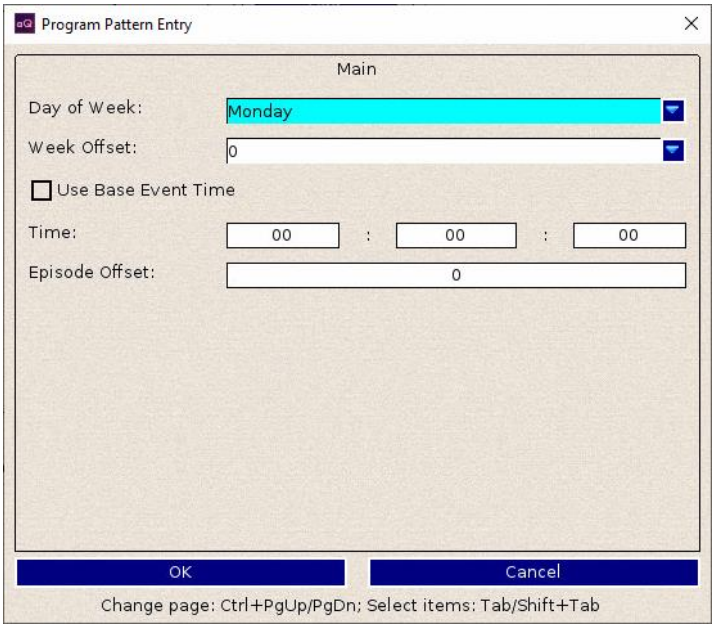
Clicking 'OK' again will save the new Pattern, so that it appears in the list of Definitions.



For different repeat requirements, a 'Single Day of Week' pattern may be added instead. This will allow a pattern of repeats over multiple days and multiple weeks to be constructed.



This will display the first 'Program Pattern Entry' dialogue.

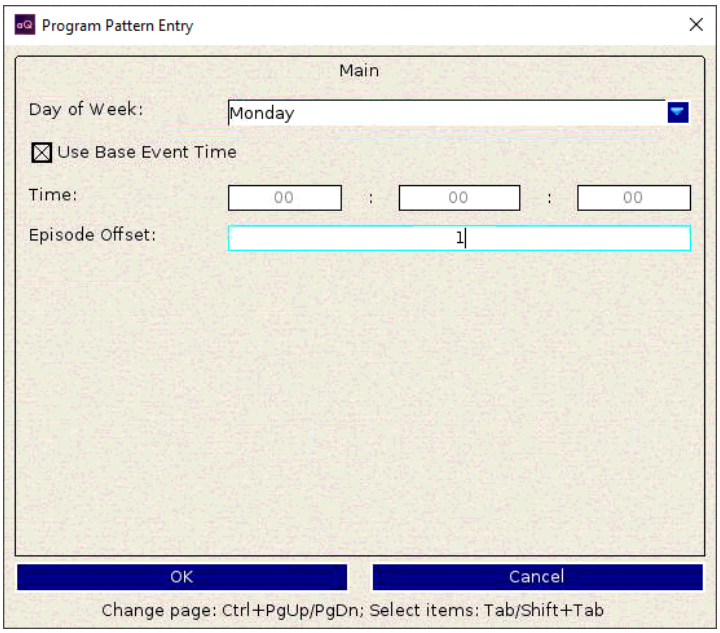


'Day of the Week:' defines which day of the week the repeat is to be shown.

'Week Offset:' defines which week the day will apply to – 0 being the current week, 1 the next week, etc.

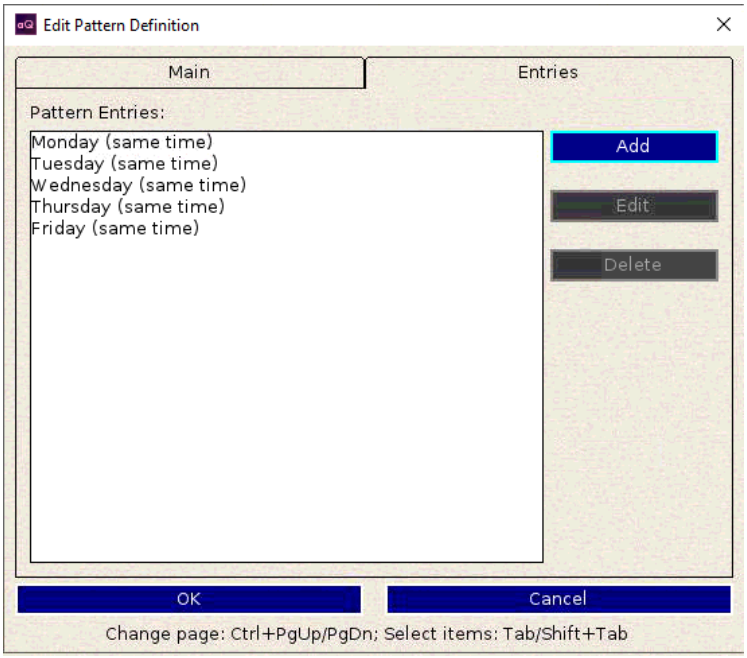
'Use Base Event Time:' allows the start time of the original event to used for the repeat. If this isn't checked, a specific start time can be set instead.

'Episode Offset:' allows the episode number to be defined. In many cases this would be 0, i.e. the repeats would use the same episode as the original. But in this case, for a slot which is used every day, the episode might be set to increment by one each day.

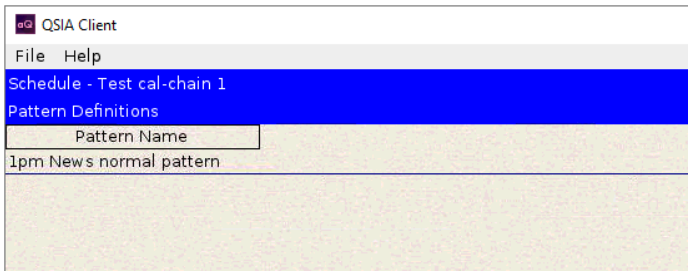


Clicking 'OK' will save that individual entry.

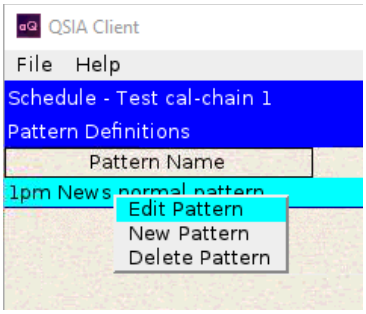
If the block is required every weekday, for instance, the 'Add' process can be repeated for Tuesday, Wednesday, Thursday and Friday.



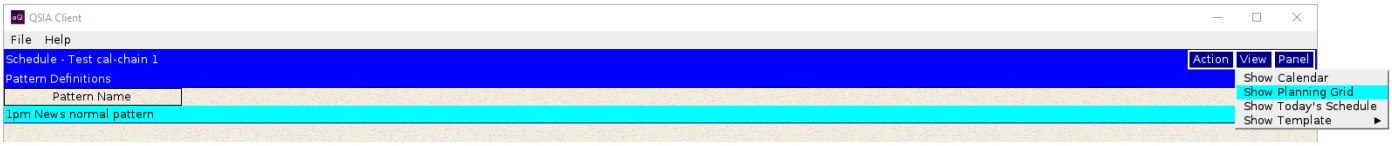
Clicking 'OK' will add the new template to the list of Pattern Definitions.



If necessary, an existing pattern can be modified by right-clicking it within the list and choosing 'Edit Pattern'.



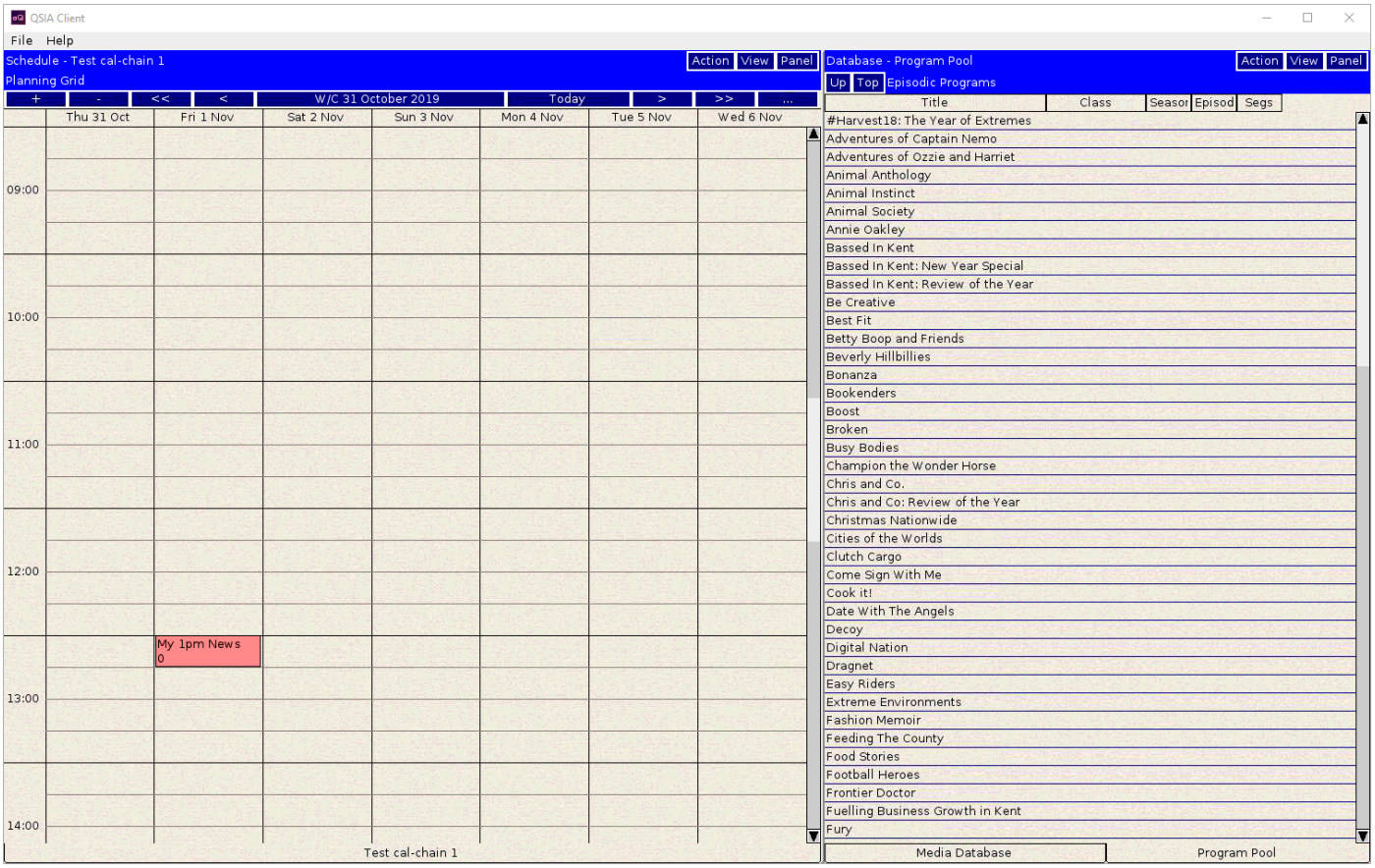
The view can be returned to the Planning Grid using the View | Show Planning Grid menu option.



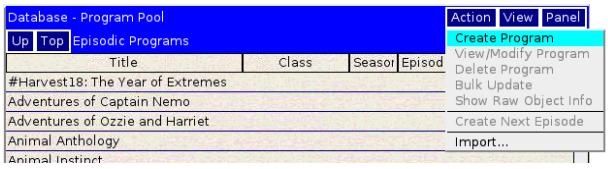
5.4.3 Creating a Program

In order to be able to apply a pattern to a block, the block must first have a program associated with it. In this example, a suitable program does not yet exist, so the first step will be to create a new element within the Program Pool.

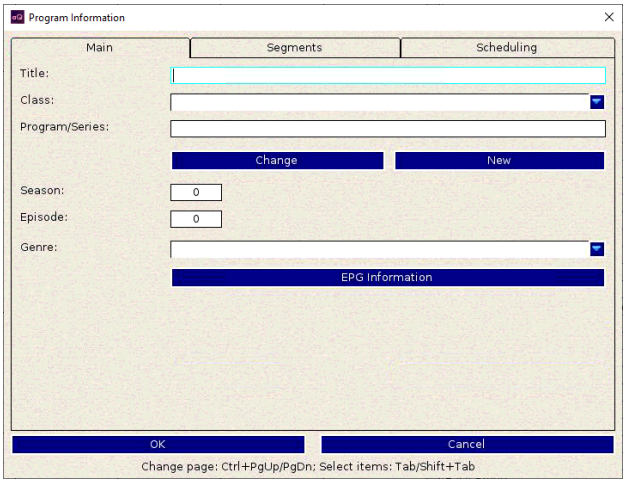
The Program Pool plugin needs to be open with a Panel, using the process described above. Use the split panel view, it is now possible to see both the Planning Grid and the Program Pool.



A new program can be created using the Action | Create Program menu option.



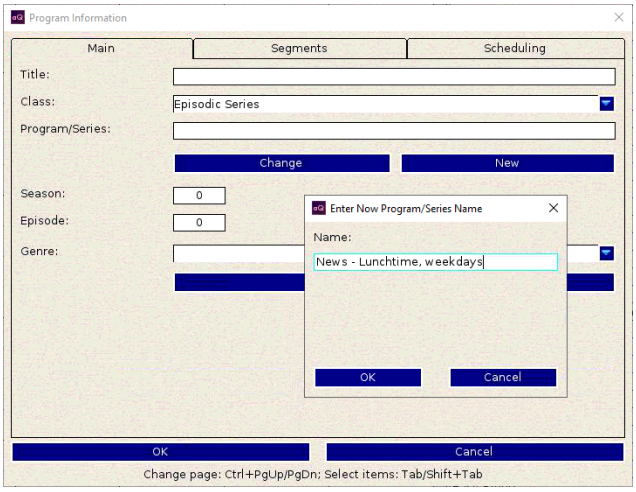
This displays the 'Program Information' dialogue, which allows information to be entered for the new program.



'Title:' allows the name of this program to be entered.

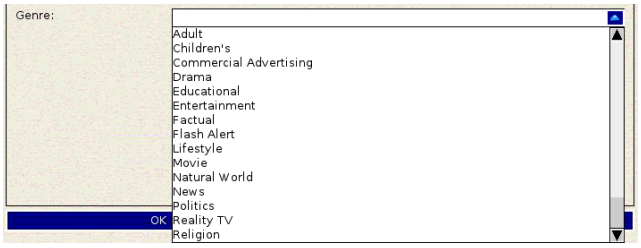
'Class:' defines the type of program, typically an episode from a serial, a movie or a one-off program. In this case, 'Episodic Series' is the correct choice.

'Program/Series:' identifies the name of the series. This is a key value, as it determines how episodes are grouped into series within the database. Therefore, it isn't possible to type directly into this field – rather an existing series can be chosen using the 'Change' button or a new series can be created by clicking 'New'. In this example, a new Program/Series Name of "News – Lunchtime, weekdays" has been entered.

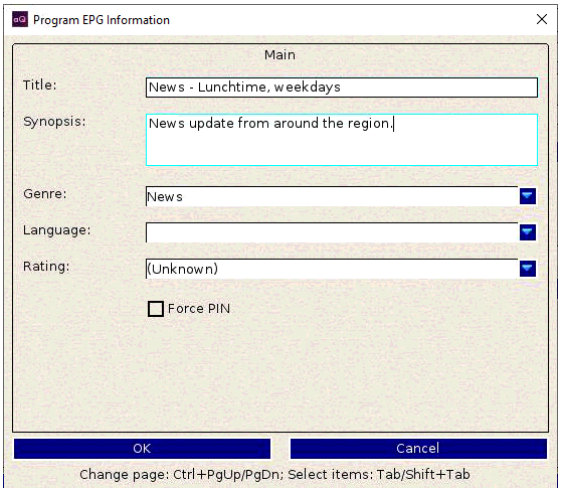


'Season:' and 'Episode:' can be used to identify this particular episode.

'Genre:' allows the type of content to be identified, for example in this case 'News'.

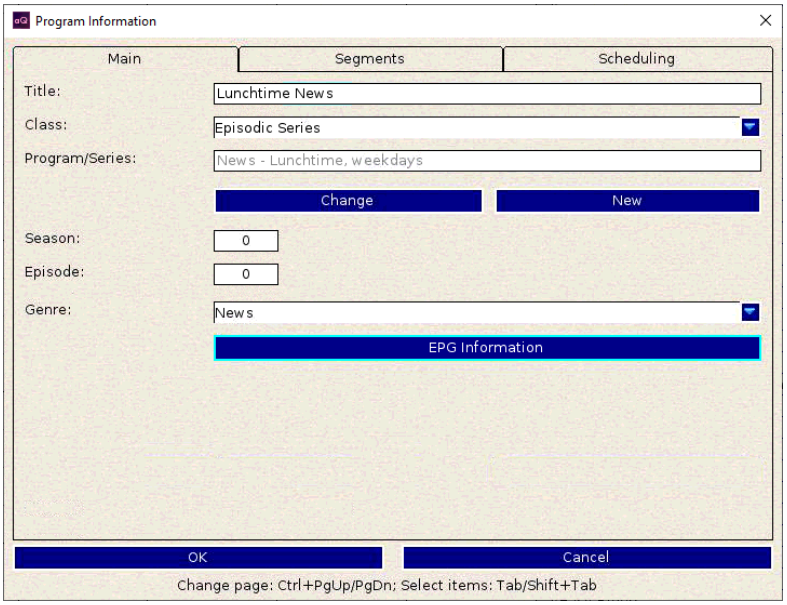


The 'EPG Information' button displays the 'Program EPG Information' dialogue, allowing program guide details to be entered.

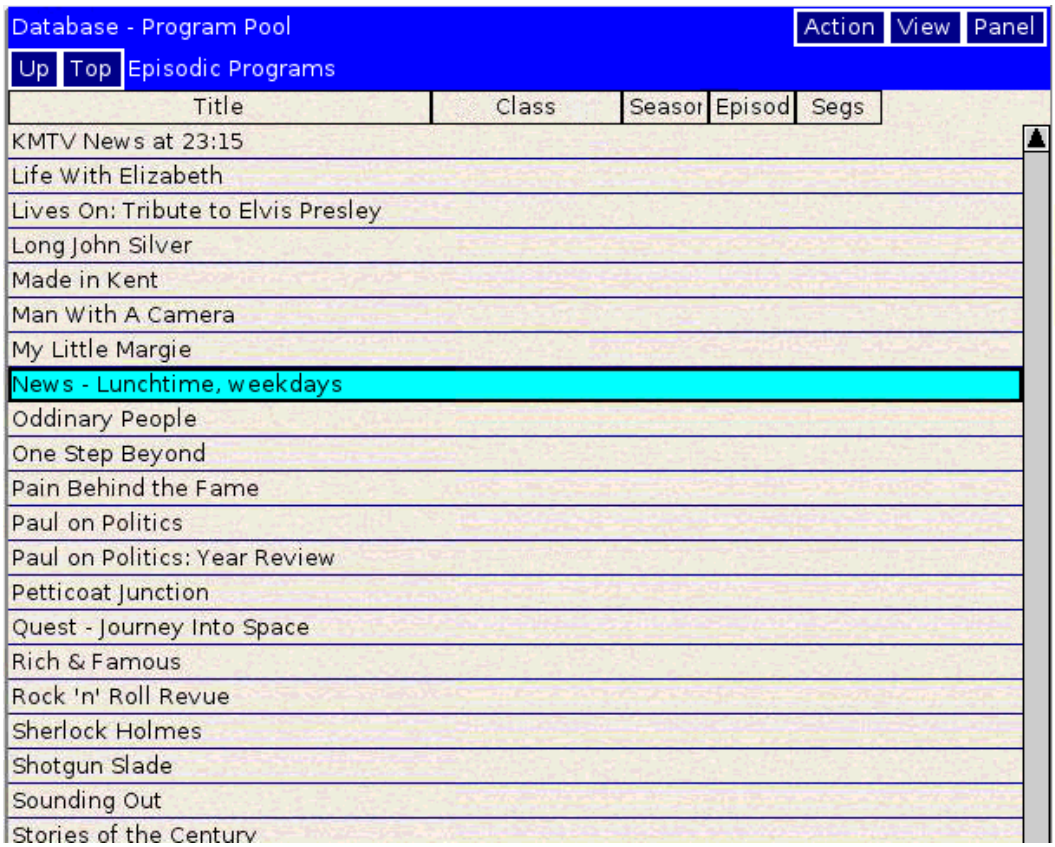


Note that all EPG fields are required, so 'OK' cannot be clicked until Genre, Language and Rating have been completed.

Once the various Program Information fields have been completed, the 'OK' button can be clicked to create the new program.

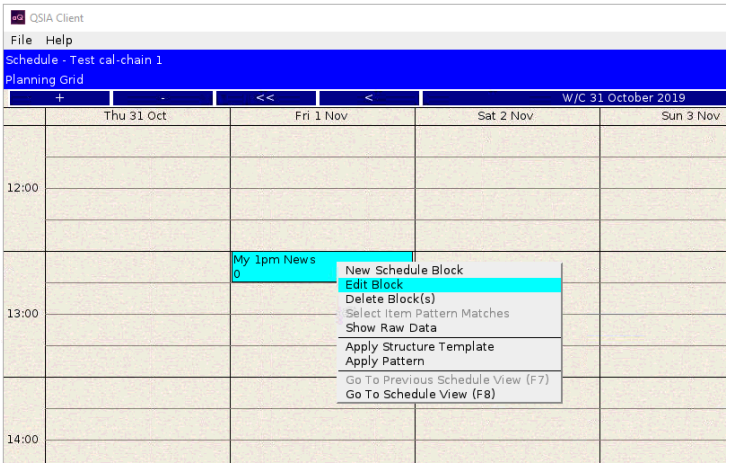


Note that 'Season' can be left set to 0 (for instance, if season/series isn't relevant), but 'Episode' does need to be set to a value other than zero.

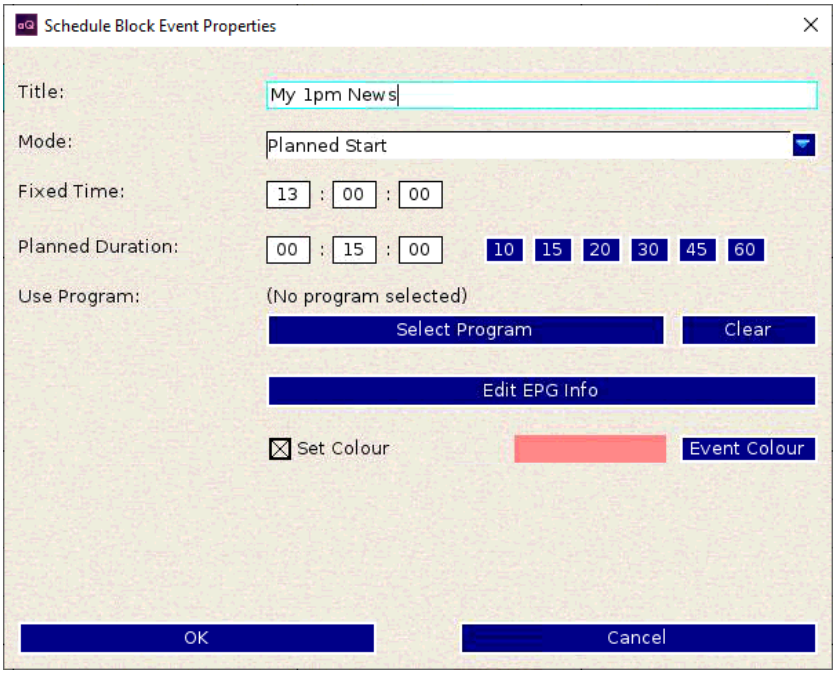


5.4.4 Associated a Program with the Schedule Block

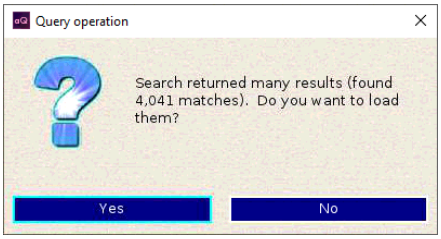
The Schedule Block requires an associated program before it can have a pattern applied to it. As described above, the block can be edited in order to have the correct program applied to it.



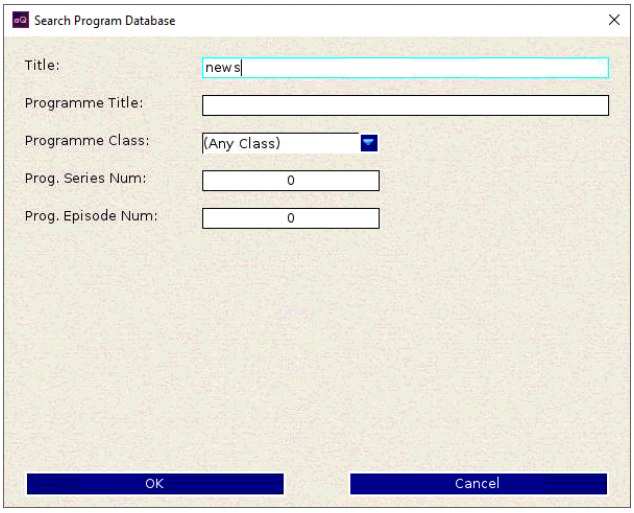
The 'Select Program' button can be used to create the program association.



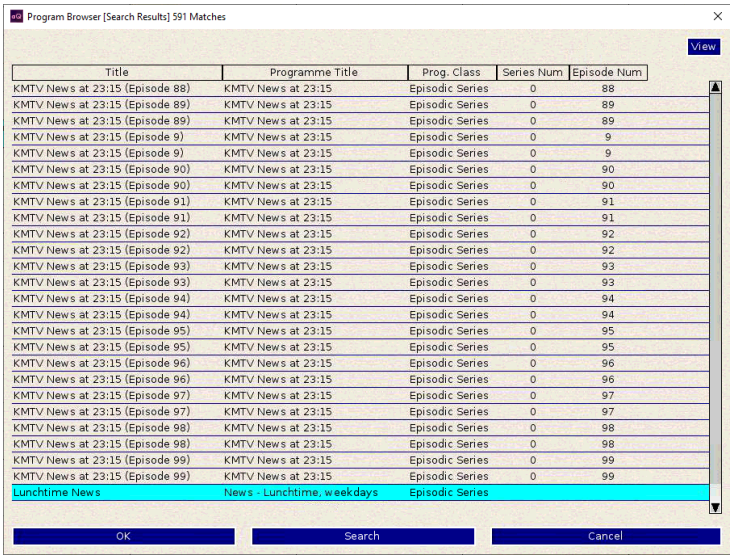
Select 'No' to avoid loading all of the programs, which can take a long time.

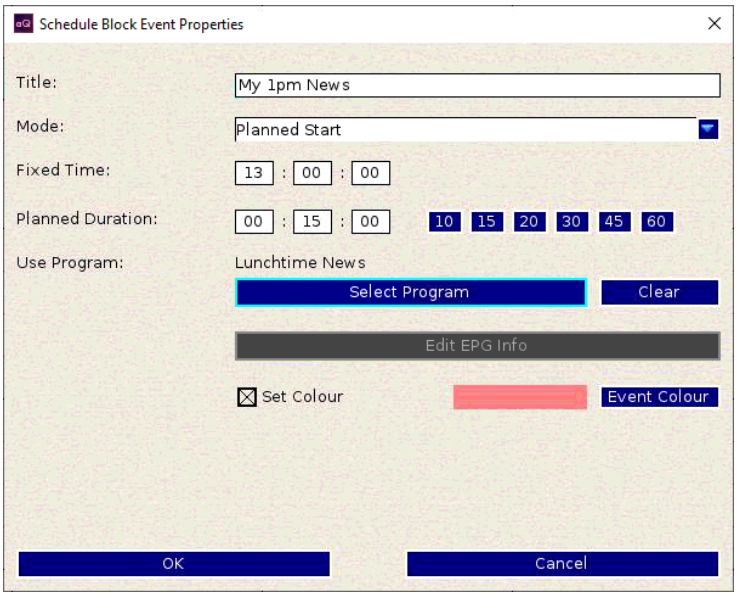


The 'Search' button can be used to display the 'Search Program Database' dialogue. In this example, "news" can be entered to locate programs that contain that term within their title.



One of the items returned by the search is the program that was created earlier. This can be selected by highlighting it and then clicking 'OK'.



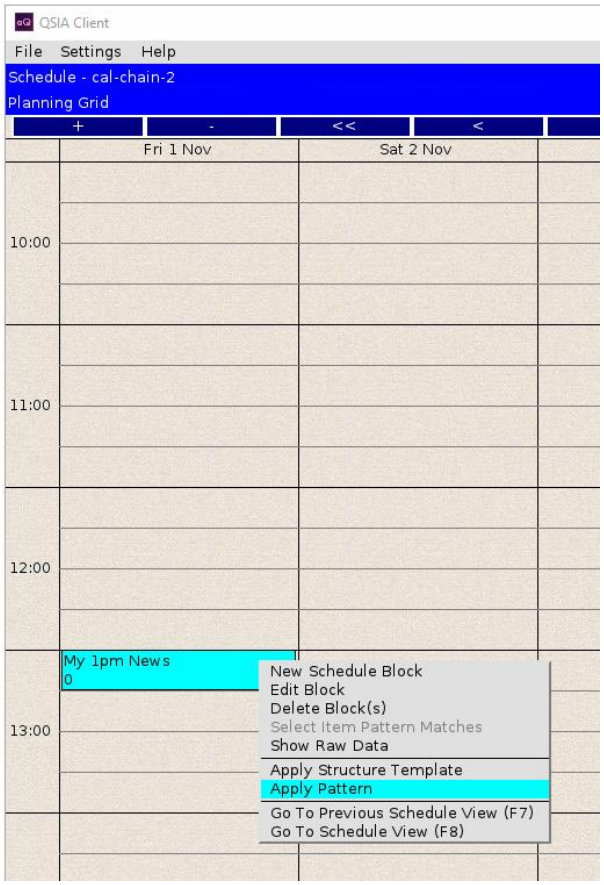


It will now be possible to apply a pattern to the program block.

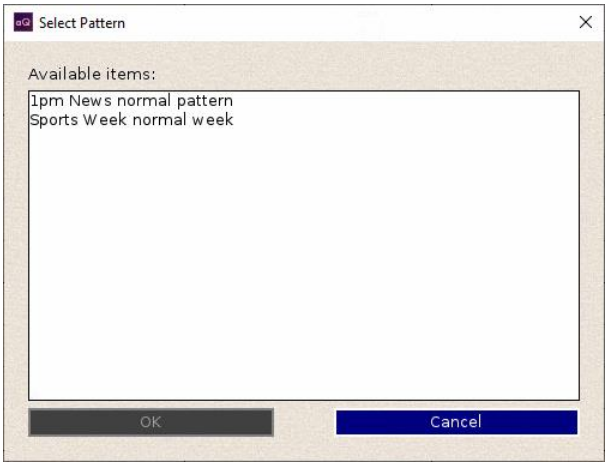
5.4.5 Applying a Pattern to a Schedule Block

As above, once a program block has been added to the planning grid and had a program associated with it, it can be repeated over a period of time by applying a pattern.

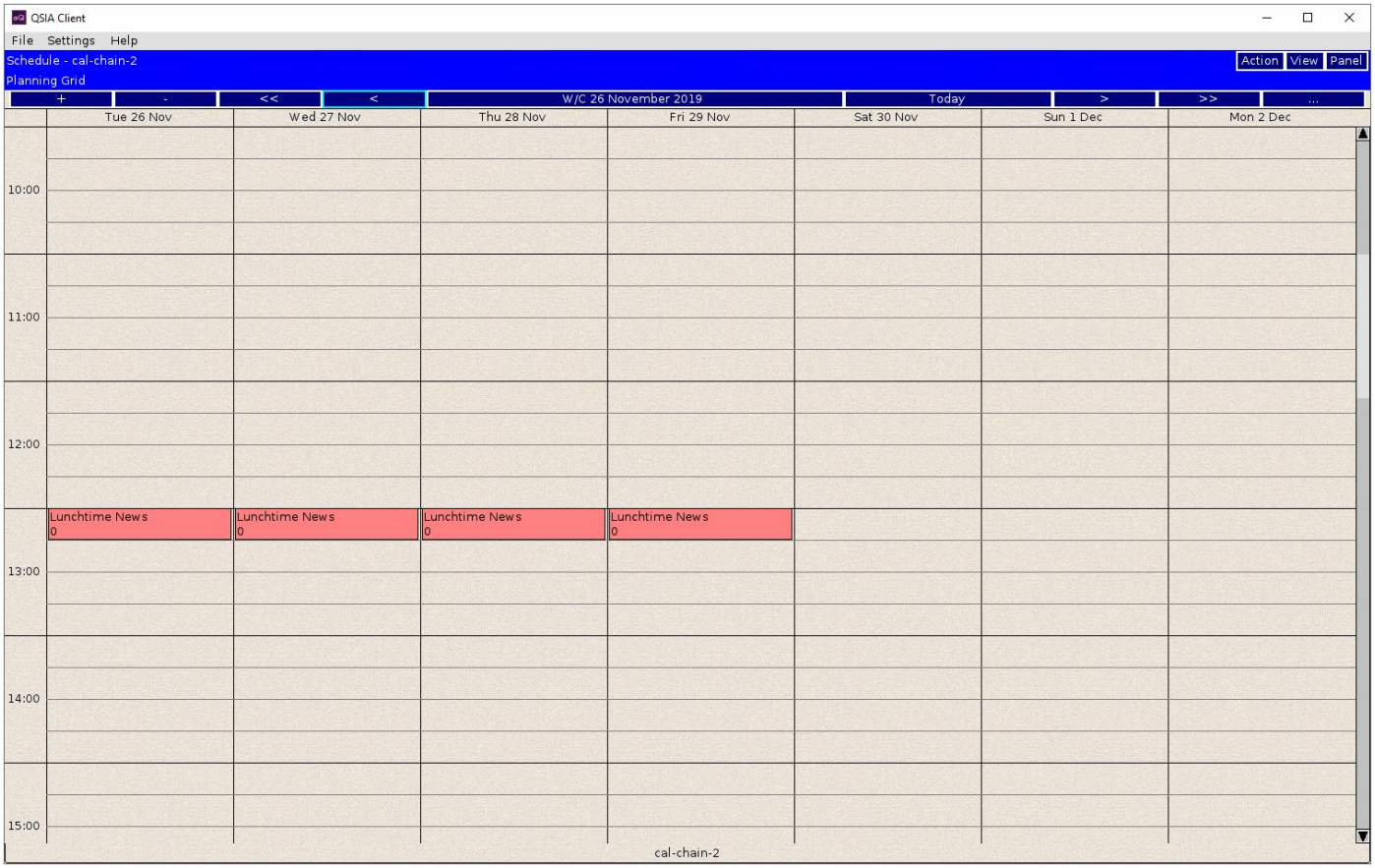
The program block can be right-clicked to show the context menu, then the 'Apply Pattern' menu option selected.



If more than one pattern is available, the 'Select Pattern' dialogue will be displayed. In this case, the '1pm News normal pattern' can be selected.



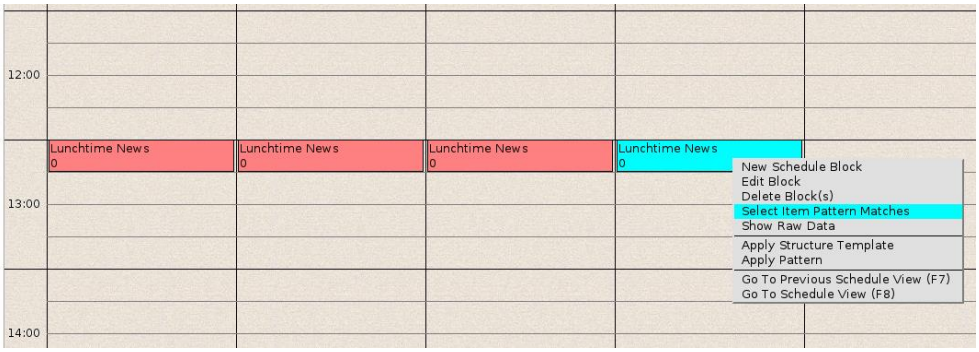
In this case, as the pattern defines that the program should be repeated in the same time slot every weekday until the end of the current month, the block will be repeated through until Friday 29th November, as shown below.



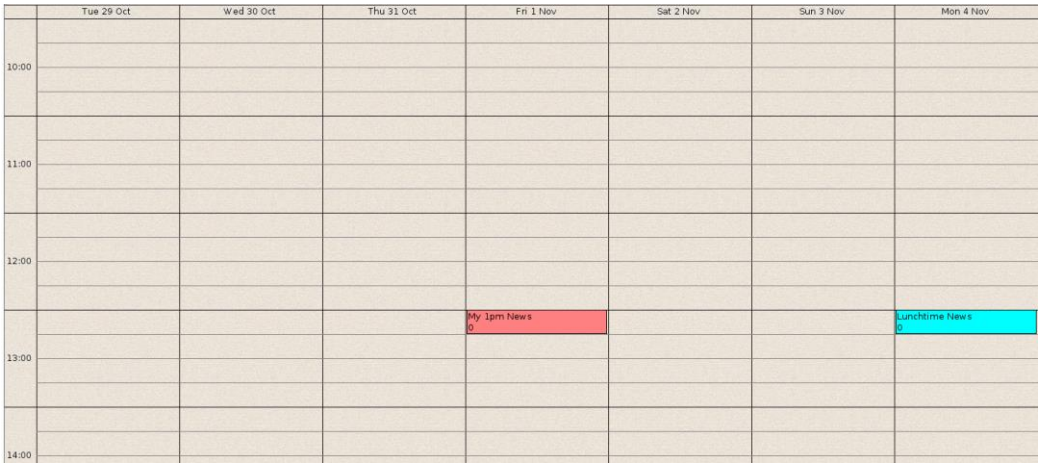
5.4.6 Deleting Linked Program Blocks

When a set of repeated program blocks is inserted using a pattern, the blocks are 'linked' using a unique identifier. This allows the entire repeated block to be selected at once, for instance if they need to be deleted because the incorrect pattern was selected.

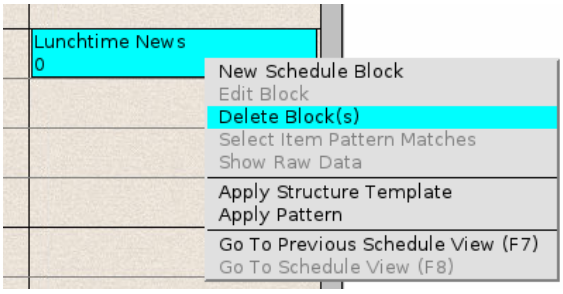
Right-clicking one of the blocks and selecting the 'Select Item Pattern Matches' menu option will select all of blocks created using that pattern, including the first item.



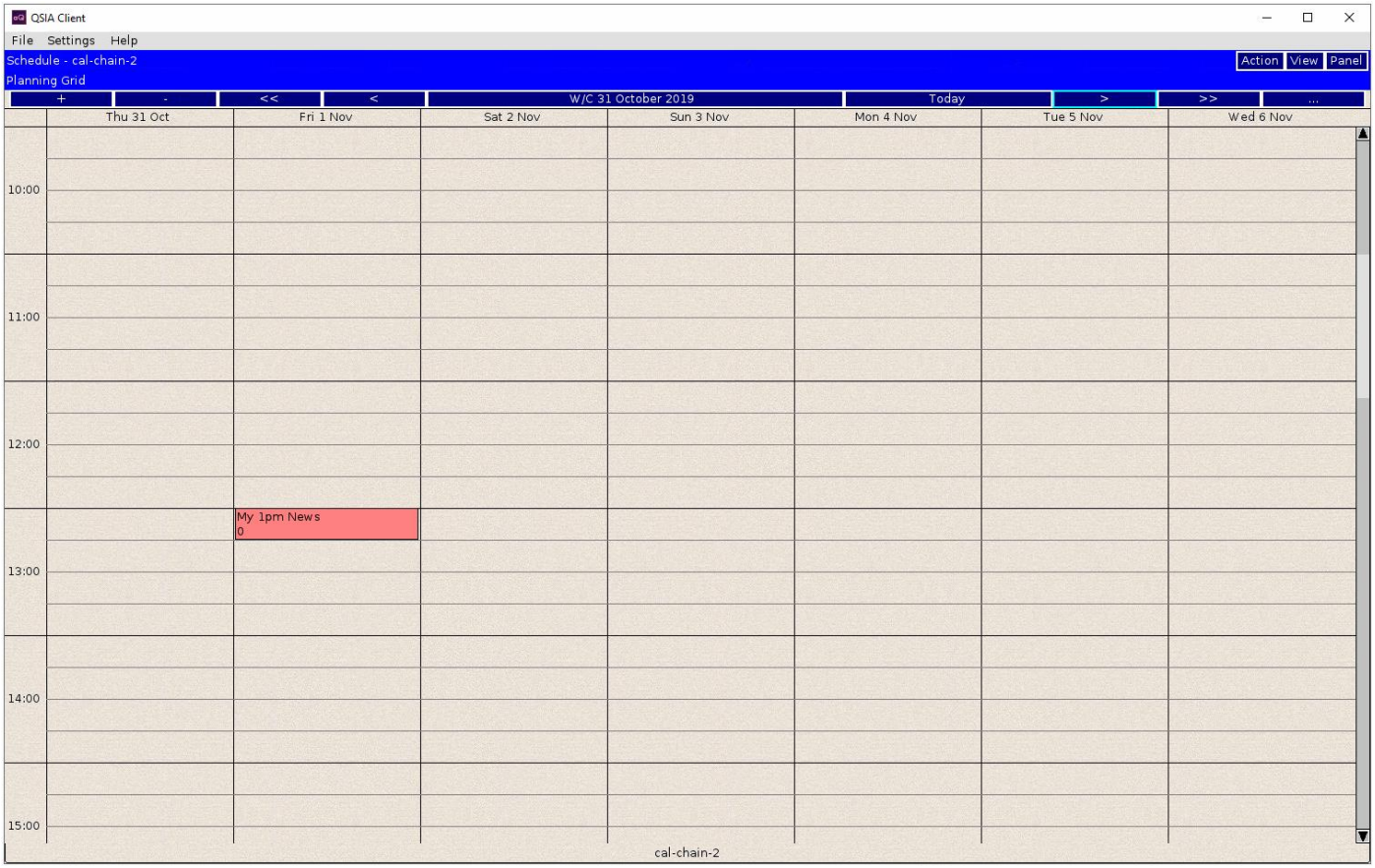
If necessary, individual blocks can be de-selected and re-selected by clicking them whilst the Ctrl key is held down. In the example below, the first item has been deselected, leaving all of the others selected (indicated by the light blue highlight).



Any of the selected blocks can then be right-clicked, for instance to use the 'Delete Block(s)' menu option to delete all of them.



In this case, all of the selected blocks will be removed, leaving just the original (un-selected) block remaining.



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