



Cobalt User Manual

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1. Grass Valley Product Support

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Training: https://grassvalley.csod.com/LMS/catalog/Main.aspx?tab_page_id=-67&tab_id=6

2. About this document

This document describes the Cobalt Payout Control (POC) application version 2.87 with K2 Edge version 4.1.

3. Credentials

The default credentials for the Cobalt and TX/MAM applications are:

User: sysdba

Password: masterkey

4. Playout Control (POC)



Playlist(s) can be monitored and edited in Playout Control (POC). Features include:

- real-time monitoring and control of active Channels
- create and modify Playlists offline
- single or multi-channel monitoring
- last minute changes
- schedule import
- Operator Panel

The POC application runs on a networked workstation. The Cobalt processes run on the TX/MAM, Playout and Storage servers.



The Cobalt processes are described in the engineering manual.

5. Installation

5.1 Workstation requirements for POC and TX/MAM

Any Windows PC will suffice for the POC GUI. Following guidelines can be followed:

- Memory : 2GB or better
- Graphics card: 128 MB or better
- Hard disk: 250 GB or better
- Network: 1 Gbit or better
- OS: Windows XP, Windows Vista, Windows 7
- Monitor: WXGA (1280x800) or better (depending on the number of Channels in the vertical POC-view)

In addition, for a successful Cobalt installation the following software should be installed on your PC:

- Windows Mediaplayer 9 or higher
- Ligos 3.0
- Ligos registry fix
- Directx 9.0c or higher
- QuickTime (for DV import)
- Mozilla Firefox (for the TX/MAM Player)

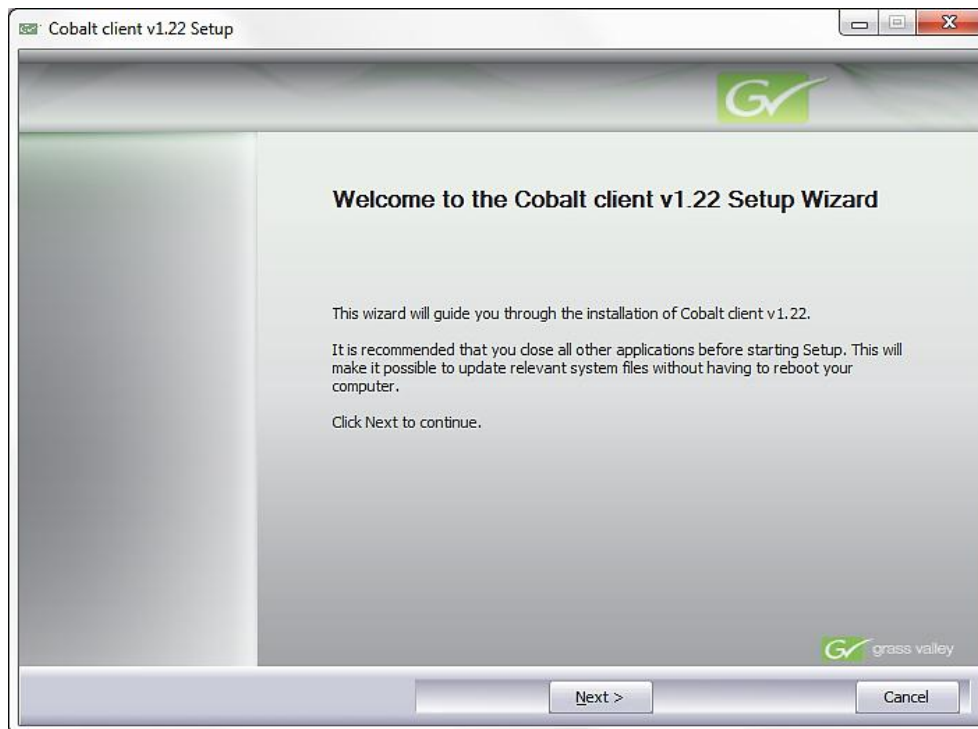
5.2 Installation

The Cobalt Installer includes Cobalt, Format Control, Channel Pack (CPK) Manager and the TX/MAM Player.

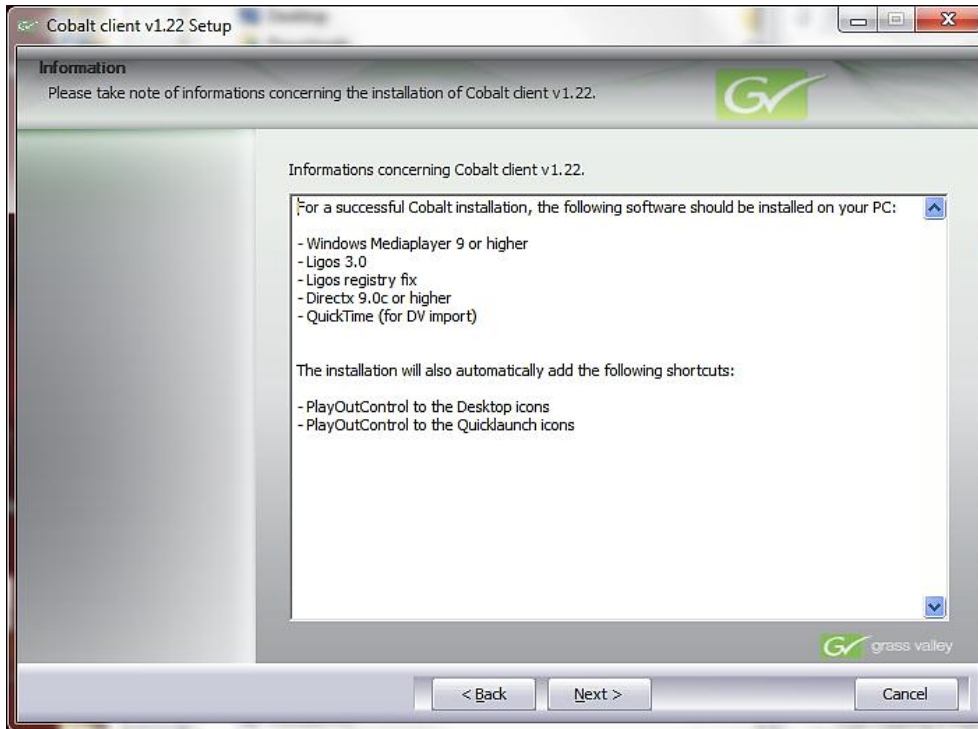
- To start installation, double-click the **cobalt_vxx.exe** file.



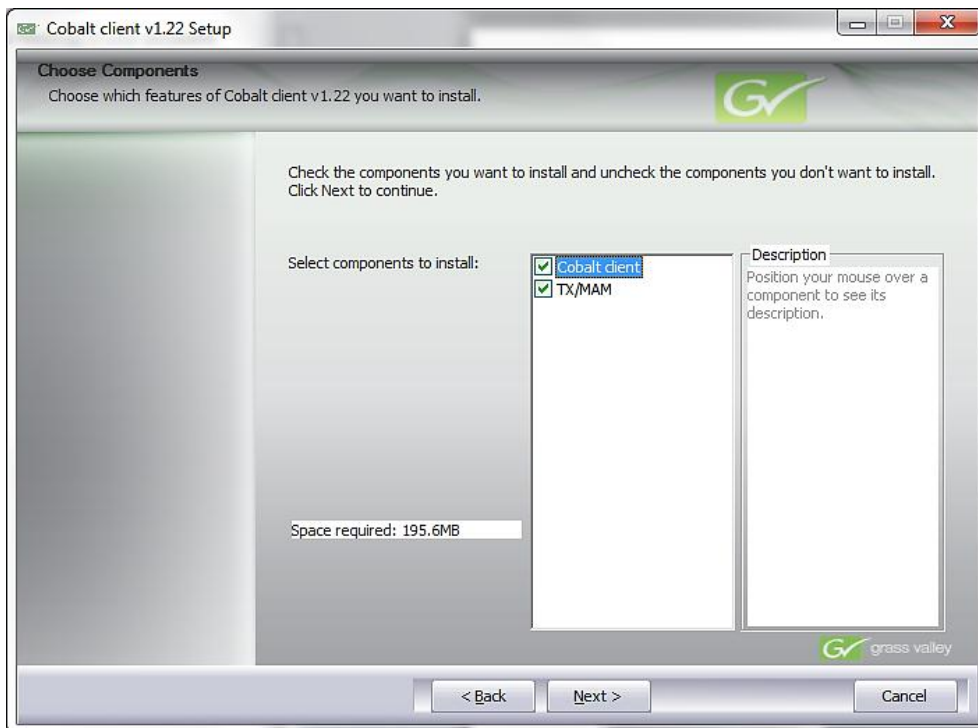
This will start the installation wizard. Follow the steps as indicated by the installation wizard.



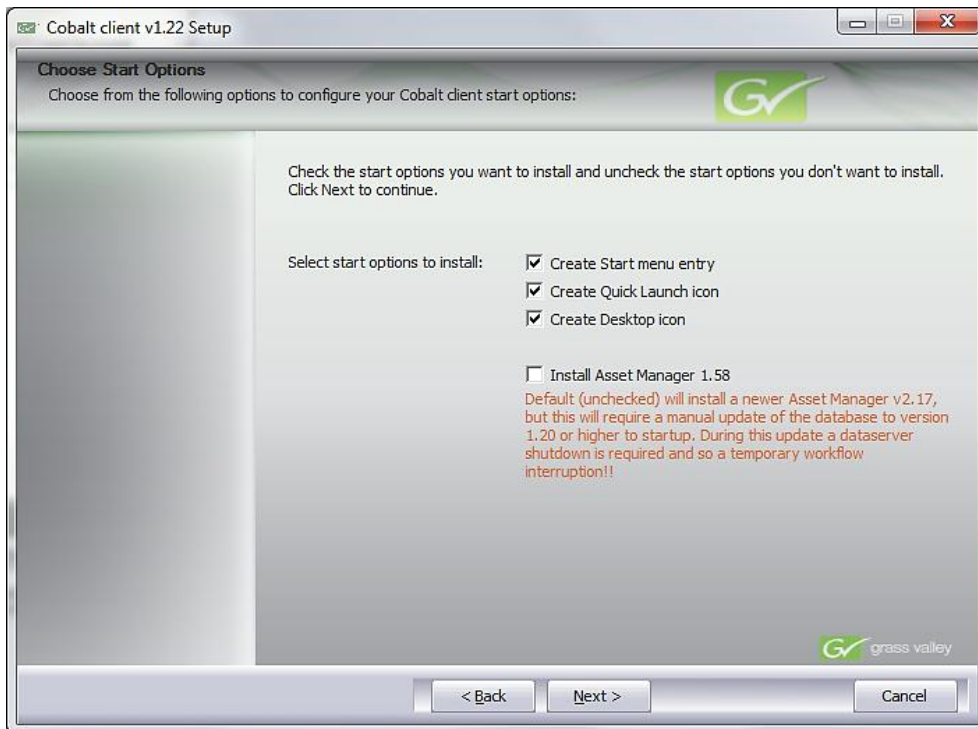
Click **Next** to start installation.



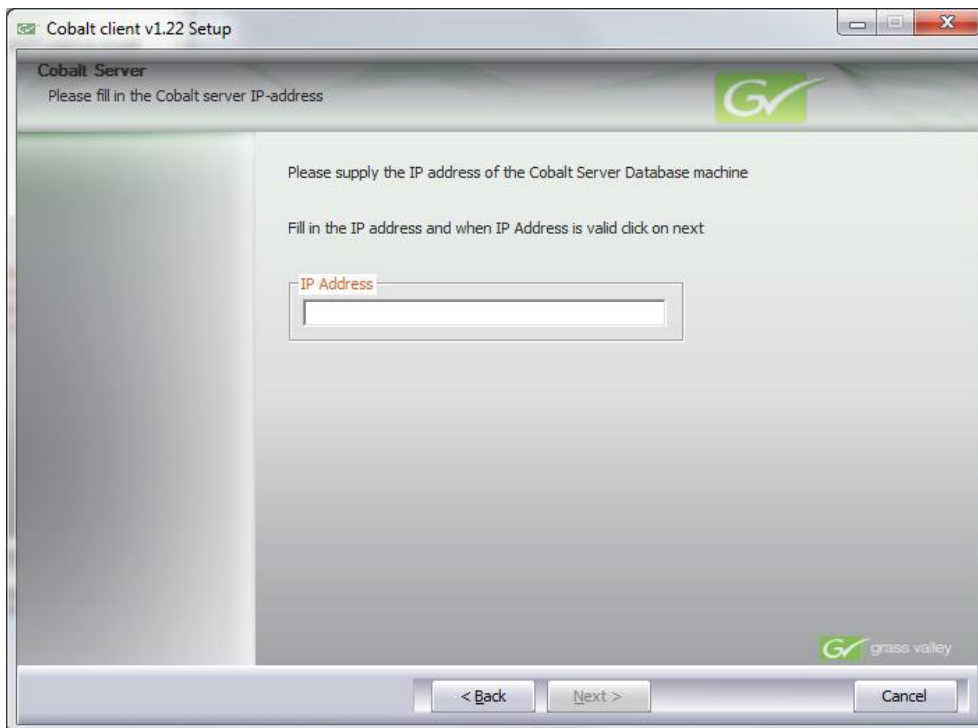
Click **Next** to after verifying that all requirements have been met.



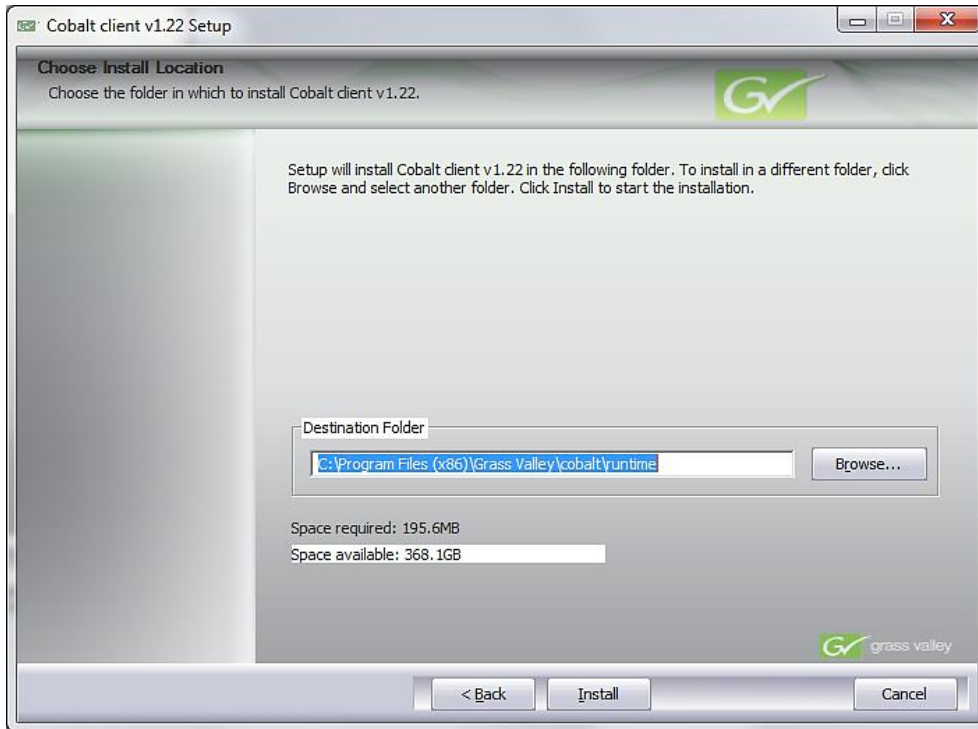
Select the components you want to install and click **Next**.



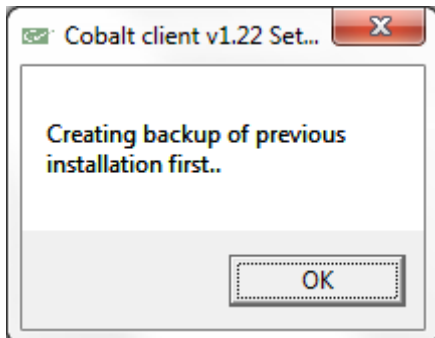
Select the start options you want to install and click **Next**.



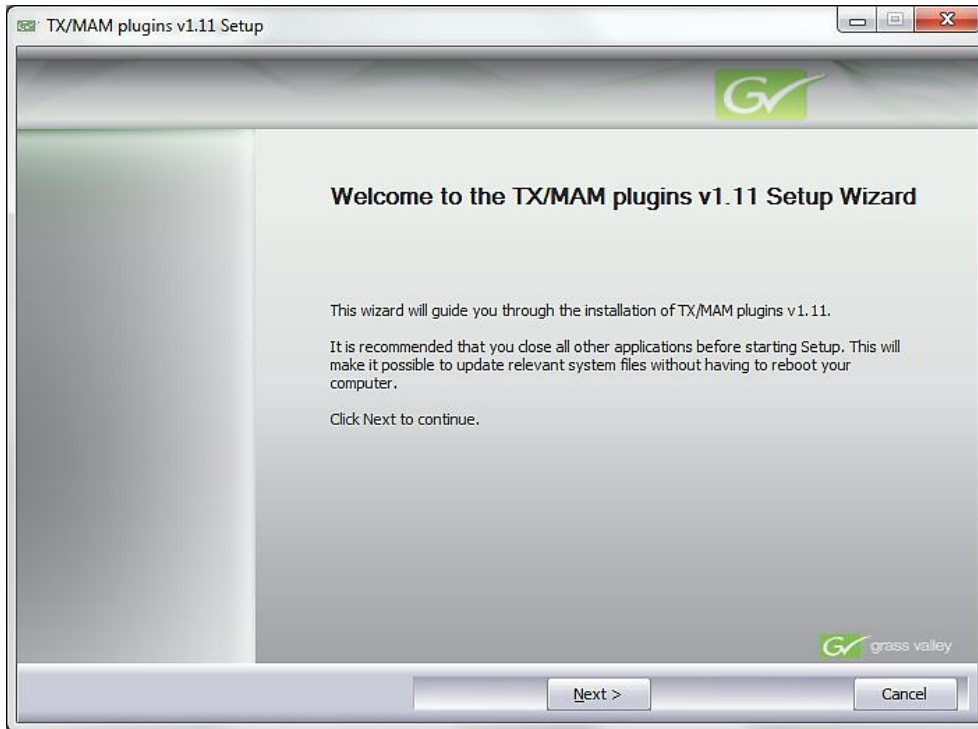
Specify the TX/MAM server's virtual IP-address and click **Next**.



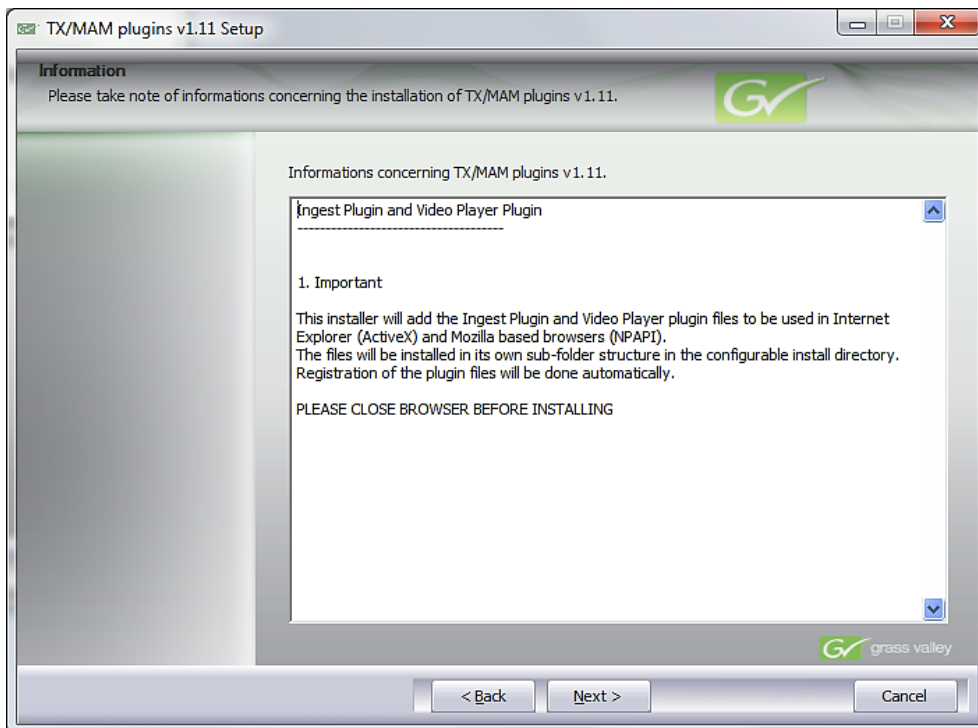
Choose the installation directory for Cobalt and click **Install**.



Click **OK** to create a backup of previous Cobalt versions, installation will start.

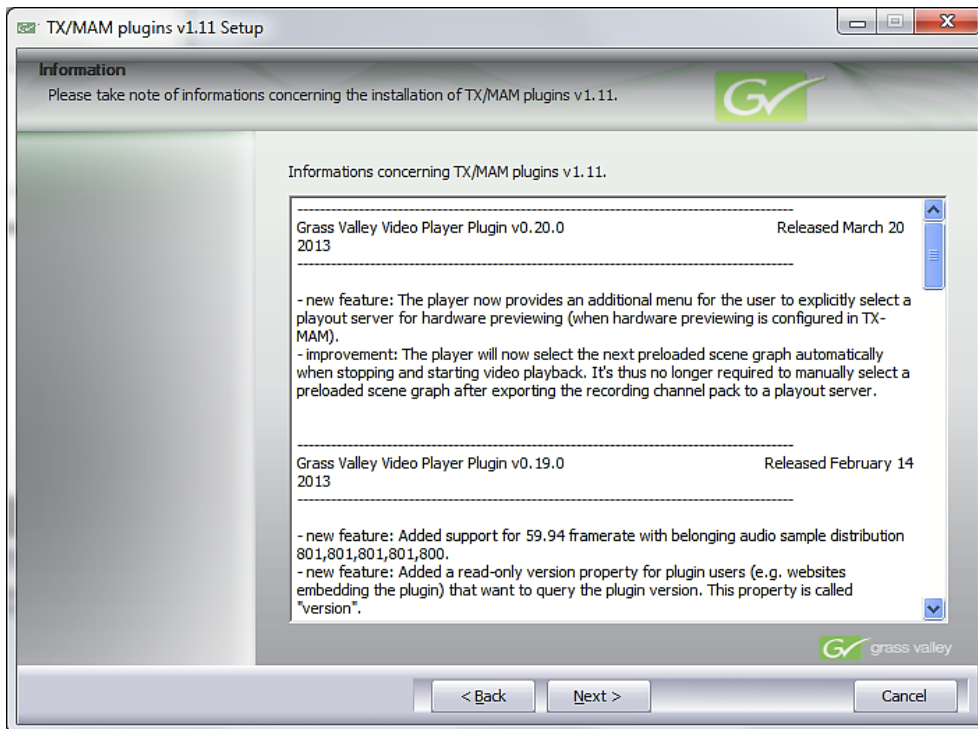


Click **Next** to start installation of the TX/MAM plugins.

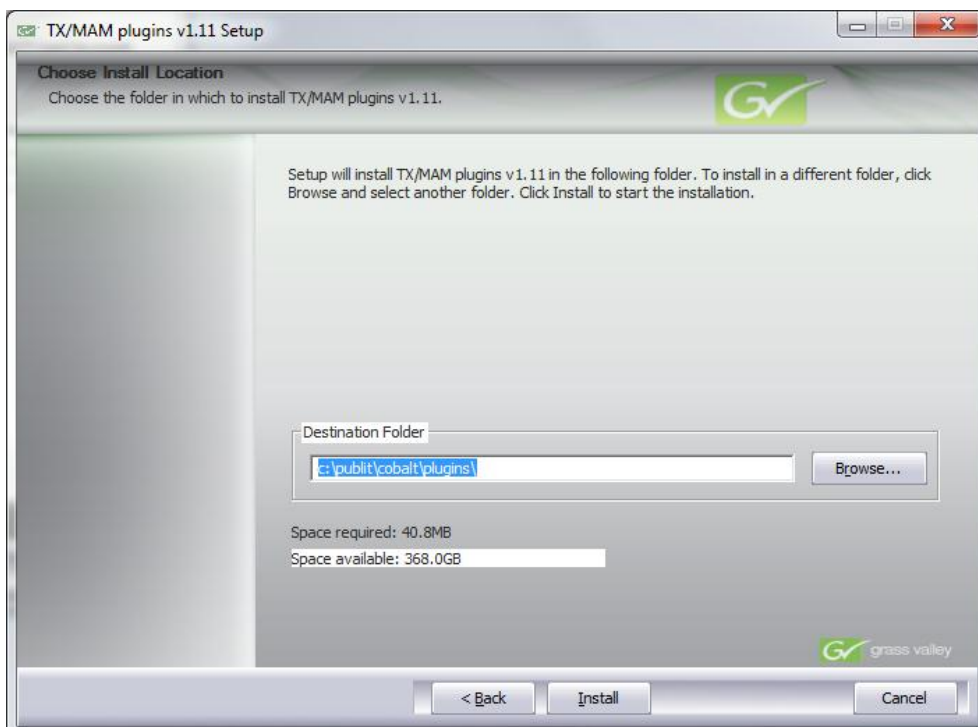


Read the information in this window and click **Next**.

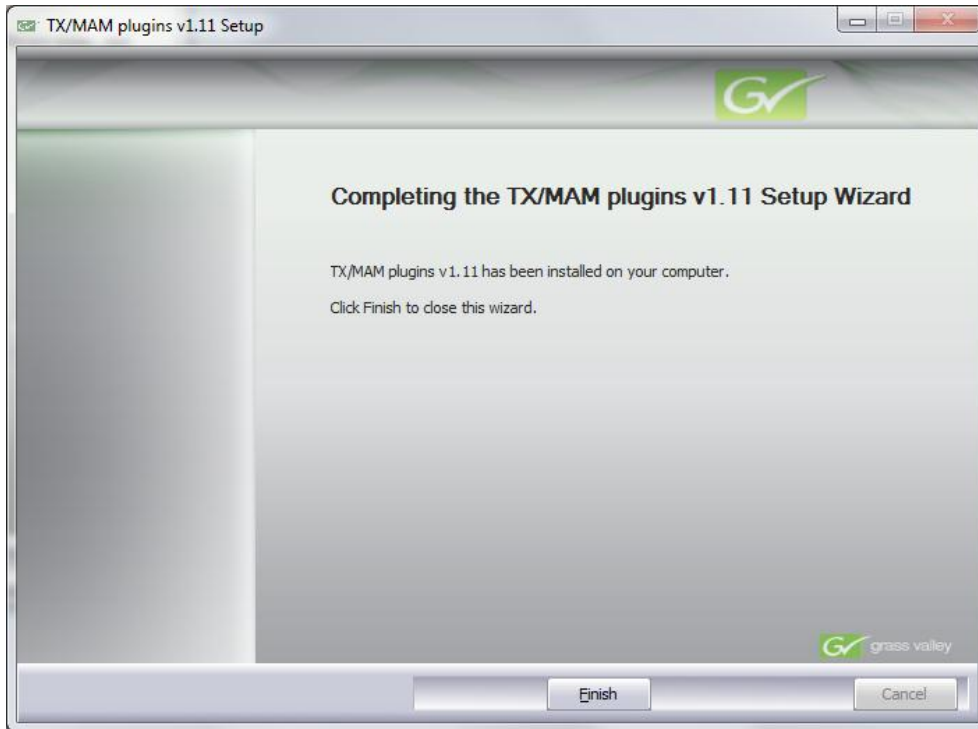
Please close your web browser before you start installation.



Read the information in this window and click **Next**.



Choose the installation directory for the plugins and click **Install**.



Click **Finish** to complete installation.

The POC shortcut is added to your desktop and Quick Launch icons. POC is automatically configured to connect to the TX/MAM database as specified during installation. Format Control and Channel Pack Manager are added to the Start menu.

6. Starting POC

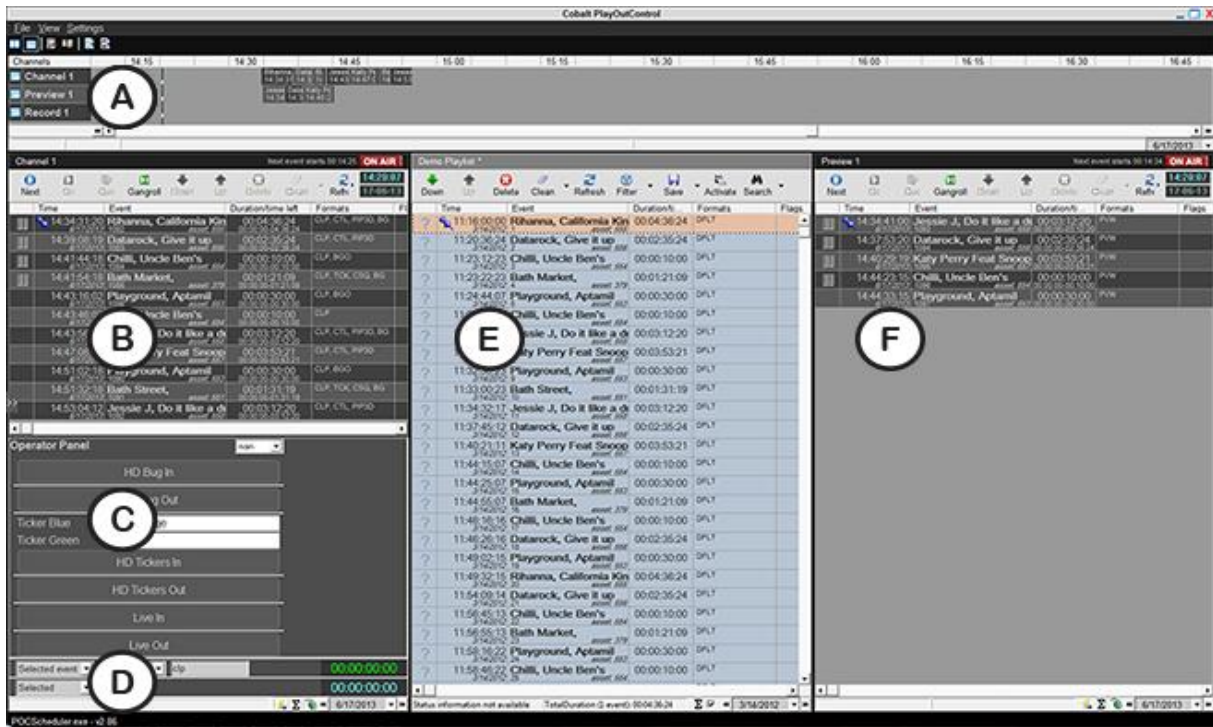
To start POC, double-click the Cobalt shortcut on your desktop. POC is configured during installation to connect to the TX/MAM database.



7. The POC interface

7.1 Overview

Cobalt Playout Control (POC) is used to monitor and manage active and offline Playlists and Channels.




Example POC.

The example POC-interface above shows:

- A. The horizontal view shows Channels in a timeline format.
- B. An active Playlist in the vertical view. The ON AIR sign indicates that this Playlist is active.
- C. The Operator Panel, used to trigger actions for a Channel.
- D. The summary and countdown section.
- E. An offline Playlist in the vertical view.
- F. An active Playlist in the vertical view. The ON AIR sign indicates that this Playlist is active.

7.2 Channels in the horizontal view

Channels				14:15				14:30			
 Channel 1	< Riha	Data	B	Jessie	Katy Pe	B	Jessie	Jessie	Katy Pe	B	Je
	< 14:0	14:0	14	14:13	14:16:3	14	14:22	14:26	14:29:2	14	14
 Preview 1					Jessie	Katy Pe	B	Jessie	Katy Pe	B	1
					14:18	14:22:1	14	14:28	14:31:1	1	
 Record 1									Katy Pe		
									14:31:0		

Example.

Channel properties





Double-click the Channel name to view Channel properties.

Channel properties

Name	<input style="width: 100%;" type="text" value="Channel 1"/>
IP	<input style="width: 100%;" type="text" value="10.250.51.10"/>
Port	<input style="width: 100%;" type="text" value="5020"/>
Broadcastset	<input style="width: 100%;" type="text" value="0"/>
Timecode Format	<input style="width: 100%;" type="text" value="25"/>

Example.

Options

	Show the main Channel in the vertical detailed view.
	Show the main, backup and most relevant Playlist in the vertical detailed view.
	Show the main and backup Channel in the vertical detailed view.
	Show the main and most relevant Playlist in the vertical detailed view.



To keep *current time* centered in the horizontal view, on the main menu click **View > Keep centered**.

7.3 The active Playlist (vertical view)

	Time	Event	Duration/time left	Formats	Flags
	14:03:56:10 6/6/2013	Rihanna, California Kin 668 <i>asset: 555</i>	00:04:36:24 00:04:32	CLP, CTL, PIP3D	
	14:08:33:09 6/6/2013	Datarock, Give it up 669 <i>asset: 556</i>	00:02:35:24 00:00:00-02:35:24	CLP, CTL, PIP3D	
	14:11:09:08 6/6/2013	Chilli, Uncle Ben's 670 <i>asset: 554</i>	00:00:10:00 00:00:00-00:10:00	CLP, BGO	
	14:11:19:08 6/6/2013	Bath Market, 671 <i>asset: 379</i>	00:01:21:09 00:00:00-01:21:09	CLP, TCK, CSQ, BG	
	14:12:40:17 6/6/2013	Playground, Aptamil 672 <i>asset: 553</i>	00:00:30:00 00:00:00-00:30:00	CLP, BGO	
	14:13:10:17 6/6/2013	Chilli, Uncle Ben's 673 <i>asset: 554</i>	00:00:10:00 00:00:00-00:10:00	CLP	
	14:13:20:17 6/6/2013	Jessie J, Do it like a d 674 <i>asset: 558</i>	00:03:12:20 00:00:00-03:12:20	CLP, CTL, PIP3D, BG	
	14:16:33:12 6/6/2013	Katy Perry Feat Snoop 675 <i>asset: 557</i>	00:03:53:21 00:00:00-03:53:21	CLP, CTL, PIP3D	
	14:20:27:08 6/6/2013	Playground, Aptamil 676 <i>asset: 553</i>	00:00:30:00 00:00:00-00:30:00	CLP, BGO	
>>	14:20:57:08 6/6/2013	Bath Street, 677 <i>asset: 551</i>	00:01:31:19 00:00:00-01:31:19	CLP, TCK, CSQ, BG	
	14:22:29:02 6/6/2013	Jessie J, Do it like a d 678 <i>asset: 558</i>	00:03:12:20 00:00:00-03:12:20	CLP, CTL, PIP3D	

Example active Playlist.

Channel properties

Double-click the Channel name in the Playlist's top bar to view Channel properties.

Channel properties

Name	Channel 1
IP	10.250.51.10
Port	5020
Broadcastset	0
Timecode Format	25

Example.

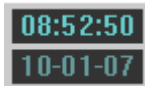
ON AIR

The ON AIR sign indicates that a Playlist is active.



Playlist System Date and Time

The clock in the upper right corner of the active Playlist shows the playlist system's date and time.






Example.



If the clock is displayed in red, the dataserer service is not available and needs to be restarted.

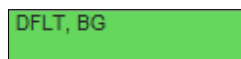
The Time Column

The Time Column shows the active start time (hh:mm:ss:ff) and date (mm/dd/yyyy) and the Event type:

	Fixed Event: fixed start date and time.
	Follow Event: follows the previous Event.
	Manual Event: only started if released. Note that if a manual Event is not released, playout of the Playlist pauses.

The Formats Column

The Format column shows the Format(s) that are linked to an Event.

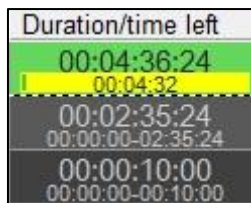


Example.

The Duration/Time Left Column

The Duration/Time Left Column shows:

- The duration of the Event.
- TC in and TC out of the main Asset.
- A time bar indicating time left for playing Events.







Example showing playing Event with time bar and scheduled Events with tc in and out.


Flags

The Flags shows flags, for example for recording.

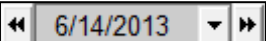
Summary and Countdown

	Click to open or hide the Summary.
<p>A summary adds up playout time for specified Events within a specified period. Events can be specified based on Format or Asset Type. Following selection criteria are available:</p> <ul style="list-style-type: none">• Selected Event• Current hour• Next hour	
	
<p><i>Example selection.</i></p> <p>The summary displays cumulative playout time for the selected Format or Asset Type:</p> <ul style="list-style-type: none">• green if <12 minutes• red: if > 12 minutes	
	
<p><i>Example summary.</i></p>	
	Open or hide the Countdown option. Counts down to the specified option:
<ul style="list-style-type: none">• Selected Event• Next Up• Format• Vent type• Flag• Asset ID• External reference• Event name	

Operator Panel

	Open or hide the Operator Panel (if available for this Channel).
---	--

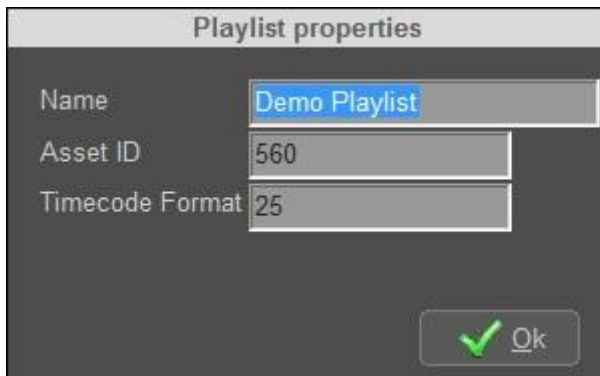
Date picker

	Date picker. Click the arrow icons to display the next or previous day.
---	---

7.4 The offline Playlist (vertical view)

Playlist properties

Double-click the Playlist name in the Playlist's top bar to view properties.



Example.

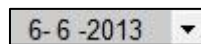
Title bar

The title bar for offline Playlists is grey.



Date picker




Select a date in the date picker. Click the checkbox at the bottom of the Playlist to list 1 day, as specified in the date picker. Uncheck the box to show the complete Playlist.



Example.

The Time Column

The Time Column shows the active start time, date and Event type:

	Fixed Event: fixed start date and time.
	Follow Event: follows the previous Event.
	Manual Event: only started if released. Note that if a manual Event is not released, playout of the Playlist pauses.

The Formats Column

The Format column shows the Format(s) that are linked to an Event.



Example.

The Duration/Time Left Column

The Duration/Time Left Column shows the duration of the Event.

Flags

The Flags shows Event flags.

The Event Column

The Event column shows:

- The Event's name.
- The Event number. This number is generated every time an Event is imported, activated or manually added to the offline on active Playlist.
- The Asset id (internal, retrieved from the Asset database upon ingest) or the External Reference ID (House ID).


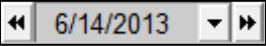

This view is configurable. Right-click the Event's column header and select **ExternalRef** to display the External Reference or **Original** to display the **Asset ID**.



Example.

Playlist options

Below each active Playlist, a number of options are available.

	Click to open or hide the Summary. A summary adds up playout time for the selected Event(s).
	Date picker. Click the arrow icons to display the next or previous day.
	Click the checkbox at the bottom of the Playlist to list 1 day, as specified in the date picker. Uncheck the box to show the complete Playlist.

7.5 Events

Double-click the Event to view properties and secondary Events.

start	name	time	type	que	template
00:00:00:00	DFLT	00:00:10:00	duration		

Example.


- **Type:** fixed, follow or manual
- **Start:** this is the Event's start date and time
- **TC in** and **TC out:** this is the main Asset's timecode in and out
- **Duration:** this is the Event's duration
- **Type:** fixed, follow on or manual
- **Name:** the Event name
- **Asset id:** Asset ID
- **Event id:** Event ID
- **Ext ref:** external reference (house ID)
- **Asset Status:** the Asset's status (after being checked, active Playlists only)
- **Flags:** flags and their status (checked if set)
- The main box shows secondary Events.
- The **Import fields** box displays information imported from an external source such as the schedule. By double clicking this field, you can replace, add and remove certain fields depending on the schedule, for example:
 - Subtitles External Reference Ids
 - Clip/file names for logos

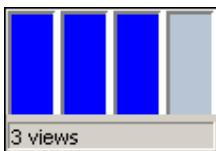
8. POC initial setup



When started, POC initially will be empty. To display Channels and Playlists, follow the steps below.

8.1 The vertical view

The vertical view shows active and offline Playlists.



- To specify the number of vertical views you want to display, click the  icon.
The selector opens.
- Use the cursor to select the number of views you want to display, and then click again to select.
Example: 3 views selected:



- To display an active Playlist in the vertical view, select **View > Channels** or click the  icon and drag the Channel you want to display on the top bar of a Playlist.
- To display an offline Playlist in the vertical view, select **View > Playlists** or click the  icon and drag the appropriate Playlist in the vertical view on the top bar of a Playlist.

8.2 The horizontal view

The horizontal view shows Channels in a timeline format.

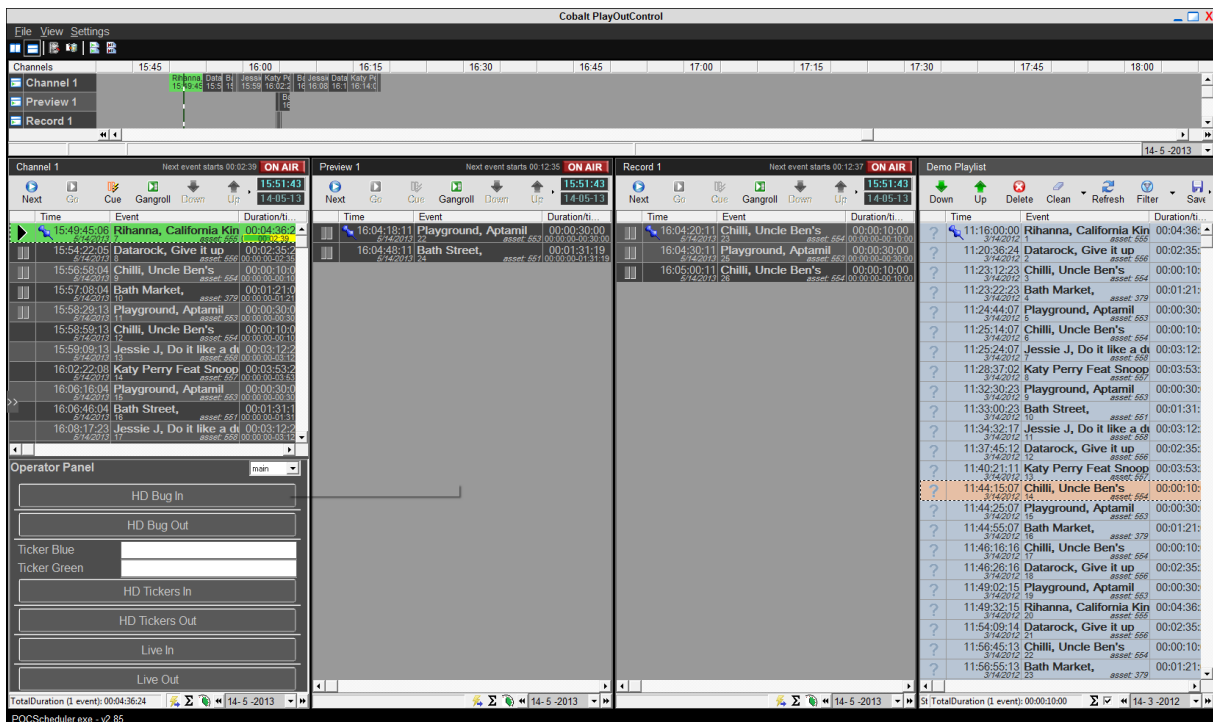
- To open the horizontal view, click the  icon.
- Select **View > Channels** or click the  icon and drag the appropriate Channel(s) in the horizontal view to display active Channels in the horizontal view.



Drag the top bar of the vertical view down while keeping the mouse pressed to be able to display more than one Channel in the horizontal view.


To keep *current time* centered in the horizontal view, on the main menu click **View > Keep centered**.

The example shows POC with four vertical views; for Channel1, Preview1 and Record1, and the Demo Playlist. The Operator Panel is visible for Channel1. The horizontal view shows all three Channels in a timeline format.



Example.

8.3 Saving a custom POC-view

- To save a POC-view, click the  icon on the left of the vertical views. Click **Save**, specify a name and click **Save** again.


8.4 Changing the date format for the date pickers

If applicable, set the date format for the POC date pickers to mm/dd/yyyy via the Windows Control panel > **Clock, Language, and region** > **Change the date, time or number format**.

Note that this path may differ for different Windows versions.

9. Working with Playlists

9.1 Creating a new Playlist

- To copy a Playlist, click the  icon or **View > Playlists**.
- Select the **<New Playlist>** option and drag into the vertical view, on the Playlist's top bar.

9.2 Schedule Import



The Schedule Importer is described in the Schedule Importer User Manual.

Mostly Schedules are created in dedicated scheduling tools and imported into POC using a (dedicated) Cobalt Schedule Importer. To open the default Schedule Importer:




- In POC select (or create) an offline Playlist.
- Click (**Save/Save as/Export**) > **Import** and select the appropriate file.
- **Do you want to keep the existing Schedule?**
Select the appropriate option to start import.




Note that the Formats and Asset Types referenced in a Schedule have to be defined before Schedule import.



Events in an offline Playlist have status . This means that Asset status has not been checked yet. Asset status is checked when the Playlist activated.

9.3 Copying a Playlist


- To copy a Playlist, click the  icon or View > Playlists.
- Click the **Copy** button.
- Specify a **Name** and (optional) a **Default channel**.
- Click **Save** to save, **Cancel** to discard.

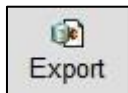


When a Playlist is linked to a default Channels, only this Channel Pack's Formats are listed when editing Events.

9.4 Exporting a Playlist as CSV or XML-file


Playlists can be exported as CSV. or XML-file. XML-files can be reimported.

- To export a Playlist, click the **Export** button.
- Click the  icon to toggle between the **Save/Save as/Import/Export** or **As Run/Report/Export** buttons.

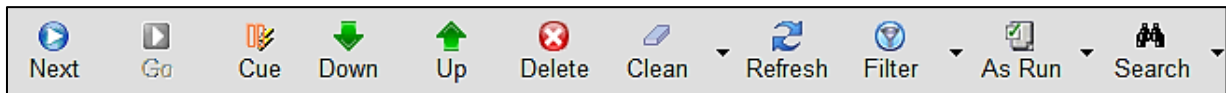






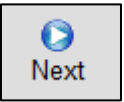

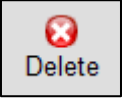


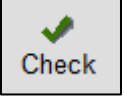
- Specify a destination folder.
- Click **Save** to export the file, **Cancel** to discard.

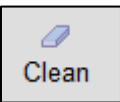
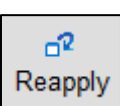
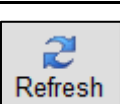
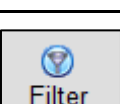
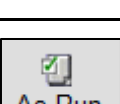


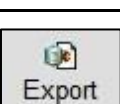



9.5 Deleting a Playlist

- To delete a Playlist, click the  icon or **View > Playlists**.
- Click the **Delete** button.
- Click **OK** to delete, **Cancel** to discard.

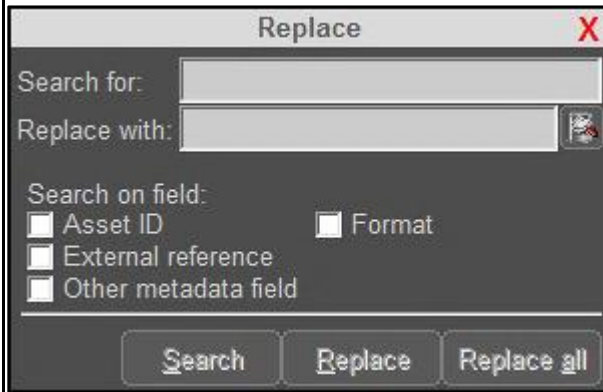
9.6 Actions for active Playlists (vertical view)



	<p>The ON AIR sign indicates that the Playlist is active.</p>
	<p>Playout system date and time. Double-click the clock to display the current Event in the top section of the Playlist.</p>
	<p>This function takes the selected Event. Any following Events - until the next fixed Event - are rippled. Note that Events have to be cued before they can be started. Click the Cue button to cue.</p> <p>Also use this function to start a manual Event.</p>
	<p>Cue (preload) the selected Event. The Event is not automatically started. Click the Go button to start.</p>
	<p>Starts the next Event.</p>
	<p>Moves the selected Event one place down in the Playlist.</p>
	<p>Moves the selected Event one place up in the Playlist.</p>
	<p>Delete the selected Event, or delete selected Events plus all following Events.</p>
	<p>Attaches all Follow and Manual Events to a Fixed event</p> <p>Click the  icon to switch between the Clean / Follow / Check / Reapply buttons.</p>
	<p>Manually check the Asset's status of selected Events.</p>

 <p>Clean</p>	<p>Clean the status info for checked Event(s).</p>
 <p>Reapply</p>	<p>Reapply a Format if the Format itself or metadata within the Format has changed.</p>
 <p>Refresh</p>	<p>Refresh the view.</p>
 <p>Filter</p>	<p>Specify filter settings for the Playlist.</p>
 <p>As Run</p>	<p>Save the As Run log (Events as played out) for the specified Channel, from start date and time to end date and time, as CSV. or XML-file.</p> <p>Save the As Run log. Click the  icon to switch to Export/As Run / Report button.</p>
 <p>Report</p>	<p>Save the Playlist (Events as scheduled) for the specified Channel, from start date and time to end date and time, as CSV. or XML-file.</p>
 <p>Export</p>	<p>Save the Playlist as CSV. or XML-file. XML-files can be reimported.</p>
 <p>Search</p>	<p>Searches Events in the Playlist. Click the  icon to switch between the Search/Replace buttons.</p>
 <p>Replace</p>	<p>Search for Events and replace the main Asset or a Format based on one of the following criteria:</p> <p>Asset ID: replace the main Asset with the Asset specified in the Replace with field</p> <p>External reference: replace the main Asset with the Asset specified in the Replace with field</p> <p>Other metadata fields (match text string in one of the fields in the Event column): replace the main Asset with the Asset specified in the Replace with field.</p> <p>Format: replace the Format with the Format specified in the Replace with field.</p> <p>Click Search to start searching for Events that match the criteria specified.</p> <p>Click Replace to replace the selected event.</p>

Click **Replace all** to replace all Events that match the search criteria.



The image shows a 'Replace' dialog box with a title bar containing the word 'Replace' and a red 'X' icon. The dialog contains the following elements:

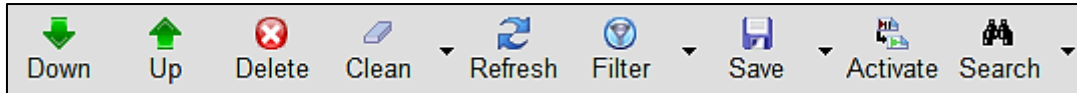
- A 'Search for:' text label followed by an empty text input field.
- A 'Replace with:' text label followed by an empty text input field and a small icon of a document with a red 'X'.
- A 'Search on field:' text label followed by three checkboxes:
 - Asset ID
 - External reference
 - Other metadata field
- A fourth checkbox labeled 'Format' is positioned to the right of the 'Asset ID' checkbox.
- At the bottom of the dialog are three buttons: 'Search', 'Replace', and 'Replace all'.

9.7 Actions for offline Playlists (vertical view)











You can edit Playlists offline, then activate to a Channel, date and time.



Though working offline, the status of Assets in the TX/MAM database can be verified using the **Check** button while editing the Playlist.



	The title bar for offline Playlists is grey.
<input checked="" type="checkbox"/>	Click the checkbox at the bottom of the Playlist to list 1 day, as specified in the date picker. Uncheck the box to show the complete Playlist.
	Moves the selected Event one place down in the Playlist.
	Moves the selected Event one place up in the Playlist.
	Delete the selected Event, or delete selected Events plus all following Events.
	Attaches all Follow and Manual events to a Fixed event Click the <input type="checkbox"/> icon to switch between the Clean / Follow / Check / Reapply buttons.
	Manually check the Asset's status of selected Events; does not check or transfer files to the K2Edge.
	Clean status info.
	Refresh the view.

 Filter	Specify filter settings for the Playlist.
 Import	Import a Cobalt XML-schedule. Click the  icon to switch between the Import / Export/ save /Save As options,
 Save	Save the Playlist: Save: save the Playlist to the database. Save as: save the Playlist as <new name> to the database. Click the  icon to switch between the Save/Save As/Import/Export buttons.
 Export	Export the Playlist as CSV or XML-file. XML-files can be reimported.
 Activate	Activates the Playlist to the selected Channel, date and time.
 Search	Searches Events in the Playlist. Click the  icon to switch between the Search/Replace buttons.
 Replace	Search for Events and replace the main Asset or a Format based on one of the following criteria: Asset ID: replace the main Asset with the Asset specified in the Replace with field External reference: replace the main Asset with the Asset specified in the Replace with field Other metadata fields (match text string in one of the fields in the Event column): replace the main Asset with the Asset specified in the Replace with field. Format: replace the Format with the Format specified in the Replace with field. Click Search to start searching for Events that match the criteria specified. Click Replace to replace the selected event. Click Replace all to replace all Events that match the search criteria.

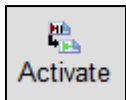
10. Activating Playlists and Scheduling Events



Activate Playlists and schedule Events preferably five minutes in advance to allow for preloading of media files.

10.1 Activating a Playlist

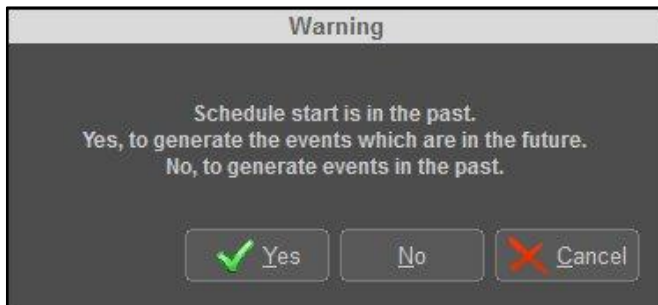
- To activate a Playlist, click the **Activate** button in the Playlist menu.



This will open the **Activate Playlist** window.

- Select a start and (if applicable) end date and time.
- Click **Activate** to generate the Playlist.

The message below appears when you are generating Events in the past. Click **Yes** to generate Events in the future, click **No** to generate Events in the past.



Playout of the Playlist will start at the start time of the first Event.



10.2 Dragging Events from one Playlist into another Playlist to schedule Events

Events can be dragged from an offline and active Playlists into an active Playlist to schedule Events. Note that you cannot drag and drop Events that have already been played out. These Events can be copy-pasted.

Events are appended (follow) to the end of the Playlist if dragged into the empty grey area of the Playlist, or can be dragged and appended in between other Events.


When added to an empty Playlist, Events are scheduled fifteen minutes in the future.

When appended to Events in the past, the Event will be scheduled fifteen minutes in the future and an under run will occur. To avoid, delete Events in the past before appending Events.

	Time	Event	Duration/time left
	14:03:56:10 <small>6/6/2013</small>	Rihanna, California Kin <small>668 asset: 555</small>	00:04:36:24 <small>00:00:00-04:36:24</small>
00:33:55:13 underrun			
	14:42:28:22 <small>6/6/2013</small>	Katy Perry Feat Snoop <small>710 asset: 557</small>	00:03:53:21 <small>00:00:00-03:53:21</small>

Example under run when appending Events to Events in the past.

10.3 Dragging Assets from TX/MAM into a Playlist to schedule an Event

Assets can be dragged from TX/MAM into POC to schedule an Event. Use the  icon to drag Assets into POC. The Channel's Format Rules will automatically be applied when adding the Event.



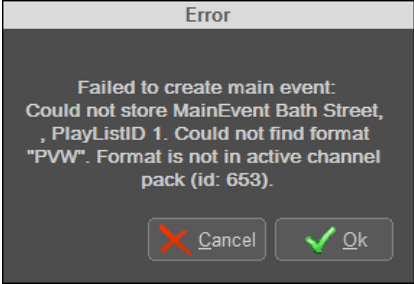









10.4 Copy-paste Events between active Playlists






Events can be copied-pasted in active Playlists, using CTRL+C (copy) and CTRL+V (paste).

11. Checking Event status in the active Playlist

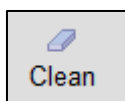
11.1 Workflow

The table below describes the statuses Events go through from being scheduled in an active Playlist to playout.

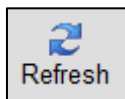
	<p>When Events are scheduled, the active Playlist initially displays this icon. It means that the Assets' status has not been checked yet.</p>
	<p>Optional: the Event has been checked manually in TX/MAM, but not for file availability on the K2 Edge.</p> <p>Note that in active Playlists this checked-sign has to disappear to indicate that the file is available on the K2 Edge, resulting in a blank or cleared status field.</p>
 <p><i>Format not in Channel Pack.</i></p> <ul style="list-style-type: none">  <i>Asset missing.</i>  <i>Metadata missing.</i>  <i>No Format.</i> 	<p>The Cobalt service <i>dataserver</i> will check if the Events' Assets, metadata and Formats are available in TX/MAM. If not, an error messages will appear.</p> <p>POC will give a warning if no Format is linked to the Event.</p>
<ul style="list-style-type: none">  <i>Asset file requested from archive.</i>  <i>Asset file waiting for fetch from storage.</i>  <i>Fetching asset files from storage to playout.</i> 	<p>Next, if the Asset is OK the Cobalt service <i>playout_distri</i> will start checking for file availability and fetching files. The Channel definition's lookahead time defines when this process starts</p>
<ul style="list-style-type: none">  <i>Empty Asset.</i>  <i>Delivery aborted.</i>  <i>Asset file could not be fetched.</i> 	<p>If an error occurs during file fetch or delivery, an error message appears.</p>

	When the Asset and file availability have been checked and the status is OK, the status field is blank.
	Before playout, the Event will be cued. A minimum of three Events is automatically precued.
	Shortly before playout the Event is locked, playout will start soon.
	The Event is playing.
	The Event has been played out.

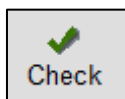
Use the **Clean** button to clear status information.




















Use the **Refresh** button to refresh the Playlist.







Use the **Check** button to manually check the Event in TX/MAM. Note that file availability on the playout node is not checked.



11.2 Status indicators




Event status indicators	
	Event selected.
	Under run: the under run is indicated in hours, minutes, seconds, frames.
	Event is playing.
	Over run: the over run is indicated in hours, minutes, seconds, frames.
	Status information not yet available (this is the default).
	Event checked manually for availability in TX/MAM, but not for file availability on the K2Edge. Note that in active Playlists this checked-sign has to disappear to indicate that the file is available on the K2Edge, resulting in a blank or cleared status field.
	Asset file requested from archive.
	Asset file waiting for fetch from storage.
	Fetching asset files from storage to playout.
	Event has no format.
	Asset missing: not in the TX/MAM database.
	Empty asset: asset defined in the TX/MAM database, but file missing.
	Metadata is missing.
	Delivery has been aborted.
	Asset file could not be fetched.
	Event checked and Asset status OK.
	Event queued and ready for playout.

	Event locked, playout will start soon.
	Event is playing.
	Event has been played.
	Event skipped (after queue and go).

12. Modifying Events

12.1 Changing the Event type: Fixed, Follow On and Manual Events

- To specify a fixed start time for an Event, select the Event and right-click in the time column. Select the Fixed option. This way you can also create Manual and Follow Events.

	Fixed Event: fixed start date and time.
	Follow Event: follows the previous Event.
	Manual Event: only started if released. Note that if a manual Event is not released, playout of the Playlist pauses.

- You can also double-click the Event and then change the Event type.
- Click **Save** to save changes, **Cancel** to discard.

12.2 Editing Event Start date and time, TC in and out, Duration

- To edit an Event, double-click the Event in the Playlist. This will open the **Edit Mainevent** window.

You can edit:

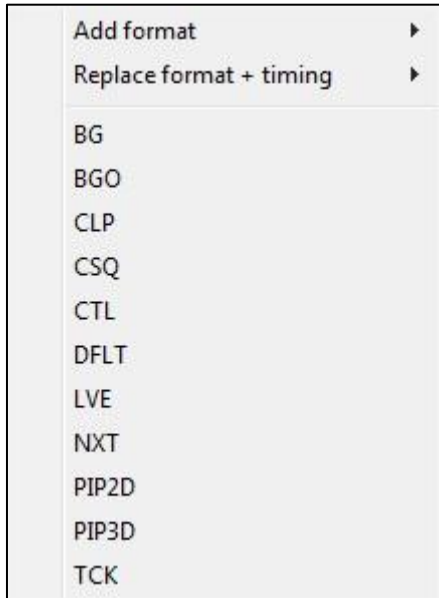
- **Start:** this is the Event's start date and time
 - **TC in** and **TC out:** this is the main Asset's timecode in and out
 - **Duration:** this is the Event's duration
 - **Type:** fixed, follow on or manual
 - **Name:** the Event name
- Click **Save** to save changes, **Cancel** to discard.

12.3 Replacing, removing or adding a Format for an Event

To replace, remove or add a Format to an Event:

- In the Playlist (this can be an active or offline Playlist) select the Event you want to edit and right-click in the **Formats** column.

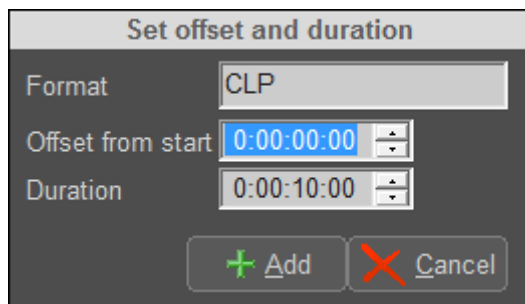
Depending on the number of Formats linked to the Event, one of the following windows opens:



Example more than one Format linked.

Example one Format linked.

- **Add format:** select the Format you want to add and if applicable, specify offset and duration.




Example.

- **Replace format + timing:** replace the Format with the selected Format and if applicable, specify offset and duration.
- Replacing a Format without timing (if one Format is linked to the Event); select a Format from the list. The current Format will be replaced with this Format.
- Replacing a Format (if more than one Format is linked to the Event); select a Format from the list, then select **Replace**. When replacing, if applicable, specify offset and duration.

- Removing a Format (only available if more than one Format is linked to the Event); select a Format from the list, then select **Remove**.
- **Replace all formats** (only available if more than one Format is linked to the Event), then select a Format from the list.

- You can also use the **Replace** button:


Replace

Search for Events and replace the Format based on one of the following criteria:

Format: replace the Format with the Format specified in the **Replace with** field.


Click **Search** to start searching for Events that match the criteria specified.

Click **Replace** to replace the selected event.

Click **Replace all** to replace all Events that match the search criteria.

Replace
X

Search for:

Replace with: 

Search on field:

Asset ID

Format

External reference


Other metadata field


Search

Replace

Replace all

12.4 Replacing an Event's main Asset

- To replace an Event's main Asset, drag the Asset from TX/MAM into POC upon the Event you want to edit. Use the  icon to drag the Asset into POC.
- You can also use the **Replace** button:



Search for Events and replace the main Asset based on one of the following criteria:

Asset ID: replace the main Asset with the Asset specified in the **Replace with** field

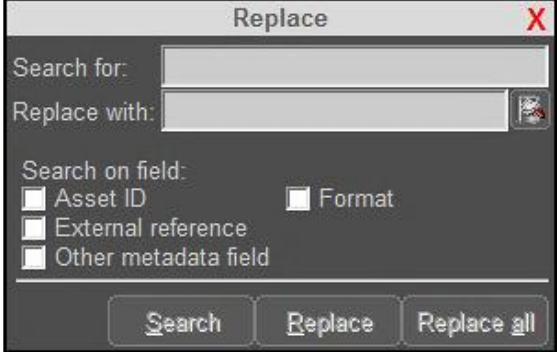
External reference: replace the main Asset with the Asset specified in the **Replace with** field

Other metadata fields (match text string in one of the fields in the Event column):
replace the main Asset with the Asset specified in the **Replace with** field.

Click **Search** to start searching for Events that match the criteria specified.

Click **Replace** to replace the selected event.

Click **Replace all** to replace all Events that match the search criteria.



The screenshot shows a dialog box titled "Replace" with a close button (X) in the top right corner. It contains two text input fields: "Search for:" and "Replace with:". Below these fields are three checkboxes under the heading "Search on field:": "Asset ID", "External reference", and "Other metadata field". There is also a "Format" checkbox to the right of "Asset ID". At the bottom of the dialog are three buttons: "Search", "Replace", and "Replace all".


12.5 Editing the Event Name

- To edit the Event Name, double-click the Event and edit the **Name** field.
- Click **Save** to save changes, **Cancel** to discard.

12.6 Removing an Event Flag

- Double-click the Event in the Playlist. This will open the **Edit Mainevent** window.
- Uncheck the **Flags** that you want to remove from the Event.
- Click **Save** to save changes, **Cancel** to discard.

13. Cue and Go, start Next Event

Events can only be started when they have been cued. This is indicated by the  icon.

If the Event is not cued, the **Go** button is not active.

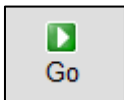
- To manually cue and start an Event, select the Event and click the **Cue** button.



The Event is cued (preloaded); this is indicated by the status icon.

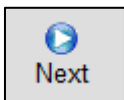


- Once cued, the Event can be started by clicking the **Go** button.



This function takes the selected Event. Any following Events - until the next fixed Event - are rippled.

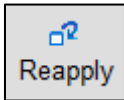
- To start the next Event (the Event that follows the playing Event) click the **Next** button.



14. Reapplying Formats

If an Event's Format or metadata has been changed after the Event has been scheduled, you need to reapply the Format to make changes effective.

- To reapply a Format, select the Event and click the **Reapply** button.




15. Asset Search

The Asset search option allows you to search Assets in the database. Search results can be dragged from the search window and dropped in the Playlist.

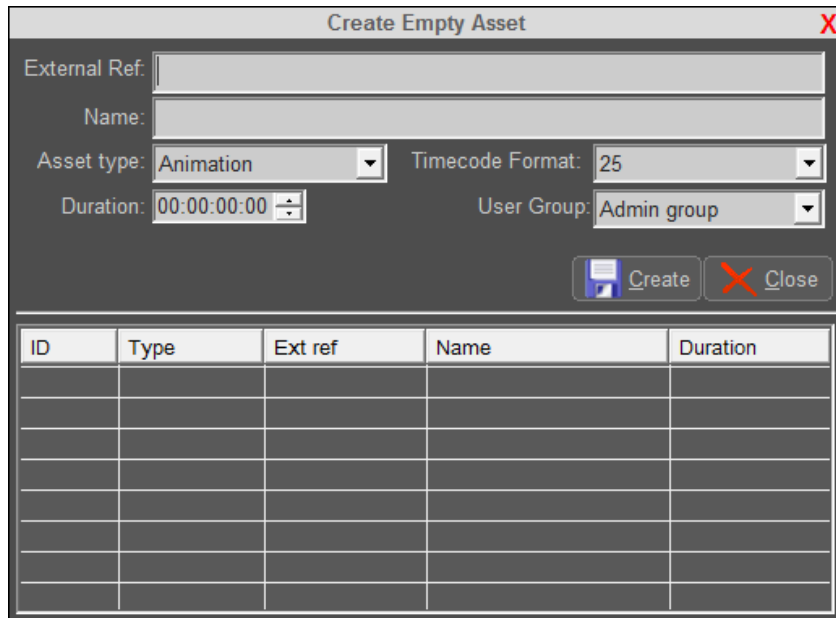


16. Creating (empty) Assets in POC

You can create (empty) Assets in POC.

- To add an Asset click the  icon or press or CTRL + i.
This will open the Create Empty Asset window.
- Fill in the fields in this window, then click **Create** to create the Asset, **Close** to discard.

The Asset will be linked to the appropriate Asset file based on the external reference.



ID	Type	Ext ref	Name	Duration



Most of the fields (except Name and External Ref) in this dialog box are saved and will be reused, even after reopening the dialog or POC.



Events created with these placeholder Assets will take the duration as specified in the Create Empty Asset dialog. These Events will keep this duration even after the Asset file was properly ingested in TX/MAM.

17. Filtering the Playlist (view)

You can filter the Playlist (view) based on:

- status
- main event name
- Event ID
- Asset ID
- format
- flag
- over run and under run
- main event type

To apply a Filter:

- Click the **Filter** button.



The last used filter is applied.

- Click the arrow next to the **Filter** button > **<filter>** to select a filter if filters have been saved.
- To stop filtering, click the **Filter** button again.

To define a filter:

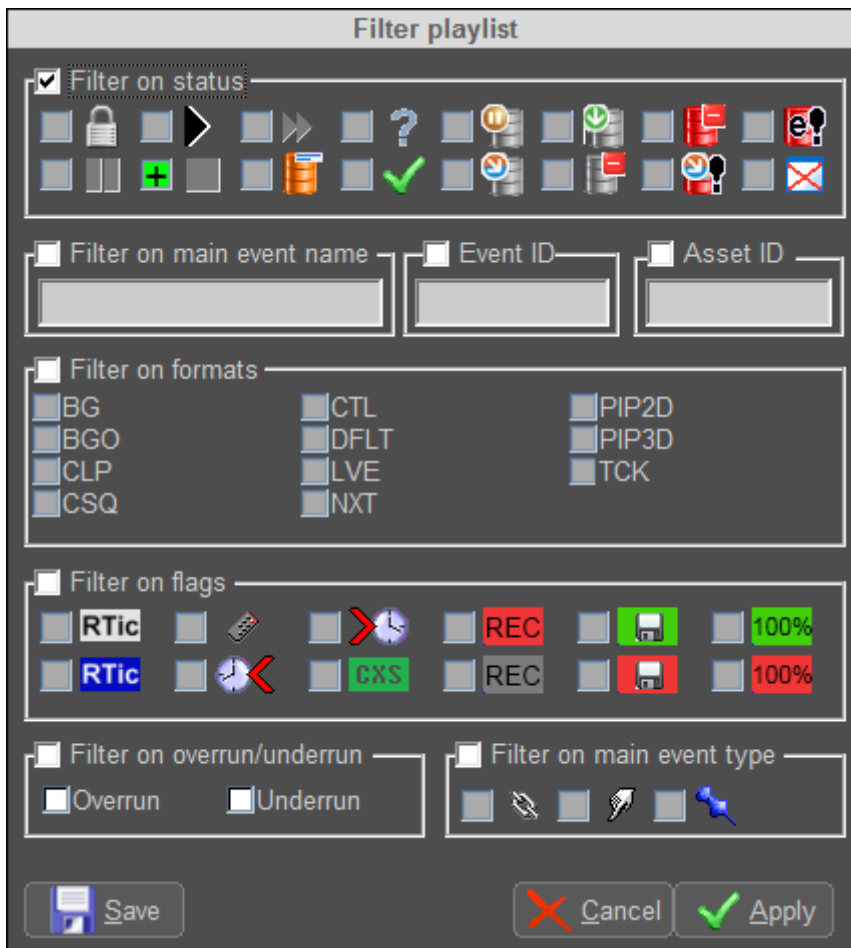
- Click the arrow next to the **Filter** button > **Adjust filter**.
- Select the filter options you want to use.
- Click **Save** and specify a **Name** to save the filter.
- In the filter options window, click **Apply** to directly apply the filter, or **Cancel** if you do not want to apply the filter.

To modify a filter:

- Select the filter you want to modify.
- Click the arrow next to the **Filter** button > **Adjust filter**.
- Edit the filter options.
- Click **Save**.
- Select the filter you want to save or specify a new **Name**.
- Click **Save > OK**.
- In the filter options window, click **Apply** to directly apply the filter, or **Cancel** if you do not want to apply the filter.

To delete a filter:

- Select the filter you want to delete.
- Click the arrow next to the **Filter** button > **Adjust filter**.
- Click **Save**.
- Select the filter you want to delete.
- Click Delete > OK.
- Click **Cancel**.
- In the filter options window, click **Cancel** again.



Example filter options window.

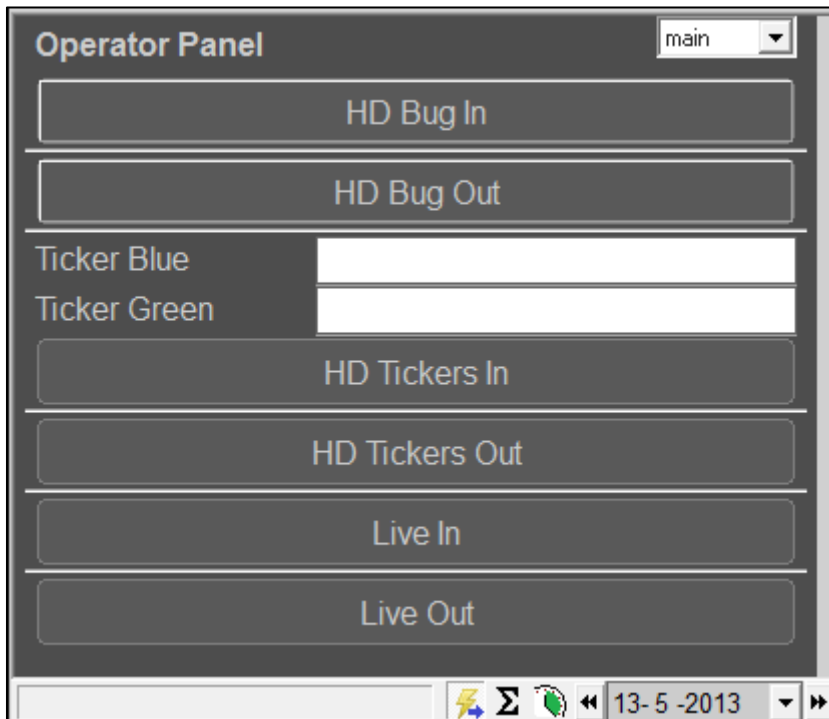
18. The Operator Panel

Operator Panels can be used to trigger manual actions. Operator Panels are created in Channel Composer and are included in the Channel Pack.

- To open or hide an active Channel's Operator Panel, click the Operator Panel icon at the bottom of the Playlist.



POC will display the Operator Panel for the currently active Channel Pack.





Example Operator panel in POC.

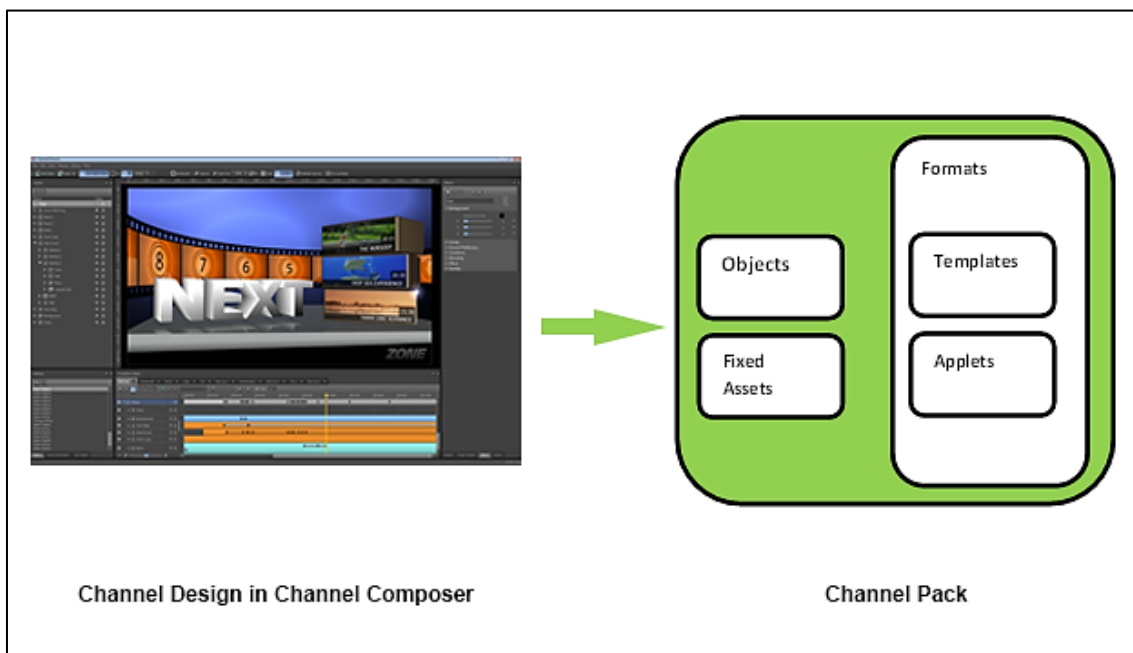
19. Channel Packs

19.1 Channel Packs in POC

When scheduling Events, the Cobalt scheduling process will apply the Channel Pack that has been activated for the Events' planned start time. Example:

Schedule	Channel Pack
Event with Start time: 13/02/12 12:00:00	 Channel Pack ID: 2400 Activation starts: 13/02/12 12:00:00
Event with Start time: 13/02/12 12:03:00	
Event with Start time: 13/02/12 and so on	
Event with Start time: 14/02/12 12:00:00	 Channel Pack ID: 2312 Activation starts: 14/02/12 12:00:00
Event with Start time: 14/02/12 12:03:00	
Event with Start time: 14/02/12 and so on	

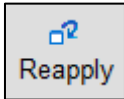
The Channel Pack contains the Channel design; Formats, Applets, fixed Assets such as logos and banners, and more. Events will play out the Formats they were scheduled with.



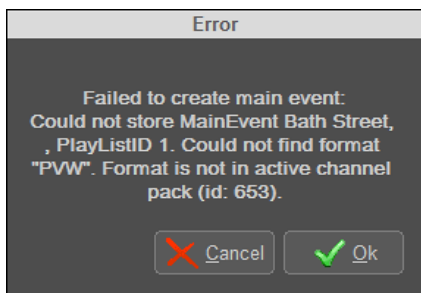


If a Channel Pack is changed after it has been used in a Schedule, you need to regenerate the Schedule (with the new Pack ID) to apply these changes.

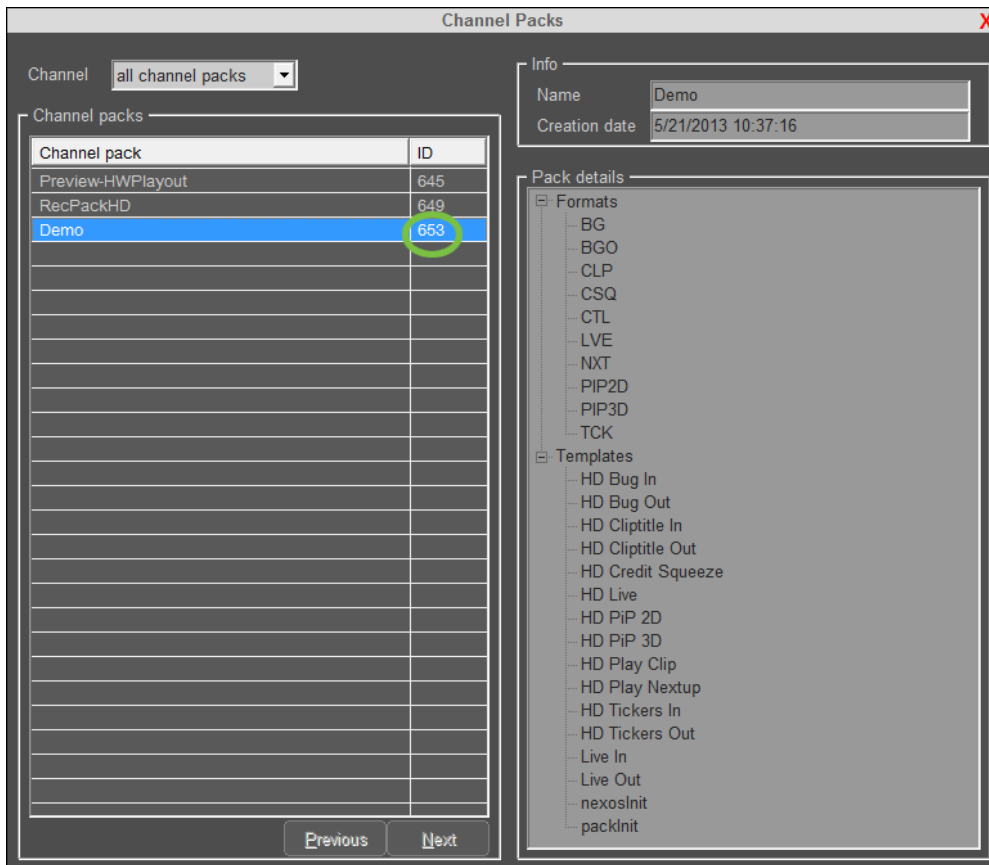
To reapply a Format after it has been changed in an active Playlist, select the Event and click the **Reapply** button.



When adding an Event to an active Playlist and the Event uses Formats that are not available in the Channel Pack that is active on that Channel, an error message appears. Example:



Under **View > Channel Packs** you can see which Channel Pack is active per Channel. Example:



When double-clicking an Event, you can see which Channel Pack (ID) is used. Example:

The screenshot shows the 'Edit Mainevent' window with the following details:

- Type: Follow, Asset id: 557, Ext ref: MV7342, Event id: 437
- Start: 30-5-2013, 15:19:54:16, Duration: 00:03:53:21, Flags: RTic, RTic, CXS
- Name: Katy Perry Feat Snoop Dogg, California Gurls
- To in: 00:00:00:00, To out: 00:03:53:21 @25
- Asset Status: (empty)
- Applet result: nml=Now Next Later info added

start	name	time	type	que	template
00:00:00:00	CLP	00:03:53:21	duration		
00:00:00:00	[653] HD Play Clip	00:00:00:00	from start		HD Play Clip
00:00:00:00	CTL	00:03:53:21	duration		
00:00:10:00	[653] HD Cliptitle In	00:00:10:00	from start		HD Cliptitle In
00:00:15:00	[653] HD Cliptitle Out	00:00:15:00	from start		HD Cliptitle Out
00:03:43:21	[653] HD Cliptitle In	-00:00:09:24	from end		HD Cliptitle In
00:03:48:21	[653] HD Cliptitle Out	-00:00:04:24	from end		HD Cliptitle Out
00:00:00:00	PIP3D	00:03:53:21	duration		

In the Channel Pack Manager you can see which Channel Packs are activated for which Channels, activation time and contents. Example:

The screenshot shows the 'CPK Manager v1.1.0 - 10.250.51.10' window with the following details:

- Name: Demo, Asset ID: 653, Creation date: 21-5-2013 10:37:16
- Size: 90.7 MB, Format: 1080@50i
- Activation: Channel 1, Activation date: 21-5-2013 10:37:09

Contents:

- Templates:
 - HD Bug In
 - HD Bug Out
 - HD Cliptitle In
 - HD Cliptitle Out
 - HD Credit Squeeze
 - HD Live
 - HD PiP 2D
 - HD PiP 3D
 - HD Play Clip
 - HD Play Nextup
 - HD Tickers In
 - HD Tickers Out
 - Live In
 - Live Out
 - Nextup Test

19.2 The CPK Manager

Use the CPK Manager to view and manage Channel Packs.



Activating or deactivating a Channel Pack on an active Channel can interrupt a broadcast.

19.2.1 Starting the Channel Pack (CPK) Manager

- To start the CPK Manager, double-click the CPK Manager shortcut on your desktop or start from the Start menu.




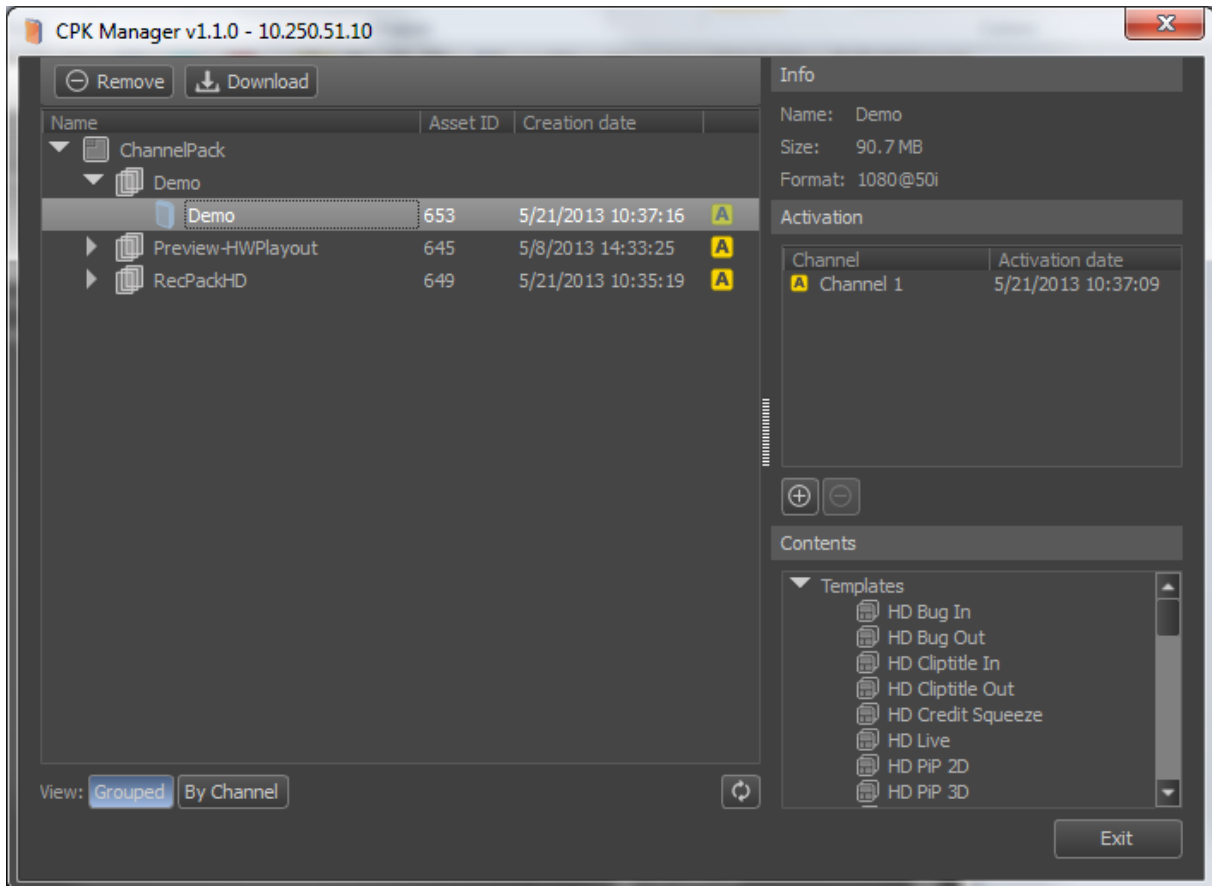
- Specify the TX/MAM server's virtual IP-address and log in with your credentials.

The screenshot shows a dialog box titled "CPK Manager v1.1.0" with a close button (X) in the top right corner. The dialog has a dark background and contains the following elements:


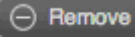

- Login** section with the instruction: "Please specify the IP address of the TX/MAM database server to which you would like to connect and fill in your login credentials."
- A text label "Database server:" followed by a text input field.
- A section titled "Login credentials" containing two text input fields: "User name:" and "Password:".
- At the bottom, there are two buttons: "OK" and "Cancel".


19.2.2 Options

The example below shows Channel Packs per Project (Grouped). The  icon indicates that a Pack is active. The **Info** window shows properties of the selected Pack. The **Contents** window shows Templates, Formats, Applets and Scene Parameters included in the selected Pack.



Example.

View: Grouped Channel	: View Channel Packs Grouped per Project (in chronological order) or by Channel.
	Indicates that the Channel Pack is currently active.
	To remove a Pack from the TX/MAM database, select the Pack and click the Remove icon.
	To activate a Channel Pack for a Channel: <ul style="list-style-type: none"> Select the Pack.


	<ul style="list-style-type: none"> ▪ In the Activation panel, click the Add icon. Specify the Channel and activation date/time. ▪ Click OK to confirm, Cancel to discard.
	<p>To de-activate a Channel Pack:</p> <ul style="list-style-type: none"> ▪ Select the Pack, the applicable Channel and activation date/time definition. ▪ In the Activation panel, click the Remove icon.
Contents	The Contents window lists the Templates, Formats, Applets and Scene Parameters included in the Channel Pack.

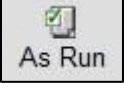



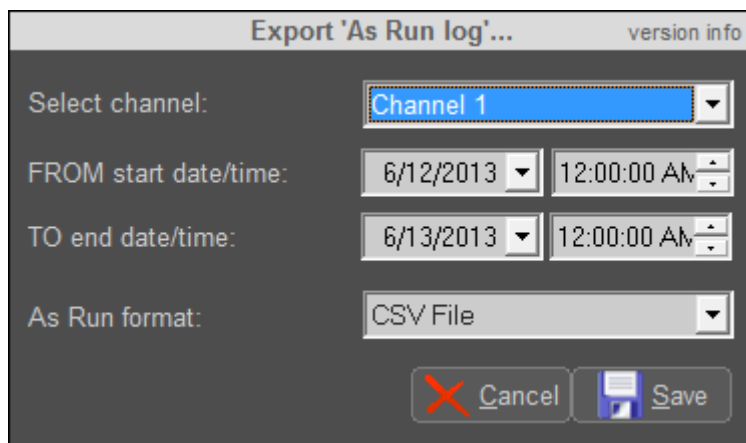
In active Playlists, leave at least five minutes for the Channel Pack to load; when a new Pack needs to be loaded schedule Events at least five minutes in advance of start of playout.

20. The As Run log and Report

You can create an As Run log (Events as played out) or Reports (Events as scheduled in the future) for active Playlists.

- Click the  icon to toggle between the **Export/As Run/Report** buttons.

	<p>Create the As Run log (Events as played out) for the specified Channel, from start date and time to end date and time, as CSV. or XML-file.</p>
	<p>Create a Report (Events as scheduled) for the specified Channel, from start date and time to end date and time, as CSV. or XML-file.</p>



Example export options.

date	time	duration	asset_id	name	format	status
6/12/2013	17:31:03:18	00:00:10:00	554	Chilli; Uncle Ben's	CLP; BGO	OK
6/12/2013	17:31:13:18	00:01:21:09	379	Bath Market;	CLP; TCK; CSQ; BG	OK
6/12/2013	17:32:35:02	00:00:30:00	553	Playground; Aptamil	CLP; BGO	OK
6/12/2013	17:52:06:02	00:00:10:00	554	Chilli; Uncle Ben's	CLP; BGO	OK
6/12/2013	17:52:16:02	00:00:30:00	553	Playground; Aptamil	CLP	OK
6/12/2013	17:52:46:02	00:01:21:09	379	Bath Market;	CLP; TCK; CSQ; BG	OK
6/12/2013	17:54:07:11	00:00:10:00	554	Chilli; Uncle Ben's	CLP; BGO	OK
6/12/2013	17:54:17:11	00:02:35:24	556	Datarock; Give it up	CLP; CTL; PIP3D; BG	OK
6/12/2013	17:56:53:10	00:00:30:00	553	Playground; Aptamil	CLP; BGO	OK
6/12/2013	17:57:23:10	00:04:36:24	555	Rihanna; California King bed	CLP; CTL; PIP3D; BG	OK
6/12/2013	18:02:00:09	00:02:35:24	556	Datarock; Give it up	CLP; CTL; PIP3D	OK
6/12/2013	18:04:36:08	00:00:10:00	554	Chilli; Uncle Ben's	CLP; BGO	OK

Example excerpt from As Run log (CSV).

21. Appendix: Gangroll

The Cobalt Playout Control (POC) Gangroll functionality is used to start a queued manual Event on multiple Channels at the same time. For example, this can be useful when starting a commercial break during a live show that is aired on several Channels simultaneously.



The steps for working with the gang roll functionality are:

- Add manual Events to the applicable Playlists.
- Select the Channels to include in the gang roll.
- Start the gang roll.

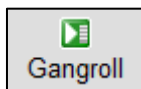
21.1 Adding a manual Event to the Playlist

The gang roll functionality will start the first queued manual Event found in the specified Playlists. Playlists are searched starting from the time gang roll is triggered.

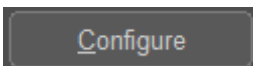
In POC, add manual Events to the applicable Playlists, for instance after a Live Event.

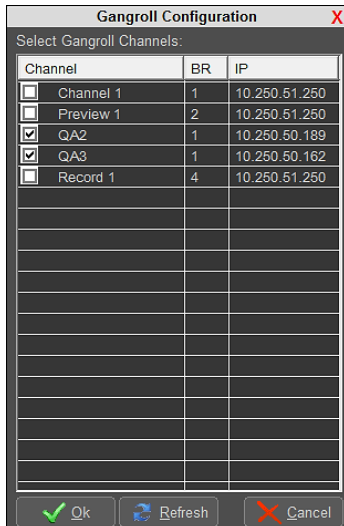
21.2 Selecting the Channels to include in the gang roll

- In POC, on the Playlist's menu bar, click the **Gangroll** button. This will open the **Gangroll** window.



- In the **Gangroll** window, click the **Configure** button to open the **Gangroll Configuration** window.

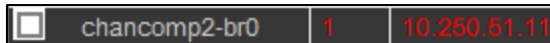




Example Gangroll Configuration window.

- In the **Gangroll Configuration** window, select the Channels that you want to include in the gang roll. This means that when the gang roll is started, these Channels will be searched for the first manual Event and this Event will be started.
- Click **Ok** to confirm, **Cancel** to discard.

If a Channel is not available, this Channel is displayed in red.

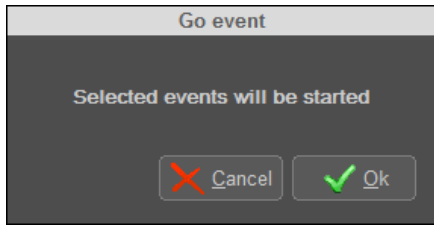


The channel configuration is stored and reused, also after reopening the Gangroll window or POC.




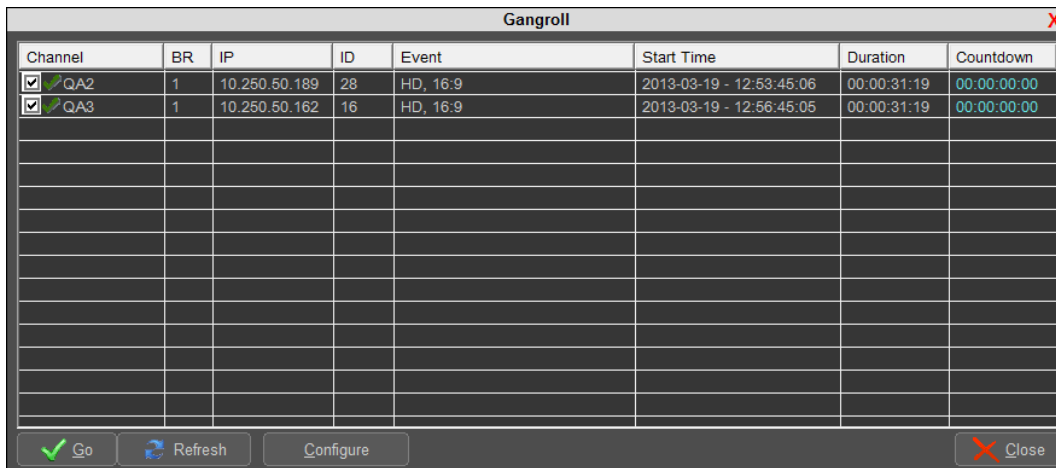
The trigger delay for manual Events is specified in the Channel definition in TX/MAM. These settings need to be the same for all Channels gang roll is used on, otherwise a simultaneous start will not occur.

- Click **Go** to start the gang roll, click **Close** to discard. Clicking **Go** will open the **Go event** window.



- Click **Go** to start the gang roll and trigger Events, click **Cancel** to discard.

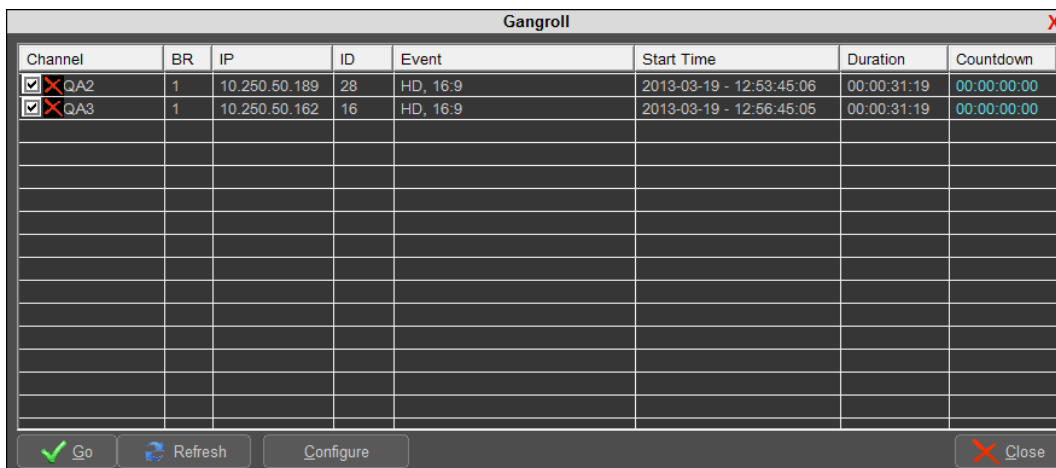
Once an Event has completed, this is indicated in the Channel column: .



Channel	BR	IP	ID	Event	Start Time	Duration	Countdown
<input checked="" type="checkbox"/> QA2	1	10.250.50.189	28	HD, 16:9	2013-03-19 - 12:53:45:06	00:00:31:19	00:00:00:00
<input checked="" type="checkbox"/> QA3	1	10.250.50.162	16	HD, 16:9	2013-03-19 - 12:56:45:05	00:00:31:19	00:00:00:00

Example Event completed successfully.

If the Event has not completed successfully, this is indicated in the Channel column with a red marker:



Channel	BR	IP	ID	Event	Start Time	Duration	Countdown
<input checked="" type="checkbox"/> QA2	1	10.250.50.189	28	HD, 16:9	2013-03-19 - 12:53:45:06	00:00:31:19	00:00:00:00
<input checked="" type="checkbox"/> QA3	1	10.250.50.162	16	HD, 16:9	2013-03-19 - 12:56:45:05	00:00:31:19	00:00:00:00

Example event failed.

22. Appendix: Join In Progress (JIP)

JIP requires following software versions:

- K2 Edge from version 4.0.2
- Cobalt Playout Control (POC) from version 2.85
- Channel Composer from version 1.6.2

The Join In Progress (JIP) feature allows for a second, high priority Playlist to temporarily override the normal Playlist's output and when finished, join again with the normal Playlist that kept on running in the background. JIP works for any situation where a relatively short Playlist, for example breaking news, needs temporary control over the main program. The latter is merely suppressed and continues in the background until taking over again.

JIP works in combination with the primary HD/SD Channel and can also be used in a simulcast setup.



22.1 Setting up JIP



Setting up JIP consists of the following steps:

- Activate JIP via the IP Manager.
- Define a JIP Channel in TX/MAM.
- Define JIP-templates plus the jipOff template in Channel Composer.
- Optional: create Format Rules to replace normal formats with JIP-formats for the JIP Channel.

22.1.1 Activating the JIP Channel via the IP Manager

- Open the IP Manager web interface; enter the IP Manager's IP-address in a web browser and log in.
- Go to **Channel Configuration > Enable JIP channel > select On.**
- Click **Set > Activate**. Note that activating changes will interrupt playout.




Example JIP enabled in IP Manager.

22.1.2 Defining a JIP Channel in TX/MAM

- Create a main and backup JIP Channel as described in the TX/MAM User Manual.
- To enable JIP, following settings on the **Info** tab must be specified:
 - **Is Simulcast:** select when using JIP in a simulcast configuration
 - **Disable scenegraph preload:** used for JIP, enable for JIP-channel
 - **Join In Progress – JIP with:** select the Channel to JIP with; this should be the primary Channel (broadcast set 0).
- **Broadcast set:** select the appropriate broadcast set:

Channel	Broadcast set
JIP	5:broadcast4



When correctly configured, a grey JIP indicator icon  will be shown in Playout Control (POC) next to the ON AIR signs for both the normal Channel and the JIP Channel.



When a Channel (name) has been modified or created, user rights for the Channel have to be set again in TX/MAM.

22.1.3 Defining JIP-templates in Channel Composer



For more information on Channel Composer, please refer to the Channel Composer User Manual.



How it works

The normal and JIP Playlists use the same Channel Pack. This Pack contains the “normal” and JIP-templates, plus the jipOff template described below. JIP-templates must have the following characteristics:

- Objects in the JIP-templates should be placed on higher layers than Objects used in the normal templates so that the JIP video output will (partially) overlay the normal program output (that continues to play in the background).
- JIP-templates should not interfere in any way with the normal playout templates. Therefore, the JIP template should use dedicated (player) objects.

Control is returned to the normal Playlist when the JIP Playlist ends, or temporarily during a gap in the JIP Playlist.

To restore to normal output, any changes caused by the various JIP-templates must be undone. The players that were started by any of the JIP-templates must be stopped. To achieve this, a template with the reserved name jipOff is created and added to the Channel Pack. This template should stop all players used in the JIP-templates.

The jipOff template will be automatically called when the JIP Playlist ends and control is returned to normal output.



Gaps in the JIP-Playlist are supported. During a gap, control will temporarily return to normal output. When an Event starts in the JIP Playlist, control is automatically returned to the JIP Channel.



Keep in mind not to change the JIP Playlist within 10 seconds before it ends, since the jipOff template is preloaded in these 10 seconds.



The quality of restoring to normal output depends on the jipOff template. If incomplete, or not defined at all, normal output cannot be restored.

To create JIP-templates:

- In Channel Composer, define the templates and formats for the JIP channel design.
 - Make sure these templates use dedicated (player) objects.
 - Also note that JIP Objects should be placed on higher layers (this can be checked in the Channel Composer Objects window) than the Objects used in the templates for normal payout.
- Create a jipOff template that stops all the players used in the JIP-templates. Note that the name for this template (jipOff) is fixed.
- Export and activate the Channel Pack to both the primary Channel (broadcast set 0) and the JIP Channel (broadcast set 4). Note that the normal and JIP Playlists use the same Channel Pack. You can also activate the Pack in a later stage.

22.1.4 Simulcast

To allow for Channel differences in a simulcast setup, different jipOff templates can be defined for each of the two Channels by adding a channel number suffix to the template name as shown below:

Template name	Description
jipOff	Automatically triggered when returning to normal output. Works for any Channel. Only used when no dedicated channel specific template could be found.
jipOff-chan0	Automatically triggered when returning to normal output on the first channel. If not found, template jipOff is used instead.
jipOff-chan1	Automatically triggered when returning to normal output on the second channel. If not found, template jipOff is used instead.

22.1.5 Format Rules

To make sure only JIP-templates and formats are used in the JIP Channel, you can define a Format Rule that replaces normal formats with JIP-formats for the JIP Channel.

Example Rule activated for the JIP Channel: IF Format = *Clip* THEN replace the *Clip-format* with the *JIP-Clip-format*.



For more information on Format Rules, please refer to the Format Control User Manual.

22.2 Operation



For more information on POC, please refer to the Cobalt User Manual.

22.2.1 Preparation

- In POC, open both Playlists and make sure the normal Playlist is running.
- Verify that JIP is configured correctly: when correctly configured, a grey JIP indicator icon will be shown in POC next to the ON AIR signs for both the normal Channel and the JIP Channel.

Example normal and JIP Channels active in POC with grey JIP- icon visible.

- Make sure the Channel Pack that contains the JIP-templates is activated on both the normal and JIP Channel. This can be checked in POC > main menu > **View > Channel Packs** or using the Channel Pack Manager. If applicable, activate the JIP Channel pack using the Channel Pack Manager.




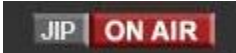
Note that the normal and JIP Playlist use the same Channel Pack.

- If applicable, in the JIP Playlist, schedule Events with the JIP-formats.

22.2.2 Activating the JIP Channel and returning to normal playout

- In POC, with the normal schedule running, either manually activate the high priority JIP Playlist (manually start an Event in the JIP Playlist with **(Cue and) Go** or **Next**, or wait for the scheduled activation (Event with fixed start time in the JIP Playlist).

The moment the JIP Playlist takes control, the JIP-indicator icon above the normal Playlist will turn red.

Normal Channel	JIP Channel
JIP configured correctly. Normal Channel active, JIP not active.	
	
JIP configured correctly. JIP Channel active, normal Channel suppressed.	
	

- During a gap in the JIP Playlist, or when the JIP Playlist ends, control will automatically return to normal output.

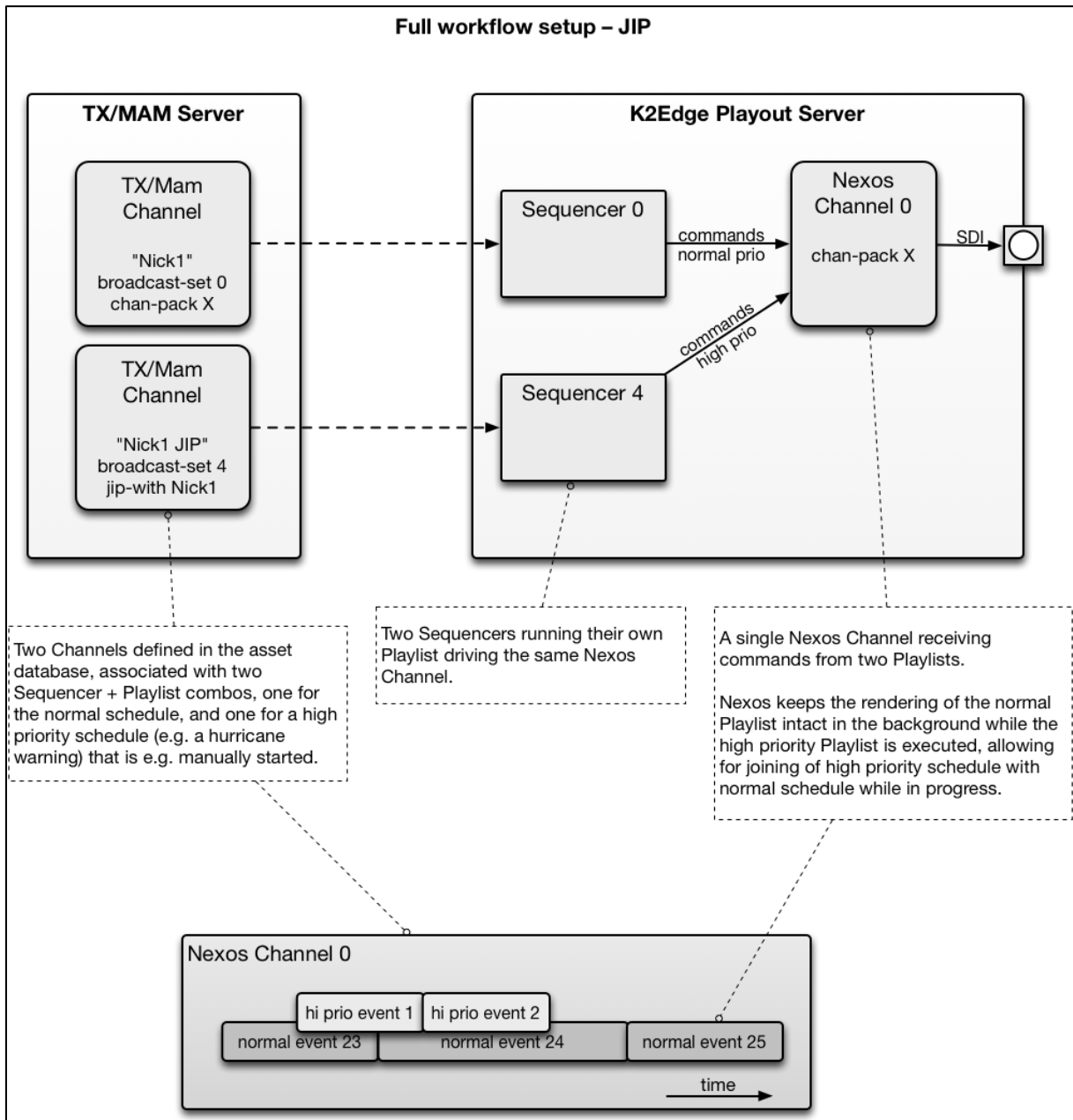


Note that you cannot return to normal playout manually, by starting an Event in the normal Playlist. To return to normal playout, delete all Events after the current Event in the JIP Playlist. When the current Event's end time is reached, control is returned to normal playout.

The jipOff template is automatically called when control returns to normal output.

The moment the normal Playlist takes control, the JIP-indicator icon above the normal Playlist will turn grey.

22.3 The JIP-workflow



23. Appendix: Recording

With the K2 Edge Recording option you can record a Live input and ingest as an Asset. MXF file types can be recorded.

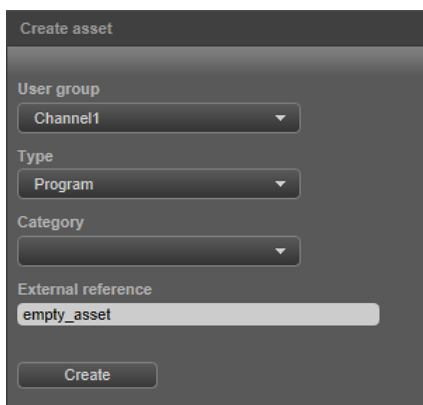


What is needed:

- A default Recording Channel is preconfigured: *Record1*.
- To enable, you need the K2-EDGE-SWLX-REC license.
- You need the *RecPack* Channel Pack to work with the Recording function. The *RecPack* Channel must be activated on the Recording Channel.
- Enable recording via the IP Manager.

How to:

- Enable recording via the IP Manager > **Channel configuration** > **Enable recording channel:** select **On**.
- Create a temporary Playlist. This Playlist is used to schedule Events with the recording Formats attached.
- In TX/MAM, create an empty Asset of the appropriate Asset Type.



Example.



You can also overwrite an existing Asset. In that case, in the *LiveRecord* Format set the **StartLiveRec** > **overwrite** and **CheckLiveAssetStatus** > **Overwrite** options to 1.

- Drag the (empty) Asset into a temporary Playlist and attach the *LiveRecord* Format to the Event.
- Double-click the Event and specify **Duration**. You do not have to specify an Event Tc in / Tc out.



You can also specify the Asset's duration in TX/MAM, on the **Spotcheck** tab > **Duration**.

- Activate the Event to the Record Channel, to the appropriate start date and time. Make sure the *LiveRec* Channel Pack is activated on the Record Channel.






start	name	time	type	que	template
00:00:00:00	LiveRecord	00:00:00:00	duration		
	pre asset				
	[1282] CheckLiveAssetStatus				CheckLiveAssetStatus
	OnlyCheckAssetExtension				avf.mpg.mxf
	AssetId				a0001799.avf
	Overwrite				0
-00:00:04:23	[1282] StartLiveRec	-00:00:04:24	from start		StartLiveRec
	ioInput				1
	format				1080@50i
	preset				xdcam-hd-30
	overwrite				0
	vbirecord				0
00:00:06:00	[1282] IngestRecording	00:00:06:00	from start		IngestRecording
	IngestPrevious				1
00:00:06:00	[1282] IngestRecording	00:00:06:00	from end		IngestRecording
	IngestPrevious				0

Example Recording Event.



- If you do not know the recording Event's duration in advance, schedule a *LiveRecord* Event with a **Duration** that exceeds the estimated duration.
- Schedule a manual Event after the recording Event with the *IngestOnly* Format attached; recording will be stopped when the manual Event is triggered and the recording Event's duration is overruled. The *IngestOnly* Event ingests the recording.

In Playout Control (POC), the Flag column shows following status indicators:

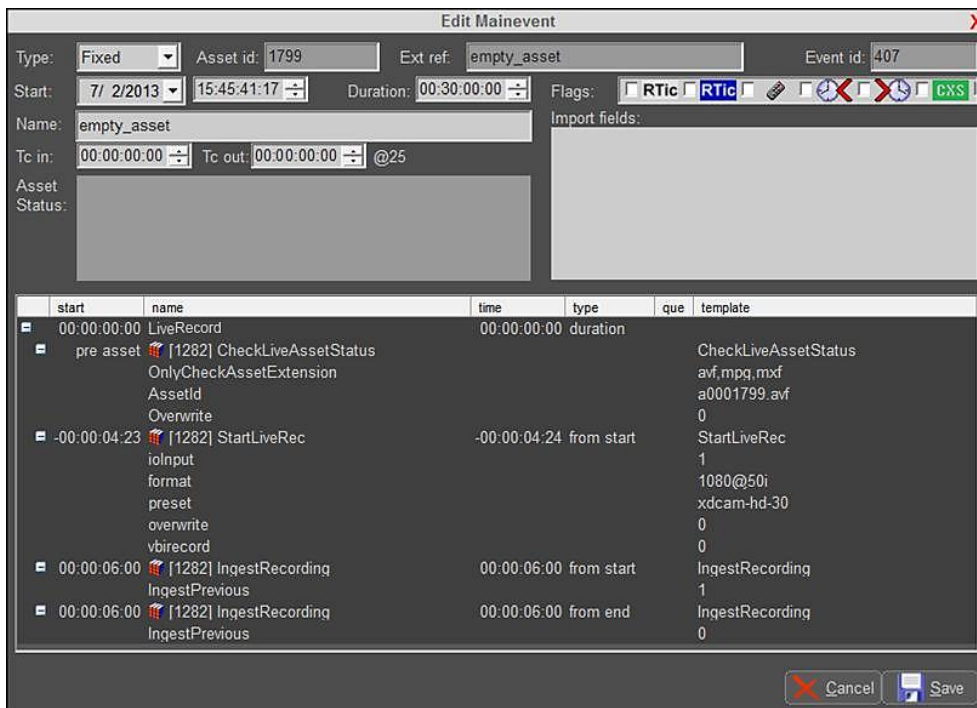
	Pre-check OK.
	Recording will not start. The file already exists (and overwrite is not enabled), or the file extension not allowed.
	Recording OK.
	Recording error.
	Ingest successfully finished.



After ingest, Assets can be shared and exported via the TX/MAM **Sharing** tab and **Export** options.



The LiveRecord Format



The screenshot shows the 'Edit Mainevent' window with the following details:

- Type: Fixed
- Asset id: 1799
- Ext. ref: empty_asset
- Event id: 407
- Start: 7/ 2/2013 15:45:41:17
- Duration: 00:30:00:00
- Flags: RTic, RTic, X, X, X, CXS
- Name: empty_asset
- To in: 00:00:00:00
- To out: 00:00:00:00 @25
- Asset Status: (empty)
- Import fields: (empty)

start	name	time	type	que	template
00:00:00:00	LiveRecord	00:00:00:00	duration		
	pre asset [1282] CheckLiveAssetStatus				CheckLiveAssetStatus
	OnlyCheckAssetExtension				avf,mpg,mxf
	AssetId				a0001799.avf
	Overwrite				0
-00:00:04:23	[1282] StartLiveRec	-00:00:04:24	from start		StartLiveRec
	ioInput				1
	format				1080@50i
	preset				xdcam-hd-30
	overwrite				0
	vbirecord				0
00:00:06:00	[1282] IngestRecording	00:00:06:00	from start		IngestRecording
	IngestPrevious				1
00:00:06:00	[1282] IngestRecording	00:00:06:00	from end		IngestRecording
	IngestPrevious				0

Buttons: Cancel, Save

Example Event in POC.

- CheckLiveAssetStatus:** a check performed before recording starts. Verifies:
 - allowed file extensions
 - if the Asset ID exists in TX/MAM
 - contains the Overwrite option (0 overwrite is not allowed, 1 is allowed)

- **StartLiveRec:** sends the recording command to nexos, default 6 seconds prior to start.
 - ioInput: specifies the input port that is recorded. Numbering starts at 1; IO1 is 1, IO2 is 2, etcetera.
 - format: the broadcast format
 - PAL
 - 720@50p
 - 1080@50i
 - NTSC
 - 720@5994p
 - 1080@5994i
 - preset: the encoding preset, determines amongst others the container/codec
 - mx-f-d10-<bitrate>
 - Use for SD.
 - bitrate: 30/40/50
 - xdcam-hd-<bitrate>
 - Use for HD.
 - bitrate: 30/40/50
 - overwrite: 0 overwrite is not allowed, 1 is allowed
 - vbirecord: 0 do not include vbi info, 1 include vbi info. Only supported for PAL-formats. VBI is recorded in the visual area.

- **IngestRecording:** starts ingesting the previous recording, if any, 6 seconds from start. Starts ingesting the current recording, 6 seconds from end.



Event parameters can be modified in POC. If you want to work with different parameters than the ones predefined, to avoid having to change parameters for each recording we advise to change the Format in Channel Composer.

The IngestOnly Format

The screenshot shows the 'Edit Mainevent' window with the following details:

- Type: Manual
- Asset id: 1799
- Ext ref: empty_asset
- Event id: 408
- Start: 7/ 2/2013 15:45:41:17
- Duration: 00:00:00:00
- Flags: RTic, RTic, [1282]
- Name: empty_asset
- Tc in: 00:00:00:00
- Tc out: 00:00:00:00 @25
- Asset Status: (empty)
- Import fields: (empty)

start	name	time	type	que	template
00:00:00:00	IngestOnly	00:00:00:00	duration		
00:00:06:00	[1282] IngestRecording IngestPrevious	00:00:06:00	from start		IngestRecording 1

Buttons: Cancel, Save

Example Event in POC.

- This Format stops recording when the Event is triggered.
- Ingests the previous recording.

24. Appendix: POC shortcuts

Activate Playlist	Alt+P
As Run Log	Alt+L
Asset Search	Ctrl+Shift+F
Channel List	Ctrl+Alt+C
Check Me	Alt+H
Clean	Alt+C
Copy	Ctrl+C
Create Asset	Ctrl+I
Cue	Alt+G
Cue & Go	Ctrl+Alt+G
Current Day	Alt+Up
Cut	Ctrl+X
Delete	Del
Down Event Selection	Shift+Down
Down Selected Event	Down
End Event Selection	Shift+End
End Selected Event	End
Export	Alt+E
Filter Exec	Ctrl+E
Filter On/Off	Ctrl+O
Follow	Alt+F
Gangroll	Ctrl+Shift+G
Go	Ctrl+G
Home Event Selection	Shift+Home
Home Selected Event	Home
Import	Alt+I
Move Event Down	Ctrl+Down

Move Event Up	Ctrl+Up
Next Day	Alt+Right
Page Down Event Selection	Shift+Page Down
Page Down Selected Event	Page Down
Page Up Event Selection	Shift+Page Up
Page Up Selected Event	Page Up
Paste After Selected Event	Ctrl+Shift+V
Paste Before Selected Event	Ctrl+V
Playlist List	Ctrl+Alt+P
Preview	Ctrl+P
Previous Day	Alt+Left
Re-apply Format	Alt+A
Refresh	F5
Replace	Ctrl+R
Report	Alt+R
Save	Ctrl+S
Save As	Ctrl+Shift+S
Schedule 1	Alt+1
Schedule 2	Alt+2
Schedule 3	Alt+3
Schedule 4	Alt+4
Schedule 5	Alt+5
Schedule 6	Alt+6
Schedule 7	Alt+7
Schedule 8	Alt+8
Schedule 9	Alt+9
Scroll Left	Left
Scroll Right	Right
Search	Ctrl+F

Select All	Ctrl+A
Switch to Fixed	Ctrl+Alt+I
Switch to Follow	Ctrl+Alt+F
Switch to Manual	Ctrl+Alt+M
Take Next	Ctrl+N
Toggle Horizontal View	Alt+H
Up Event Selection	Shift+Up
Up Selected Event	Up

25. Appendix: changing the POC shortcut's properties

To change the virtual IP-address of the TX/MAM servers in the POC-shortcut properties:

- Right-click the POC-shortcut on your desktop > **Properties** > **Shortcut**.
- In the **Target** field fill in the TX/MAM servers' virtual IP-address.