

iTX v2.5

Integrated playout

Desktop Operator Manual



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CONTENTS

About this manual	9
Terminology	10
Software versions	10
Valid characters in names and titles of media items	10
Further reading	11
About iTX	12
Grass Valley client-server technology.....	13
The main parts of an iTX system	13
The iTX Desktop	14
Starting the iTX Desktop	15
Quick tour of the iTX Desktop	16
About service status indicators in layout components.....	20
About system time and local time.....	20
Working with schedules	21
About iTX channels.....	21
Monitoring and controlling live schedules	22
iTX Desktop components for working with schedules.....	22
The Content Selector	23
About the Content Selector	23
Managing the contents of a palette selection pane.....	26
Editing a schedule by dragging and dropping assets from the Content Selector.....	27
Working with video clips.....	32
Working with logos	35
Working with external logo inserters	39
Working with CGs	43
Working with subtitle files.....	45
Working with still images.....	46
Working with voiceover clips.....	48
Working with live events	50
Working with sequences.....	52
Working with stored schedules.....	55
Working with split breaks	57
Working with slide shows.....	59
Working with an external subtitler.....	62
Working with external CG devices and graphics systems	63
Working with GPIs	67
Working with studio sources	69
Working with router events.....	71

Working with a studio switcher	73
Working with VANC data	74
Working with enhanced SCTE104 data	76
Working with rating categories	79
Adding comments.....	82
The Event Editor.....	83
About the Event Editor.....	83
Editing events of different types.....	84
Saving or cancelling changes to events	93
Changing the title of the item in an event.....	93
Setting event playout times	94
Setting event durations.....	104
Setting the regional channel for a regional event.....	106
Video and audio transitions for primary events.....	108
Creating a picture-in-picture effect.....	109
Transitions and vision effects for secondary events	114
Using the Event Editor features for sequences	116
Changing volume levels for voiceover events.....	120
Replacing a video clip, live asset or logo in a schedule event	121
Selecting a videotape machine to play out a VTR event	122
Setting up the recording of sequences and live events.....	123
Changing the GPI output for a GPI event.....	128
Changing the routing properties for a router event.....	129
Changing the external subtitle file for an external subtitle event	129
Entering information in editable CG text blocks	130
Changing page details in a VizRT CG event.....	131
Changing the rating category for a rating-category event.....	132
Entering and viewing schedule notes	133
Using the follow-next feature.....	134
The Timeline Display	135
About the Timeline Display	135
Adding an event to a schedule by dropping an asset onto the Timeline Display.....	136
Tracking an event on the Timeline Display.....	136
Viewing information about an event	138
Changing the view of the Timeline Display.....	138
Changing the track configuration of the Timeline Display.....	139
The Schedule Grid.....	141
About the Schedule Grid.....	141
Creating a schedule event by dropping an item into the Schedule Grid.....	142
Noting the time mode of events.....	142
Tracking an event	143

Viewing information about an event.....	144
Preventing schedule underruns and overruns.....	145
Show or hide secondary events	145
Change the order of schedule events.....	146
Event warnings.....	146
Add a filter to the Schedule Grid.....	148
Using the options in the Schedule Grid menu	149
Schedule event colors.....	157
Cache status indicators	158
Changing the transitions for events in the Schedule Grid.....	159
Automatic replacement of missing media files with evergreen content	160
About VTR events in the Schedule Grid.....	161
Recording schedule events.....	161
The Schedule Manager	162
About the Schedule Manager	162
Loading stored schedules in the Schedule Manager.....	163
Adding stored schedules to the current schedule	164
Saving the current schedule.....	165
Creating sequences and sequence templates	166
Creating a looping schedule.....	168
Adding an hour or a day to the start time of the current schedule.....	169
The Schedule Manager menu	169
The Next-Event Control Panel.....	171
About the Next-Event Control Panel.....	171
The Live Logo Inserter.....	174
About the Live Logo Inserter.....	174
Setting up the Live Logo Inserter.....	174
Using the Live Logo Inserter.....	175
Channel-control pop-up layouts.....	176
Using the Emergency Audio pop-up layout.....	177
Using the Channel Health pop-up layout.....	178
Using the News Flash pop-up layouts.....	179
Using the Sequence Control pop-up layout	180
Using the Selected Item Control pop-up layout	181
Searching with PinPoint.....	182
The PinPoint dialog and panel.....	182
Search filters	184
Search blocks.....	186
Specifying the sort order of results	187
Multi-domain searching.....	187
Stemming	188

Searching	188
Working in the results pane	190
Repeating searches	193
Viewing metadata	194
Resizing the PinPoint dialog	195
Common operational tasks for iTX Desktop features	197
Playing a video clip in a preview window	197
Marking the boundary points of a video clip	202
Changing the audio level of a previewing video clip	203
Specifying properties for video clips and voiceover clips.....	203
Entering a value in an iTX time-entry box.....	207
Entering values in a date-and-time box	209
Switching a recorded voice countdown on or off	210
The CG application.....	211
About the CG application.....	211
Working with text.....	214
Working with rectangles.....	226
Working with background images.....	231
Resizing and moving CG objects.....	234
Changing the stacking order of objects.....	235
Working with multiple objects	236
Undoing and redoing changes.....	237
The Color Selector	237
Setting properties (visual effects, crawl speeds) for groups	238
Using the template controls.....	240
Setting the CG application window options	242
Closing the CG application.....	243
Ingesting files through the Media Store Inbox.....	244
Valid formats for media files and other types of file.....	244
Re-importing media files.....	245
Ingest media files through the Media Store Inbox	245
Ingest reference MOV and MXF files through the Media Store Inbox.....	246
Ingesting media by using an Encode Server.....	248
Crash recordings, automatic recordings and batch recordings	248
Recording from a videotape.....	249
The ingest layouts.....	250
The Encode control panel.....	254
About the Encode Server lock button.....	254
About the VTR control button	255
Setting the structure of the media file created by an Encode Server	255
Preparing your iTX system for recordings.....	258

Using the Encode control panel to record media files.....	262
Using the Tape Ingest layout for single or batch ingest	267
Previewing and playing out media while it is being recorded	270
Using Ingest Manager	271
About Ingest Manager.....	271
The standard Ingest Manager layouts	272
Bookings for planned recordings	273
Choosing a clip name when making a booking request	274
Creating bookings.....	275
Editing bookings.....	277
Managing bookings.....	277
About the Instant Ingest Request panel.....	278
Using the Instant Ingest Request panel.....	280
Using a naming rule for an ad-hoc recording.....	282
Monitoring and managing scheduled recordings	283
Responding to failed recordings	287
Preparing media items for playback	288
About the Asset layout.....	288
About database assets and media files	290
User rights	291
Searching for assets	292
Viewing a media file in the Media Viewer	294
Working with the Property Editor	301
Saving assets.....	324
Locking assets and media-file locations	325
Reading the Media Store Gauge	329
About asset templates	329
Working with the Logo Editor	331
Working on the Asset Segmentation layout.....	337
Using iTX with a keyboard or hard panel.....	341
Optional features.....	342
The Live CG Inserter	343
Next-event gang buttons	343
The Count To Control.....	344
The Schedule Preview Control.....	345
The Direct Preview Control	346
The Global Editor	348
The Live Channel Management panel	350
The Live Video Inserter.....	352
The Recue Item control panel.....	354

The Missing Material status channel	355
Automatic display of schedule events on a video monitor.....	356
Appendix A: The iTX Import Protocol	357
Formatting clip lists.....	357
Formatting schedules	358
Formatting wipe lists	359

About this manual

This manual is for iTX, version 2.4. It contains these main sections:

- **About iTX:** A brief description of iTX and its key system parts, especially the iTX Desktop; instructions for starting the iTX Desktop.
- **Quick tour of the iTX Desktop:** Details of the main features of the iTX Desktop and its layouts.
- **Working with schedules:** General comments about schedules, and an explanation of online (live) and offline schedules.
- **The Content Selector:** Instructions for building schedules by using the Content Selector.
- **The Event Editor:** Instructions for using the Event Editor to set the properties of schedule events.
- **The Timeline Display:** A description of the features of the Timeline Display.
- **The Schedule Grid:** A description of the features of the Schedule Grid.
- **The Schedule Manager:** Instructions for saving and loading schedules through the Schedule Manager.
- **The Next-Event Control Panel:** Instructions for performing actions on the next item due to play out in a schedule.
- **The Live Logo Inserter:** Instructions for setting up the Live Logo Inserter and using it to manually switch logos on and off.
- **Channel-control pop-up layouts:** Descriptions of pop-up layouts you can select from the Channel Control layout.
- **Searching with PinPoint:** How to use the iTX search tool, PinPoint, to find assets in your iTX System Database.
- **Common operational tasks for iTX Desktop features:** Operating procedures for certain iTX Desktop features that you may use frequently.
- **The CG application:** Instructions for creating and modifying CGs using the iTX CG application.
- **Ingesting media files through the Media Store Inbox:** Instructions for using the Inbox folder on the Media Store to ingest media files into the iTX system.
- **Ingesting media by using an Encode Server:** Instructions for using the ingest layouts to create media files in the iTX system by recording media from a video feed.
- **Using Ingest Manager:** A description of Ingest Manager services and how to use these for the automated recording of live feeds.
- **Preparing media items for playback:** Instructions for using the Asset layout to prepare assets before you use them in schedule events.
- **Working with the Logo Editor:** Instructions for using the Logo Editor.
- **Working on the Asset Segmentation layout:** Instructions on how to most easily segment video clips.

About this manual

- **Using iTX with a keyboard or hard panel:** A statement about the ability to control certain iTX operations from a PC keyboard or hard panel.
- **Optional features:** Instructions for using optional features that may be added to your system.

Terminology

Different terms are used in different countries to describe visual elements that are superimposed on the main television picture. In this manual, we use the following terms to refer to these items.

CG:	<p>Text that is usually set against a graphical background (such as a colored geometric shape) in a design similar to that produced by a character generator; the text may be accompanied by a still or animated image.</p> <p>A CG is typically used to identify the speaker in an interview, or the location featured in the main video. A CG usually stays on the screen for just a few seconds.</p>
Subtitles:	<p>Text of the words spoken in, or accompanying, video scenes; the text continually updates as a dialogue or narrative proceeds. Sometimes called open captions.</p> <p>Subtitles, when provided, always appear on-screen – the viewer cannot turn them off.</p>
Captions:	<p>Text, similar to subtitles but including expressions for sound effects, intended to describe the audio content for the deaf or hard-of-hearing. The way captions are transmitted (inserted into the video signal) allows the viewer to switch them on or off.</p> <p>Also called closed captions, these are more commonly known as subtitles in countries outside of the US and Canada.</p>
Logo:	<p>A still or animated image occupying a small area of the screen, away from the main area of interest; used as a branding device for the channel that is playing out.</p>

Software versions

The manual covers various releases of iTX version 2 (identified by version numbers v2.1, v2.2, v2.3, v2.4 etc.). Some of the features described in the manual may not be available in your version of software. For more information, contact iTX Support.

Valid characters in names and titles of media items

When storing and retrieving media files, iTX identifies them by the unique filenames with which the files are registered in the iTX system. A filename may contain up to 60 characters, and can include almost any European character except these:

/ \ < > ? : * |

About this manual

Each file can have a secondary name, which we call its title. Although often the same as the filename, the title can be more descriptive of a file's content. This is particularly true when the filename is based on a simple alphanumeric sequence, rather than words.

Further reading

Some iTX Desktop features depend on other Grass Valley equipment. For information on how to schedule and edit events of the following types in an iTX playout channel, see the user documentation for the Grass Valley devices that provide the source items.

- Vertigo XG
- iTX Render

About iTX

iTX is a playout automation system for television. You use it to prepare television schedules and to play out the media content required by those schedules in one or more playout channels. From each playout channel, iTX delivers an audio-visual output to a transmission system for broadcasting.

Depending on its design, your iTX system may deliver the channel output through a conventional television transmission system or over the internet. It can display video content at an aspect ratio of 16x9 or 4x3, and at either SD (standard-definition) or HD (high-definition) resolution.

In delivering each channel output, iTX can play out video either from media files that it holds on its own storage device (known as a Media Store) or from a live feed; the media files may be in various storage formats. iTX can play files from some broadcast video servers, including some files that are held in a special way – i.e. within "wrappers".

In a playout schedule, you can mix video, audio and other items (such as CGs, logos, animated images, still images and live events). For live events, an SD channel requires the live event to be at SD resolution; and an HD channel requires the live event to be at HD resolution.

iTX has video and audio mixing functionality for producing an output that includes image overlays, video transitions, wipes, two-dimensional DVEs (digital video effects), audio transitions and voiceovers.

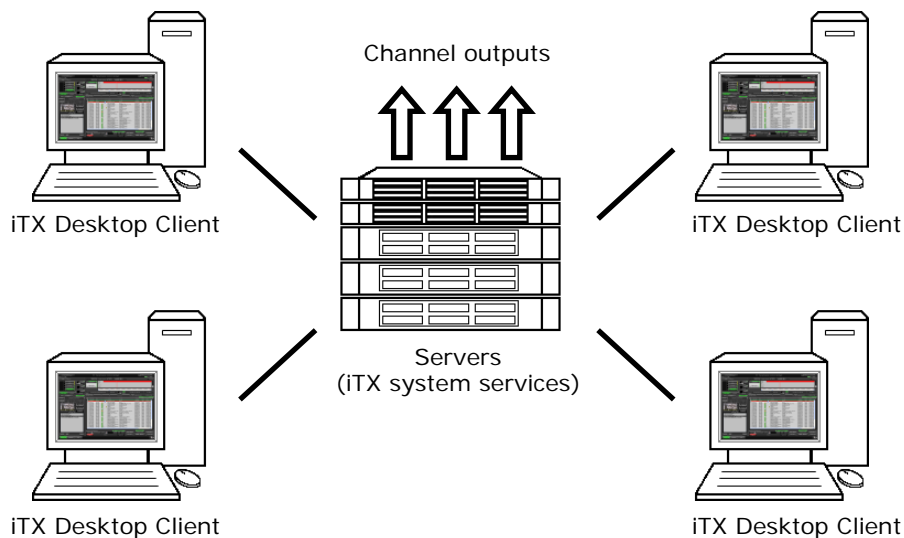
Media acquisition features enable you to ingest media onto a storage device in the iTX system. You may do this either by copying existing files over a network or from a local drive; or by recording digital video sources. This media is then available for use in playout schedules.

If you have media files on an external storage device that iTX can access, you can register these in the iTX system and then use them in schedules.

Grass Valley client-server technology

iTX is based on Grass Valley client-server network technology. Running in the background on a group of server machines, a number of iTX system services interact to provide functionality to any number of iTX Desktops.

An iTX Desktop is an application that runs on an operator workstation. It provides the user interface through which you use the functionality of the services. Multiple iTX Desktops can access the services at the same time.



The main parts of an iTX system

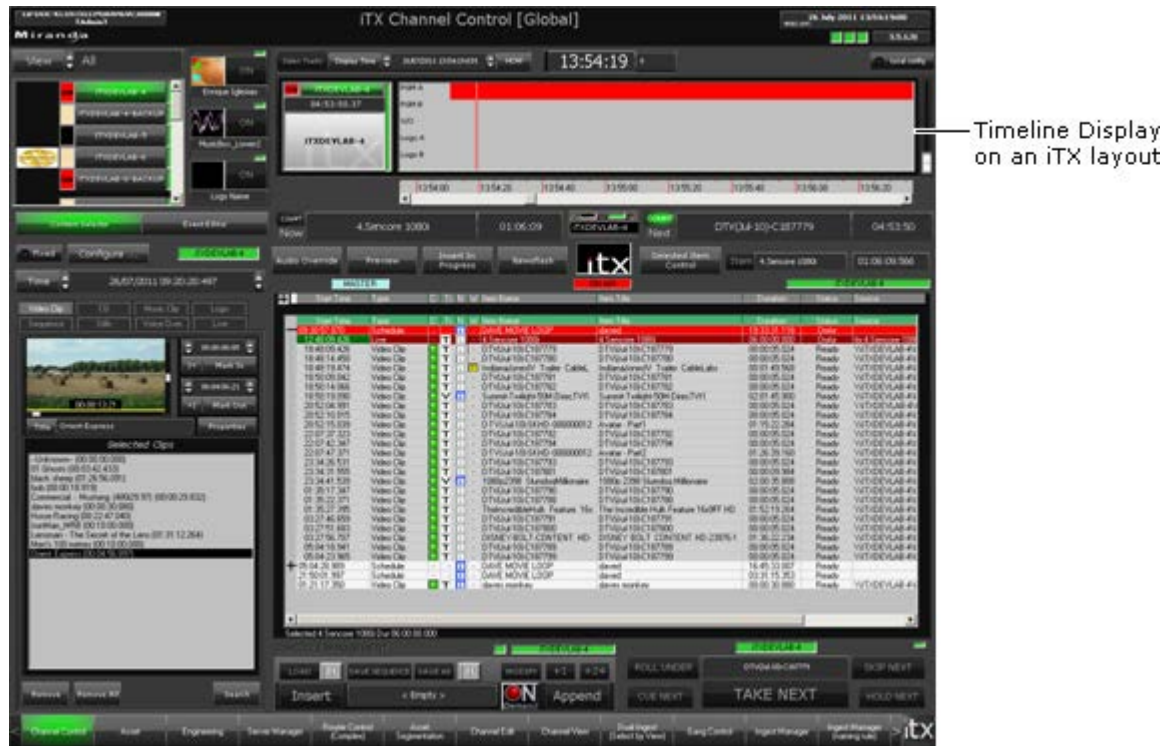
An iTX system has these main parts:

- The **System Database** stores all the data required by the system. This includes assets and schedules. By assets, in this case, we mean database records that contain information about available media files; you use them to build schedules.
- The **Media Store** stores the media files (video clips, CGs, logos, etc.) that you can use in schedules.
- The **Output Server** runs the schedules; it gets the media files from the Media Store and plays them out at the scheduled times. The Output Server also provides an offline edit channel so that you can build schedules without affecting live playout. Each playout channel runs on its own Output Server.
- The **Desktop Client** workstation displays the iTX Desktop, through which you build and control schedules and manage the media in the system. Your system may have multiple Desktop Clients.
- An **Encode Server** (optional) enables you to add media to the iTX system by recording it from a video source, such as a live feed or a videotape. It converts the video into a file in a specified storage format; it places the file in the Media Store.

About iTX

The iTX Desktop

The iTX Desktop, illustrated below, is the user interface for the iTX system. It may include any number of iTX layouts.



Timeline Display on an iTX layout

A layout is a set of iTX Desktop components (such as the Timeline Display in the above illustration) arranged together to provide the features that you can see at your workstation. The features enable you to perform an action, or give you information. Through them you interact with iTX system services.

Your system administrator configures the iTX Desktop on your workstation to include a number of operator layouts in a particular order. Depending on this configuration, you can view any of these layouts, one at a time.

Workstation View and User View

The iTX Desktop can display two layout views. By "layout view", we mean the set of layouts that are immediately available on the iTX Desktop. The views are:

- The **Workstation View**, which is the view assigned to the workstation. All users logging onto the workstation see the same set of layouts in this view.
- A **User View**, which is the view assigned to the user logged onto the workstation. Users logging on at the same workstation, under their usernames, see their own sets of layouts.

Your system administrator should tell you which layout view to use.

Pop-up layouts

A layout may contain a selection button for a pop-up layout; this is a layout of any size that appears on top of the main layout. Clicking the button causes the pop-up layout to appear and become active. When you finish using the pop-up layout, you close it to return to the main layout.

Starting the iTX Desktop

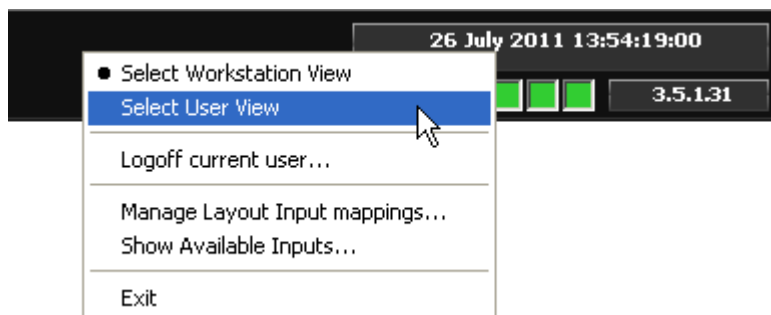
You log onto the iTX network at your workstation by entering your username and password in the standard Microsoft network log-on dialog. Once you have done this, you can start the iTX Desktop.

1. Do one of the following to start the iTX Desktop.
 - Double-click the iTX Desktop shortcut on your Windows desktop.
 - Select the iTX Desktop from the Windows Start menu.

The iTX Desktop opens and displays the first of the available iTX layouts in the primary view. The Starting Desktop message box shows the progress as iTX loads the view and displays the first layout assigned to that view.

The primary view is determined by the views available to your workstation; a view is available when it has layouts assigned to it. When a workstation view is available, it is the primary view; otherwise, the user view is the primary view.

2. If you need to change the iTX Desktop view, do the following.
 - Right-click the title bar to display the iTX Desktop menu:



- Select the workstation view or user view from the menu.

When you first change the view after starting the iTX Desktop, the Loading View message box shows the progress as iTX loads the view and displays the first layout assigned to that view.

Note:

- To work, the iTX Desktop needs the services that run on the iTX system servers. You may need to ask your system administrator to ensure these services are running.

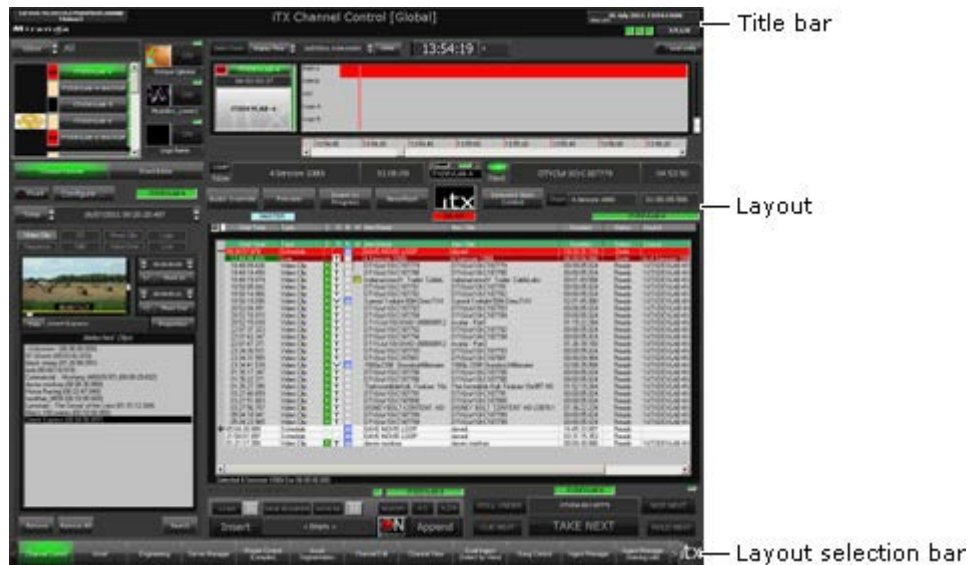
Quick tour of the iTX Desktop

Quick tour of the iTX Desktop

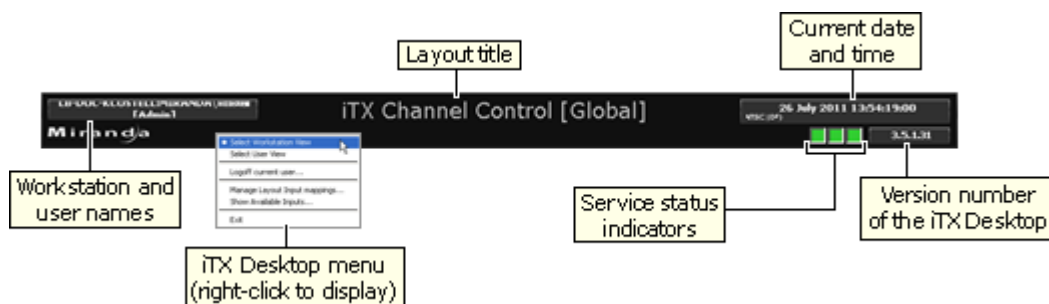
In this section we introduce you to the key features of the iTX Desktop and its layouts.

The iTX Desktop has three main parts:

- At the top is the title bar.
- In the middle is the selected layout.
- At the bottom is the layout selection bar.



The title bar has these features:



The service status indicators, on the right, show the operational status of some key iTX system services; they display green lights when the services are working normally.

If an indicator displays a yellow light, a service may have a temporary problem but iTX may still be able to continue working. If an indicator appears red or black, you should ask your system administrator to check the iTX system services.

From the title bar (and from other parts of the iTX Desktop), you can access the iTX Desktop menu. Through this, you may select which layout view to display (workstation or user), log off the iTX network, or exit the iTX Desktop. [More details](#), page 17.

Quick tour of the iTX Desktop

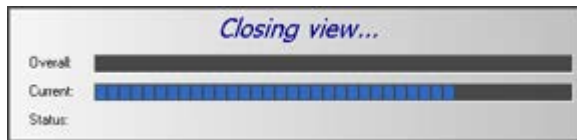
The layout selection bar looks like this:



You can select different layouts by clicking the layout selection buttons.

From the iTX logo on the right, you can access the window menu. Through this, you may minimize, restore or exit the iTX Desktop.

When you exit the iTX Desktop, the Closing View message box shows the progress as the iTX Desktop closes:



Between the title bar and the selection bar, iTX displays your selected layout. By clicking the layout selection buttons, you may be able to select any of the layouts listed below (depending on how your iTX Desktop is set up).

Layouts for schedule playback

Layout name	Description
Channel Control	<p>The main layout for the creating, editing and control of live schedules. It also allows you to prepare schedules offline, in edit channels.</p> <p>The layout has these key features:</p> <ul style="list-style-type: none"> ▪ Channel View Selector. ▪ Channel Selector. ▪ Content Selector. ▪ Event Editor. ▪ Timeline Display. ▪ Schedule Grid. ▪ Schedule Manager. ▪ Next Event Control Panel. ▪ Live Logo Inserter. ▪ Buttons for various pop-up layouts <p>On this layout, you have access to one channel at a time; this may be any channel in the channel views available to you.</p>

Quick tour of the iTX Desktop

Layout name	Description
Channel Control (Wide)	Similar to the standard Channel Control layout but with a wider Schedule Grid. The Content Selector and Event Editor are available on pop-up layouts.
Multi-Channel Control	For the control of playout in multiple channels. A Timeline Display shows schedule activity in all the channels in a selected view. You can control playout on any selected channel in this view. There are no schedule-editing features.
Multi-Channel Display	For monitoring playout in multiple channels. A Timeline Display shows schedule activity in all the channels in a selected view.
Multi-Channel Monitor	For monitoring playout in multiple channels. The layout includes the ability to route the output from selected channels to video monitors. A Timeline Display shows schedule activity in all the channels in a selected view. Three Schedule Grids give schedule details for selected channels.
Gang Control	Similar to the Multi-Channel Control layout, but giving simultaneous control of playout in all channels in a selected view (rather than any individual channel).
Item Insertion	For the control of playout in a selected channel with the ability to insert a news-flash sequence, which you can select from an edit channel.
Live Channel Bypass	For creating, editing and controlling schedules in two parallel channels running on the same Output Server machine: the main playout channel and an associated live channel. iTX runs different schedules independently in both channels; but only one plays out the events that provide the channel output. You select which channel this is by using the Live Channel Management panel on the layout. The live channel needs to be set up in your system before you can use this layout.
Channel Edit	For editing a schedule in any channel in a selected channel view. There are no event-control features (Next Event Control Panel).
Channel View	For viewing schedule activity in any channel in a selected channel view. There are no schedule-editing or event-control features.
Channel Group Control	Similar to the Gang Control layout, for simultaneous control of playout in all channels in a selected view. It includes a Schedule Grid and Global Editor, which you can use to make repeat changes to schedules in selected channels in a channel view.
Preview Channel	For previewing schedule events on a video monitor before iTX plays them out.

Layouts for the ingesting of media

Layout name	Layout purpose
Manual Ingest	For the manual recording of media from a video line feed, with no router control from within the iTX system. You can control simultaneous independent recordings in up to 3 recording channels within a selected channel view.
Dual Ingest	For the manual recording of media from a video line feed, with routes set from within the iTX system. You can control simultaneous independent recordings in up to 2 recording channels within selected channel views.
Ingest Multi	For the manual recording of media from a video line feed, with no router control from within the iTX system. You can control simultaneous independent recordings in up to 6 recording channels within a selected channel view.
Tape Ingest	For the manual or automatic recording of media from a videotape machine connected directly to an Encode Server.
Ingest Manager	For the monitoring and control of automated recordings in a system that includes Ingest Manager (an option iTX service). Includes a button for a pop-up layout: <ul style="list-style-type: none"> ▪ Scheduled Bookings. This is for the configuration and scheduling of automated recordings.
Ingest Manager (Naming Rule)	Similar to the Ingest Manager layout, but with an automatic naming feature.

Layouts for the preparation and management of assets

Layout name	Layout purpose
Asset	For the preparation of media for schedule playback. The layout has features for searching for assets, previewing them and editing their metadata.
Asset Segmentation	For dividing long video clips into smaller ones.

Any workstation or user view should contain just the layouts a particular operator needs; e.g. for scheduling (Channel Control and Multi-Channel) or media preparation (Asset and Manual Ingest).

Note:

- The illustrations of the layouts in this manual may vary from your iTX Desktop layouts, depending on how your system administrator has configured your iTX Desktop.

About service status indicators in layout components





A number of layout components contain a service status indicator box, usually in their top right corner.

A green light in the box indicates that an iTX service that the component depends on is working properly. Where the service is running on an Output Server, the box may display the name of the playout channel running on that server.

This illustration shows two service status indicators in the Schedule Manager on the iTX Channel Control layout:



The color of an indicator light shows the status of a service. The colors have these meanings:

Indicator	Status
 (green)	Normal. The service is operating normally.
 (yellow)	Warning. A current system event or condition may prevent the service operating normally; the service continues to run.
 (red)	Failure. The service has failed.
 (black)	Off. The service is not running.

About system time and local time

In many television broadcasting stations, system time is measured in the international standard time system known as UTC (Co-ordinated Universal Time). For each channel in your iTX system, your system administrator can specify local time as an offset from UTC; this may include adjustments for periods of daylight saving time (DST).

Whether a layout component shows UTC or local time depends upon the component. The following components on the iTX Channel Control layout can display times of either type.

- The Content Selector. You can toggle the display between UTC and local time by clicking the **UTC** button on the component. [More details](#), page 28.
- The Event Editor. As with the Content Selector, you can toggle the display between UTC and local time by clicking the **UTC** button on the component. [More details](#), page 102.
- The Schedule Grid. The Start Time column in the Schedule Grid shows the start time of schedule events in UTC. By adding the Local Start Time column to the Schedule Grid, you can view the start time of schedule events in local time. [More details](#), page 150.

The following component on the iTX Channel Control layout displays time information in local time.

- The Timeline Display. [More details](#), page 135.

Working with schedules

An iTX schedule is a list of events in which assets play out at specified times. The events may involve assets of different types – such as video clips, CGs and logos. Each event has a start time and a duration (i.e. the length of time for which the asset plays).

This illustration shows an example of part of a schedule:

Event	Start Time	Type	C	T	N	W	Item Name	Duration	Status
	06:30:00.0	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	- Morning News	00:30:00.	Ready
	07:00:00.0	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	- Football Today	00:30:00.	Ready
	07:30:00.0	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	- Motor racing	00:30:00.	Ready
	08:00:00.0	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	- Tennis	00:30:00.	Ready

When working with a schedule, you can: manually build one from the start; edit one that is currently in a channel; or load an existing schedule that is stored in the System Database.

You can load schedules that have been created in another application, such as a traffic scheduling application. You need to import such schedules first, by using the iTX system service called the Media Watcher. The Media Watcher can import schedule files if they are in the schedule format defined by the iTX Import Protocol. For more information about this, see "Appendix A: The iTX Import Protocol", page 357.

About iTX channels

You work with schedules in a schedule channel – an iTX feature for the organizing of events. There are two types of schedule channel:

- A **playout** channel (sometimes called an online channel or a transmission channel) has playout functionality. When there is a schedule in a channel of this type, iTX gets the schedule items and plays them out at the specified times. iTX delivers the channel output to a transmission system for broadcasting.

We call a schedule that is in a playout channel a **live** schedule. You should be careful when making changes to events in a live schedule that you do not accidentally disrupt playout in the channel.

- An **edit** channel (sometimes called an offline channel) does not have playout functionality. You use an edit channel to build schedules before loading them into a playout channel. By doing this, you avoid the risk of interfering with live playout. For each iTX playout channel in your system, there is a corresponding edit channel. This has the same name as the playout channel but with the suffix "-EDIT".

When creating schedules in iTX, you build most of the schedule in an edit channel; you then load this into a playout channel where you may perform minor editing operations.

You may have access to any number of playout channels and edit channels within your iTX system. You use the Channel Selector to select the channel you want to work in.

Monitoring and controlling live schedules

The iTX Channel Control layout contains components that give information on the live schedule in a playout channel. Through these components, you can view information about the current event, recent past events and future events.

You may edit a schedule by inserting events, deleting events or making last-minute changes to event properties.

In controlling playout, you may end the current event early by taking the next event or any selected event to air.

iTX Desktop components for working with schedules

In the next few sections, we describe how you use the components on the iTX Channel Control layout to organize and control schedule events:

- The Content Selector, to select assets from the System Database and create schedule events that feature these assets. [More details](#), page 23.
- The Event Editor, to edit the properties of any event in the current schedule. [More details](#), page 83.
- The Timeline Display, to monitor schedule events. [More details](#), page 135.
- The Schedule Grid, to monitor and edit schedule events. [More details](#), page 141.
- The Schedule Manager, to save and load schedules; and create sequences. [More details](#), page 162.
- The Next Event Control Panel, to perform an action on the schedule event that is due to take place next. [More details](#), page 171.
- The Live Logo Inserter, to manually start or stop the playout of a logo over the main video. [More details](#), page 174.

The Content Selector

About the Content Selector



The Content Selector, on the iTX Channel Control layout, is one of a pair of components that you tend to work with alternately when you edit playout schedules (the other is the Event Editor). You use the Content Selector to select assets from the System Database and include them in schedule events; you use the Event Editor to change the properties of schedule events that feature these assets.

The assets contain the location details that iTX needs to find media files on the Media Store; they also contain information about other properties of the media, such as a video clip's in- and out-points. In the System Database, there is a different type of asset for each different type of media file on the Media Store: video clip, CG, logo, etc.

The Content Selector gives you access to the System Database through PinPoint (an iTX tool for database searching). You can search the System Database, select assets and copy these to the Content Selector. In this way, you create shortlists of assets on the Content Selector that you can use in schedule events. [More details](#), page 182.

You can modify assets on the Content Selector (e.g. change an in-point), before using them in schedule events. Changes you make in this way do not affect the original assets in the System Database.

As well as assets, the Content Selector handles other types of item you can use in schedule events. You use these items for operations such as the insertion of VANC data in the video signal and the playout of graphics from an external Vertigo XG graphics system.

Content Selector palettes

The Content Selector organizes assets and other items that can feature in schedule events on palettes. It has a separate palette for each type of asset and schedule item. Depending on what software plug-in licenses you have for your iTX system, the Content Selector may include any of the following palettes.

Palettes for assets

- Video Clip
- Logo
- CG
- Subtitle
- Stills
- Voice Over
- Music Clip
- Live
- Sequence
- Schedule

Palettes for other types of schedule item

- External Logo
- Split Break
- Slide Show
- External Subtitler
- Clarity
- VizRT
- GPI
- Studio
- Router Event
- VANC Data
- V-Chip
- News Story

Palettes for schedule items managed by other Grass Valley equipment

- iTX Render (*see the note below*)
- VertigoXG (*see the note below*)

Comments palette

There is an extra palette that enables you to insert comment lines in a schedule, to provide information (comment lines are not schedule events):

- Comment

The Content Selector displays one palette at a time. When you want to work with a particular type of asset or schedule item, you select the palette for that type by clicking a palette selection button.

Each palette has a selection pane in which it displays a shortlist of available assets or schedule items; some palettes display a list of names; others, thumbnail images of graphic items (e.g. CGs). When an asset or other item is in a selection pane, you may include it in events in the current schedule.

If you are controlling multiple playout channels on your iTX Desktop, the contents of a selection pane vary according to what channel you select through the Channel Selector.

Note:

- We do not cover the use of the iTX Render and VertigoXG palettes in this section. Complete information for these is instead given in separate documentation, available from Grass Valley.

Setting up palettes on the Content Selector



To simplify the selection of palettes, you can set up the Content Selector to show only the ones that you want to work with.

1. On the Content Selector, click **Configure**.

iTX displays the Content Selector configuration dialog:



The names of hidden palettes appear in the Hidden Panels pane; the names of visible palettes, in the Displayed Panels pane.

2. Do the following to set the palette layout.
 - Use the arrow buttons,  and , to move selected palettes between panes until just the ones you want to appear on the Content Selector are in the Displayed Panels pane.
 - To change the order of palette selection buttons, select any palette in the Displayed Panels pane; click **Down** or **Up**.
3. Click **OK**.

Changing the properties of an asset in the Content Selector

Before you include an asset in a new schedule event, you can edit some of its properties in the Content Selector. The properties you can change depend on the asset type. For example, you can edit the in- and out-points of a video clip; you can change the size and position of a CG.

The asset has the new properties the next time you use it in a schedule event.

Your changes affect only the copy of the asset on the Content Selector – not the original asset in the System Database.

Changing asset properties on the Content Selector affects whether or not iTX updates an event if the asset it features is changed on the Asset layout. [More details](#), page 141.

Managing the contents of a palette selection pane

A palette selection pane contains a shortlist of assets that you can include in schedule events. You can manage a shortlist by adding or removing assets.

Add assets to a palette selection pane

1. Select a palette on the Content Selector.
2. Click **Search** to open PinPoint.
3. Use PinPoint to select assets from the System Database. [More details](#), page 188.

When you close PinPoint, the selection pane updates to include the assets you select.

Remove assets from a palette selection pane

Once you no longer need an asset, you may remove it from a selection pane.

1. Select a palette on the Content Selector.
2. Do one of the following to remove unwanted assets.
 - To remove assets one at a time, select an asset in the palette selection pane; click **Remove**.
 - To remove all assets, click **Clear All**.

Note:

- iTX automatically removes an asset from a palette selection pane if you delete the asset from the System Database.

The Content Selector

Editing a schedule by dragging and dropping assets from the Content Selector

Creating schedule events

You use the Content Selector to create events in a schedule one at a time.

To create a schedule event, you select an asset in the Content Selector; you then drag and drop the asset onto either the Schedule Grid or the Timeline Display:



iTX enters the new event in the Schedule Grid; it displays a block to represent the event on the Timeline Display.

Primary and secondary events

The drag-and-drop process may create either a primary event or a secondary event. A primary event plays in sequence with other primary events; a secondary event generally plays at the same time as a primary event, with which it is associated. During playback, iTX displays the media in a secondary event over the top of the media in a primary event. The secondary-event media is sometimes called an overlay.

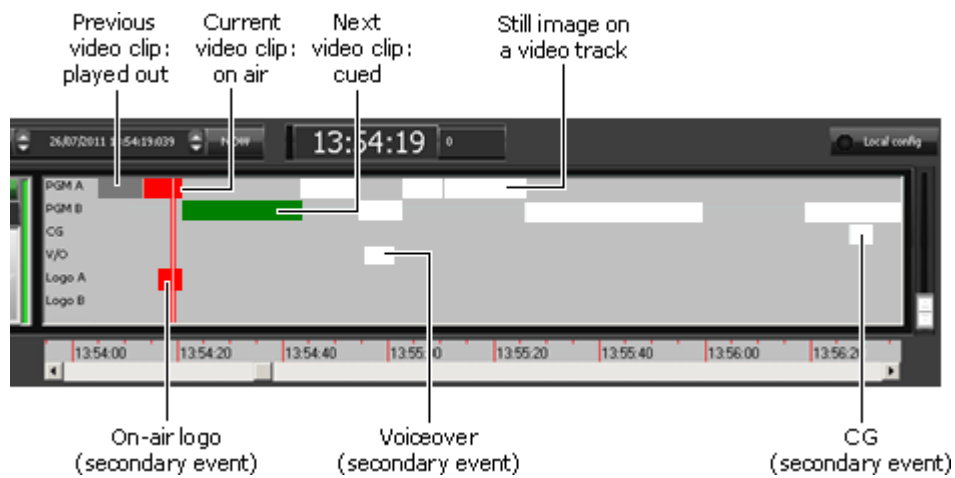
Primary events usually feature video clips or still images. Secondary events usually feature CGs, logos or voiceovers.

The Content Selector

If a primary event has an associated secondary event, a plus sign appears in front of the primary event in the Schedule Grid. Clicking the plus sign expands the entry for the primary event to show the secondary events.

	Start Time	Type	C	T	N	W	Item Name
	06:30:00.0	Video Clip	■	T		-	Morning News
	07:00:00.0	Video Clip	■	T		-	Football Today
Primary event	07:30:00.0	Video Clip	■	T		-	Motor Racing
Secondary event	07:30:00	Logo-Durat	■	T		-	Sports logo
	08:00:00.0	Video Clip	■	T		-	Tennis

On the Timeline Display, iTX shows secondary events occurring at the same time but on separate tracks to their primary events. This illustration shows the timeline for a schedule that contains primary and secondary events:



Locating a new schedule event

Three factors affect how iTX fits a new event into a schedule. These are:

- The event time mode.
- The event level (primary or secondary).
- Where you drop the asset to create the event.

Before dragging an asset, you set an event time mode through the event-scheduling controls on the Content Selector:



You can set an event to have a Fixed time mode or an Auto time mode. An event with a Fixed time mode starts at a time that you specify in the **Time** box. An event with an Auto time mode starts at a time that iTX calculates based on the event's position in the schedule. After creating an event, you can give it one of a wider range of time modes in the Event Editor. [More details](#), page 94.

The Content Selector

You may drag an asset to the Schedule Grid to create a primary event with an Auto time mode. iTX locates the new event immediately after the event that you drop the asset onto; it adjusts the start times of later events to accommodate the new event.

In a similar way, you may create a secondary event with an Auto time mode. iTX schedules this event to start at the same time as the primary event that you drop the asset onto.

To create a primary event with an Auto time mode by dragging an asset to the Timeline Display, you need to drop the asset onto a space on a video track. iTX locates the new event after the last primary event. If, instead, you drop the asset onto a primary event, you create a secondary event at the point in the schedule where you drop the asset.

Displaying UTC or local time when creating Fixed events

If you are working with a channel that is configured with a time offset from UTC, you may schedule the start time of a new Fixed event by referring to either local time or UTC in the Content Selector. Clicking the **UTC** button toggles the time in the **Time** box between the two types: UTC is shown when the button displays a red light. [More details](#), page 20.

Create a schedule event by dropping an asset into the Schedule Grid

1. Select the palette that handles the type of asset you want to include in a new event.
2. Ensure the asset you want to use is in the palette selection pane. [More details](#), page 26.
3. Do one of the following to set the event timing.
 - If you want to set the start time manually, select **Fixed**; enter the start time in the **Time** box. [More details](#), page 207.
 - If you want iTX to calculate the start time, based on the scheduling of other events, ensure **Fixed** is not selected.

Note: If **Fixed** is not selected for the first event in a schedule, iTX schedules the event to start almost immediately (there is a delay of about 30 seconds during which iTX locates and cues the asset in the event).

4. Do the following to create an event.
 - Select an asset in the palette selection pane.
 - Drag the asset onto the Schedule Grid.
 - Drop the asset when the mouse pointer is over the event that you want the new event to immediately follow. If you set a fixed time mode for the event, you may drop the asset anywhere on the Schedule Grid.

iTX enters the new event in the Schedule Grid; it displays a block to represent the event on the Timeline Display.

Note:

- You can select any event in the Schedule Grid and check its properties in the Event Editor. You can edit some of these properties. For instance, you may set a video transition for a video clip. [More details](#), page 83.
- If the drag-and-drop option is enabled for the Schedule Grid, you can re-order events by dragging and dropping them within the Schedule Grid. [More details](#), page 151.
- When you create a Fixed event in a channel with a UTC offset, remember the Start Time column in the Schedule Grid shows the event start time in UTC. This may be different to the value in the **Time** box on the Content Selector, depending on the status of the **UTC** button.

Create a schedule event by dropping an asset onto the Timeline Display

1. Select the palette that handles the type of asset you want to include in a new event.
2. Ensure the asset you want to use is in the palette selection pane. [More details](#), page 26.
3. Do one of the following to set the event timing.
 - If you want to set the start time manually, select **Fixed**; enter the start time in the **Time** box. [More details](#), page 207.
 - If you want iTX to calculate the start time, based on the scheduling of other events, ensure **Fixed** is not selected.

Note: If **Fixed** is not selected for the first event in a schedule, iTX schedules the event to start almost immediately (there is a delay of about 30 seconds during which iTX locates and cues the asset in the event).

4. Select an asset in the palette selection pane and drag it onto the Timeline Display. Then do one of the following.
 - To create a primary event, drop the asset in a clear area on any timeline track. iTX automatically locates the new event after the last event on the correct track.
 - To create a secondary event, drop the asset onto the event that is to be its primary event. iTX automatically locates the new event alongside its primary event on the correct track; it schedules the secondary event to start at the time corresponding to the point on the timeline where you drop the asset.

iTX enters the new event in the Schedule Grid; it displays a block to represent the event on the Timeline Display.

Note:

- You can select any event in the Schedule Grid and check its properties in the Event Editor. You can edit some of these properties. For instance, you may set a video transition for a video clip. [More details](#), page 83.
- If the drag-and-drop option is enabled for the Schedule Grid, you can re-order events by dragging and dropping them within the Schedule Grid. [More details](#), page 151.
- When you create a Fixed event in a channel with a UTC offset, remember the Start Time column in the Schedule Grid shows the event start time in UTC. This may be different to the value in the **Time** box on the Content Selector, depending on the status of the **UTC** button.

Remove one or more events from a schedule

1. Do one of the following to permanently remove events from a schedule.
 - To remove a single event, right-click the event in the Schedule Grid and select **Delete** from the displayed menu.
 - To remove multiple events, select the events in the Schedule Grid; press the Shift or Control key while clicking events to select them. Right-click any of the events and select **Delete** from the displayed menu.
 - To remove all events, right-click the Schedule Grid and select **Delete All** from the displayed menu.

When iTX prompts you to confirm your instruction, click **Yes**. iTX removes the selected events from the Schedule Grid and the Timeline Display.

Note:

- When controlling a live schedule, you can instruct iTX to skip an event. iTX leaves the event in the Schedule Grid but omits it from scheduling operations. [More details](#), page 157.

Working with video clips

About the Video Clip palette

On the Video Clip palette, you build a shortlist of video clips for including in schedule events:



In building the shortlist, you use PinPoint to select video clips from the System Database; these then appear in the Selected Clips list in the palette selection pane. [More details](#), page 26.

Once a clip is in the Selected Clips list, you can include it in a schedule event. Before you do, you may:

- Preview the clip in the preview window. [More details](#), page 197.
- Change the in-point or out-point of the clip. [More details](#), page 202.
- Change the audio level of the clip. [More details](#), page 203.
- Select the audio output channels iTX uses to deliver the clip content for a secondary video clip. [More details](#), page 206.
- Change the aspect-ratio details (source format and active region) of the clip. [More details](#), page 206.
- Set up the video clip to play repeatedly (loop) in an event. [More details](#), page 207.
- Change the copy-protection setting for the clip. [More details](#), page 207.
- For a stereoscopic 3D playout channel, mark the video clip as in the channel's native format. [More details](#), page 207.

Adding a video-clip event to a schedule

When you add a video-clip event to a schedule, you may make it either a primary event or a secondary event.

Adding a video-clip event as a primary event

Usually, you make a video-clip event a primary event. To do so, you drag and drop the video clip onto the Schedule Grid or a clear part of the Timeline Display.

iTX enters the new event in the Schedule Grid; it displays a block to represent the event on the Timeline Display.

iTX normally places the block on the first program video (PGM A) track. An exception to this is if the event starts with a cross-fade transition and follows an event represented on the PGM A track. In this case, iTX places the block for the new event on the second program video (PGM B) track instead – since both events are on air at the same time during a cross-fade transition.

Adding a video-clip event as a secondary event, for a picture-in-picture effect

You can create a picture-in-picture effect by dropping a video clip onto a primary event (featuring either another video clip or a still image) on the Timeline Display. The new event becomes a secondary event, associated with the primary event you drop the video clip onto.

The video in the secondary event displays within an area of the picture in the primary event; you define this area in the Event Editor.

iTX enters the new secondary event in the Schedule Grid. It displays a block to represent the event on one of the video tracks (PGM A or PGM B) on the Timeline Display – alongside the block (on the other video track) for the associated primary event.

You should check and edit the properties of the secondary event – in particular, its offset – in the Event Editor.

Previewing a video clip in the preview window

After you select a video clip in the Selected Clips list, you can play the clip in the preview window using a range of available controls. [More details](#), page 197.

Changing video-clip properties

After you select a video clip in the Selected Clips list, you can change some of its properties before creating a schedule event based on it. [More details](#), page 84.

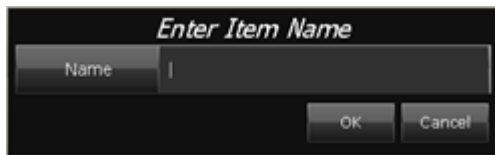
Note:

- If you want to change any **event** property (such as the start time or transition) of a video-clip event, you need to use the Event Editor.

Using an unknown video clip in a schedule event

The first item, called **Unknown**, in the Selected Clips list of the Video Clip palette is a special item. You use it to create a schedule event based on a video clip that is not registered in the iTX system. The video clip needs to be registered before the event can take place.

As with existing video clips, you can specify an in- and out-point for an unknown clip, and so define the clip duration. When you create a schedule event by dragging **Unknown** to the Schedule Grid or Timeline Display, iTX displays the Enter Item Name dialog:



The dialog requests you to name the video clip in the new event. When you enter a name and close the dialog, iTX creates a schedule event based on a video clip with that name.

At first, the schedule event has a status of "Not Ready". When a video clip with the same name as the one you specify for the unknown clip gets registered, iTX updates the event.

Note:

- Instead of entering the name of a real video clip in the schedule event, you may enter a temporary name – one that is not intended to be given to any real clip. You can then use the Event Editor to replace the unknown clip with any registered video clip, which you select from the System Database. [More details](#), page 121.
- If you give the unknown clip the same name as a video clip that is already registered, iTX automatically includes the registered clip in the new schedule event.

Adding a VTR event to a schedule

If your iTX system includes the Device Manager Service, you can add a VTR event to a schedule.

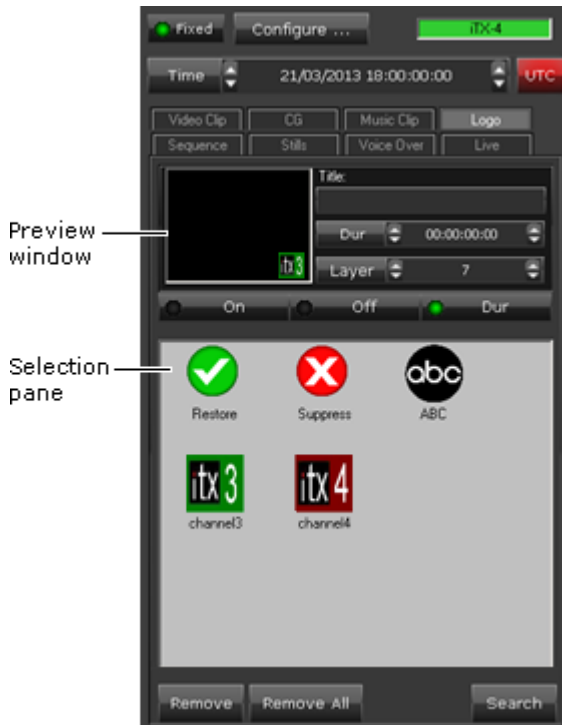
To do so, you import a video clip with a videotape location (in a format defined by the iTX Import Protocol). After the VTR clip is registered, you use PinPoint to add it to the Selected Clips list. You then drag the VTR clip to the Schedule Grid or Timeline Display. The resulting VTR event is highlighted yellow and has a status of "Not Ready".

On the Event Editor, you select a videotape machine for iTX to use to play out the VTR event. [More details](#), page 122.

For more information about the iTX Import Protocol, see "[Appendix A: The iTX Import Protocol](#)", page 357.

Working with logos

About the Logo palette



iTX creates logo assets for graphics files that are placed in the Logos folder in the Media Store Inbox.

Logos may be still images or animations (e.g. animated TARGA or VAF sequences). In an animation, iTX displays the images at the playout frame rate of the channel.

In the selection pane of the Logo palette, you assemble a set of logos that you want to be available for including in schedule events. To do so, you use PinPoint to select logos from the System Database. [More details](#), page 188.

Once a logo is in the selection pane, you can include it in schedule events. Before you do, you may:

- Preview the logo in the preview window – iTX displays the logo in the preview window when you select it in the selection pane.
- Set an on, off or duration property for the logo.
- Change the title of the logo.
- Change the default duration of the logo. iTX applies the default duration to any logo event that you add to a schedule.
- Change which graphics layer (from 1 to 10) the logo appears on. A logo on a higher-numbered layer appears in front of graphics items that are on lower-numbered layers.

Note:

- A logo has some asset properties that you can modify in the Logo Editor. [More details](#), page 331.

Adding a logo event to a schedule

Usually, a logo plays out as an overlay on a video clip or still image.

In adding a logo event to a schedule, you make it a secondary event. To do so, you drop the logo onto its primary event on the Schedule Grid or Timeline Display.

iTX enters the new logo event in the Schedule Grid; it displays a block to represent the event on the Logo track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You should check and edit the properties of the logo event – in particular, its time mode and offset – in the Event Editor.

Options for controlling the playout of logos

There are two ways of controlling the playout of a logo:

- You can use two schedule events, one to switch the logo on and the other to switch it off. This is particularly useful when you want to relate the logo timing to the start or end of another schedule event; you do not then need to calculate an exact duration.
- You can create a single schedule event in which iTX displays the logo for a specified duration – just as it does for other types of item (video clip, CG, etc.).

Options (**On**, **Off** and **Dur**) on the Logo palette set the logo property that affects the type of logo event created in the drag-and-drop process. You should select the required option, before adding a logo event to a schedule; you can change it in the Event Editor afterwards.

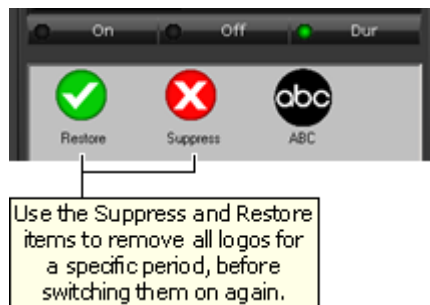


Note:

- To ensure iTX removes logos when they are no longer required, remember to schedule a corresponding off logo event for each on logo event.

Temporary removal of all logos

Sometimes, you may want to temporarily remove all logos that iTX is displaying – just while certain events play out – and later restore them. You can do this by creating events using two special items: the **Suppress** item and the **Restore** item. These items are always present in the selection pane of the Logo palette. In a Suppress logo event, iTX switches off all active logos; in a Restore logo event, it switches them on again.



Set the logo-type property

1. Select a logo in the Logo-palette selection pane.
iTX loads the logo in the preview window.
2. Do one of the following, depending on how you want iTX to handle the logo in a schedule event.
 - Click **ON** if you want iTX to switch the logo on.
 - Click **OFF** if you want iTX to switch the logo off.
 - Click **DUR** if you want iTX to display the logo for the specified duration. Enter the required value in the **Dur** box.

Note:

- You can also change the logo-type property using the Event Editor.

Change the title of a logo

1. Select a logo in the Logo-palette selection pane.
2. Enter the new title in the **Title** box; press Return to complete the entry.
iTX displays the new title of the logo in the palette selection pane.

Change the default duration of a logo event

iTX assigns a default duration to any logo event you create with the **Dur** option selected. You can change this default value.

1. Enter the new value in the **Dur** box. [More details](#), page 207.

Note:

- You can also change the duration of a logo event by using the Event Editor.

Assign a logo to a different layer

iTX can stack graphics assets on up to ten layers in front of the video image. The layers are numbered 1 to 10 – with layer 10 at the front. Assets on higher-numbered layers appear in front of assets on lower-numbered layers.

By default, iTX assigns logos to layer 5. You may move any logo to a different layer to prevent it being obscured by other graphics assets.

1. Select a logo in the Logo-palette selection pane.
2. Enter the layer number in the **Layer** box.

Note:

- You can also change the layer number in the Logo Options dialog (which you can select from the Logo Editor).

Suppress or restore all active logos

1. To stop the display of all logos that are scheduled to play out from a specific point in a schedule, do the following.
 - Drag the **Suppress** item from the selection pane of the Logo palette; drop it onto either the Schedule Grid or the Timeline Display. iTX enters a suppress-logo event in the Schedule Grid, and displays a block to represent it on the Timeline Display.
 - Check the event timing in the Event Editor, and adjust it if necessary.
2. To restart the display of all logos that are scheduled to play out, do the following.
 - Drag the **Restore** item from the selection pane of the Logo palette; drop it onto either the Schedule Grid or the Timeline Display. iTX enters a restore-logo event in the Schedule Grid, and displays a block to represent it on the Timeline Display.
 - Check the event timing in the Event Editor, and adjust it if necessary.

Clearing all logos at the start of a new schedule

There may be times when a schedule running in a playout channel is replaced by another one before all events have played out. This can result in a logo staying on air when the logo event that switches it off is among the unplayed events.

To prevent iTX displaying unwanted logos from a previous schedule, a new schedule may start with a logo event that switches off all logos. For this, you create a logo event with a special logo – one with the name “Clear All”. The Clear All logo must be registered as an asset in your iTX system.

Working with external logo inserters

When the output signal from a channel is fed to an external logo inserter, iTX may be able to operate this device to insert logos into the signal. It can do so if the logo inserter is one of these types:

- Grass Valley Imagestore (various models).
- Grass Valley LGK-3901

About the External Logo palette



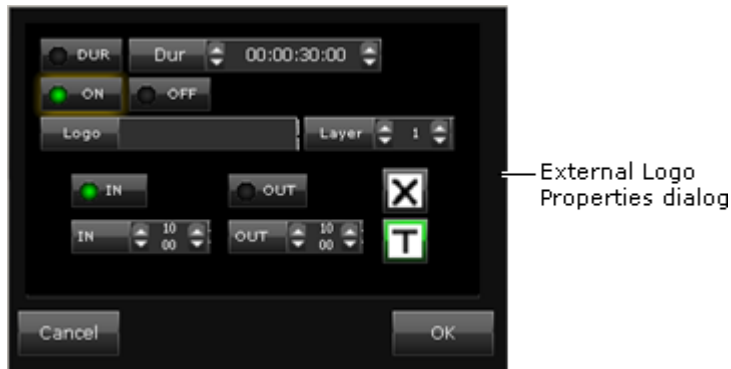
In the selection pane of the External Logo palette, you create a list of external logos that you want to be available for including in schedule events.

The Content Selector

In building the list, you enter the details of logos that are stored on an external logo inserter. For each one, you specify:

- The logo name.
- The on, off or duration property for the logo.
- The in- and out-transitions for the logo.
- The number of the graphics layer (from 1 to 10) the logo is to appear on. A logo on a higher-numbered layer appears in front of graphics items that are on lower-numbered layers.

You specify the details in the External Logo Properties dialog when you add a logo to the palette selection pane.



When a logo is in the External Logos list of the palette selection pane, you can use the Content Selector to include it in schedule events.

Options for controlling the playout of logos

Just as for logos that are stored on an iTX Media Store, there are two ways of controlling the playout of an external logo:

- You can use two schedule events, one to switch the logo on and the other to switch it off.
- You can create a single schedule event in which iTX displays the logo for a specified duration.

Options (**On**, **Off** and **Dur**) on the External Logo Properties dialog set the logo property that affects the type of logo event created in the drag-and-drop process. You can change this in the Event Editor afterwards.

Note:

- The **Suppress** and **Restore** commands that are available on the Logo palette do not affect external logos.
- The Grass Valley LGK-3901 allows iTX to use up to 3 layers for logo insertion and up to two external Key and fill input pairs.

Adding an external-logo event to a schedule

Usually, a logo plays out as an overlay on a video clip or still image.

In adding an external-logo event to a schedule, you make it a secondary event. To do so, you drop the logo onto its primary event on the Schedule Grid or Timeline Display.

iTX enters the new external-logo event in the Schedule Grid; it displays a block to represent the event on the Logo track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You should check and edit the properties of the external-logo event – in particular, its time mode and offset – in the Event Editor.

Add an external logo to the palette selection pane

1. Select the External Logo palette on the Content Selector.
2. Click **Add Logo** to display the External Logo Properties dialog.
3. Enter the name of the logo in the **Logo** box.
4. Enter a layer number in the **Layer** box.
5. Do one of the following, depending on how you want iTX to handle the logo in a schedule event.
 - Click **ON** if you want iTX to switch the logo on.
 - Click **OFF** if you want iTX to switch the logo off.
 - Click **DUR** if you want iTX to display the logo for the specified duration. Enter the required value in the **Dur** box.
6. Do the following to set an in-transition.
 - Select **IN**.
 - Click a transition selection button to select a transition type (cut or dissolve).
 - If you select a dissolve transition, enter the duration of the transition in the **IN** time-entry box.
7. Do the following to set an out-transition.
 - Select **OUT**.
 - Click a transition selection button to select a transition type (cut or dissolve).
 - If you select a dissolve transition, enter the duration of the transition in the **OUT** time-entry box.
8. Click **OK** to close the dialog.

The logo appears in the External Logos list.

Note:

- You can change the logo properties by using the Event Editor.

Scheduling logos using the External Key and Fill inputs of the LGK-3901

iTX handles content from an external device in the same way it handles logos stored on the card – allowing it to be scheduled to switch on, switch off or play for a specified duration.

In schedule events, this content is referenced by one of two special names. The following default names are used for this (they can be changed in the LGK-3901 configuration).

For the first pair of inputs:

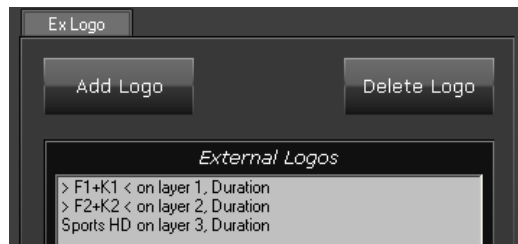
> K1+F1 <

For the second pair of inputs:

> K2+F2 <

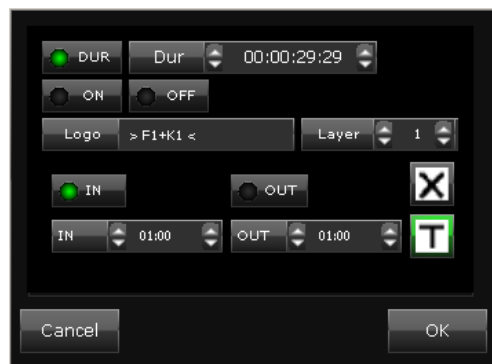
Note: a space appears after the first angle bracket and before the second one in each name.

Events can be scheduled from the Content Selector on the Channel Control layout and modified in the Event Editor; they can also be included in imported schedules. The Content Selector shows the name, layer and logo type for available items:



Two graphics, one for each key-and-fill input pair, are automatically generated by the plug-in and always appear in the Content Selector list.

Others with the same names but with different properties (layer, logo type) can be made available. This is done by clicking **Add Logo** and specifying the details in the Add Logo dialog:

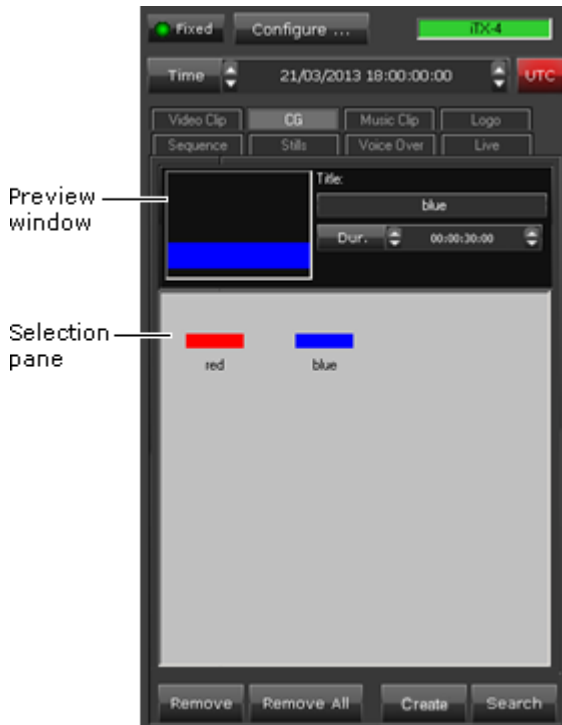


Remove an external logo from the palette selection pane

1. Select a logo in the External Logos list.
2. Click **Delete Logo**.

Working with CGs

About the CG palette



In the selection pane of the CG palette, you assemble a set of CGs that you want to be available for including in schedule events. There are two ways of doing this:

- You can use PinPoint to select existing CGs from the System Database. [More details](#), page 188.
- You can create new CGs using the iTX CG application, which you can open from the CG palette. [More details](#), page 211.

Once a CG is in the selection pane, you can include it in schedule events. Before you do, you may:

- Preview the CG in the preview window – iTX displays the CG in the preview window when you select it in the selection pane.
- Edit the CG, if it is one that you created using the iTX CG application.
- Change the title of the CG.
- Change the default duration of the CG. iTX applies the default duration to any CG event that you add to a schedule.

Adding a CG event to a schedule

Usually, a CG plays out as an overlay on a video clip or still image.

In adding a CG event to a schedule, you make it a secondary event. To do so, you drop the CG onto its primary event in the Schedule Grid or on the Timeline Display.

iTX enters the new CG event in the Schedule Grid; it displays a block to represent the event on the CG track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You should check and edit the properties of the CG event – in particular, its time mode and offset – in the Event Editor.

Edit a CG in the iTX CG application

1. Select a CG in the selection pane of the CG palette.
iTX displays the CG in the preview window.
2. Click the preview window.
The iTX CG application opens with the selected CG loaded.
3. Use the features of this application to edit and save the CG. [More details](#), page 211.

Change the title of a CG

1. Select a CG in the selection pane of the CG palette.
2. Enter the new title in the **Title** box; press Return to complete the entry.
iTX displays the new title of the CG in the palette selection pane.

Change the duration of a CG event

iTX assigns a default duration to any CG event you create featuring a CG from the CG palette. You can change this default value.

1. Enter the new value in the **Dur** box. [More details](#), page 207.

Note:

- You can also change the duration of a CG event by using the Event Editor.

Working with subtitle files

About the Subtitle palette



In the Subtitle palette, you load a subtitle clip that you want to attach to a particular video-clip or still-image event. In doing so, you use PinPoint to select the subtitle clip from the System Database. [More details](#), page 182.

Once the subtitle clip is loaded in the palette, you can include it in a schedule event.

At the bottom of the Subtitle palette is the subtitle insertion bar, which you use to add a subtitle event to a schedule.

Adding a subtitle event to a schedule

A subtitle clip contains lines of text that play out over a video clip or still image. In adding a subtitle event to a schedule, you make it a secondary event. To do so, you drag the subtitle insertion bar and drop it onto the primary event in the Schedule Grid or on the Timeline Display.

iTX enters the new subtitle event in the Schedule Grid; the event has the same start time and duration as the primary event; it displays a block to represent the event on the Subtitles track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You may modify the time mode and offset of the subtitle event in the Event Editor.

Working with still images

About the Stills palette



In the selection pane of the Stills palette, you assemble a set of still images that you want to be available for including in schedule events. In doing so, you use PinPoint to select still images from the System Database. [More details](#), page 188.

iTX automatically adjusts the proportions of a still image to fit the display format (4x3 or 16x9) of the playout channel.

Once a still image is in the selection pane, you can include it in a schedule event. Before you do, you may:

- Preview the still image in the preview window – iTX displays the still image in the preview window when you select it in the selection pane.
- Change the title of the still image.
- Change the default duration of the still image. iTX applies the default duration to any still image that you add to a schedule.

Adding a still-image event to a schedule

You may add a still-image event to a schedule as either a primary event or a secondary event.

Adding a still-image event as a primary event

To create a still-image event as a primary event, you drag and drop a still image onto the Schedule Grid or a clear part of the Timeline Display.

iTX enters the new event in the Schedule Grid; it displays a block to represent the event on the Timeline Display.

Adding a still-image event as a secondary event, for a picture-in-picture effect

You can create a picture-in-picture effect by dropping a still image onto a primary event (which may feature either a video clip or another still image) on the Timeline Display. The new event becomes a secondary event; it is associated with the primary event you drop the still image onto.

The still image in the secondary event displays within an area of the picture in the primary event. You define this area in the Event Editor when the secondary event is selected.

iTX enters the new secondary event in the Schedule Grid. It displays a block to represent the event on one of the video tracks (PGM A or PGM B) on the Timeline Display – alongside the block (on the other video track) for the associated primary event. You should check and edit the properties of the secondary event – in particular, its offset – in the Event Editor.

Change the title of a still image

1. Select a still image in the Stills-palette selection pane.
2. Enter the new title in the **Title** box; press Return to complete the entry.
iTX displays the new title of the still image in the palette selection pane.

Change the default duration of a still-image event

iTX assigns a default duration to any still-image event you create using a still image from the Stills palette. You can change this default value.

1. Enter the new value in the **Dur** box. [More details](#), page 207.

Note:

- You can change the duration of a still-image event by using the Event Editor.

Working with voiceover clips

About the Voice Over palette



Through the Voice Over palette, you build a shortlist of voiceover clips that you want to be available for including in schedule events. In building the shortlist, you use PinPoint to select voiceover clips from the System Database; these then appear in the Selected Audio Clips list on the palette. [More details](#), page 188.

Once a clip is in the Selected Audio Clips list, you can include it in a schedule event. Before you do, you may:

- Play and listen to the voiceover clip.
- Change the title of the voiceover clip.
- Change the in- and out-point of the voiceover clip.
- Select the audio output channels iTX uses to deliver the clip content for the voiceover clip. [More details](#), page 206.

Once the voiceover is on air, you cannot stop it before its scheduled end.

Adding a voiceover-clip event to a schedule

A voiceover clip plays out over a video clip or still image. In adding a voiceover-clip event to a schedule, you make it a secondary event. To do so, you drop the voiceover clip onto its primary event in the Schedule Grid or on the Timeline Display.


The Content Selector

iTX enters the new voiceover-clip event in the Schedule Grid; it displays a block to represent the event on the V/O track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You should check and edit the properties of the voiceover-clip event – in particular, its time mode and offset – in the Event Editor.

Play a voiceover clip

1. Select a voiceover clip in the Selected Audio Clips list.
2. Use the clip playback controls to play the clip:

- Click  to play the clip.
- Click  to pause the clip.
- Click  to reset the clip to the start.

Change the title of a voiceover clip

1. Select a voiceover clip in the Selected Audio Clips list.
2. Enter the new title in the **Title** box; press Return to complete the entry.

When you add the voiceover clip to a schedule, iTX displays the title of the clip in the Schedule Grid.

Change the in-point or out-point of a voiceover clip

1. Select a voiceover clip in the Selected Audio Clips list.
2. Do one of the following if you want to change the in-point.
 - Enter a new value directly in the **In Point** timecode box.
 - Click **In Point** to display the Time Calculator. Use this to enter a timecode value in the **In Point** timecode box.

[More details](#), page 207.

3. Do one of the following if you want to change the out-point.
 - Enter a new value directly in the **Out Point** timecode box.
 - Click **Out Point** to display the Time Calculator. Use this to enter a timecode value in the **Out Point** timecode box.

[More details](#), page 207.

Note:

- You can change any event property (such as the start time or transition) of a voiceover-clip event in the Event Editor.

Working with live events

About the Live palette



An Output Server can be set up to receive a live feed from a matrix router: the Output Server is connected as a router destination; one or more live feeds, as router sources. The live feed becomes available for playout by iTX when it is included in a type of asset called a live event. You can create live events on the Asset layout. [More details](#), page 307.

On the Live palette, you can add live events to the Live Sources list; you use PinPoint to do this. While a live event is in the list, you can add it to schedules. You may also:

- View the live-event properties.
- Set an event duration. iTX assigns the duration to any schedule event it creates when you add the live event to a schedule.

Adding a live event to a schedule

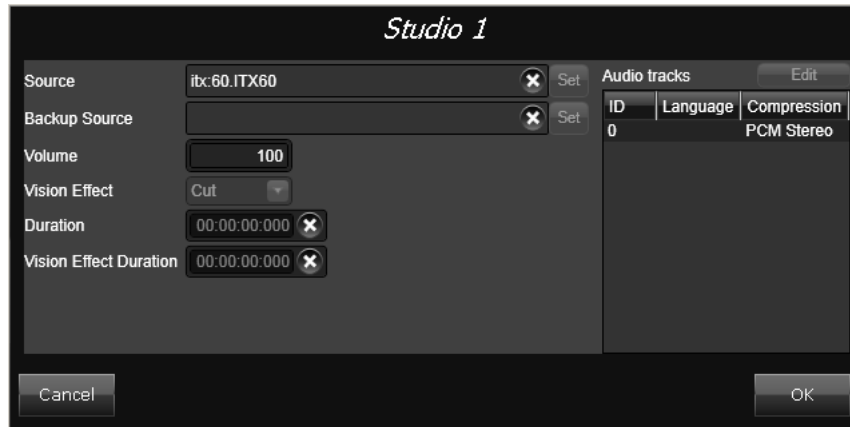
When adding a live event to a schedule, you make it a primary event. You drag and drop the live event into the Schedule Grid or onto a clear part of the Timeline Display.

iTX enters the new schedule event in the Schedule Grid; it displays a block to represent it on the Timeline Display.

Display live-event properties

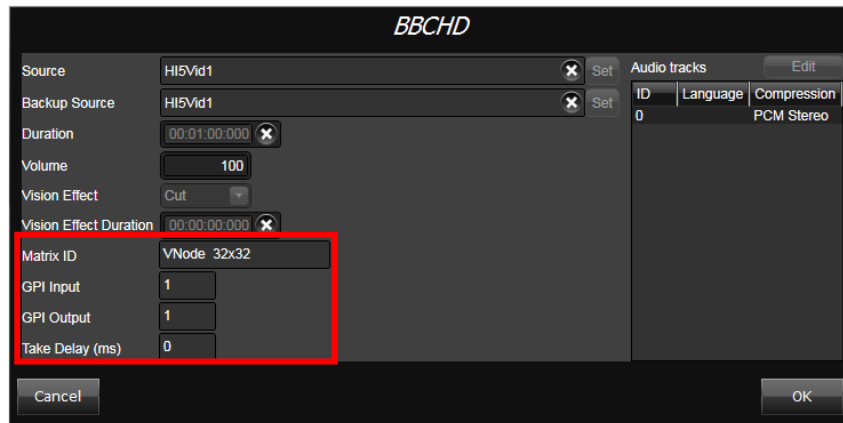
1. Select a live event in the Live Sources list.
2. Click **Properties**.

iTX displays the Properties dialog. This shows details of the properties specified in the live event, including the name of the router source that provides the live feed:



The dialog only lets you view the property details. To change any of them, you need to work on the Asset layout.

If there is GPI data configured for the live event (not added as a secondary item), this information is also displayed in Properties.



Set a duration of a live event

1. Enter the new value in the Dur box. [More details](#), page 207.

Note:

- You can change the duration of a live event using the Event Editor.

Working with sequences

About the Sequence palette



You use the Sequence palette to add sequences to schedules. A sequence is a very small schedule – a group of schedule events that iTX handles as a single event block. A typical sequence might contain a few video-clip events and secondary events, with certain transitions or vision effects. You can move a sequence, as a block, within a schedule; you do not have to move each event individually.

Through the Sequence palette, you can build a shortlist of sequences that you want to be available for including in schedules. In doing so, you use PinPoint to select sequences from the System Database; these then appear in the Sequences list in the palette selection pane. [More details](#), page 188. You can add any sequence from this list to the current schedule.

Using the **New** button, you can add an empty sequence to the Sequences list; i.e. one with no events. You may rename it before adding it to a schedule. Once it is in the schedule, you can add events to it; you may also save it in the System Database.

To add a sequence to a schedule, you may drag it from the Sequences list or drag the insertion bar while the sequence is selected.

In a system with a pass-through channel – e.g. a channel used for commercial insertion into a live video source – you may use the **Fixed Dur** button to set a fixed duration for a sequence of commercials. Then the pass-through channel does not return to the live source until the end of the sequence, even if the last event in the sequence ends before this point. You can set a fixed duration for a blank sequence.

Adding an existing sequence to a schedule

Usually, you add a sequence to a schedule by dragging it from the Sequences list and dropping it into the Schedule Grid. iTX handles the sequence as a single block of events, which you can move anywhere in your current schedule.

If the start time of the sequence is not within an interval called the Schedule Lookahead time of the channel you are working in, iTX displays a single entry for the sequence in the Schedule Grid; it displays a single block to represent the sequence on the Timeline Display.

When the start time of the sequence falls within the Schedule Lookahead time, iTX displays a plus sign in front of the entry in the Schedule Grid. By clicking the plus sign, you can expand the entry and view the individual events. On the Timeline Display, blocks for the individual events replace the single block for the sequence.

Note:

- Your system administrator can set the length of the Schedule Lookahead time.

Change the name or title of a sequence

1. Select a sequence in the Sequences list.
2. Enter a new name in the **Name** box, if you want to.
3. Enter a new title in the **Title** box, if you want to.

Add a blank sequence to a schedule

1. Click **New**.
iTX adds a blank sequence (called “Blank Sequence”) to the Sequences list.
2. Enter a name and title for the blank sequence in the **Name** and **Title** boxes.
3. Enter a default duration in the **Dur** box. [More details](#), page 207.
4. Drag the sequence to the Schedule Grid and drop it onto the event you want it to immediately follow.

iTX displays an entry for the blank sequence in the Schedule Grid; it displays a block to represent the sequence on the Timeline Display.

You can add events to the sequence by dragging and dropping assets from the Content Selector.

Create a sequence with a fixed duration

You should create a sequence with a fixed duration only in a pass-through channel.

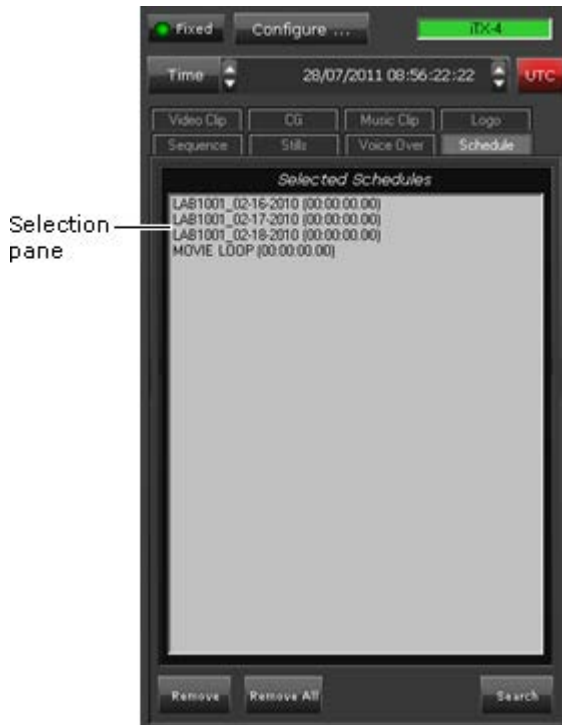
1. Create a blank sequence and enter a default duration in the **Dur** box.
2. Select **Fixed Dur**.
3. Drag the sequence insertion bar into the Schedule Grid and drop it onto the event you want the sequence to immediately follow.

iTX displays an entry for the schedule in the Schedule Grid; it displays a block to represent the sequence on the Timeline Display.

You can add events to the sequence by dragging and dropping media items from the Content Selector.

Working with stored schedules

About the Schedule palette



The Schedule palette enables you to select a stored schedule from the System Database and include it in a main schedule (i.e. one you are working on in the Schedule Grid).

The stored schedule may be one that you create in the Schedule Grid, while working in either a live or offline channel; you save such schedules by using the Schedule Manager. [More details](#), page 162. Or, the schedule may be one that is created in another application (such as a traffic scheduling application); you import schedules of this type through the Media Store Inbox.

In the palette selection pane, you build a shortlist of stored schedules that you want to be available for including in a main schedule. In doing so, you use PinPoint to select stored schedules from the System Database. [More details](#), page 188. You can add any stored schedule from the shortlist to the current main schedule.

Adding a nested schedule to a main schedule

From the Schedule palette, you add a stored schedule to your current schedule by dropping it into the Schedule Grid. There, it becomes a nested schedule within the main schedule: iTX handles the nested schedule as a single block of events, which you can move up or down the main schedule. iTX can update the nested schedule if the stored schedule in the System Database is modified. See below, "Live update of a nested schedule", page 56.

Note: This is different to what happens when you add a stored schedule to the main schedule from the Schedule Manager. Then, iTX inserts the events from the stored schedule into the

The Content Selector

main schedule as a block of single events; the events are not bound together as those in a nested schedule are.

If the start time of the nested schedule is not within an interval called the Schedule Lookahead time of the channel you are working in, iTX displays a single entry for the schedule in the Schedule Grid. It displays a single block on the Timeline Display to represent the nested schedule.

When the start time of the nested schedule falls within the Schedule Lookahead time, iTX displays a plus sign in front of it in the Schedule Grid. By clicking the plus sign, you can expand the entry and view the individual events. On the Timeline Display, blocks for the individual events replace the single block for the nested schedule.

Note:

- Your system administrator specifies the length of the Schedule Lookahead time.

Live update of a nested schedule

After you add a stored schedule as a nested schedule to the main schedule, a modified version of it may appear in the System Database. This may happen as a result of the stored schedule being edited in an edit channel; or as a result of it being edited in a traffic scheduling application and re-imported through the Media Store Inbox.

Depending on how your system is set up, iTX may automatically update the nested schedule, or it may inform you the schedule has been modified and allow you to select events for updating.

In updating a nested schedule, iTX reloads all schedule events that come after the on-air event; or all schedule events that come after a defined period, called the lockout period. Your system administrator sets the length of any lockout period.

Working with split breaks

About the Split Break palette



A split break enables you to schedule playout of regional schedule events, such as commercial breaks, on regional playout channels. For more information, see "About regional channels", page 106.

In the selection pane of the Split Break palette, you select the regional channels you want to play out events during a split break.

Note:

- You can set a regional channel to play out any selected schedule event. [More details](#), page 107.

Adding a split break to a schedule

You add a split break to a schedule by dragging the split-break insertion bar from the Split Break palette and dropping it into the Schedule Grid; you drop it onto the event you want it to immediately follow. iTX creates a primary event for the split break and a blank sequence for each selected regional channel; the sequences are secondary events associated with the split break.

You need to add events to the sequences and set their properties.

Each sequence ends with a Return event, which causes iTX to return the regional channel to playout of the output of the main channel.

The Content Selector

Start Time	Type	C	T	N	W	Item Name	Item Title
11:00:00:00	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	- News Roundup	News Roundup
11:12:00:00	Split Brea	-	-	<input type="checkbox"/>	-	- Commercial Break	Commercial Break
11:12:00:00	Sequence	-	-	<input type="checkbox"/>	-	- Commercial Break>	Commercial Break>Region 1
11:12:00:00	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	- Region 1 Sale	Region 1 Sale
11:13:00:00	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	- Region 1 Sport	Region 1 Sport
11:14:00:00	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	- Region 1 Food	Region 1 Food
11:14:59:00	Live	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	- RETURN	
11:12:00:00	Sequence	-	-	<input type="checkbox"/>	-	- Commercial Break>	Commercial Break>Region 2
11:12:00:00	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	- Region 2 Sale	Region 2 Sale
11:13:00:00	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	- Region 2 Sport	Region 2 Sport
11:14:00:00	Video Clip	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	- Region 2 Food	Region 2 Food
11:14:59:00	Live	-	<input checked="" type="checkbox"/>	<input type="checkbox"/>	-	- RETURN	
11:12:00:00	Sequence	-	-	<input type="checkbox"/>	-	- Commercial Break>	Commercial Break>Region 3

Split break event

Region 2 sequence

The sequence events play out on regional channel 2.

Return event switches the regional channel back to the output of the main channel.

iTX handles the sequences in the split break as a single block of events, which you can move anywhere in your schedule.

Enter a name and title for a split break

1. Enter a name for a split break in the **Name** box.
2. Enter a title in the **Title** box.

Select split-break regions

1. In the selection pane, select the check boxes for the regional channels you want to play out events during a split break.

Change the default duration of a split break

iTX assigns a default duration to a split break; this is also the duration of the sequence for each regional channel. You can change this default value.

1. Enter a new value in the **Dur** box. [More details](#), page 207.

Note:

- You can also change the duration of the sequence for each regional channel using the Event Editor.

Add events to a sequence for each regional channel

You can add events to each regional-channel sequence by dragging and dropping assets from the Content Selector.

1. Add the first event by dropping an asset onto the sequence entry.
2. Add the second event by dropping an asset onto the first event.

The Content Selector

3. Add other events by dropping an asset onto the event each new event is to follow.

Adding events for playout in the main channel during a split break

If you want the main channel to continue playing out events during a split break, you need to add the events after the Return event for the last regional-channel sequence.

Working with slide shows

About the Slide Show palette



You use the Slide Show palette to add slide shows to schedules.

A slide show is a series of still images and a series of audio clips that play together as a single event. The images and audio clips repeat for the duration of the event.

In the Slide Show palette, you choose the still images and audio clips that make up a slide show. You can then include the slide show in a schedule. Before you do, you may:

- Change the order of the still images or audio clips.
- Change the duration of a still image.
- Adjust the volume of an audio clip.
- Preview a still image.

You use the insertion bar to add the slide show to a schedule.

Add a still image or audio clip to the slide show

1. To add still images to the slide show, do the following.
 - Select **Slides**.
 - Click **Search** to open PinPoint.
 - Use PinPoint to select still images from the System Database. [More details](#), page 188.

The selected still images appear in the list in the palette selection pane.

2. To add audio clips to the slide show, do the following.
 - Select **Audio**.
 - Click **Search** to open PinPoint.
 - Use PinPoint to select audio clips from the System Database.

The selected audio clips appear in the list in the palette selection pane.

Change the order of the still images or audio clips

1. To change the order of the still images in the slide show, do the following.
 - Select **Slides**.
 - Select a still image and click **Move Up** or **Down**.
2. To change the order of the audio clips in the slide show, do the following.
 - Select **Audio**.
 - Select an audio clip and click **Move Up** or **Down**.

Change the duration of a still image

1. Select **Slides**.
2. Select a still image and click **Properties**.
iTX displays the Slide Show Properties dialog.
3. Enter a new duration in the **Slide Duration** box. [More details](#), page 207.
4. Click **OK** to close the dialog.

Preview a still image

1. Select **Slides**.
2. Double-click a still image.
iTX displays the image in the Still Image Preview dialog.
3. Click **OK** to close the dialog.

Adjust the volume of an audio clip

1. Select **Audio**.
2. Select an audio clip and click **Properties**.
iTX displays the Slide Show Properties dialog.
3. Drag the Music Level slider along the scale to change the volume.
4. Click **OK** to close the dialog.

Add a slide show to a schedule

1. Enter a name for the slide show in the **Name** box.
2. Enter a duration in the **Dur** box.

Note: The still images and audio clips repeat, if required, for the duration of the slide-show event.

3. Drag the insertion bar to the Schedule Grid and drop it onto the event you want the slide show to immediately follow.

Working with an external subtitler

About the Ex Subtitler palette



iTX can deliver the output signal from a playout channel to an external subtitling device and operate the device to insert subtitles into this signal. When your iTX system is set up for this, you can use the Ex Subtitler palette to add an external subtitle event to a schedule.

Adding an external subtitle event to a schedule

In adding an external subtitle event to a schedule, you make it a secondary event. To do so, you drag the subtitle insertion bar and drop it onto the primary event in the Schedule Grid or on the Timeline Display.

iTX enters the new external subtitle event in the Schedule Grid; the event has the same start time and duration as the primary event; it displays a block to represent the event on the Subtitles track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You may modify the time mode and offset of the subtitle event in the Event Editor.

Working with external CG devices and graphics systems

iTX can deliver the output signal from a channel to an external CG device or graphics system and operate this to insert CGs or graphics into the signal. The external device or system may be one of these types:

- Pixel Power Clarity.
- VizRT.
- Vertigo XG.

Note:

- For information about the VertigoXG palette, see the separate documentation available from Grass Valley.

About the Clarity palette



In the selection pane of the Clarity palette, you create a list of Clarity CGs that you want to be available for including in schedule events.

In building the list, you select CG templates from a Pixel Power Clarity character generator; these then appear in the Clarity Template list of the palette selection pane.

Once a CG template is in the selection pane, you can include it in schedule events. Before you do, you may:

- Change the name of the CG template.
- Change the properties of the CG template.

The Content Selector

- Change the default duration of the CG template. iTX applies the default duration to any Clarity CG event that you add to a schedule.

Add a Clarity CG template to the palette selection pane

1. Select the Clarity palette on the Content Selector.
2. Click **Create** to display the Template Setup dialog.
3. Click **Template Page** to select a CG template from the Clarity character generator; click **OK**.
4. If the CG template has editable text blocks, enter text into the text blocks.
5. Click **OK**.

The selection pane updates to include the CG template you select.

Adding a Clarity CG event to a schedule

Usually, a CG plays out as an overlay on top of a video clip or still image. In adding a Clarity CG event to a schedule, you make it a secondary event. To do so, you drop the CG onto its primary event in the Schedule Grid or on the Timeline Display.

iTX enters the new Clarity CG event in the Schedule Grid; it displays a block to represent the event on the CG track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You should check and edit the properties of the Clarity CG event – in particular, its time mode and offset – in the Event Editor.

Change the name of a Clarity CG template

1. Select a CG template in the Clarity palette selection pane.
2. Enter the new name in the **Name** box; press Return to complete the entry.
iTX displays the new name of the CG template in the palette selection pane.

Change the properties of a CG template

You can change the text in the editable text blocks of a Clarity CG template when the CG template is in the palette selection pane.

1. Select a CG template in the Clarity palette selection pane.
2. Click the **Properties** button to display the Template Setup dialog.
3. Change the text in the editable text blocks.
4. Click **OK**.

iTX updates the CG template.

Change the duration of a Clarity CG event

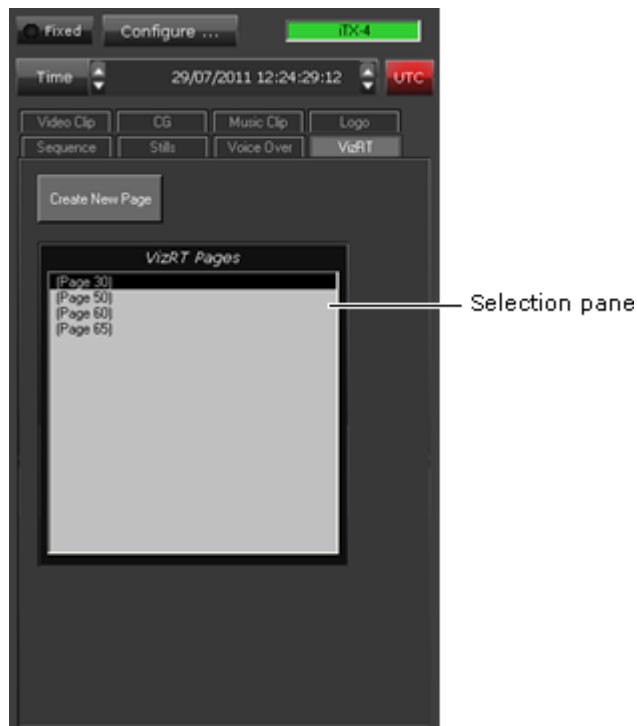
iTX assigns a default duration to any Clarity CG event you create featuring a CG template from the Clarity palette. You can change this default value.

1. Enter the new value in the duration box (below the **Name** box). [More details](#), page 207.

Note:

- You can also change the duration of a Clarity CG event by using the Event Editor.

About the VizRT palette



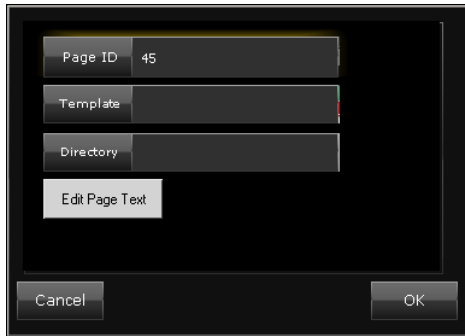
In the selection pane of the VizRT palette, you create a list of VizRT CGs that you want to be available for including in schedule events. The CGs are defined by pages on the VizRT character generator; each has its own page number. You specify the page number in creating the VizRT Pages list.

If you specify the number of a page that does not exist, iTX may create the page based on a VizRT template. Whether or not it does this depends on how your system administrator configures the VizRT functionality.

If a page has text fields, you may enter the content for these fields or you may specify a macro to generate the content.

Add a VizRT CG page to the palette selection pane

To specify a VizRT CG, you use the Create Page dialog:



In this dialog, you enter the page number for the CG. You may also specify a template for iTX to use to create a new page (when the system configuration allows it to do so). The **Directory** box on this dialog is not currently used.

1. Select the VizRT palette on the Content Selector.
2. Click **Create New Page** to display the Create Page dialog.
3. Enter a page number in the **Page ID** box.
4. If you want iTX to create a page that is not already on the VizRT device, enter the name of a VizRT template in the **Template** box.
5. To enter the field content for the CG, do the following.
 - Click **Edit Page Text** to display the Edit Page Fields dialog.
 - Enter the field details for each field in the CG: the field name in the Field ID column; then either the field text in the Field String column, or the name of a macro to generate the text in the Macros column; if you use a macro, you may need to enter macro parameters in the Macro Param column.
 - Click **OK** to close the dialog.
6. Click **OK** to close the Create Page dialog.

The page appears in the VizRT Pages List.

Adding a VizRT CG event to a schedule

Usually, a CG plays out as an overlay on top of a video clip or still image. In adding a VizRT CG event to a schedule, you make it a secondary event. To do so, you drop the CG onto its primary event in the Schedule Grid or on the Timeline Display.

iTX enters the new VizRT CG event in the Schedule Grid; it displays a block to represent the event on the CG track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You should check and, if necessary, edit the properties of the VizRT CG event – in particular, its time mode and offset – in the Event Editor.

The duration of a VizRT CG event is defined in the VizRT template; you cannot change it from within iTX.

Working with GPIs

About the GPI palette



GPIs are electronic switches that can control a wide range of equipment in a television station.

You use the GPI palette to add GPI events to a schedule. These GPI outputs trigger an action to control an external device (for example, an aspect ratio converter).

In the palette, you select the GPI matrix that provides the GPI outputs; these appear in the GPI Outputs list.

Once a GPI is in the GPI Outputs list, you can include it in a schedule event. Before you do, you may:

- Change the duration of the GPI.
- Set the time mode of the GPI.

Adding a GPI event to a schedule

In adding a GPI to a schedule, you make it a secondary event. To do so, you drop the GPI onto its primary event in the Schedule Grid or on the Timeline Display.

iTX enters the new GPI event in the Schedule Grid; it displays a block to represent the event on the GPI track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

The Content Selector

You should check and edit the properties of the GPI event – in particular, its time mode and offset – in the Event Editor.

Select the GPI matrix

1. Click GPI Matrix.
iTX displays the Select Matrix dialog.
2. Select the matrix that provides the GPI outputs you want to add to a schedule. Click **OK**.
The GPI outputs appear in the GPI Outputs list.

Change the duration of a GPI

GPI events must have a duration of at least 2 seconds.

1. Select a GPI output in the GPI Outputs list.
2. In the **Dur** box, enter a new duration. [More details](#), page 207.

Set the time mode of a GPI

You can set the time mode of a GPI output in the GPI palette by clicking the **Time Mode** box. [More details](#), page 94.

Working with studio sources

About the Studio palette



You use the Studio palette to add studio-source events to a schedule. A studio source contains a GPI output – an electronic switch that can control a wide range of equipment in a television station.

Your iTX system may be able to provide many studio sources, with different ones being allocated to different channels. iTX displays a list of available studio sources in the Studio Sources list.

While a studio source is in the Studio Sources list, you can include it in a schedule event. Before you do, you may set the duration of the studio source.

Adding a studio-source event to a schedule

When adding a studio-source event to a schedule, you may make it either a primary event or a secondary event.

Adding a studio-source event as a primary event

You can make a studio-source event a primary event. To do so, you drag and drop the studio source onto the Schedule Grid or a clear part of the Timeline Display.

iTX enters the new event in the Schedule Grid; it displays a block to represent the event on the Timeline Display.

Adding a studio-source event as a secondary event

Usually you make a studio-source event a secondary event. To do this, you drop a studio source onto a primary event on the Timeline Display. The new event becomes a secondary event, associated with the primary event you drop the studio source onto.

iTX enters the new secondary event in the Schedule Grid. It displays a block to represent the event on one of the video tracks (PGM A or PGM B) on the Timeline Display – alongside the block (on the other video track) for the associated primary event.

You should check and edit the properties of the secondary event – in particular, its offset – in the Event Editor.

Change the default duration of a studio-source event

iTX assigns a default duration to any studio-source event you create using a studio source from the Studio Sources list. You can change this default value.

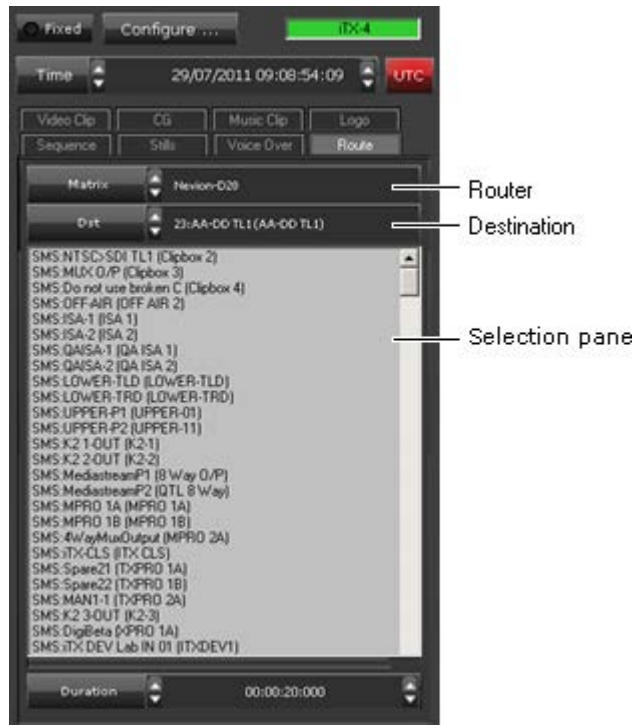
1. Enter the new value in the **Dur** box. [More details](#), page 207.

Note:

- You can also change the duration of a studio-source event using the Event Editor.

Working with router events

About the Router Event palette



Your iTX system may be set up to operate a matrix router in response to requests contained in router events. If it is, you may use the Router Event palette to add router events to a schedule.

A router can have any number of crosspoints – i.e. sources and destinations. In a router event, iTX connects a selected source to a selected destination.

At the end of the router event, depending on how it is configured, iTX may do one of three things: it may route the original source back to the destination; it may route another specified source (known as a park source) to the destination; or it may leave the routing unchanged.

A typical router event might involve iTX routing a video source – other than the channel output – to the router destination that feeds the transmission system. We call this type of router event a *by-pass event*.

In the Router Event palette, you configure a router event by selecting the router, destination and source for a router event. Once you do this, you can set a duration for the event before adding the event to the schedule.

Adding a router event to a schedule

When adding a router event to a schedule, you may make it either a primary event or a secondary event.

Adding a router event as a primary event

The Content Selector

You make a by-pass event a primary event. To do so, you drag and drop the selected router source onto the Schedule Grid or a clear part of the Timeline Display.

iTX enters the new event in the Schedule Grid. For a live schedule, it displays a block to represent the event on the Timeline Display.

At the end of the event, iTX routes the channel output to the router destination connected to the transmission system.

Adding a router event as a secondary event

When you configure a router event with a destination that is not supplying a feed to the transmission system, you make it a secondary event; you drop the selected router source onto a primary event on the Timeline Display. The new event becomes a secondary event, associated with the primary event you drop the router source onto.

iTX enters the new secondary event in the Schedule Grid. It displays a block to represent the event on one of the video tracks (PGM A or PGM B) on the Timeline Display – alongside the block (on the other video track) for the associated primary event.

You should check and edit the properties of the secondary event – in particular, its offset – in the Event Editor.

Configure a router event

1. Select a router matrix in the **Matrix** box.
iTX displays the available router sources in the palette selection pane.
2. Select a router destination in the **Dst** box.
3. Select a router source in the palette selection pane.

Change the default duration of a router event

iTX assigns a default duration to any router event you create. You can change this default value.

1. Enter the new value in the **Duration** box. [More details](#), page 207.

Note:

- You can also change the duration of a router event using the Event Editor.

Working with a studio switcher

About the Studio Switcher palette



Where iTX is used in a news-studio environment, it may be set up to interact with a Sony DVS-9000 production switcher. With the Studio Switcher palette displayed, you can add studio-switcher events to the current schedule. The palette displays switcher items under two tabs: Sources and Scenes. From either of these, you can create events that relate to a particular way of controlling the switcher:

- Sources tab, for source selection. iTX selects a source crosspoint on a specified bank (P/P, ME1, etc.) of the switcher and puts the source to air. The source may be any of a number of configured sources; among these may be the output of the iTX playlist channel that has control of the switcher.
- Scenes tab, for scene recall. iTX recalls a scene, referenced by a name or a number. The scene may be a defined state or function – “keyframe” or “snapshot”, in switcher terminology – on a specified bank (P/P, ME1, etc.) of the switcher. The operation may produce a particular graphical layout or play a DVE. A snapshot can include the sending of GPIs as take-next commands to iTX.

Note:

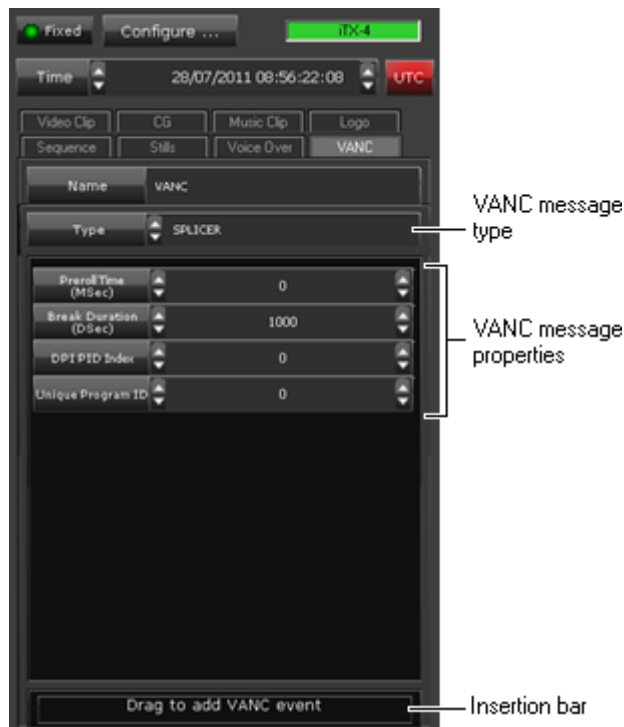
- What sources and scenes are available depend on the channel configuration.
- The existing support of GPIs means that iTX can respond to any GPI it receives from the switcher.

Adding a studio switcher event to a schedule

In adding a source or scene studio-switcher event to a schedule, you may make it either a primary or secondary event.

Working with VANC data

About the VANC Data palette



iTX can insert different types of VANC data into its output video signal. The possible data types include SCTE 104 messages, which can be used by external equipment to trigger the insertion of advertisements in commercial breaks; they can also be used to start the playout of sequences.

The VANC Data palette enables you to add SCTE 104 message events to a schedule. After specifying message properties, you use the VANC-message insertion bar to add a message event to a schedule.

Although the palette displays options for other types of VANC data (e.g. AFD codes), you do not use it for these – there are other ways of setting up iTX to include the relevant data. For example, you may specify AFD data as a video-clip property on the Asset layout.

Adding a VANC-message event to a schedule

In adding a VANC message to a schedule, you make it a secondary event. To do so, you drop the VANC message onto its primary event in the Schedule Grid or the Timeline Display.

The Content Selector

iTX enters the new VANC-message event in the Schedule Grid; it displays a block to represent the event on the VANC Data track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You should check and edit the properties of the VANC message event – in particular, its time mode and offset – in the Event Editor.

Set up a SCTE 104 message

1. Select "Splicer" in the **Type** box.

The VANC Data palette displays properties for an SCTE-104 message.

2. In the **Preroll Time** box, enter a value for the required interval (in milliseconds) between the time iTX plays out a message event and the start of the commercial break the message is due to trigger.
3. In the **Break Duration** box, enter a value for the duration (in tenths of a second) of the commercial break.
4. Enter any required values in the **DPI PID Index** and **Unique Program ID** boxes.

If you are setting up a message to take a sequence in another iTX channel to air, the value in the **DPI PID Index** box should match one of the Op Codes configured for that channel. Your system administrator should be able to tell you what the required value is.

Add a SCTE 104 message event to a schedule

After you set the properties for a VANC message, you add it to the schedule.

1. In the **Name** box, enter a name for the VANC message.
2. Drag the VANC message insertion bar into the Schedule Grid and drop it onto the event you want the VANC message to be associated with.

Working with enhanced SCTE104 data

About the SCTE104 palette



The SCTE104 palette enables you to create enhanced SCTE104 message events and insert them into a schedule.

The enhanced SCTE104 VANC functionality allows iTX to process Multiple Operation Messages for both Local & National Avail Insert Commands and the ability to react to legacy DTMF triggers. It also provides support for additional inbound and outbound commands and extends the pass-through functionality for SCTE104 messages.

The table below describes how the configuration of national and local breaks affects the messages that are output:

National break	Local break	Description
✘	✘	iTX will trigger in all cases, i.e. when it receives Multiple Operation Messages with: <ul style="list-style-type: none"> • Only a <code>splice_request_data</code> command • Both a <code>splice_request_data</code> and a <code>segmentation_descriptor_request</code> (for either local or national breaks).
✔	✘	iTX will only trigger if a Multiple Operation Message is received with a <code>splice_request_data</code> and a <code>segmentation_descriptor_request</code> with the <code>segmentation_type_id</code> set to National (value 0x32).
✘	✔	iTX will only trigger if a Multiple Operation Message is received with a <code>splice_request_data</code> and a <code>segmentation_descriptor_request</code> with the <code>segmentation_type_id</code> set to Local (value 0x30).
✔	✔	iTX will only trigger if a Multiple Operation Message is received with a <code>splice_request_data</code> and a <code>segmentation_descriptor_request</code> with the <code>segmentation_type_id</code> set to Local (value 0x30) or National (value 0x32).

More information about enhanced SCTE104 configuration can be found in *the iTX System Administrator Guide*.

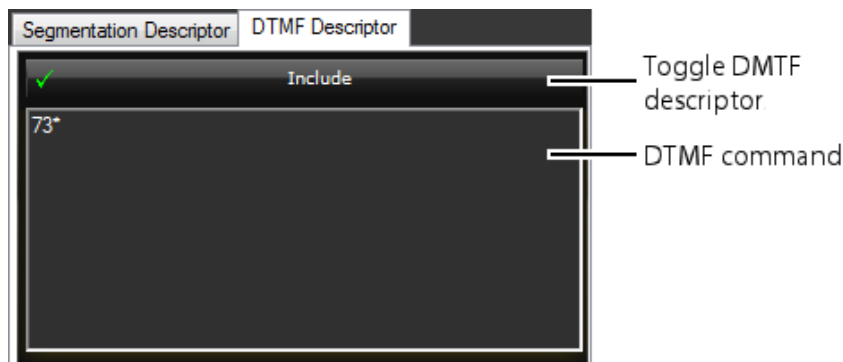
Adding an enhanced SCTE104 message event to a schedule

To add an enhanced SCTE104 message to a schedule, drag and drop the message from the insertion bar onto a primary event in the Schedule Grid or the Timeline Display. The SCTE104 message will be created as a secondary event. This is represented by a block on the SCTE104 track in the Timeline Display. In the Schedule Grid, iTX nests this secondary event within the primary event.

You should check and edit the properties of the enhanced SCTE104 message event – in particular, its time mode and offset – in the [Event Editor](#).

Set up and insert an enhanced SCTE104 message:

1. Open the Content Selector and select the **SCTE104** tab.
2. If you want the event to be sent with a fixed time and date, click the **Fixed** button, then enter the required time and date in the **Time** box.
3. In the **Preroll Time** box, enter a value for the required interval (in milliseconds) between the time iTX plays out the message event and the start of the break the message is due to trigger.
4. In the **Break Duration** box, enter a value for the duration (in tenths of a second) of the break.
5. If you are setting up a message to take a sequence in another iTX channel to air, the value in the **DPI PID Index** box should match one of the 'Op Codes' configured in that channel's Output Server Configuration. Your system administrator should be able to tell you what the required value is.
6. In the **Unique Program ID** box, select the Unique Program Identifier of the program which is scheduled to air.
7. If you require segmentation for local or national breaks:
 - a. Select the **Segmentation Descriptor** tab.
 - b. Click the **Include** button.
 - c. Click either the **Local** or **National** button.
8. If you need to send a DMTF command, select the 'DTMF Descriptor' tab, then in the DMTF command area (pictured below), type in a string consisting of valid DMTF characters (0-9, A-D, * and #):



Note:

- If 'Enhanced SCTE 104' is not enabled in the Output Server Configuration (under Channel Control), any attempt to drag and drop a SCTE 104 event into a Schedule Grid will result in an error.

Add an enhanced SCTE104 message event to a schedule

After you set the properties for an enhanced SCTE104 message, you add it to the schedule.

1. In the **Name** box, enter a name for the enhanced SCTE104 message.
2. Drag the enhanced SCTE104 message insertion bar into the Schedule Grid and drop it onto the event you want the enhanced SCTE1104 message to be associated with.
3. To change the item from a fixed start time to an automatic start time, select the item in the schedule grid, then go to the Event Editor. [More details](#), page 90.

Working with rating categories

About the V-Chip palette



iTX can insert V-Chip data into the video signal for an SD channel. This data identifies a program rating category, which indicates the suitability of the program content for a particular audience type. In the US and Canada, rating categories are superimposed on the main television picture at the start of programs.

You use the V-Chip palette to add rating-category events to a schedule.

Adding a rating-category event to a schedule

A rating category plays out as an overlay on top of a video clip. In adding a rating-category event to a schedule, you make it a secondary event. To do so, you drop the rating category onto its primary event in the Schedule Grid or Timeline Display.

iTX enters the new rating-category event in the Schedule Grid; it displays a block to represent the event on the V-Chip track on the Timeline Display. In the Schedule Grid, iTX nests the secondary event within the primary event.

You should check and edit the properties of the rating-category event – in particular, its time mode and offset – in the Event Editor.

Select a rating system

In different countries, different rating systems are used to describe the suitability of programme content for a particular type of audience.

1. In the **Rating System** box, select the rating system you want to use.
Thumbnail images representing available rating categories appear in the selection pane of the V-Chip palette.

Change the title of a rating category

1. Enter a new title in the **Title** box; press Return to complete the entry.
iTX assigns the new title to any rating category you use in a schedule event.

Change the duration of a rating category

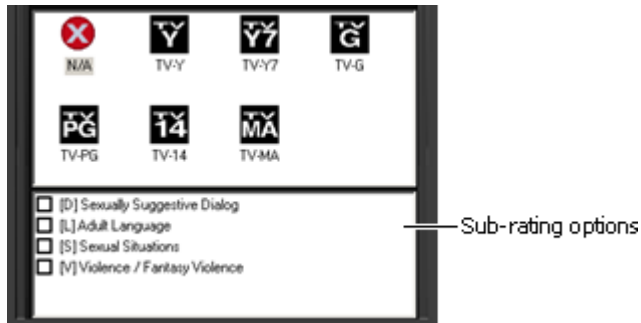
iTX assigns a default duration to any rating-category event you create from the V-Chip palette.

1. Enter a new value in the **Dur** box. [More details](#), page 207.

Note: You can also change the duration in the Event Editor.

Specify sub-rating options for a rating category

When you select a rating category in the "TV Parental Guidelines" rating system, sub-rating options may appear in the selection pane:



Any selected sub-rating information is displayed with the rating category at the start of rated programs.

1. Select the rating category you want to add to a schedule.
2. Select the check boxes of the sub-rating options that are relevant to the program content.

Adding comments

About the Comment palette



Through the Comment palette, you can add comment lines between events in the Schedule Grid. You use these lines to divide a schedule in distinct sections and to provide information on each section.

Adding a comment line to a schedule

You add a comment line by dragging the insertion bar to the Schedule Grid. Before you do, you may:

- Enter a short comment in the **Comment** box.
- Enter further details in the **Details** box.
- Enter notes in the **Notes** box.

In the Schedule Grid, the comment line has a blue background. Text you enter in the **Comment** and **Details** boxes appears in the Name and Title columns. You can view the associated notes by displaying the Event Editor Notepad.

The Event Editor

About the Event Editor

The Event Editor on the iTX Channel Control layout is one of a pair of components that you may work with alternately when you perform scheduling tasks – the other is the Content Selector. You use the Event Editor to change the properties of events in your current schedule; you use the Content Selector to select assets and other schedule items to include in schedule events.


When you select an event in the Schedule Grid, the Event Editor displays information about the event properties:

Start Time	Type	C	T	N	W	Item Name	Item Title
14:34:16.16	Video Clip	▶	T		-	Intro	Intro
14:34:16.16	Logo-Durat	▶	-		-	Sports Logo	Sports Logo
14:39:16.15	Video Clip	▶	T		-	Football Today	Football Today
+ 14:44:16.12	Sequence	-	-		-	Commercial Break	Commercial Break
14:47:16.12	Video Clip	▶	T		-	Golf - World Match	Golf

Select an event in the Schedule Grid to display its property details in the Event Editor.

You can modify these properties using the Event Editor features, which are arranged in two sections:

Event type
Event status



The features in the top half relate to basic properties which all events have (ID, start time, etc.)

↑
↓

The features in the bottom half relate to properties that are specific to the type of event you select. There are different features for different event types.

Changing the properties of an asset in the Event Editor

When you use the Event Editor to change any asset properties in an event, your changes apply only to the copy of the asset in the selected event. They do not affect any other schedule event that includes the same asset; nor do they affect the original asset in the System Database.

Such changes do affect whether or not iTX updates an event if the original asset is changed on the Asset layout. [More details](#), page 141.

Event timings in local time or UTC

If you are working with a channel that is configured with a time offset from UTC, you can set up the Event Editor to display event start times in either local time or UTC. [More details](#), page 102.

Editing events of different types

Editing a video-clip event

When you select a video-clip event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you load a video clip in the Content Selector, you can:

- Play the clip in the preview window. [More details](#), page 197.
- Edit the marked in- and out-points. [More details](#), page 202.
- Adjust the audio level. [More details](#), page 203.
- Select the audio output channels iTX uses to deliver the clip content for a secondary video-clip event. [More details](#), page 206.
- Change aspect-ratio details (describing source format and active region) of the clip. [More details](#), page 206.
- Change the field order of the clip. [More details](#), page 305.
- Set up the video clip to loop in an event. [More details](#), page 207.
- Change the copy-protection setting for the clip. [More details](#), page 207.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- Set a video transition for the start of the event – if the event is a primary event. [More details](#), page 108.
- Set picture-in-picture properties for the event – if the event is a secondary event. [More details](#), page 109.
- Replace the video clip in the event. [More details](#), page 121.

The Event Editor

- Select the VTR (videotape machine) iTX uses to play out a VTR event. [More details](#), page 122.

Editing a CG event

When you select a CG event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you load a CG in the Content Selector, you can:

- Change the duration of the event. [More details](#), page 44.
- Preview the CG in the preview window – iTX displays the CG in the preview window when you select the event.
- Modify the CG, if it is one you created in the iTX CG application. [More details](#), page 211.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- Enter text into any editable text blocks that the CG in the event might contain. [More details](#), page 130.

Editing a logo event

When you select a logo event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you load a logo in the Content Selector, you can:

- Preview the logo in the preview window – iTX displays the logo in the preview window when you select the event.
- Change the layer of the logo. [More details](#), page 38.
- Set the logo to switch on, switch off, or play for a specified duration. [More details](#), page 37.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- Set transitions to apply to the start and end of the event. [More details](#), page 114.
- Instead of transitions, set vision effects to apply to the start and end of the event. A vision effect may be a wipe, a slide or a squeeze. [More details](#), page 115.

Editing an external-logo event

When you select an external-logo event in the Schedule Grid, the Event Editor displays details of properties that you can edit. The properties are the ones you set when you add the logo to the palette selection pane of the Content Selector. [More details](#), page 41.

You can:

- Specify a different logo by changing the name in the **Logo** box.
- Specify a different layer for the logo in the **Layer** box.
- Set the logo to switch on, switch off, or play for a specified duration.
- Change the in- and out-transitions.

Also, you can:

- Change the timing of the event. [More details](#), page 94.

Editing a still-image event

When you select a still-image event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you load a still image in the Content Selector, you can:

- Preview the image in the preview window – iTX displays the still image in the preview window when you select the event.
- Change the duration of the event. [More details](#), page 47.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the start time of the event. [More details](#), page 94.
- Set a video transition for the start of the event – if the event is a primary event. [More details](#), page 108.
- Set picture-in-picture properties for the event – if the event is a secondary event. [More details](#), page 109.

Editing the properties of a sequence

When you select a sequence in the Schedule Grid, the Event Editor displays details of properties that you can edit.

You can:

- Change the title of the sequence. [More details](#), page 93.
- Change the start time of the sequence. [More details](#), page 94.
- Restrict the use of a sequence based on a defined period. [More details](#), page 116.

The Event Editor

- Apply a standard set of transitions to the events in the sequence. [More details](#), page 118.
- Prevent iTX returning a pass-through channel to a live source too early. [More details](#), page 119.
- Prevent iTX continuing a sequence for longer than a specified duration. [More details](#), page 119.
- Enter comments in the Synopsis and Notes boxes.

After expanding the sequence in the Schedule Grid, you can select individual events and edit them in the Event Editor.

Editing a voiceover-clip event

When you select a voiceover clip in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you load a voiceover clip in the Content Selector, you can:

- Play and listen to the voiceover clip. [More details](#), page 49.
- Enter new values for the in- and out-points of the voiceover clip. [More details](#), page 49.
- Mark new in- and out-points. [More details](#), page 49.
- Select the audio output channels iTX uses to deliver the clip content for the voiceover clip. [More details](#), page 206.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- Change the audio levels of the voiceover clip and any video clip that plays at the same time. [More details](#), page 120.
- Set the duration of the audio ramps at the start and end of the voiceover. [More details](#), page 120.

Editing a subtitle event

When you select a subtitle event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

You can:

- Change the title of the event. [More details](#), page 93.
- Change the start time of the event. [More details](#), page 94.

Editing a stored schedule

When you select the entry for a stored schedule in the Schedule Grid, the Event Editor displays details of properties that you can edit.

You can:

- Change the start time of the stored schedule. [More details](#), page 94.
- Enter comments in the Notes box.
- After expanding the stored schedule in the Schedule Grid, you can select individual events and edit them in the Event Editor.

The **Item Title** box contains information about who last changed the schedule; the **Notes** box shows where and when the schedule was last modified.

Editing a live event

When you select a live event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you select a live event in the Content Selector, you can:

- Change the title of the event. [More details](#), page 93.
- Change the duration of the event. [More details](#), page 105.

Also, you can:

- Change the timing of the event. [More details](#), page 94.
- Preview the feed for the event in the preview window.
- Set a video transition for the start of the event. [More details](#), page 108.

Editing a slide-show event

When you select a slide-show event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you create a slide-show event in the Content Selector, you can:

- Add still images or audio clips to the slide show. [More details](#), page 60.
- Change the order of the still images or audio clips. [More details](#), page 60.
- Change the duration of a still image. [More details](#), page 60.
- Adjust the volume of an audio clip. [More details](#), page 61.
- Preview a still image. [More details](#), page 60.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.

Editing a GPI event

When you select a GPI event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you select a GPI in the Content Selector, you can:

- Change the duration of the event. [More details](#), page 105.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- Change the GPI output for the event. [More details](#), page 128.

Editing a VANC-message event

When you select a VANC-message event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you configure a VANC-message in the Content Selector, you can:

- Select the VANC-message type. [More details](#), page 75.
- Set the properties for a VANC message. [More details](#), page 75.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.

Editing an Enhanced 105 VANC message event

When you select an enhanced VANC (SCTE104)-message event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you configure an enhanced SCTE104-event in the Content Selector, you can:

- Select the enhanced SCTE104-message type. [More details](#), page 78.
- Set the properties for an enhanced SCTE104 message. [More details](#), page 78.

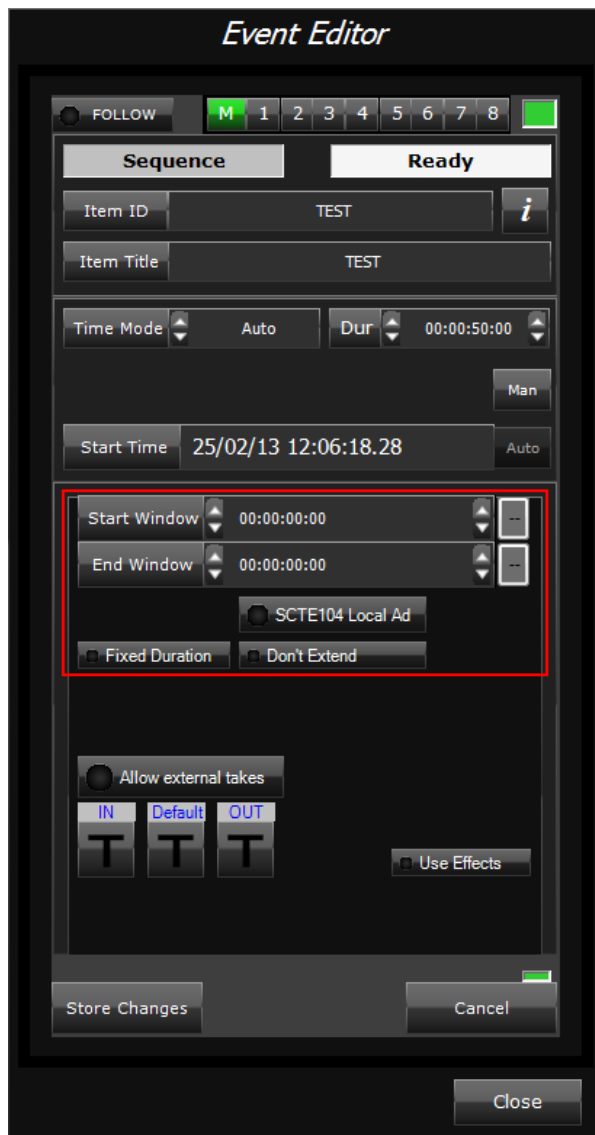
The Event Editor

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.

Editing inbound enhanced SCTE 104 VANC message events

For a scheduled break sequence, the available window determines both the time the break can be triggered and the time when the break will auto expire (if it has not been taken). This window is described either by two durations (**Start Windows** and **End Window**), which are relative to the item's start time or by fixed times (as seen from the Event Editor for the selected sequence).



Whether the available window is defined by relative or fixed times is governed by the **Fixed Availability Windows** switch in the **Channel Config 2** tab of the **Channel Config** control. [More details](#), page 116.

Editing a split-break event

When you select a split-break event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

You can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- After expanding the split break in the Schedule Grid, select individual sequences and edit them in the Event Editor.

Editing an external subtitle event

When you select an external subtitle event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

You can:

- Change the timing of the event. [More details](#), page 94.
- Change the filename of the external subtitle file. [More details](#), page 129.

Editing an external CG or graphics event

When you select a Clarity, VizRT or Vertigo XG event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

For a Clarity event, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.

For a VizRT event, you can:

- Change the timing of the event. [More details](#), page 94.
- Change the page ID. [More details](#), page 131.
- Edit text-field information. [More details](#), page 131.

Note:

- For information about editing Vertigo XG events, see the separate documentation available from Grass Valley.

Editing a rating-category event

When you select a rating-category event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

Just as when you select a rating category in the Content Selector, you can:

- Specify the sub-rating options for a rating category. [More details](#), page 81.

Also, you can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- Change the rating category for the event. [More details](#), page 132.

Editing a studio-source event

When you select a studio-source event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

You can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- Change the duration of the event. [More details](#), page 105.

Editing a router event

When you select a router event in the Schedule Grid, the Event Editor displays details of properties that you can edit.

You can:

- Change the title of the event. [More details](#), page 93.
- Change the timing of the event. [More details](#), page 94.
- Change the duration of the event. [More details](#), page 105.
- Change the routing properties for the event. [More details](#), page 129.

Saving or cancelling changes to events

When you change any event property in the Event Editor, the **Store Changes** button flashes green to prompt you to save your changes.



1. To save any change you make to an event property, click **Store Changes** while the button is flashing.
iTX saves the change; the button stops flashing.
2. To cancel, instead of saving, any changes you make to an event property, click **Cancel** while the **Store Changes** button is flashing.
iTX discards the change; the button stops flashing.

Changing the title of the item in an event

The Event Editor displays the ID of the asset or other schedule item in the selected event and also its title:



The ID is fixed, but you can change the title.

Change the title of the item in an event

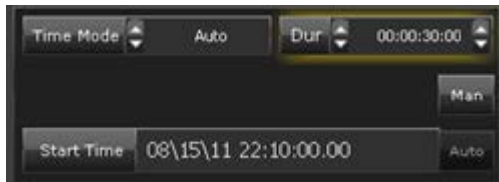
1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. Enter the new title in the **Item Title** box; press Return to complete the entry.
3. Click **Store Changes**.
iTX displays the new title of the event in the Schedule Grid.

Setting event playout times

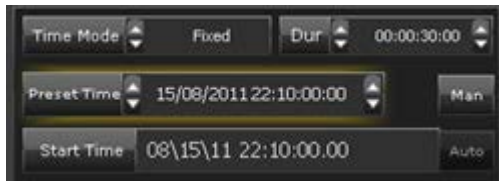
About the timing properties that affect event start and end times

The top section of the Event Editor displays details of the timing properties for the selected schedule event. The option you select for one of these properties – the time mode – determines whether or not the Event Editor displays an extra feature for entering a time value.

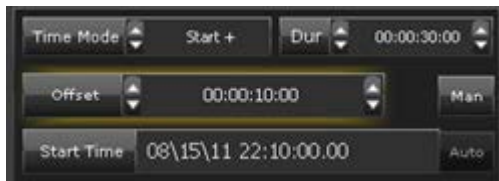
With the Auto time mode selected, the Event Editor displays the basic timing-property features:



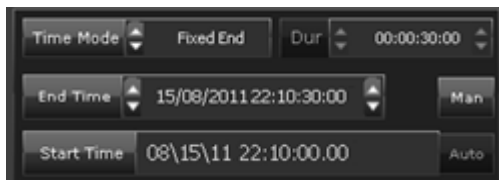
With the Fixed time mode selected, the Event Editor displays an extra feature – the **Preset Time** box:



With one of the plus (+) or minus (-) time modes selected for a secondary event, the Event Editor displays the **Offset** box:



With the Fixed End time mode selected, the Event Editor displays the **End Time** box:



These settings relate to the event start time:

- **Time Mode** – an option that determines whether the event starts at a time that you specify, or at a time that iTX calculates based on the timing of another event.
- **Preset Time** – the start time of an event with a Fixed time mode.
- **Offset** – a value that iTX applies when scheduling the start time of a secondary event relative to its primary event.

The Event Editor

- **End Time** – the time on a specified date that the event is scheduled to end; iTX calculates the start time from this.
- **Start Time** – the time on a specified date that the event is scheduled to start.

iTX displays the scheduled start time of the event in the **Start Time** box. You cannot change the value in this box directly. But you can adjust it by changing the setting in the **Time Mode** box, and (where the additional feature appears) the setting in the **Preset Time, Offset** or **End Time** box.

Possible time modes

In the **Time Mode** box, you may select any of these time modes, depending on how you want iTX to control the timing of an event.

Time mode	Event level	Event action
Auto	Primary	Starts immediately after the previous primary event.
	Secondary	Starts at the same time as its primary event, or immediately after another secondary event (of the same type and with an Auto time mode) if there is one already associated with the primary event.
Fixed	Primary	Starts at the time entered in the Preset Time box.
	Secondary	Starts at the time entered in the Preset Time box.
Fixed End	Primary	Ends at the time entered in the End Time box. iTX calculates the in-point so the event fills the gap in the timeline.
	Secondary	Ends at the time entered in the End Time box.
Join In Progress	Primary	Starts at the time entered in the Preset Time box, but remains in the Ready state while preceding events continue to play out. Once the event start time passes, iTX constantly moves the in-point back to maintain a fixed end time. iTX may put the event on air or skip it, depending on whether its end time passes before or after the completion of the preceding events.
Start +	Secondary	Starts at a time that is an interval after the start of its primary event; the interval is specified in the Offset box.
Start –	Secondary	Starts at a time that is an interval before the start of its primary event; the interval is specified in the Offset box.
End +	Secondary	Ends at a time that is an interval after the end of its primary event; the interval is specified in the Offset box.
End –	Secondary	Ends at a time that is an interval before the end of its primary event; the interval is specified in the Offset box.

iTX uses background colors in the Schedule Grid to indicate start times of events that have different time modes. [More details](#), page 142.

Set the time mode for an event

1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. In the **Time Mode** box, select a time mode.
If you select the Auto time mode, iTX calculates the start time and displays it in the **Start Time** box. For other time modes, you need to enter a value in the **Preset Time**, **Offset** or **End Time** box, depending on which of these features appears on the Event Editor.
3. Click **Store Changes**.

Set the start time for a fixed event

You specify the start time of an event that has a Fixed time mode.

1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. Enter the start time in the **Preset Time** box. [More details](#), page 207.
3. Click **Store Changes**.

Set the end time for a fixed-end event

You specify the end time of an event that has a Fixed End time mode.

1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. Enter the end time in the **End Time** box. [More details](#), page 207.
3. Click **Store Changes**.

Set the time offset for a secondary event

You may specify a time offset for secondary events that have a plus or minus time mode.

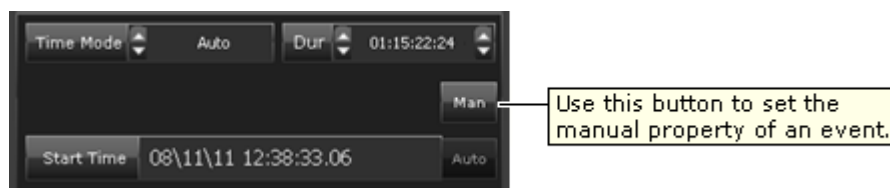
1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. Enter a time offset in the **Offset** box. [More details](#), page 207.
If you want the secondary event to start at the same time as its primary event, enter zero (00:00:00:000) for the offset, after selecting the Start + or Start – time mode.
If you want the secondary event to end at the same time as its primary event, enter zero (00:00:00:000) for the offset, after selecting the End + or End – time mode.
3. Click **Store Changes**.

Manual events

When there is a live event in a schedule, you may not know how long it is going to go on for. So, you may not be able to specify the start time of the next primary event. You then need to make the next primary event a manual event.

A manual event has a scheduled start time, which may be automatically calculated or fixed, depending on the event time mode. iTX does not use the start time, except to determine when to cue the event before putting it on hold. The event starts when you manually take it to air, by clicking **Take Next** on the Next-Event Control Panel.

You use the **Man** button to select or cancel the manual property:



In the Schedule Grid, the start time of a manual event has a red background:

Start Time	Type	C	T	N	W	Item Name
15:00:00.0	Video Clip	▶	T	⏸	-	Intro
15:04:59.2	Video Clip	▶	T	⏸	-	Football Today
15:05:04.2	Logo-Durat	▶	-	⏸	-	Sports Logo
15:09:59.2	Video Clip	▶	T	⏸	-	Golf - World Matchpl
15:24:59.2	Video Clip	▶	T	⏸	-	Motor Racing
15:39:59.2	Video Clip	▶	T	⏸	-	Tennis from Wimble

The Schedule Grid shows the start time of a manual event with a red background.

Set the manual property for an event

1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. Click **Man** to select or cancel the manual property:
 - Ensure the button displays a red light if you want iTX to put the event on hold at the scheduled start time.
 - Ensure the button does not display a red light if you want iTX to play the event at the scheduled start time.
3. Click **Store Changes**.

Note:

- When an event is on hold, you can drop or replace it; you can continue to add events after the on-hold event.

- When playout of the next primary event is on hold, iTX extends the duration of the current schedule event (if necessary, by holding the last frame of the event on a freeze).

Join-in-progress events

An on-air live event with an increasing duration may prevent iTX playing out later events at their scheduled times. As a result, it may be necessary for iTX to skip one or more events or to join an event while it is in progress – i.e. play out the event from the middle instead of from its in-point. By doing so, iTX can return the schedule timings to what they should be.

To control this type of operation, you schedule a join-in-progress event.

An event of this type has a Join In Progress time mode and a fixed start time. It has the effect of temporarily splitting the schedule into two parallel streams when a channel is in the hold state; i.e. when the next event to play out is on hold.

- The normal playout stream consists of: the on-air live event; the manual event that is on hold; and any events after this but before the join-in-progress event. The start times of events after the live event change as the live event overruns its scheduled duration.
- The join-in-progress stream consists of the join-in-progress event and following events with the Auto time mode. iTX prepares these events, so it can put them on air when required: it puts them into the Ready state and moves them along the timeline, but it does not play them out. The start times of these events are not affected by the playout of events before the join-in-progress event.

When the manual event is taken to air, the channel exits the hold state and a join-in-progress operation takes place. iTX adds events that are waiting to play out in the join-in-progress stream to the end of the normal playout stream. By doing so, it re-forms the schedule into one continuous stream of events.

The following illustration shows a schedule that features a join-in-progress operation.

	Start Time	Type	Item Name	Time Mode
	18:00:00.00	Live	Play-off	Auto
Manual	18:30:00.00	Video Clip	Latest Results	Auto
	18:45:00.00	Video Clip	News	Auto
Join In Progress	19:00:00.00	Video Clip	At the Movies	Join In Progress
	20:30:00.00	Video Clip	Top Play	Auto
	20:45:00.00	Video Clip	Under Lights	Auto

The join-in-progress event and those after it move along the timeline without playing out while the channel is in the hold state.

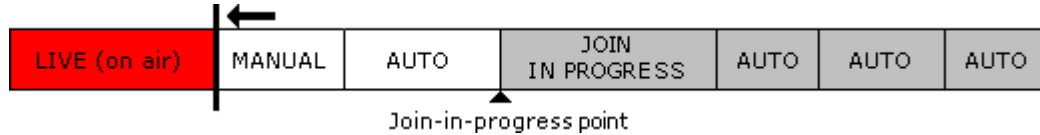
In this schedule, a live event is followed by a manual event and an event with the Auto time mode; then by the join-in-progress event and a number of other events.

In the Schedule Grid, the start time of the join-in-progress event is highlighted green; this shows the start time is fixed.

iTX plays out the events before the join-in-progress event in the normal way: first, the live event; then, after it receives a Take Next request, the manual event; then the following event with the Auto time mode. How it handles the events in the join-in-progress stream depends on the effect of the duration of the live event.

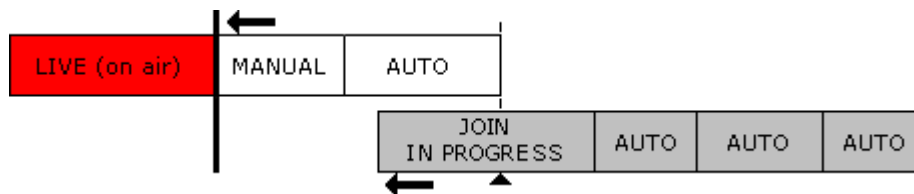
The Event Editor

The next diagram shows the events moving from right to left along the timeline. Events in the join-in-progress stream are shaded grey.

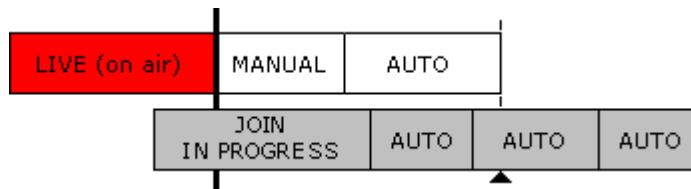


The join-in-progress point identifies the first frame in the join-in-progress stream that is to appear on air. Until the live event overruns its scheduled duration, this point is at the scheduled in-point of the join-in-progress event.

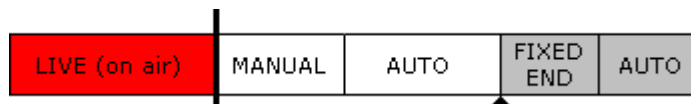
The live event may continue for so long that it causes the join-in-progress event, with its fixed start time, to overlap the preceding event as it moves along the timeline. We can show the join-in-progress stream as running parallel to the main stream:



Since the join-in-progress point is fixed relative to the last event on the main stream, it moves back through the join-in-progress stream as this moves along the timeline. As a result, successive events in this stream may expire before one of them is required to go to air:



When the manual event is taken to air, and the channel exits the hold state, iTX merges the join-in-progress stream with the main schedule stream. In doing this, it skips all events in the join-in-progress stream up to the one that is marked by the join-in-progress point. It changes the time mode of this event from Auto to Fixed End and adjusts its in-point to match the time represented by the join-in-progress point:



iTX plays out the schedule events after the join-in-progress point at their original scheduled times.

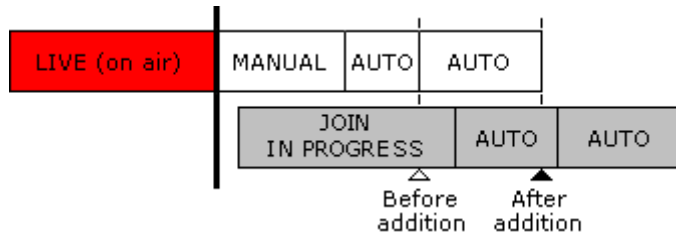
Note:

- To prevent playout failure, the schedule must allow iTX enough time to cue the event with the Fixed End time mode after the manual event is taken to air.

Adding an event before a join-in-progress event

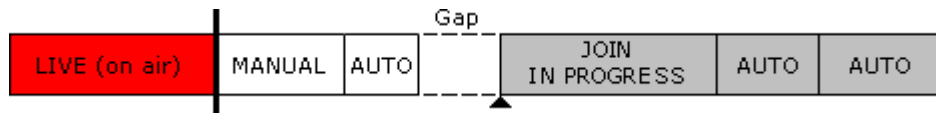
The Event Editor

You may add an event in the main schedule stream before the join-in-progress event. This causes the join-in-progress point to move back to the end of the last event on the main schedule stream:



Skipping or deleting an event before a join-in-progress event

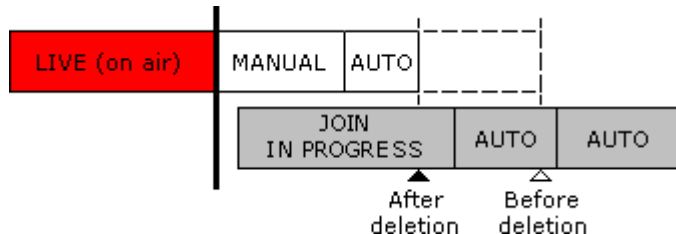
You may skip or delete an event in the main schedule stream. Because of the fixed start time of the join-in-progress event, this may leave a gap in the schedule:



While the live event remains on air, the join-in-progress event may close the gap as it moves along the timeline. If this happens, payout continues normally.

If you take the manual event to air before the gap closes, the resulting schedule underrun may cause a break in payout in the channel.

Deleting an event in the main schedule stream, when the two streams overlap, causes the join-in-progress point to move forward to the end of the last event on the main stream:



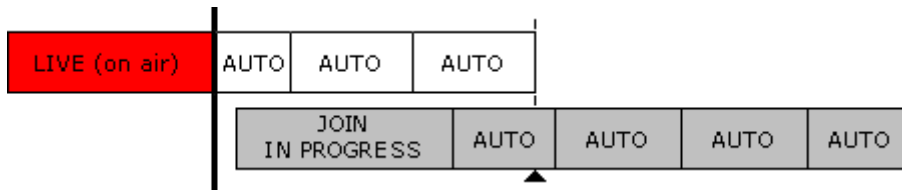
Deleting the manual event

If you delete the manual event in the main schedule stream when the live event is on air, the following event is taken to air immediately.

The join-in-progress point moves with the last event on the main stream. It identifies the new point where the join-in-progress stream is to be merged with the main schedule stream.

This diagram shows three events in the main schedule screen at the moment the manual event is removed:

The Event Editor



Deleting the join-in-progress event

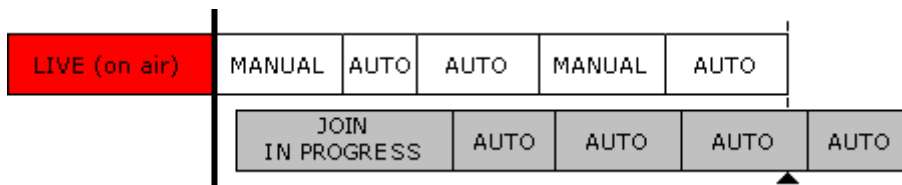
If you delete the join-in-progress event, iTX simply adds the remaining events in the join-in-progress stream after the last event on the main schedule stream.

Effect of a fixed event in the join-in-progress stream

A schedule may contain a fixed event after the join-in-progress event. iTX puts this item on air at its scheduled playout time. The join-in-progress operation is cancelled if it has not happened by then. Playout continues normally for the events that follow the fixed event.

Effect of multiple manual events

When the main schedule stream contains more than one manual event, the last of these controls the join-in-progress operation. iTX merges the join-in-progress stream from the point that is aligned with the end of the last event on the main schedule stream:



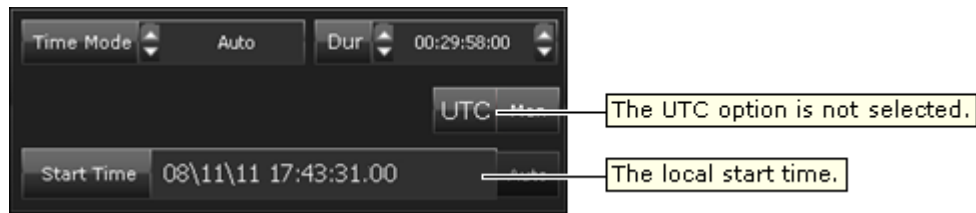
Taking a selected event to air

Taking to air an event that follows a join-in-progress event cancels any pending join-in-progress operation. Playout continues normally for the events that follow the event you take to air.

About the display of local or UTC start times for events

If a channel is configured with a timezone offset from the international standard time (UTC) or is adjusted for daylight saving time (DST), the Event Editor displays the start time of events in local time. You can set it up to display the start time of events in UTC instead; for this, you use the **UTC** button on the Event Editor.

When **UTC** is not selected, the Event Editor displays the local start time:



When the **UTC** option is selected, event start times are displayed in UTC:



The **UTC** button only affects the Event Editor. In the Schedule Grid, the Start Time column shows the start time of schedule events in UTC; you may add a Local Start Time column to view start times in local time. [More details](#), page 150. The Timeline Display shows a channel's local time.

About DST and the timing of fixed-start and fixed-end events

When a channel is adjusted for daylight saving time (DST), iTX may ask you to confirm the start time of an event with a Fixed time mode; or the end time of an event with a Fixed End time mode.

It does so when, for such an event, you specify a Local Start Time or Local End Time that is ambiguous due to its falling within an hour that is apparently repeated at the end of DST; the intended start time may be either inside or outside the DST boundary – the time at which DST ends.

For example, DST is set to end at 02:00 local time (01:00 UTC). The following happens for a channel that is displaying local timings.

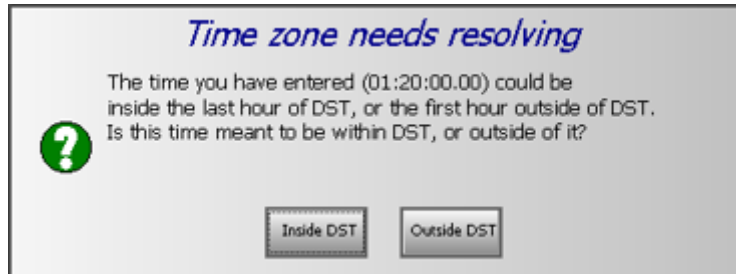
- In the Event Editor, you enter a start time of 00:50 for an event with a Fixed time mode. The start time is inside the DST boundary, and so the timing is clear. The event has a Local Start Time of 00:50 (DST) and a Start Time of 23:50 (UTC) the previous day:

Local Start T	Start Time	Type	C	T	N	W	Item Name	Item Title	Duration
00:50:00.00	23:50:00.00	Video Clip	■	T	□	-	News Roundup	News Roun	00:29:59.29

The Event Editor

- You enter a start time of 01:20 for an event with a Fixed time mode. Since this falls within the hour that is repeated in local time (but not UTC), it is not clear whether the start time is inside or outside the DST boundary.

iTX displays the Time Zone Needs Resolving dialog:



Clicking **Inside DST** sets the event with a Local Start Time of 01:20 (DST) and a Start Time of 00:20 (UTC):

Local Start T	Start Time	Type	C	T	N	W	Item Name	Item Title	Duration
01:20:00.00	00:20:00.00	Video Clip	■	T	T	-	News Roundup	News Roun	00:29:59.29

Clicking **Outside DST** sets the event with a Local Start Time of 01:20 (non-DST) and a Start Time of 01:20 (UTC):

Local Start T	Start Time	Type	C	T	N	W	Item Name	Item Title	Duration
01:20:00.00	01:20:00.00	Video Clip	■	T	T	-	News Roundup	News Roun	00:29:59.29

Enter an event start time that could be before or after the end of DST

In this procedure, you specify the start time of an event that has a Fixed time mode.

- Select an event in the Schedule Grid.
The Event Editor displays the event details.
- Enter a start time in the **Preset Time** box. [More details](#), page 207.
iTX displays the Time Zone Needs Resolving dialog.
- Do one of the following to set the start time of the event.
 - Click **Inside DST** to specify a Local Start Time before the end of DST.
 - Click **Outside DST** to specify a Local Start Time after the end of DST.
- Click **Store Changes**.

Enter an event end time that could be before or after the end of DST

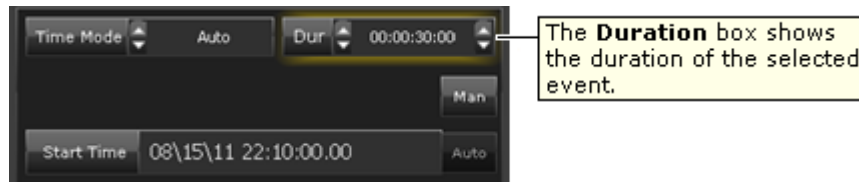
In this procedure, you specify the end time of an event that has a Fixed End time mode.

1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. Enter an end time in the **End Time** box. [More details](#), page 207.
iTX displays the Time Zone Needs Resolving dialog.
3. Do one of the following to set the end time of the event.
 - Click **Inside DST** to specify a Local End Time before the end of DST.
 - Click **Outside DST** to specify a Local End Time after the end of DST.
4. Click **Store Changes**.

Setting event durations

Durations for different types of event

The entry in the **Dur** box shows the duration of an event:



For a video-clip or an audio-clip event, iTX uses the default duration; this is determined by the difference between the in-point and out-point of the clip.

iTX plays video clips and audio clips at their regular playback speed; i.e. the speed at which they are intended to be played. If you want a clip to play for a certain length of time, you need to adjust its in-point or out-point so that the interval between these points is equal to the required duration.

If an event includes an asset (CG, logo or still image) that has no defined start and end, you can specify any duration. A GPI-output event must have a duration of at least 2 seconds.

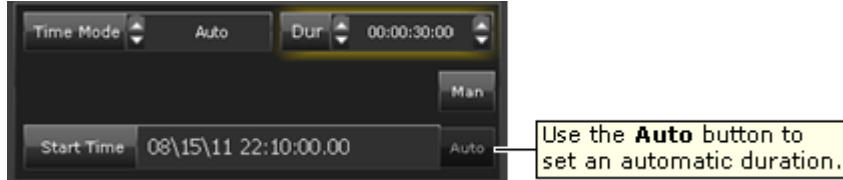
Automatic durations for secondary events

When you add a secondary event to a schedule, iTX gives it a default duration. You may change this duration manually. Or, you may use the automatic-duration option to synchronize the primary and secondary events so that:

- Either the secondary event starts and finishes at the same time as its primary event.

The Event Editor

- Or the secondary event starts a specified time after the primary event starts, and finishes at the same time as the primary event.



Change an event duration

You can use this procedure to change the duration of an event of any type.

1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. In the **Dur** box, enter a new value for the duration. [More details](#), page 207.
3. Click **Store Changes**.

Note:

- If you set a video-clip event to have a duration that is longer than the video-clip itself, iTX holds the last frame in a freeze; the Schedule Grid displays a warning icon for the event. [More details](#), page 146.

To avoid this, you may set iTX to loop the video clip for the duration of the event. [More details](#), page 207.

- A GPI-output event must have a duration of at least 2 seconds.

Set an automatic duration to make a secondary event finish at the same time as its primary event

1. Select a secondary event in the Schedule Grid.
The Event Editor displays the event details.
2. Select the Start + time mode in the **Time Mode** box.
3. Enter a value in the **Offset** box for the time difference between the start of the secondary event and the start of its primary event.
4. Select **Auto** (the button turns red).
5. Click **Store Changes**.

Set an automatic duration to make a secondary event start and finish at the same time as its primary event

1. Select a secondary event in the Schedule Grid.
The Event Editor displays the event details.

The Event Editor

2. Select the Start + time mode in the **Time Mode** box.
3. Enter a value of "00:00:00:000" in the **Offset** box.
4. Select **Auto** (the button turns red).
5. Click **Store Changes**.

Setting the regional channel for a regional event

About regional channels

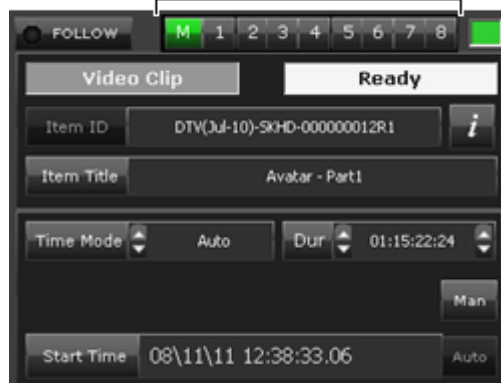
Your iTX system may include main and regional playout channels: the main channel provides the programme output for most of the time; at other times, the regional channels play out their own media content.

For example, a national television station may broadcast the same programs to a number of regions. At certain times, the regional channels disconnect from the national channel to show programs of local interest. They re-connect to the national channel when the local programs finish.

Each regional channel runs on its own Output Server, which is controlled from the main channel; the regional channels are sub-channels of the main channel. Each regional channel has the same name as the main channel followed by #*n*, where *n* is the number (1 to 8) of the regional channel. For example, iTX1#4 is regional channel 4 of the main channel iTX1.

You use the regional-channel selection buttons, at the top of the Event Editor, to set the regional channel to play out a selected schedule event. The regional event is scheduled as a secondary event with a Start + time mode; its primary event plays out on the main playout channel. An event plays out in the main channel when **M** is selected.

Regional-channel selection buttons



In the Schedule Grid, the regional event is a secondary event:

Start Time	Type	C	T	N	W	Item Name	Item Title	Duration
17:00:00:00	Video Clip	■	T		-	News Roundup	Main Region	00:30:00:00
17:00:00:00	Video Clip	■	T		-	News Roundup	Region 1	00:30:00:00
17:00:00:00	Video Clip	■	T		-	News Roundup	Region 2	00:30:00:00
17:00:00:00	Video Clip	■	T		-	News Roundup	Region 3	00:30:00:00
17:00:00:00	Video Clip	■	T		-	News Roundup	Region 4	00:30:00:00
17:00:00:00	Video Clip	■	T		-	News Roundup	Region 5	00:30:00:00

Event plays out on the main channel.

Event plays out on regional channel 4.

The Event Editor

Unless you select a regional channel to play out a schedule event, the event plays out through the main channel.

There are times when a regional channel has no content of its own to play out. For example: when it starts up, when there is an overrun of greater than 8s between video-clip events, and when there are no schedule events in the channel. It then operates in pass-through mode. This means the channel transmits the signal that it receives as a live input. Normally, this signal is the output of the main channel; but it could be a feed from an alternative source that is configured for the channel.

To play out multiple schedule events in a regional channel for a commercial break (split break), you should use the Split Break palette. [More details](#), page 57.

Set the regional channel for a regional event

1. Select the regional event in the Schedule Grid. The regional event must be scheduled immediately after the event that will play out on the main channel.
The Event Editor displays the event details.
2. Select the regional channel by clicking the appropriate regional channel button.
3. In the **Time Mode** box, select the Start + time mode. [More details](#), page 96.
4. Click **Store Changes**.

Note:

- Clicking **M** returns the event to play out through the main channel.

Video and audio transitions for primary events

When you select a primary event in the Schedule Grid, the Event Editor displays a panel with features that enable you to set a video and audio transition for the start of the event:



Transition-type selection buttons

By clicking a transition-type selection button, you can select one of these transition types:



Video:

Simple cut.	Fade out, show black, fade in.	Cut to black, fade in.	Fade to black, cut in.	Cut through black.	Dissolve.
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Audio:

Simple cut.	Fade out, fade in.	Cut, fade in.	Fade out, cut in.	Cut through silence.	Dissolve.
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The transition options for secondary events (CGs and logos) are slightly different. [More details](#), page 114.

Add a transition at the start of a primary event

1. Select a primary event in the Schedule Grid.
The Event Editor displays the transition panel.
2. Click a transition-type selection button to select a transition type.
3. Do one of the following to set the transition duration.
 - Click **Slow**, **Med** or **Fast** to select a preset duration. The value for the duration appears in the **Dur** box.
 - Enter a value directly in the **Dur** box. [More details](#), page 207.
4. If you want to adjust the black-hold (or silence) duration in transitions that include black frames (or silence), do the following.
 - Click **Advanced** to display the black-hold dialog.
 - Enter a value (seconds:frames) in the **Black Hold** box.
 - Click **OK** to close the dialog.
5. Click **Store Changes**.

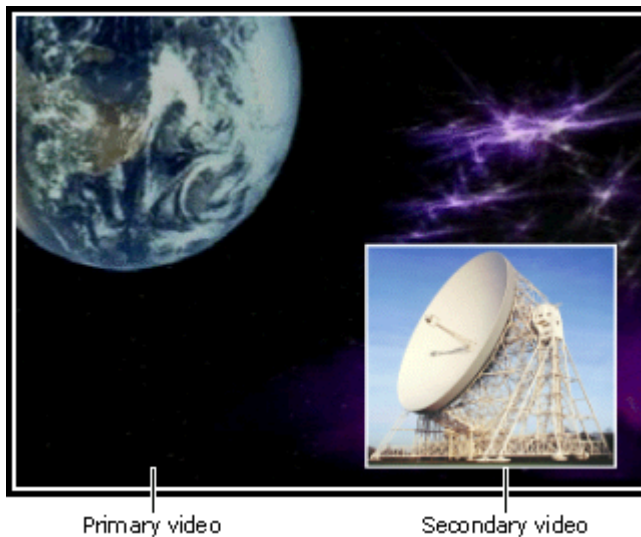
Creating a picture-in-picture effect

You may add a secondary event to a schedule by dropping a video clip onto a primary event on a video track on the Timeline Display. The result is a picture-in-picture effect: iTX displays one item on top of the other in an arrangement that you select. The primary event may feature a video clip, a still image or a live feed.

You can create the same effect by dropping a video clip onto a primary event in the Schedule Grid. This creates a primary event, which you can convert into a secondary event (by selecting a Plus or Minus time mode for it in the Event Editor).

We call the content of the asset in the primary event the *primary video*; we call the content of the asset in the secondary event the *secondary video*.

This illustration shows an example of a picture-in-picture effect:



On the Timeline Display, iTX shows the events side-by-side on separate tracks.

In the Schedule Grid, iTX displays a plus sign in front of the primary event. Clicking the plus sign expands the event to show the secondary event. When you select the secondary event in the Schedule Grid, the Event Editor displays a panel with buttons that enable you to set the picture-in-picture properties:



You can:

- Select a preset format for the picture arrangement.
- Display the picture-in-picture format dialog; through this you can modify the selected format and the background audio level.
- Store the modified format in a preset-format selection button.

The Event Editor

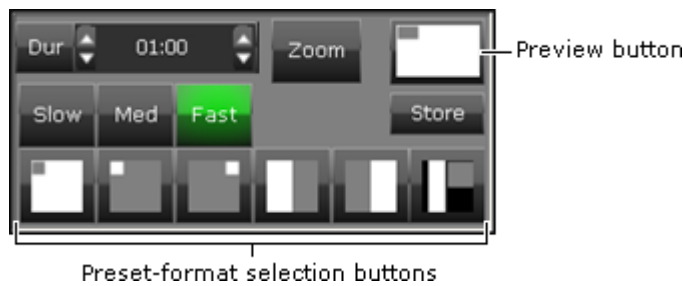
- Select the way (mix or zoom) in which the picture-in-picture effect starts and ends.

Note:

- To change the timing of the secondary event, you change its time offset.

Picture-in-picture formats

The Event Editor displays 6 preset-format selection buttons, which store details of different picture-in-picture formats:



The diagram on each button indicates the format. In the diagram, a white rectangle represents the primary video; a grey rectangle, the secondary video.

By clicking one of these buttons you apply the stored format to the selected primary and secondary events. The preview button indicates your selection.

From the preview button, you can select the picture-in-picture format dialog and modify the selected format. Your modifications then apply to the selected primary and secondary events. To make the modified format available for other events, you can make it the stored format of any of the preset-format selection buttons.

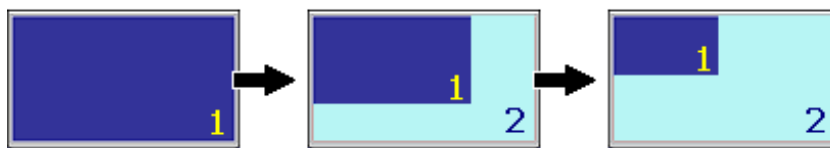
Mix and zoom options for a picture-in-picture effect

The **Zoom** button on the Event Editor controls the way in which a picture-in-picture effect happens.

- With the zoom option not selected, the secondary video fades in over the primary video. The following diagram (in which 1 identifies the primary video and 2 the secondary video) shows stages of this process.



- With the zoom option selected, the primary video squeezes into a specified area of the screen to reveal the secondary video, as the next diagram shows.



In each case, at the end of the picture-in-picture effect, the reverse process happens.

About the picture-in-picture format dialog

Clicking the preview button on the Event Editor causes the picture-in-picture format dialog to appear:



The dialog contains a window, which represents the television display area. Within the window are two rectangles, which you can move and resize; these represent the primary and secondary video images. You can display guide frames for various video display resolutions (SD and HD) to help you adjust the rectangles.

To the right of the window is an audio fader for the background audio (i.e. the audio associated with the primary video).

Through the dialog, you can do the following to modify the selected picture-in-picture format:

- Change the size and position of the primary and secondary video images.
- Add a still image to act as a background.
- Adjust the volume of the background audio track.

You may position either video image such that part of it lies outside the display area; iTX then crops the image, to show just the part that is within the display area.

Set the size and position of the items in a picture-in-picture effect

1. In the Schedule Grid, select the secondary event in the picture-in-picture effect.
The Event Editor displays the picture-in-picture features.
2. Click a preset-format selection button on the Event Editor.
The diagram on the preview button shows the selected format.
3. Do the following if you want to modify this format.
 - Click the preview button. iTX displays the picture-in-picture format dialog.

The Event Editor

- If you want to adjust the two video rectangles with reference to guides, use the guide buttons (**SD-480**, **SD-576**, **HD-720** and **HD-1080**) to display the required guide frame.
 - Select either the Primary Video rectangle or the Secondary Video rectangle to make it active.
 - Drag from anywhere inside the rectangle to move it. Or enter values in the **X** and **Y** boxes.
 - Select **Lock Aspect** if you want iTX to maintain the aspect ratio of the rectangle when you resize it. With the option not selected, you can adjust each side independently.
 - Drag any side or corner of the rectangle to resize it. Or enter values in the **W** (width) and **H** (height) boxes. Click **C**, to the right of either of these boxes, to quickly enter the maximum value.
 - Select and modify the other rectangle, if you want.
 - Click **OK** to close the dialog.
4. Click **Store Changes**.

Adjust the background audio level for a picture-in-picture effect

During a picture-in-picture effect, iTX reduces the volume of the background audio below that of the audio for the secondary video. You can modify this.

1. In the Schedule Grid, select the secondary event in the picture-in-picture effect.
The Event Editor displays the picture-in-picture features.
2. Click the preview button to display the picture-in-picture format dialog.
3. Drag the **Background Audio Level** slider up or down to change the audio volume.
4. Click **OK** to close the picture-in-picture format dialog.
5. Click **Store Changes**.

Add a background image to a picture-in-picture effect

You can use a still image to fill the screen behind the primary and secondary videos.

1. In the Schedule Grid, select the secondary event in the picture-in-picture effect.
The Event Editor displays the picture-in-picture features.
2. Click the preview button to display the picture-in-picture format dialog.
3. Click **Background Image** to open PinPoint, the iTX search tool.
4. Use PinPoint to select a still image for the background image. [More details](#), page 188.
When you close PinPoint, the image fills the window behind the rectangles for the primary and secondary video.
5. Click **OK** to close the picture-in-picture format dialog.
6. Click **Store Changes**.

Change the format stored in a preset-format button

After changing a preset format, you can store it in any of the preset-format selection buttons.

1. Ensure the preview button is set to apply the new picture-in-picture format.
2. Click **Store**.

The button turns red to show that it is active.

3. Click any of the preset-format selection buttons.

iTX associates the new format with that button; the diagram on the button changes to indicate the new format. The **Store** button returns to its normal color.

You can restore the default preset formats to all buttons at any time. You do this by right-clicking the picture-in-picture button panel and selecting **Reset PIP memories**.

Set a mix transition into, and out of, a picture-in-picture effect

After selecting the picture-in-picture format, do the following if you want the secondary video to fade in at the start and fade out at the end.

1. Ensure the zoom option is not selected; i.e. the **Zoom** button does not show green.
2. Do one of the following to set the duration of the mix transition (in seconds:frames).
 - Click **Slow, Med** or **Fast** to select a preset duration. The value for the duration appears in the **Dur** box.
 - Enter a value directly in the **Dur** box. [More details](#), page 207.
3. Click **Store Changes**.

Set a zoom action into, and out of, a picture-in-picture effect

After selecting the picture-in-picture format, do the following if you want the primary video to squeeze into a smaller area and reveal the secondary video underneath; at the end of the effect, it performs the same action in the reverse direction.

1. Select **Zoom** (the button displays a green light).
2. Do one of the following to set the duration of the zoom action (in seconds:frames).
 - Click **Slow, Med** or **Fast** to select a preset duration. The value for the duration appears in the **Dur** box.
 - Enter a value directly in the **Dur** box. [More details](#), page 207.
3. Click **Store Changes**.

Transitions and vision effects for secondary events

Setting transitions and vision effects for logo events

You use logos as overlays (secondary events) that play on top of background video clips. iTX switches them on and off at times that relate to the playout of the background clips.

In the Event Editor, you can set transitions and vision effects for events that include logos. Whether your settings apply to the start or end of an event depends on which of two indicator buttons (**IN** or **OUT**) is selected:



Set a transition for a logo event

You can set an in-transition for the start of a logo event and an out-transition for the end.

1. Select a logo event in the Schedule Grid.
The Event Editor displays the event details.
2. Select **IN** or **OUT**, depending on whether you want to set an in-transition or an out-transition.
3. Click a transition selection button to select a transition type:



Simple cut.



Dissolve.

4. Do one of the following to set the transition duration.
 - For an in-transition, enter a value in the **IN** box. [More details](#), page 207.
 - For an out-transition, enter a value in the **OUT** box.
5. Click **Store Changes**.

Set a wipe, slide or squeeze effect for a logo event

You can set separate vision effects (wipe, slide or squeeze) for the start and end of a logo event.

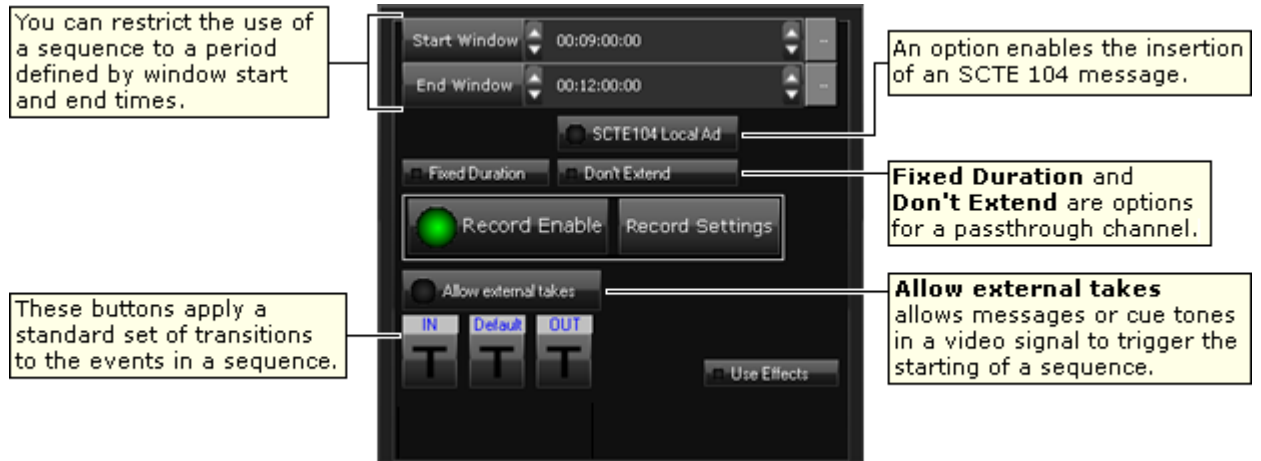
1. Select a logo event in the Schedule Grid.
The Event Editor displays the event details.
2. Select **IN** or **OUT**, depending on whether you want the vision effect to happen at the start or end of the event.
3. Click **WIPE**, **SLIDE** or **SQUEEZE** to select the type of vision effect.
4. Click one of the arrow buttons to select the direction of the effect:



5. Do one of the following to set the duration of the effect.
 - For an effect that happens when the item switches on, enter a value in the **IN** box. [More details](#), page 207.
 - For an effect that happens when the item switches off, enter a value in the **OUT** box.
6. Click **Store Changes**.

Using the Event Editor features for sequences

When you select a sequence entry (rather than an event within a sequence) in the Schedule Grid, the Event Editor displays a panel containing a number of features:



You can:

- Restrict the use of the sequence to a defined period (a break window).
- Define a standard set of transitions and apply them to the events in the sequence.
- Set up iTX to insert an SCTE 104 message in a break to trigger local advertising.

Also, for a sequence in a pass-through channel, you can:

- Prevent iTX returning to the live source before the end of the sequence.
- Prevent iTX extending the duration of the current schedule event when the next primary event is on hold.

This panel also contains buttons that control the recording of media events in a sequence. iTX records the events as it plays them out and creates a media file of the recording on the Media Store. [More details](#), page 123.

Restricting the use of a sequence to a defined period

Two of the features enable you to restrict use of the sequence to a defined period called a break window.

- Where a third-party system can control playout operations, you may want to ensure iTX does not start playing a sequence before a specified time. You enter the time in the **Start Window** box. iTX does not play the sequence before this time, even if the third-party system requests it to do so. You can, however, manually take the sequence to air before the specified time.
- You may want iTX to automatically skip a sequence that has not started if a specified time passes while the next primary event is on hold (i.e. the next primary event is a manual event and iTX is waiting for a request to take it to air). You specify the time in the **End Window** box. When iTX automatically skips a sequence, it does not let you unskip it.

The Event Editor

Once iTX starts playing a sequence, the break-window expiry time becomes irrelevant to playout operations: iTX continues to play a sequence even if the expiry time passes while it is doing so.

If iTX skips a sequence, it then acts on the next primary event. If this event has an automatic time mode, iTX cues the event and takes it to air; if the event is a manual event, iTX waits for you to manually take the event to air.

Selecting **Allow external takes** sets up iTX to respond when it receives a trigger (e.g. an SCTE 104 message or a cue tone) from a third-party system. Such a trigger, provided it happens within the sequence break window, causes iTX to immediately start the sequence.

Prevent iTX starting a sequence before the start of a break window

1. Select a sequence in the Schedule Grid.
The Event Editor displays the sequence details.
2. Enter a time for the start of a break window in the **Start Window** box.
iTX rejects any requests from a third-party system to play out a sequence before this time.
3. Click **Store Changes**.

Note:

- To remove such a restriction on a sequence, click the Clear button (to the right of the **Start Window** box) to clear the entry from the box.
- Your system administrator may configure the **Start Window** box as a date-and-time box. In this case, you specify a date as well as a time.

Set iTX to skip a sequence that it does not start by the end of a break window

When you use this procedure, iTX skips the selected sequence if the break window ends while the next primary event is on hold.

1. Select a sequence in the Schedule Grid.
The Event Editor displays the sequence details.
2. Enter a time for the end of a break window in the **End Window** box.
iTX skips the sequence if it does not start it before this time.
3. Click **Store Changes**.

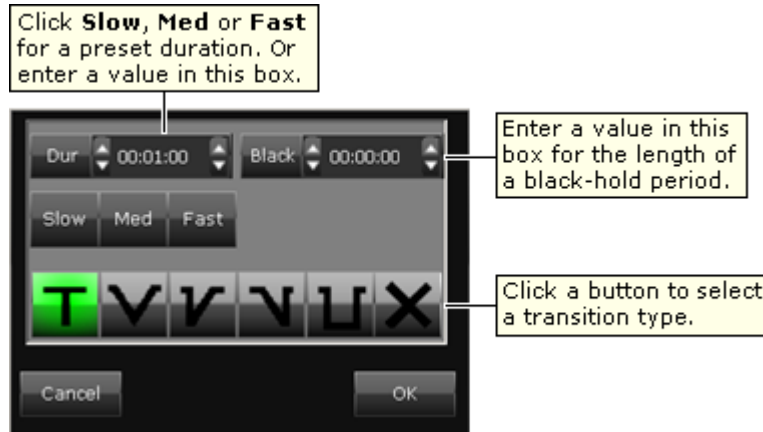
Note:

- To remove such a restriction on a sequence, click the Clear button (to the right of the **End Window** box) to clear the entry from the box.
- Your system administrator may configure the **End Window** box as a date-and-time box. In this case, you specify a date as well as a time.

Apply a standard set of transitions to the events in a sequence

Through the transition option buttons, you can define a standard set of transitions that you can apply to the events in the sequence. You can specify one type of transition (In) for the first clip in the sequence, another (Out) for the last, and another (Default) for all the clips in between.

To set a transition, you select a type and specify the duration through the transition options dialog. This opens when you click any of the transition option buttons:



1. Select a sequence in the Schedule Grid.
The Event Editor displays the sequence details.
2. Do the following for each of the three (**In**, **Default** and **Out**) transition option buttons.
 - Click a transition option button to display the transition options dialog.
 - Select a transition type; specify a duration and a black-hold value; click **OK** to close the dialog.

The transition option buttons show the selected transition types.
3. Select **Use Effects** (the button indicator displays a green light).
This causes iTX to apply the specified transitions to the events in the sequence.
4. Click **Store Changes**.

Note:

- If you want iTX to apply the transitions that are set for the individual events in the sequence, instead of the standard set of transitions, ensure **Use Effects** is not selected.

Prevent iTX switching a pass-through channel back to its live source before a sequence has played out for a specified duration

Assigning a fixed duration to a sequence prevents iTX automatically taking the next event to air until the end of the duration, even if the last event in the sequence ends before that time. You may use this option to prevent a pass-through channel returning to its live source too early.

1. Select a sequence in the Schedule Grid.
The Event Editor displays the sequence details.
2. Select **Fixed Duration** (the button indicator displays a green light).
3. Enter a new duration, if you want to, in the **Dur** box.
4. Click **Store Changes**.

Note:

- **Fixed Duration** is selected if the sequence is created with a fixed duration. [More details](#), page 54. Ensure the option is not selected if you want iTX to connect a pass-through channel to its live source immediately the last event in the sequence ends.

Prevent iTX continuing to play out events in a sequence after a specified duration

You can set up iTX to end a sequence after a specified duration, even if the last event in the sequence is due to play out after the end of that duration.

1. Select a sequence in the Schedule Grid.
The Event Editor displays the sequence details
2. Select **Fixed Duration** (the button indicator displays a green light).
3. Enter a new duration, if you want to, in the **Dur** box.
4. Select **Don't Extend** (the button indicator displays a green light).
5. Click **Store Changes**.

Inserting an SCTE 104 message to trigger the insertion of local advertising

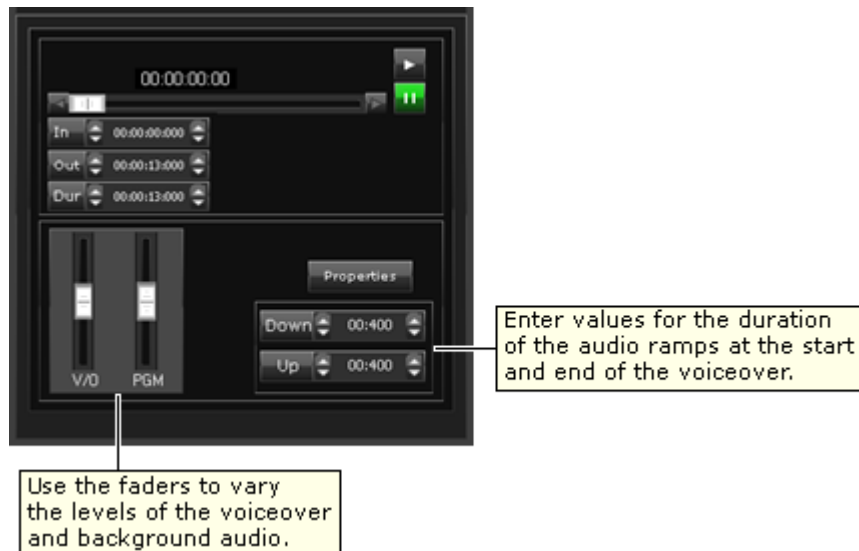
If you select **SCTE104 LocalAd**, iTX can insert an SCTE 104 message to trigger the insertion of local advertising. It does this when it plays out a sequence as a result of receiving an SCTE message containing a delay.

Unless you require this specific functionality, you should ensure the option is not selected.

Changing volume levels for voiceover events

After selecting a voiceover event in the Schedule Grid, you can adjust the volume levels in this event and its associated primary event by using the controls on the Event Editor.

Volume level controls for a voiceover event:



Set volume levels for a voiceover event and its primary event

1. Select a voiceover event in the Schedule Grid.
The Event Editor displays the event details.
2. While playing the voiceover clip, set the V/O and PGM volume levels:
 - Drag the **V/O** fader to change the volume of the voiceover clip.
 - Drag the **PGM** fader up or down to change the volume of any background audio.
3. Click **Store Changes**.

Set the duration of the audio ramps at the start and end of a voiceover event

1. Select a voiceover event in the Schedule Grid.
The Event Editor displays the event details.
2. Do the following to adjust the audio ramps.
 - In the **Down** box, enter a value for the length of the period at the start of the voiceover during which the background audio fades out as the voiceover fades in.
 - In the **Up** box, enter a value for the length of the period at the end of the voiceover during which the background audio fades in as the voiceover fades out.
3. Click **Store Changes**.

Replacing a video clip, live asset or logo in a schedule event

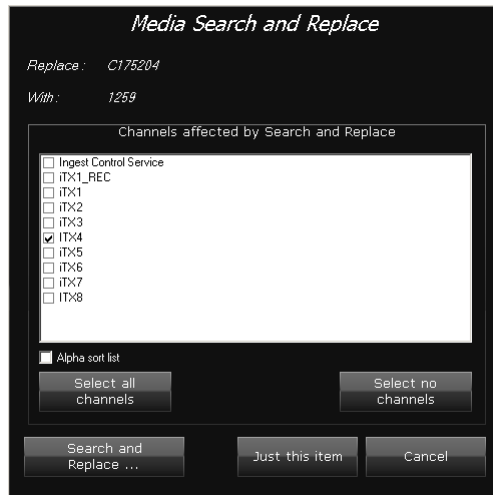
While a video-clip event is selected in the Schedule Grid, you can open PinPoint from the Event Editor; you can then select another video clip or live asset to replace the one in the selected event. Where multiple events include the same clip, you can replace all such events throughout selected channels in a single operation.

In a similar way, you can replace the logo in a logo event. Instead of using PinPoint, though, you select the replacement logo from those configured in the Logo palette.

Replace the video clip or live asset in one or more events

1. Select a video-clip or live event in the Schedule Grid.
The Event Editor displays the event details.
2. Click **Item ID** to open PinPoint.
3. Use PinPoint to select a new video clip. [More details](#), page 188.

When you close PinPoint, iTX displays the Media Search and Replace dialog:



The dialog contains a list of channels in which iTX can search for and replace specified video clips.

4. Do one of the following.
 - If you want iTX to replace the video clip in the selected event only, click **Just this item**.
 - If you want iTX to replace the video clip in all events in one or more channels, select the check boxes of these channels. Ensure the check boxes for all other channels are cleared and then click **Search and Replace**.
 - If you want iTX to replace the video clip in all events in all channels, click **Select all channels** and then click **Search and Replace**.

Note: To clear the selected channels, click **Select no channels**.

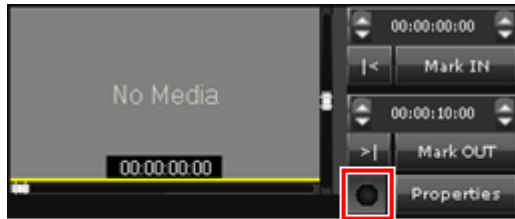
iTX replaces the specified video clip in the relevant events. During this process, it displays the Search and Replace Progress dialog.

5. Click **OK** to close the dialog when iTX completes the search-and-replace operation.

Selecting a videotape machine to play out a VTR event

After selecting a VTR event (one featuring a video-clip with a videotape location) in the Schedule Grid, you can select the VTR (videotape machine) iTX is to use to play out the VTR event.

You do this by using the Select VTR button on the Event Editor:



You use the Select VTR button to set the VTR that iTX uses to play out a VTR event.

Select a videotape machine for playback

1. Select a VTR event in the Schedule Grid.
The Event Editor displays the event details.
2. Click the Select VTR button to display the Select VTR dialog.
3. Select a VTR; click **OK** to close the dialog.
The button indicator displays a green light.
4. Click **Store Changes**.

Setting up the recording of sequences and live events

A playout channel may be configured to enable the recording of schedule events – of certain types – as they are played out. When this is the case, you may select an event in the Schedule Grid and set up a recording. The event types that can be recorded are: sequences and live events.

When it records a schedule event, iTX creates an asset (i.e. a video clip) in the System Database and a media file on the Media Store. The file name is based on the asset name.

There are two ways of setting up a recording. Both require features that are on the Channel Control layout. These become available when a channel is configured and licensed for the recording functionality.

- You may use the recording buttons on the Event Editor. These appear when a sequence or live event is selected in the Schedule Grid:



- You may use the Recording column of the Schedule Grid:

Recording column

Start Time	Duration	R	Type	Item Name
21:00:00.0	00:02:30.00	●	Sequence	1080i BREAK SEQ #1

In either case, you can set recording options in the Recording Settings dialog:



Through this dialog, you can perform actions to manage a recording:

- Mark an event for recording.
- Cancel a recording.

The Event Editor

- Enter a name for the video clip created for the recording. Alternatively, you may let iTX create this name – it combines the event name (shown in the **Record Event** box) with the date and time of the recording.
- Select a recording profile. This controls the formatting of the recorded file.
- Select a recording mode. This controls how much of the content (e.g. logos) added to the basic video image is included in the recording. See below, “About the different recording modes”.

When the media file for a recording becomes available, the Media Viewer opens in the middle of the dialog. You can use this to play the file and mark in- and out-points for the video clip.

This dialog shows the network path of the media file. By clicking the path, you can open the Media Store folder that contains the file.

Note:

- To manage recordings, you may need to add the Recording Column to the Schedule Grid view. [More details](#), page 150.
- You cannot record events as they are played out in a channel that is set up to deliver an IP simulcast output.

About the different recording modes

The pictures that iTX delivers as the channel output are generally composed of a number of layers and may have certain types of VANC data (e.g. captions) inserted.

Starting with a basic video image, iTX adds items such as logos and CGs. In doing so, it builds up each video frame in a number of stages. The recording-mode setting allows you to choose at what stage of this process the recording takes place. There are three standard options:

- **Before All.** iTX records the picture as it appears before the addition of any logos, CGs or VANC data. The recording includes any DVEs, picture-in-picture effects and voiceovers.
- **Before Branding.** The recording takes place after the insertion of any VANC data but before any logos or CGs are added.
- **Complete.** iTX records the final content (including VANC data, logos and CGs) that the Output Server delivers for transmission.

A fourth recording-mode option may be available for recording the channel output after it is modified by downstream equipment (e.g. an aspect-ratio converter). The Output Server must have a second live input (i.e. in addition to the one used for live events) to receive the modified channel output. This fourth option is:

- **Channel Output.** iTX records the signal, from the downstream device, that is fed into the Output Server second input.

About channel default settings

Your system administrator selects default options that apply to the playout channel for two recording settings:

The Event Editor

- Recording profile.
- Recording mode.

This makes it quicker for you to set up recordings that require the default options. You can further simplify the set-up procedure by using iTX to automatically name the new video clip; you then only have to mark an event for recording.

You can override the default settings by selecting different options in the Recording Settings dialog.

Use the Event Editor to quickly mark an event for recording

Do the following to quickly set up a recording that uses the default settings and the option to automatically name the new asset.


1. Select a sequence or live event in the Schedule Grid.
2. Select **Record Enable** on the Event Editor. The button indicator shows a red light.
3. Click **Store Changes**.

A red disc in the Recording column in the Schedule Grid shows the event is marked for recording.

Use the Schedule Grid to quickly mark an event for recording

Do the following to quickly set up a recording that uses the default settings and the option to automatically name the new asset.

1. Click the Recording column for a sequence or live event in the Schedule Grid:

Start Time	Duration	R	Type	Item Name
21:00:00.0	00:02:30.00		Sequence	1080i BREAK SEQ #1

The Record Settings dialog appears.

2. Select **Record Enable** in the dialog.
3. Click **OK** to close the dialog.

A red disc in the Recording column shows the event is marked for recording.

Use the Event Editor to specify settings for the recording of an event

Do the following when you want to override the default settings or specify the name of the asset created for a recording.

1. Select a sequence or live event in the Schedule Grid.
2. Select **Record Enable** on the Event Editor. The button indicator shows a red light.

The **Record Settings** button becomes active.

3. Click **Record Settings**.

The Event Editor

iTX opens the Record Settings dialog. This shows the current recording settings for the selected event.


4. Do any of the following, as necessary.
 - Enter a name for the new asset in the **Record Clip** box.
 - Select a recording profile in the **Record Profile** box.
 - Select a recording mode in the **Record Mode** box.
5. Click **OK** to close the dialog.
6. Click **Store Changes**.

A red disc in the Recording column in the Schedule Grid shows the event is marked for recording.

Use the Schedule Grid to specify settings for the recording of an event

Do the following when you want to override the default settings or specify the name of the asset created for a recording.

1. Click the Recording column for a sequence or live event in the Schedule Grid:

Start Time	Duration	R	Type	Item Name
21:00:00.0	00:02:30.00		Sequence	1080i BREAK SEQ #1

iTX displays the Record Settings dialog.

2. Do any of the following, as necessary.
 - Enter a name for the new asset in the **Record Clip** box.
 - Select a recording profile in the **Record Profile** box.
 - Select a recording mode in the **Record Mode** box.
3. Select **Record Enable**.
4. Click **OK** to close the dialog.

A red disc in the Recording column shows the event is marked for recording.

Edit the recording properties for an event

After setting up a recording, you can change its properties through the Record Settings dialog.

1. Do one of the following to display the Record Settings dialog.
 - Click the red disc in the Recording column for an event in the Schedule Grid.
 - Select an event in the Schedule Grid and click **Record Settings** on the Event Editor.
2. Change the settings as necessary and click **OK** to close the dialog.

The event is updated automatically if you display the Record Settings dialog from the Recording column. You need to click **Store Changes** to update the event if you use the Event Editor instead.

Monitor a recording

You can check a recording is taking place in the Record Settings dialog.

1. Do one of the following to display the Record Settings dialog.
 - Click the red disc in the Recording column for an event in the Schedule Grid.
 - Select an event in the Schedule Grid and click **Record Settings** on the Event Editor.

The Record Settings dialog appears, containing the Media Viewer. This shows the message “No Proxy or iTX locations” until the media file becomes available for previewing.

2. Check that the **Rec** button in the top, right corner flashes green and the **Location** box shows the path details of the file being created.

You may open the folder that contains the media file by clicking the entry in the **Location** box.

3. Check no error details appear in the **Error** box.

Note:

- You may view the location details for the media file under the Locations tab of the Property Editor on the Asset layout. The **Not Ready** and **Recording** check boxes are selected at the start of the recording. iTX clears the **Not Ready** check box when the media file becomes available for previewing; it clears the **Recording** check box when the recording finishes.

Preview a recording

When the media file for a recording becomes available , you can preview it in the Record Settings dialog.

1. Do one of the following to display the Record Settings dialog.
 - Click the red disc in the Recording column for an event in the Schedule Grid.
 - Select an event in the Schedule Grid and click **Record Settings** on the Event Editor.

The Record Settings dialog appears. It contains the Media Viewer which shows the message “Click to load”.

2. Click in the Media Viewer window to load the media file.
3. Use the Media Viewer playback features to play the file. [More details](#), page 295.
4. Use the Media Viewer trimming features if you want to mark in- and out-points for the asset. [More details](#), page 296.

Cancel a recording

The quickest way to cancel a recording is by using the Event Editor.

1. Select an event that is marked for recording in the Schedule Grid.
2. Click **Record Enable** on the Event Editor to turn off the option. The red light in the button indicator goes out.
3. Click **Store Changes**.

The Event Editor

The red disc is removed from the Recording column in the Schedule Grid.

Note:

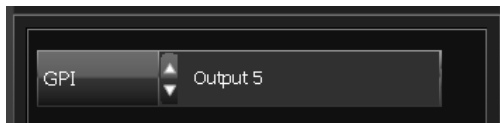
- You may also cancel a recording by clicking **Record Enable** to turn off the option in the Record Settings dialog.

Scheduling notes

- It is not currently possible for iTX to record one live event immediately after another. There must be a short gap between recordings.
- You should not schedule the recording of a live event inside a sequence that is also marked for recording.

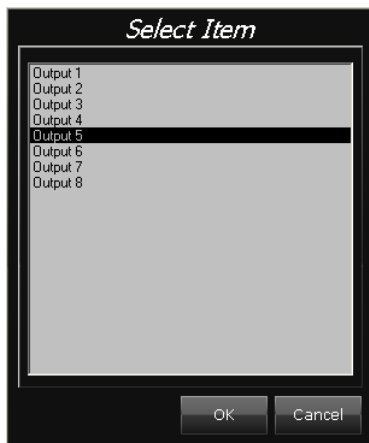
Changing the GPI output for a GPI event

When you select a GPI event in the Schedule Grid, the Event Editor displays the name of the GPI in the **GPI** box:



You may replace this GPI with another that is available to the current channel.

As part of the general engineering configuration of your system, different sets of GPI outputs may be allocated to different channels. You can view a list of available GPIs by clicking **GPI** to display the Select Item dialog (for GPIs):



Change the GPI output for a GPI event

- Select a GPI event in the Schedule Grid.
The Event Editor displays the event details.
- Select a GPI in the **GPI** box.

3. Click **Store Changes**.

Changing the routing properties for a router event

Your iTX system may include a matrix router that iTX can operate to connect various sources to various destinations.

When you configure a router event, you set three properties: the router, source and destination. Through the Event Editor, you can change any of these properties. You can also enter an alias (an alternative name) for the source.

Change the routing properties for a router event

1. Select a router event in the Schedule Grid.
The Event Editor displays the event details.
2. To change the router, do the following.
 - Click **Matrix** and select a router from the displayed dialog.
 - Click **OK**.
3. Do the following to change the source.
 - Click **Source** and select a source from the displayed dialog.
 - Click **OK**.
4. To change the destination, do the following.
 - Click **Destination** and select a destination from the displayed dialog.
 - Click **OK**.
5. Enter an alias for the source in the **Src Alias** box.
6. Leave the **Details** box blank.
7. Click **Store Changes**.

Changing the external subtitle file for an external subtitle event

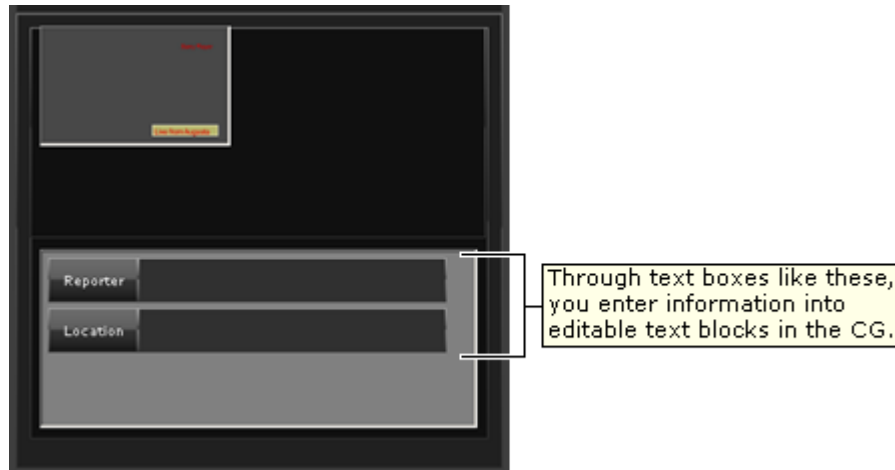
In the Event Editor, you can select a different subtitle file for an external subtitle event.

Select a different subtitle file for an external subtitle event

1. Select an external subtitle event in the Schedule Grid.
The Event Editor displays the event details.
2. Enter the filename of the new external subtitle file in the **File Name** box.
3. Click **Store Changes**.

Entering information in editable CG text blocks

A CG may include editable text blocks, in which you can insert variable information such as reporter names or story locations. When you select an event featuring such a CG in the Schedule Grid, the Event Editor displays text boxes below a preview window.



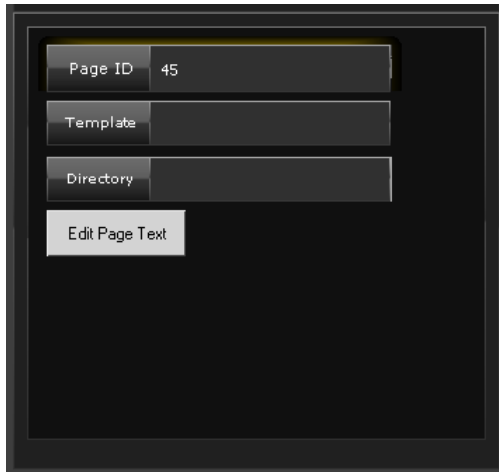
Through these text boxes, you can enter information into the CG.

Enter information in an editable CG text block

1. In the Schedule Grid, select an event that features a CG with editable text blocks.
The Event Editor displays the event details. For each editable text block in the CG, the Event Editor displays a text box next to a label button.
2. Type information into the text boxes on the Event Editor.
3. Click **Store Changes**.
iTX enters the information in the CG; you can preview it by clicking the preview window to open the CG in the CG application.

Changing page details in a VizRT CG event

After selecting a VizRT CG event in the Schedule Grid, you can specify a different page or template for the event; you can edit the information in any text field a page has. The Event Editor displays the same features as the Create Page dialog (which you use to enter page details in the Content Selector):

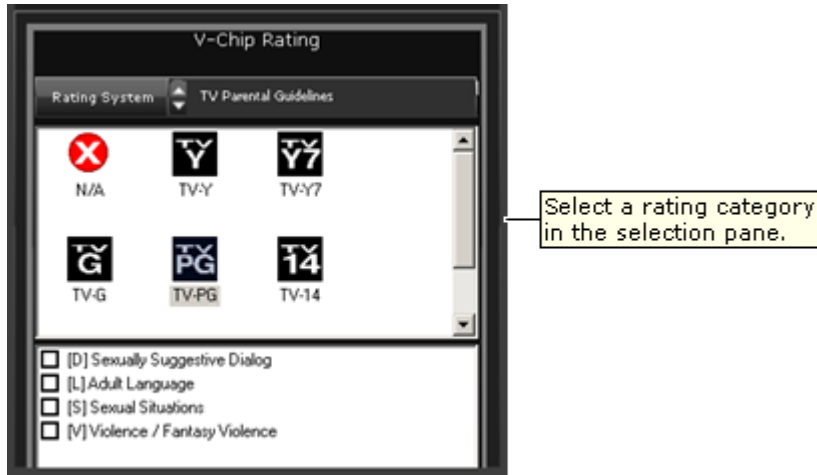


Change VizRT CG page details

1. Select a VizRT event in the Schedule Grid.
2. Enter a new page number, if you want to, in the **Page ID** box.
3. If you want iTX to automatically create pages that are not on the VizRT device, check the VizRT template details in the **Template** box. iTX uses the specified template to create pages.
Note: Your system administrator needs to configure the system to make this functionality available.
4. Do the following if you want to edit text fields in the CG.
 - Click **Edit Page Text** to display the Edit Page Fields dialog.
 - Enter the new field details.
 - Click **OK** to close the dialog.
5. Click **Store Changes**.

Changing the rating category for a rating-category event

After selecting a rating-category event in the Schedule Grid, you can change the rating category for this event using the Event Editor.



Change the rating category for a rating-category event

1. In the Schedule Grid, select a rating-category event.
The Event Editor displays the event details.
2. Select the rating category you want to use.
3. Click **Store Changes**.

Note:

- When you select a rating category in the "TV Parental Guidelines" rating system, sub-rating options may appear below the category selection pane. [More details](#), page 81.


Entering and viewing schedule notes

For all schedule events you can record comments that can be viewed while the events are in the schedule. To do so, you use the Event Editor Notepad:



In the Schedule Grid, a symbol in the Notes column indicates whether or not an event has notes associated with it.

Enter notes for a schedule event

1. Select an event in the Schedule Grid.
The Event Editor displays the event details.
2. Click  to open the Event Editor Notepad.
3. Type your comments into the Notepad; click **OK** to close it.
4. Click **Store Changes**.

Note:

- You can also view any notes associated with a schedule event by opening a Notepad from within the Schedule Grid. You can do this while the Notes column is displayed: select an event in the Schedule Grid and click the *i*-entry in the Notes column. When you enter a note in this Notepad, you can set the content type for the note.

Using the follow-next feature

While monitoring the progress of a live schedule, you may often want to preview the next event while the current one is taking place.

You can do this after selecting the next event in the Schedule Grid, to load its details into the Event Editor. Alternatively, you can use the follow-next feature to select the next event automatically; the Event Editor then loads the next-event details as each event happens.

Set up iTX to automatically display details for the next event in the Event Editor

1. Select **Follow** on the Event Editor (the button indicator displays a green light).



The Event Editor displays details of the next event as each event takes place.

Note:

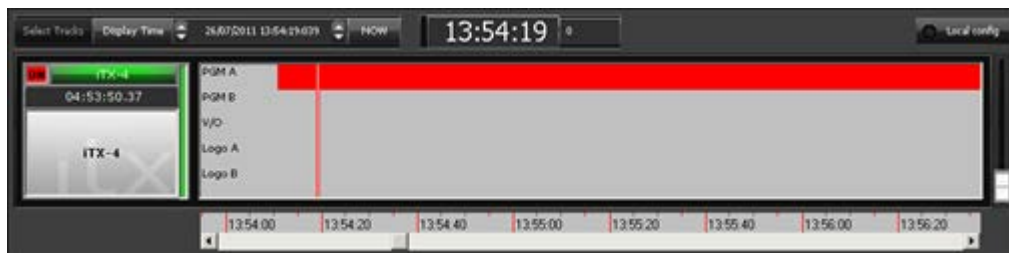
- You may cancel selection of the follow-next feature either by clicking **Follow** or by clicking an event in the Schedule Grid.

The Timeline Display

About the Timeline Display

The Timeline Display is a moving time-based graphic that shows you what events are currently on air, and what events are due to follow them, in the channel you are monitoring. All information on the Timeline Display is shown in the channel's local time.

The illustration below shows a single-channel timeline. The multi-channel version, which displays information for more channels, has identical features.



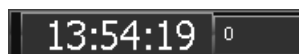
The Timeline Display has these main features:

- **Color-coded blocks** represent schedule events. iTX arranges the blocks, from left to right, in schedule order. The color of a block changes with the changing status (cued, on-hold, etc.) of the event it represents. [More details](#), page 157.
- **Tracks.** Events of different types appear on separate horizontal tracks. There are two programme tracks (PGM A and PGM B) for video-clips and still-image events. In general, primary events that play in sequence appear on the PGM A track; events featuring items that overlay the main items, including those that start with a dissolve transition, appear on the PGM B track. There are other tracks for secondary events (CGs, logos, etc.).

Your system administrator may configure the default tracks for a channel. You can also specify the tracks on which the Timeline Display presents information. [More details](#), page 139.

- **Present-time indicator.** A red vertical line spanning all tracks represents the present time of day. The blocks move past the present-time indicator as the events take place.
- **Time scale.** The scale at the bottom of the Timeline Display marks the time over the period within view. You can zoom your view of the Timeline Display to cover a longer or shorter period; you can focus the view on an earlier or later period.
- **Clock display.** The clock display above the tracks shows the channel's local time. In many television broadcasting stations, system time is measured in the international standard time system known as UTC (Co-ordinated Universal Time). For each channel in your iTX system, your system administrator can set an offset from UTC; local time can also be adjusted for daylight saving time (DST). The timezone-offset box, to the right of the clock display, shows the amount of any offset from UTC.

For example, if the local time is the same as the system time (UTC), the timezone-offset box shows "0":

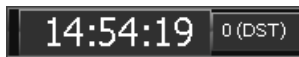


The Timeline Display

If the local time has an offset from UTC of 2 hours, the timezone-offset box shows "+2":



If the local time is adjusted for DST, the timezone-offset box shows this together with any offset from UTC:



You can add events to the current schedule by dragging and dropping media items from the Content Selector onto the Timeline Display.

Adding an event to a schedule by dropping an asset onto the Timeline Display

When you drag an asset (or other schedule item) from the Content Selector and drop it onto the Timeline Display, the point where you drop the asset affects where iTX locates the resulting new event in the current schedule:

- You may drop the asset in a clear part of the Timeline Display. iTX adds the new event to the end of the schedule and displays it on an appropriate track.
- You may drop the asset on top of a primary event that is already in the schedule. iTX adds the event as a secondary event of that primary event. On the Timeline Display, the events appear alongside each other on separate tracks.

Tracking an event on the Timeline Display

In the following illustrations we track the movement of a video-clip event, featuring Clip X, along the Timeline Display as iTX plays out a schedule. The block that represents the event changes color to indicate the current event status.

Event status: Ready

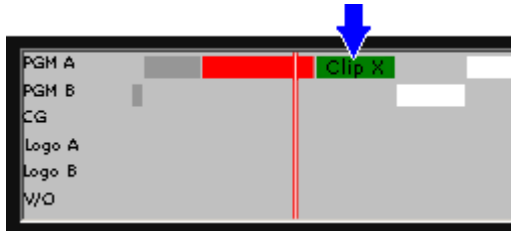


The event represented by the red block is on air; the events, represented by the grey blocks, to the left of this have taken place. The Clip-X event block is white; this shows that the clip is available for playback.

The Timeline Display

While the Clip-X event has this status, you may change its properties in the Event Editor.

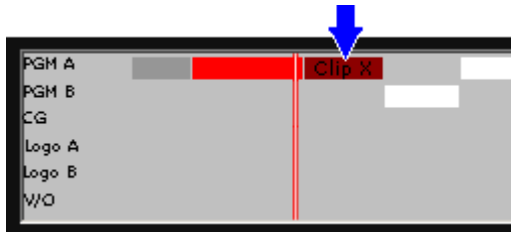
Event status: Cued



iTX indicates that the playout time for Clip X is within 15 seconds by highlighting the event green; this shows that the clip is cued and ready to play.

You may still change the event properties in the Event Editor.

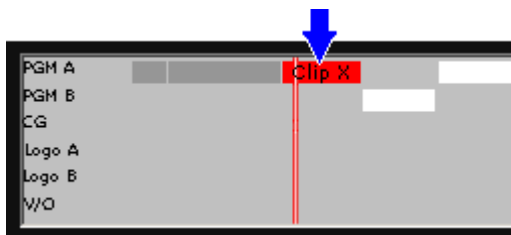
Event status: Commit



Five seconds from the scheduled playout time, iTX is ready to play Clip X; the block becomes dark red.

At this point, you can no longer change the event properties. The **Take Next** button becomes active for the event.

Event status: OnAir



iTX plays out Clip X. The block turns red to show that the clip is on air.

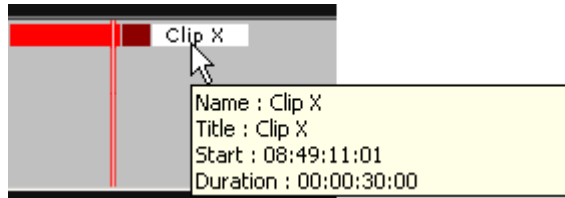
Event status: Done

Once the clip has played out, the block turns grey. iTX continues to display the block for a short time, as the following events take place.

Viewing information about an event

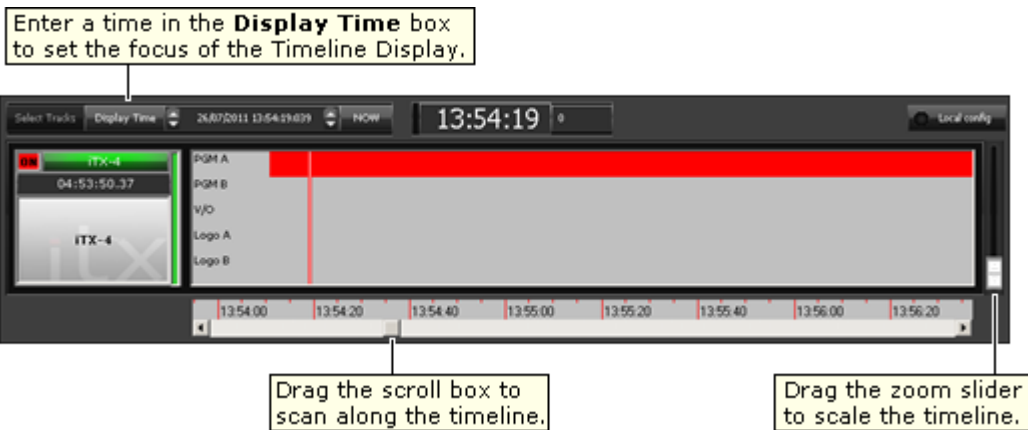
1. Move your mouse pointer over a block on the Timeline Display.

iTX displays a pop-up box (also known as a tooltip) showing the name of the item in the event, the event start time, its duration and its status.



Changing the view of the Timeline Display

The Timeline Display includes a number of controls that enable you to change your view of the timeline. You can zoom the view to cover a shorter or longer period; or shift the focus to show an earlier or later period.



Zoom the Timeline Display

1. Drag the zoom slider up to show a longer timeline period, or down to show a shorter one.

Shift the focus of the Timeline Display

1. Do one of the following to view a different part of the timeline.
 - Drag the scroll box, under the timeline.
 - In the **Display Time** box, specify the date and time on which you want to center the Timeline Display. [More details](#), page 207.
 - Click **Now** if you want to view details of current events.

Changing the track configuration of the Timeline Display

You can configure the tracks of the Timeline Display in one of two ways:

- You can specify the tracks on which the Timeline Display presents information. For a multi-channel Timeline Display, you can choose tracks for any selected channel.
- If your system administrator configures the default tracks for a channel, you can use this default track configuration. For a multi-channel Timeline Display, you can use the default track configuration set for each channel.

Change the track configuration of the Timeline Display

1. On the Timeline Display, select **Local Config** (the button indicator displays a green light).
2. Click **Select Tracks**.

iTX displays the track-configuration dialog:



3. Do the following to specify the tracks that you want to appear on the Timeline Display.
 - In the Available Tracks list, select one or more tracks; press Shift while clicking track names to select multiple tracks. Clicking **Select All** selects all tracks (while clicking **Clear All** de-selects all tracks). Clicking **Alpha** causes the tracks to appear in alphabetical order, or the standard order, in the Available Tracks list.
 - Click **Add** to add the selected tracks to the Selected Tracks list (in the right pane).
 - If you want to remove any track from the Selected Tracks list, select the track and click **Rem**.
 - If you want to change the position of any tracks on the Timeline Display, select them in the Selected Tracks list; then click **Up** or **Down**.
4. Do one of the following, depending on how you want events to appear on the Timeline Display.
 - To display all information on a single horizontal track, select **Collapse Tracks** (the button indicator displays a green light).
 - Ensure **Collapse Tracks** is not selected (the button indicator appears blank) if you want events of different types to appear on separate horizontal tracks.

The Timeline Display

5. Click **OK** to close the dialog.

The Timeline Display includes only the tracks that you specify in the Selected Tracks list.

Using the default track configuration of the Timeline Display

Your system administrator may configure the default tracks for a channel. You can use this default track configuration to view events on the Timeline Display.

1. Ensure **Local Config** is not selected on the Timeline Display (the button indicator appears blank).

The Timeline Display shows the default track configuration.

The Schedule Grid

About the Schedule Grid

In the Schedule Grid, iTX displays a list of the events in the current schedule. This is the schedule that iTX is playing out in the channel you are monitoring; or the schedule you are working on if an edit channel is selected.

The events appear in playout order, with the earliest event at the top of the list. As events take place, iTX removes them from the Schedule Grid; following events move up the list and new events appear at the bottom. The events are color-coded, in the same way as the Timeline Display blocks, to show their current status. [More details](#), page 157.

You can modify a schedule by adding and removing events. You can change the order of events by dragging and dropping them within the Schedule Grid.

After selecting an event in the Schedule Grid, you can view details of its properties (in the Event Editor) and change them.

You can vary the amount of detail in the Schedule Grid by showing more or fewer columns of information. You can filter the list based on an entry in any column to display just events that contain that entry.

If you are controlling multiple channels from your iTX Desktop, you can display the schedules in different channels by clicking the Channel Selector buttons.

Your system administrator may configure iTX to automatically replace a missing media item in a schedule event. [More details](#), page 160.

The Start Time column in the Schedule Grid shows the start time of schedule events in system time (UTC). You can add the Local Start Time column to the Schedule Grid to view the start time of schedule events in local time. [More details](#), page 150.

Changing properties of assets in video-clip and logo events

The copy of an asset in a video-clip or logo event is linked to the original asset in the System Database. The link means that if a video clip or logo is modified on the Asset layout, iTX updates any event that uses an *unmodified* copy of the asset.

By using the Content Selector or Event Editor to change the boundary points of a video clip, or the size or position of a logo, you break the link to the original asset. iTX does not then update any events that feature the *modified* copy of the asset.

These rules apply also to events in imported schedules.

Channel-status indicators

An indicator at the top of the Schedule Grid shows the status of a channel that is part of a master-slave pair:



In a system with a matrix router, an on-air indicator appears when the channel output is routed to a destination to which the transmission system is connected:



Creating a schedule event by dropping an item into the Schedule Grid

When you drag an asset (or other schedule item) with an automatic time mode from the Content Selector and drop it onto the Schedule Grid, iTX creates a new schedule event immediately after the event onto which you drop the asset.

If you perform the same task using an asset that has a Fixed time mode, it does not matter where you drop the asset – iTX creates an event at the schedule location determined by the preset time of the asset. The preset time is retained as long as the start is in the future. You can't add an item with a Fixed time mode to a schedule if it has a preset time that is in the past.

If you add an asset with a Fixed time mode to a live schedule where the current on-air event is on hold, the playout of future events in the schedule may be affected. This happens when the start time of the item with the Fixed time mode occurs during the playout of the event on hold. The event on hold is trimmed when the Fixed event goes to air. iTX skips any events on the Schedule Grid between the event that is on hold and the end of the Fixed event.

Noting the time mode of events

iTX indicates the time modes of events by highlighting start times in different colors, as this illustration shows:

Time mode:	Start Time	Type	C	T	N	W	Item Name
Fixed	10:10:00.00	Video Clip	■	T	■	-	Intro
	10:15:30.00	Video Clip	■	T	■	-	Football Today
Plus or Minus	10:15:40.00	Logo-Durat	■	-	■	-	Sports Logo
	10:25:30.00	Sequence	-	-	■	-	Commercial Break
Manual	10:29:00.02	Video Clip	■	T	■	-	Golf - World Matchpl
	10:49:00.02	Sequence	-	-	■	-	Commercial Break
Fixed End	10:51:59.28	Video Clip	■	T	■	-	Motor racing
	11:11:59.28	Sequence	-	-	■	-	Commercial Break
Auto	11:15:30.00	Video Clip	■	T	■	-	Tennis

Green indicates a Fixed time mode; white, an Auto time mode; and orange, a Start +, Start -, End + or End - time mode. A start time with a red background indicates a manual event; pink, a Fixed End time mode.

The Schedule Grid

Note:

- Your system administrator may assign an alternative color scheme to the Schedule Grid.

Tracking an event

In the following illustrations we track the movement of a video-clip event, featuring Clip X, up the Schedule Grid as iTX plays out a schedule. The event changes color to indicate its current status.

Event status: Ready

Start Time	Type	Ca	Tr	No	W	Item Name
15:04:59.2	Video Clip	✔	T	1	-	Clip 1
15:09:59.2	Video Clip	✔	T	1	-	Clip 2
15:14:59.2	Video Clip	✔	T	1	-	Clip 3
15:19:59.2	Video Clip	✔	T	1	-	Clip X
15:24:59.1	Video Clip	✔	T	1	-	Clip 4
15:29:59.1	Video Clip	✔	T	1	-	Clip 5

The Clip-X event has a white background; this shows that the clip is available to play out. Events with grey backgrounds, above the Clip-X event, have played out. The event highlighted red, immediately above the Clip-X event, is on air.

While the Clip-X event has this status, you may change its properties in the Event Editor.

Note:

- You can hide events that have taken place by selecting **Hide History** from the Schedule Grid menu. [More details](#), page 152.

Event status: Cued

Start Time	Type	Ca	Tr	No	W	Item Name
15:09:59.2	Video Clip	✔	T	1	-	Clip 2
15:14:59.2	Video Clip	✔	T	1	-	Clip 3
15:19:59.2	Video Clip	✔	T	1	-	Clip X
15:24:59.1	Video Clip	✔	T	1	-	Clip 4
15:29:59.1	Video Clip	✔	T	1	-	Clip 5
15:34:59.1	Video Clip	✔	T	1	-	Clip 6

iTX indicates that the playout time for Clip X is within 15 seconds by highlighting the event green, showing that the clip is cued for playing out.

You may still change the event properties in the Event Editor.

The Schedule Grid

Event status: Commit

Start Time	Type	Ca	Tr	No	W	Item Name
15:09:59.2	Video Clip	█	T	1	-	Clip 2
15:14:59.2	Video Clip	█	T	1	-	Clip 3
15:19:59.2	Video Clip	█	T	1	-	Clip X
15:24:59.1	Video Clip	█	T	1	-	Clip 4
15:29:59.1	Video Clip	█	T	1	-	Clip 5
15:34:59.1	Video Clip	█	T	1	-	Clip 6

Five seconds from the scheduled event start time, iTX is ready to play Clip X; the event background turns dark red.

At this point, you can no longer change the event properties. The **Take Next** button becomes active for the event.

Event status: OnAir

Start Time	Type	Ca	Tr	No	W	Item Name
15:04:59.2	Video Clip	█	T	1	-	Clip 1
15:14:59.2	Video Clip	█	T	1	-	Clip 3
15:19:59.2	Video Clip	█	T	1	-	Clip X
15:24:59.1	Video Clip	█	T	1	-	Clip 4
15:29:59.1	Video Clip	█	T	1	-	Clip 5
15:34:59.1	Video Clip	█	T	1	-	Clip 6

iTX plays out Clip X. It shows that the clip is on air by highlighting the event red.

Event status: Done

Once the clip has played out, iTX continues to display the event, with a grey background, while the next event takes place. Eventually, as more events take place, the Clip-X event disappears from the Schedule Grid.

Viewing information about an event

When you move your mouse pointer over an event in the Schedule Grid, iTX may display a pop-up box, also known as a tooltip. This shows the title of the item in the event, the event start time, its duration, its location and its status.

Item Name	Item Title
Orient Express	Orient Express

Video Clip
 Time:00:04:56.897
 Duration:00:04:56.897
 Title:Orient Express
 Source: \\SVR2242\ITXDEV2\MEDIA\MPG\2010\8_26\Orient Express_OMN0826113609.mpeg
 Status:Ready
 Cache Status:Checked,New

The Schedule Grid

Note:

- Tooltips are not displayed by default; you can switch them on by changing a setting in the Schedule Display Setup dialog. [More details](#), page 153.

Preventing schedule underruns and overruns

When an event with a fixed start time appears in a schedule, iTX compares the start time of this event with the end time of the preceding event. It then notes if the timings of the two events cause an overrun or underrun of the schedule.

In an overrun, the second event is due to start before the first one finishes; in an underrun, there is a gap between the end of the first event and the start of the second event. Normally, you do not want either of these situations to happen in a schedule.

The Schedule Grid can display warnings of potential underruns or overruns, as this illustration shows:

Start Time	Type	C	T	N	W	Item Name
06:00:00.0	Video Clip	+	T	+	-	News
06:30:00.0	Video Clip	+	T	+	-	Football Highlights
07:00:00.0	Video Clip	+	T	+	-	Motor racing
07:00:30.0	Logo-Durat	+	-	+	-	GP Logo
07:30:00.0	Video Clip	+	T	+	-	Tennis
Under-Run 00:03:00.00						
08:00:00.0	Live	-	T	+	-	Press Conference

iTX inserts a highlighted comment to alert you to a schedule underrun or overrun.

You can then modify the schedule to ensure there is a continuous series of events.

Note:

- You may need to set up the Schedule Grid to display underrun and overrun warnings. [More details](#), page 152.

Show or hide secondary events

A plus sign (+) next to an event in the Schedule Grid indicates that the event is a primary event with one or more secondary events.

1. Click the plus sign to expand the primary event to show its secondary events.
The plus sign becomes a minus sign (-).
2. Click the minus sign to hide secondary events.

Note:

- You can show or hide all secondary items by clicking the plus or minus sign in the top, left corner of the Schedule Grid.


Change the order of schedule events

For this procedure, the Schedule Grid must be set up for drag-and-drop schedule changes. [More details](#), page 151.

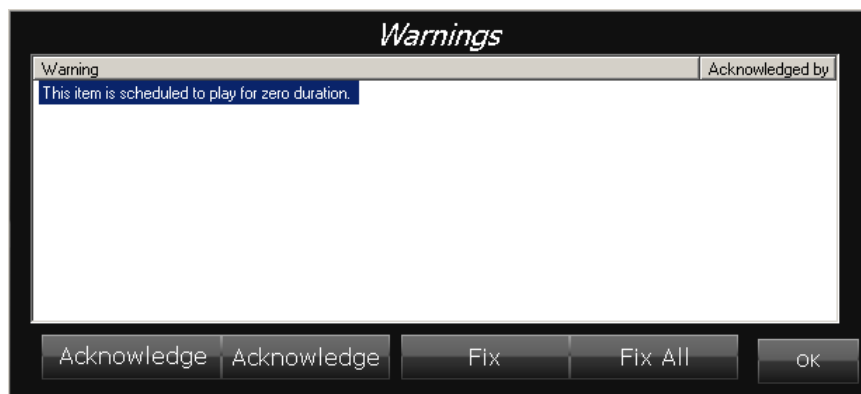
1. In the Schedule Grid, select an event you want to move. You can select multiple events by pressing Shift or Control as you select them.
2. Drag your selection to a new location.

Event warnings

You may set up the Schedule Grid to include a Warnings column. [More details](#), page 150.

In the Warnings column, the Schedule Grid displays a warning icon, , if there is a potential problem with the media item in a schedule event. For instance, the media item may be marked as "not available".

Clicking the warning icon displays the Warnings dialog, which gives details of the warning:



You can acknowledge the warning, without taking any other action relating to it. Depending on the particular situation the warning relates to, you may be able to take action to resolve the situation.

Media limit warning

The Schedule Grid displays a warning when a video-clip event is scheduled to play for longer than the duration of its media file. You may leave the event unchanged; iTX then holds the last frame of the clip in a freeze. Or you may choose to fix the event; iTX then adjusts the duration of the event to match that of the media file.

Note:

- Another way of responding to the greater duration of a video-clip event in comparison to its media file is to set up iTX to loop the video clip. [More details](#), page 207.

Invalid in-point warning

The Schedule Grid displays a warning if the specified in-point of a video clip is either before the start of the media in the media file or after the end of the media. If you choose to fix the event, iTX moves the video-clip in-point to the start of the media.


Modified media warning

Your system administrator may configure the Schedule Grid to display a warning icon for a schedule event when its media item is modified in the Asset layout. When this happens, the Warnings dialog displays the following warning: "Altered media not updated. Select fix to update".

If you fix the warning situation, iTX updates the schedule event.

Acknowledge a warning

1. In the Warnings dialog, do one of the following.
 - Select a warning and click **Acknowledge**.
 - Click **Acknowledge All** to acknowledge all warnings.
2. Click **OK** to close the dialog.

Warning icons for acknowledged warnings become grey, .

Fix a warning

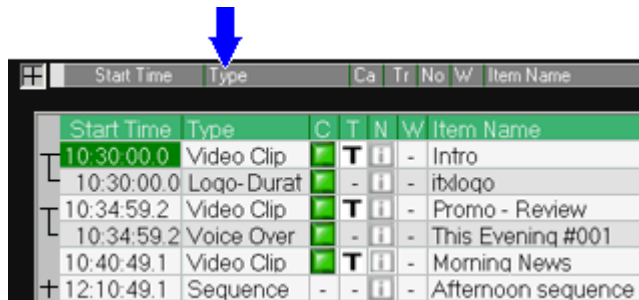
You can accept a fix for some warning situations; for instance, when a nested schedule is updated.

1. In the Warnings dialog, do one of the following.
 - Select a warning and click **Fix**.
 - Click **Fix All** to resolve all warning situations.
2. Click **OK** to close the dialog.

Add a filter to the Schedule Grid

You can filter the Schedule Grid so that it displays only events that have a certain attribute in common.

1. Right-click the heading for the column you want to base the filter on:



The Filter On dialog appears, displaying a list of the attributes that are denoted in the column:



2. Select the attribute you want to use as a filter; click **OK** to close the dialog.
3. The Schedule Grid displays only events with the selected attribute. The heading of the column the filter is based on turns red:



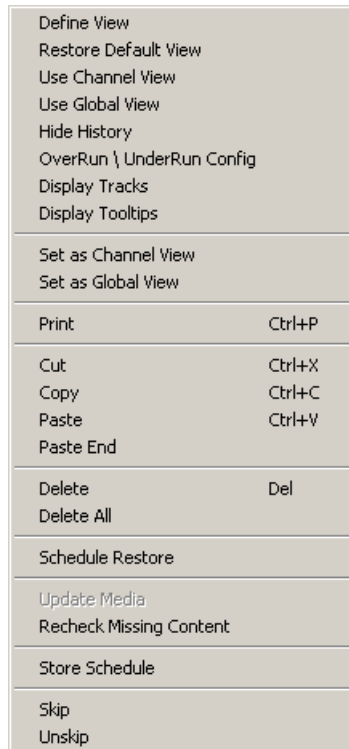
You can toggle the filter on and off by clicking the column heading.

Note:

- If you want the Schedule Grid to display secondary events when you define a filter that contains a secondary-event entry, the Schedule Grid must be set up to include secondary events. [More details](#), page 152. You may need to expand the events in the Schedule Grid to view the secondary events.

Using the options in the Schedule Grid menu

When you right-click the Schedule Grid, iTX displays the Schedule Grid menu:

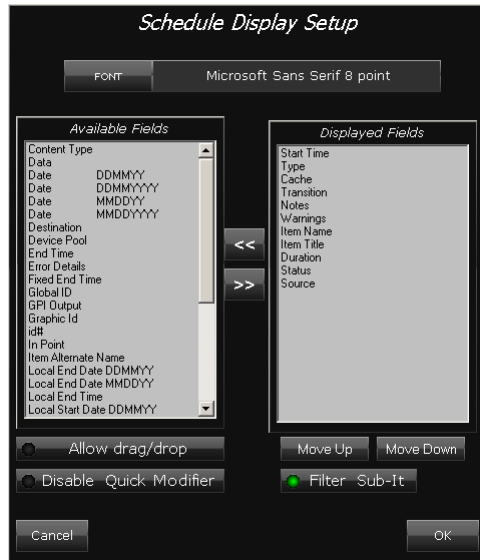


The menu gives you options that you can use to:

- Manage the contents of the current schedule.
- Change the amount and type of information the Schedule Grid displays.
- Print schedules, if your workstation is connected to a printer.

Defining the Schedule Grid view

When you select the **Define View** option in the Schedule Grid menu, you call up the Schedule Display Setup dialog:





Through this dialog, you can set:

- What columns of information the Schedule Grid includes, and the order of these columns. The availability of columns depends on the fields in your System Database.
- How the text in these columns appears (its font, style and size).

You may also modify some of the functionality of the Schedule Grid. Such functionality enables you to:

- Change the order of events by dragging and dropping them within the Schedule Grid.
- Quickly set the transition for the start of an event.
- Include secondary items in a Schedule Grid filter.

Set up the column arrangement and text appearance in the Schedule Grid

1. Right-click the Schedule Grid and select **Define View** from the displayed menu. iTX displays the Schedule Display Setup dialog.
2. In the **Font** box, select the font that you want iTX to use to display event details.
3. Do the following to set up the Schedule Grid columns.
 - In the Available Fields list, select a field; click  to add the field to the Displayed Fields list. Do this for each field that you want iTX to display a column for in the Schedule Grid.
 - If you want to remove any field from the Displayed Fields list, select the field and click .

The Schedule Grid

- Arrange the fields in the Displayed Fields list in the order in which you want the corresponding columns in the Schedule Grid to appear. To move a field up or down the order, select the field and click **Move Up** or **Move Down**.
4. Click **OK** to close the dialog.

Note:

- The Schedule Grid has three columns that refer to an event start time:
 - The Start Time column shows the scheduled start time in UTC.
 - The Local Start Time column shows the scheduled start time in a particular region; i.e. with any time-zone or daylight-saving offset.
 - The Original Start Time column shows the start time that was first specified for the event. For an imported schedule, this is usually the start time entered in the schedule when it is imported. If a schedule is re-imported, the event may have a new start time; the original start time, though, stays the same, unless your system administrator sets up your iTX system to automatically update values in such cases.

Restore the default column arrangement in the Schedule Grid

You can reset the Schedule Grid so that it includes information in a default arrangement of columns. This action does not affect the text appearance.

1. Right-click the Schedule Grid and select **Restore Default View** from the displayed menu.

Set up the Schedule Grid for drag-and-drop schedule changes

If you want to be able to re-order events by dragging them to new locations within the Schedule Grid, you need to set up the Schedule Grid in the following way.

1. Right-click the Schedule Grid and select **Define View** from the displayed menu.
iTX displays the Schedule Display Setup dialog.
2. Click **Allow Drag/Drop** to select the option (the button indicator displays a green light).
3. Click **OK** to close the dialog.

Switch off the transition-editing feature of the Schedule Grid

The transition-editing feature of the Schedule Grid enables you to quickly change an event transition from within the Schedule Grid. By default, this feature is available; you can switch it off through the Schedule Display Setup dialog.

1. Right-click the Schedule Grid and select **Define View** from the displayed menu.
iTX displays the Schedule Display Setup dialog.
2. Click **Disable Quick Modifiers** to select the option (the button indicator displays a green light).
3. Click **OK** to close the dialog.

Show or hide secondary events in a filtered list

You can view a list of schedule events that have a particular attribute in common by applying a filter to the Schedule Grid. [More details](#), page 148.

In the following procedure, you change the Schedule Grid view to include or exclude secondary events when you define a filter that contains a secondary-event entry.

1. Right-click the Schedule Grid and select **Define View** from the displayed menu.
iTX displays the Schedule Display Setup dialog.
2. Do one of the following.
 - Select **Filter Sub-Items** (the button indicator displays a green light) if you want the Schedule Grid to show secondary events when a filter contains a secondary-event entry.
 - Cancel the selection of **Filter Sub-Items** if you want the Schedule Grid to hide secondary events when a filter contains a secondary-event entry. (When this filter is selected, the Schedule Grid does not show any schedule events.)
3. Click **OK** to close the dialog.

Show or hide events that have taken place

Once an event has taken place, it remains in the Schedule Grid for a short period before iTX removes it (the length of this period is an iTX configuration option). You can switch the display of such events – which we call history events – on or off.

1. To show or hide history events, right-click the Schedule Grid and select **Hide History** from the displayed menu.
History events are hidden when a check mark appears next to the menu option.

Note:

- When **Hide History** is selected, iTX does not display skipped items.

Set up the Schedule Grid to display warnings of potential underruns and overruns

In setting up the Schedule Grid to display alert messages for underruns or overruns, you specify which tracks iTX monitors to determine whether an overrun or underrun is going to happen or not. Normally, you specify the two video tracks.

1. Right-click the Schedule Grid and select **OverRun\UnderRun Config** from the displayed menu.
iTX displays a dialog containing a list of available tracks.
2. Select the tracks you want iTX to monitor for overruns and underruns; de-select the ones you do not want it to monitor.
3. Click **OK** to close the dialog.

Choose which tracks iTX displays information for in the Schedule Grid

iTX can display information about events on all tracks in the Schedule Grid. If you do not want to view such a level of detail, you may restrict it to displaying just information about events on certain tracks.

1. Right-click the Schedule Grid and select **Display Tracks** from the displayed menu.
iTX displays a dialog containing a list of available tracks.
2. Select the tracks you want iTX to display information for; de-select the other tracks.
3. Click **OK** to close the dialog.

Show or hide tooltips

1. Right-click the Schedule Grid and select **Display Tooltips** from the displayed menu.
The Schedule Grid displays tooltips when a check mark appears next to the menu option.

Load the global Schedule Grid view

When there is a global view available for the Schedule Grid, you can change your Schedule Grid view to the global view.

1. Right-click the Schedule Grid and select **Load Global View** from the displayed menu.
The Schedule Grid view changes to the global view.

Set the Schedule Grid view as the global Schedule Grid view

You can set the Schedule Grid view to be available to other users in the system as the global Schedule Grid view.

1. Right-click the Schedule Grid and select **Set as Global View** from the displayed menu.
The Schedule Grid view is available to other users in the system as the global Schedule Grid view.

Note: After the global Schedule Grid view is set for a channel, an iTX Desktop started for the first time at any workstation displays the global Schedule Grid view for that channel. A workstation that has already started the iTX Desktop must load the global Schedule Grid view. [More details](#), page 153.

Print the current schedule

iTX prints a schedule exactly as it appears in the Schedule Grid. You may want to change the column arrangement and text appearance before you send a print request.

1. Right-click the Schedule Grid and select **Print** from the displayed menu.
iTX displays the Print dialog.
2. Select printing options and click **OK**.
iTX prints the schedule.

Cut and paste an event or group of events

You cut and paste an event if you want to remove it from its current location and use it somewhere else in the schedule. You can perform this action on a single event or a group of events.

1. In the Schedule Grid, select an event or group of events. You can select multiple events by pressing Shift or Control as you select them.
2. Right-click your selection and select **Cut** from the displayed menu.
iTX temporarily stores your selection on its clipboard; the selection stays there, available for you to re-use, until you replace it by cutting or copying another selection.
3. Do one of the following to add the selection back into the schedule.
 - Select the event that you want to insert the selection after. Click **Paste**.
 - Click **Paste End** to locate the selection at the end of the schedule.iTX pastes your selection into the schedule.

Copy and paste an event or group of events

You copy and paste an event if you want to use it both in its original location and somewhere else in the schedule. You can perform this action on a single event or a group of events.

1. In the Schedule Grid, select an event or group of events. You can select multiple events by pressing Shift or Control as you select them.
2. Right-click your selection and select **Copy** from the displayed menu.
iTX temporarily stores your selection on its clipboard; the selection stays there, available for you to re-use, until you replace it by cutting or copying another selection.
3. Do one of the following to add the selection back into the schedule.
 - Select the event that you want to insert the selection after. Click **Paste**.
 - Click **Paste End** to locate the selection at the end of the schedule.iTX pastes your selection into the schedule.

Delete an event or group of events

1. In the Schedule Grid, select an event or group of events. You can select multiple events by pressing Shift or Control as you select events.
2. Right-click the Schedule Grid and select **Delete** from the displayed menu.
3. When iTX prompts you to confirm your instruction, click **Yes**.
iTX removes the events from the schedule.

Delete all events

1. Right-click the Schedule Grid and select **Delete All** from the displayed menu.
2. When iTX prompts you to confirm your instruction, click **Yes**.
iTX removes all events from the schedule.

Cancel recent changes to a schedule

iTX repeatedly saves a live schedule as you make changes to it. It does this after any change that is not followed by another change within the next 30 seconds. At the same time, iTX updates the corresponding schedule in a back-up channel.

You can cancel any changes you make to the last saved version of a schedule. To do so, you need to do this within 30 seconds of your last change:

1. Right-click the Schedule Grid and select **Schedule Restore** from the displayed menu.

Note:

- The automatic save process applies only to the live schedule in the Schedule Grid. This schedule may be based on a schedule file that you load or save through the Schedule Manager. If you make changes to the live schedule and you want the changes to appear in the schedule file, you must use the Schedule Manager to modify the file. [More details](#), page 162.

Update a back-up schedule instantly


When you make a change to a live schedule, you may want that change to take effect immediately in the corresponding schedule in a back-up channel. You can make this happen by manually saving the change (instead of waiting for iTX to perform an automatic save).

1. Right-click the Schedule Grid and select **Store Schedule** from the displayed menu.

Note:

- The manual save process applies only to the live schedule in the Schedule Grid. This schedule may be based on a schedule file that you load or save through the Schedule Manager. If you make changes to the live schedule and you want the changes to appear in the schedule file, you must use the Schedule Manager to modify the file. [More details](#), page 162.

Update an event or group of events

Your system administrator may configure the Schedule Grid to display a warning icon for a schedule event when its media item is modified on the Asset layout. When this happens, the Schedule Grid displays a warning icon, . [More details](#), page 147.

You can update a schedule event with a modified media warning. You can perform this action on a single event or group of events.

1. In the Schedule Grid, select an event or group of events with the modified media warning. You can select multiple events by pressing Shift or Control as you select events.
2. Right-click the Schedule Grid and select **Update Media** from the displayed menu.
iTX updates the selected events in the Schedule Grid.

Check for the missing media item in an event

In the Schedule Grid, a schedule event has a status of "Not Ready" when its media item is unavailable. iTX can check if the media item has been registered in the system since iTX last updated the schedule.

1. Right-click the Schedule Grid and select **Recheck Missing Content** from the displayed menu.
iTX updates any schedule events with media items that have been registered in the system.

Skip an event or group of events

iTX omits skipped events from schedule calculations and playout operations, but leaves them in the Schedule Grid.

1. In the Schedule Grid, select an event or group of events. You can select multiple events by pressing Shift or Control as you select events.
2. Right-click the Schedule Grid and select **Skip** from the displayed menu.
3. When iTX prompts you to confirm your instruction, click **Yes**.

In the Schedule Grid iTX marks the events with the status "Skipped"; it adjusts the start times of following events to prevent gaps in the schedule.

Note:

- If a skipped item is the first item in a sequence, the whole sequence is skipped.

Unskip an event or group of events

You can restore skipped events to a schedule before they become due to play out.

1. In the Schedule Grid, select an event or group of events. You can select multiple events by pressing Shift or Control as you select events.
2. Right-click the Schedule Grid and select **Unskip** from the displayed menu.
3. When iTX prompts you to confirm your instruction, click **Yes**.

Schedule event colors

Events in the Schedule Grid change color to reflect the current event status.

Background color	Meaning
Grey (with orange text)	iTX is checking the item in the event.
White	iTX has checked the item and found it ready for use.
Yellow (with black text)	There is a problem with the item, or it is not yet available.
Green	The item is cued and ready to play out.
Dark red	The item is about to go to air; iTX will not accept changes to the event through the Event Editor.
Red	The item is on air.
Grey (with black text)	The item has played out.
Black (with yellow text)	The item has failed to play out at the scheduled time.




The Schedule Grid

Note:

- Your system administrator may assign an alternative color scheme to the Schedule Grid.

Cache status indicators

The Cache column in the Schedule Grid displays indicators to show the cache status of media items:

Indicator	Status
 (green)	Cached. The file for the media item is in the Output Server cache.
 (amber)	Not cached but available. The file for the media item is in the Media Store.
 (red)	Not cached and not available. The file for the media item is not in the Output Server cache or the Media Store; it may be in an external media folder.

For media items that do not involve caching operations (for instance, live sources), the Schedule Grid does not display an indicator.

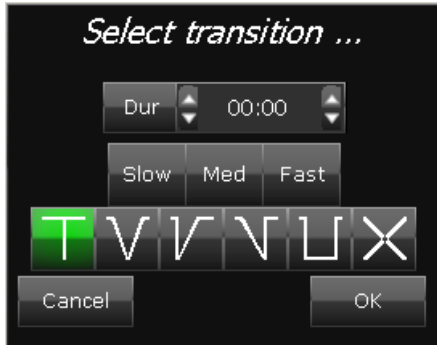
Caching progress

You can check the progress of caching operations by viewing the Cache % column in the Schedule Grid. [More details](#), page 150.

If an Output Server cannot cache a particular media file before the start time of the event that requires the file, it does not try to perform the caching operation. Instead, the Output Server plays out the file from the Media Store. When this happens, the amber indicator is displayed for the schedule event; no status message appears.

Changing the transitions for events in the Schedule Grid

If you set up the Schedule Grid to display the Transition column, you can modify the transition for any selected event using the Select Transition dialog:



Change an event transition in the Schedule Grid

1. Select an event in the Schedule Grid.
2. Click the symbol in the Transition column to display the Select Transition dialog.
3. Do the following to set the transition.
 - Click **Slow**, **Med** or **Fast** to set the transition duration. Or enter a value in the **Dur** box. [More details](#), page 207.
 - Click a transition-type button to select a transition type.The dialog closes automatically when you select a transition type.
4. If you do not change the transition type, click **OK** to close the dialog.

Note:

- The transition-editing feature of the Schedule Grid is available by default; you can switch it off by changing a setting in the Schedule Display Setup dialog. [More details](#), page 151.

Automatic replacement of missing media files with evergreen content

There may be video-clip events in a live schedule that iTX cannot play out because the required media file is unavailable. To prevent blank intervals of transmission, your system administrator may configure your iTX system to automatically replace any video-clip event that has a missing media file.

iTX adds a sequence in place of the event; it inserts media files from a standby set of media files into the sequence. The standby files contain generic content which is considered to be suitable for transmission during the period of the schedule; such content is often described as evergreen.

In the Schedule Grid illustrated below, the media item for the "Unknown clip" schedule event is missing:

Start Time	Type	C	T	N	W	Item Name	Item Title	Duration	Status
14:30:00.00	Video Clip	■	T	■	-	Afternoon News	Afternoon Ne	00:15:00.22	Ready
14:45:00.22	Video Clip	-	T	■	-	Unknown clip		00:30:00.00	NotReady
15:15:00.22	Video Clip	■	T	■	-	Tennis	Tennis	00:09:28.04	Ready

iTX automatically replaces the missing media file with a sequence containing evergreen content:

Start Time	Type	C	T	N	W	Item Name	Item Title	Duration	Status
14:30:00.00	Video Clip	■	T	■	-	Afternoon News	Afternoon Ne	00:15:00.22	OnAir
14:45:00.22	Sequence	-	-	■	-	REPLACE>Unknown clip		00:30:00.00	Ready
14:45:00.22	Video Clip	■	T	■	-	Weekend Highlights	Highlights	00:17:06.12	Ready
15:02:07.02	Video Clip	■	T	■	-	Promo Montage	Montage	00:07:46.21	Ready
15:09:53.23	Video Clip	■	T	■	-	iTX Sunset	iTX Sunset	00:04:59.27	Ready
15:14:53.20	Video Clip	■	T	■	-	SHOW TX Caption	SHOW TX	00:00:06.07	Ready
15:14:59.27	Video Clip	■	T	■	-	Tennis	Tennis	00:10:33.18	Ready

The duration of the evergreen sequence does not exceed the duration of the original schedule event. If iTX cannot fill the duration of the schedule event exactly with evergreen content, it displays the off-air slide for gaps longer than 1 second; otherwise, it holds the last frame of the sequence on a freeze.

By default, the time at which iTX makes the change to the schedule is related to the duration of the event that is to be replaced: the interval between the time of the schedule change and the start time of the event equals the duration of the event. Your system administrator may configure this interval to be a fixed length instead; i.e. not based on the event duration.

If the media file in the schedule event becomes available before the start time of the event, you may delete the sequence and re-insert the original schedule event.

About VTR events in the Schedule Grid

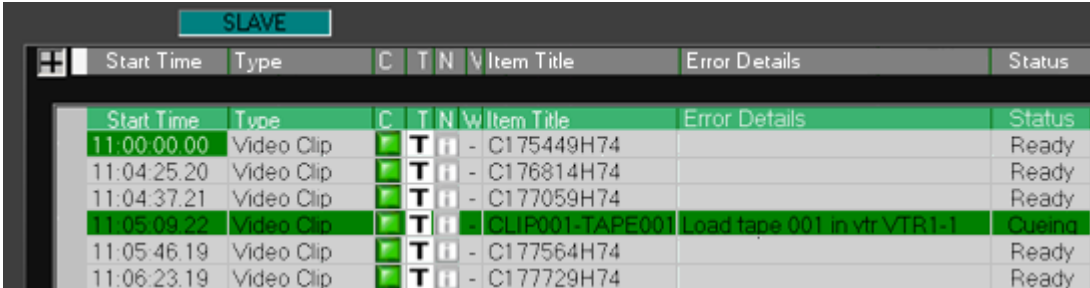
When the current schedule includes a VTR event (a video-clip event with a videotape location), iTX displays instructions for playing out the event in the Schedule Grid. You add the Error Details column to the Schedule Grid to view these instructions. [More details](#), page 150.

Cue the VTR event

Before iTX can play out a VTR event, you need to cue the event. To do this, you use the Selected Item Control.

Play out a VTR event

While the VTR event is cueing, the Schedule Grid displays the following message in the Error Details column: "Load tape *name* in vtr *name*":



Start Time	Type	C	T	N	W	Item Title	Error Details	Status
11:00:00.00	Video Clip	■	T	■	■	- C175449H74		Ready
11:04:25.20	Video Clip	■	T	■	■	- C176814H74		Ready
11:04:37.21	Video Clip	■	T	■	■	- C177059H74		Ready
11:05:09.22	Video Clip	■	T	■	■	CLIP001-TAPE001	Load tape 001 in vtr VTR1-1	Cueing
11:05:46.19	Video Clip	■	T	■	■	- C177564H74		Ready
11:06:23.19	Video Clip	■	T	■	■	- C177729H74		Ready

When this message is displayed, do the following to play out the VTR event.

1. Insert the specified videotape in the VTR (videotape machine).

iTX moves the videotape to a point that is just before the point specified for the start of the VTR event. The difference between the two points is called the pre-roll time.

Just before the start time of the event, iTX plays the videotape from this point. It continues to play the videotape for the specified duration of the event.

Note:

- If the tape is already in the VTR, you need to eject the tape and insert it in the VTR again.
- If your schedule includes another VTR event on the same videotape, iTX automatically cues the VTR event. The Schedule Grid does not display a message in the Error Details column.

Recording schedule events

From the Schedule Grid, you can manage the recording of sequences and live events if your system has the required functionality. [More details](#), page 123.

The Schedule Manager

About the Schedule Manager

From the Schedule palette on the Content Selector, you can add a stored schedule to the current schedule by dragging and dropping it into the Schedule Grid. The stored schedule appears nested within the main schedule. It becomes expandable near its start time, allowing you to view and edit its schedule events.

You can perform a similar task by using the Schedule Manager:



The way in which the Schedule Manager adds a schedule to the current schedule is slightly different to the way the Content Selector does:

- The Schedule Manager loads the schedule events directly into the current schedule (it does not create a nested schedule). You can view and edit these events immediately.

To add a schedule in this way, you first load the schedule into the Schedule Manager. From there, you can insert it after a selected event in the current schedule; or you can append it to the current schedule – i.e. add it at the end.

The Schedule Manager enables you to perform other tasks with schedules. You can:

- Load a schedule that has date and channel labels.
- Modify a stored schedule.
- Save the current schedule as a new schedule.
- Save the current schedule and label it for use in a particular channel on a specified date.
- Save a selected group of schedule events as a mini-schedule, known as a sequence.
- Create a looping schedule.
- Put back the start time of the current schedule by an hour or a day.
- Render the contents of the current schedule into an on-demand file, if the On Demand Packager is available in your iTX system.

Note:

- In the Schedule Manager, you can load a schedule that has been created in a third-party traffic application. The schedule becomes available to the Schedule Manager once the Media Watcher imports it into the iTX system.
- For the Media Watcher to be able to import a schedule file, the file must be in the schedule format defined by the iTX Import Protocol. (The protocol defines formats for schedules and clip lists.) Schedule files in this format have the filename extension ".osc".

For more information about the iTX Import Protocol, see "Appendix A: The iTX Import Protocol", page 357.

Loading stored schedules in the Schedule Manager

You may select a stored schedule from the System Database and load it in the Schedule Manager in the ways described below. From the Schedule Manager, you can then add this schedule to the current schedule.

Load any schedule

1. Click **LOAD** on the Schedule Manager to open PinPoint. [More details](#), page 182.
2. Use PinPoint to select a schedule.

The Schedule Manager displays the name of the schedule, followed by the number of items in the schedule.


Load a schedule that has date and channel labels

The name of a schedule may be made up of date and channel labels in the following form (where *y*, *m* and *d* represent year, month and date values):

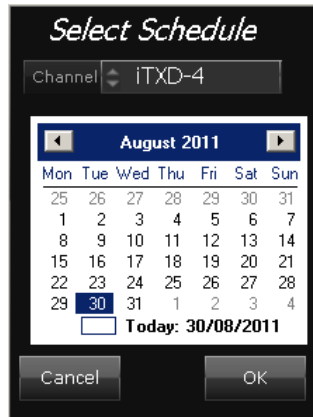
yyyy-m-d – channelname

You may use the calendar button, instead of PinPoint, to load any schedule that is named this way.



1. Click  next to the **LOAD** button.

iTX displays the Select Schedule dialog:



2. Do the following to select a schedule.
 - Select a channel in the **Channel** box.
 - Select a date in the calendar.
3. Click **OK**.

The Schedule Manager displays the name of the schedule, followed by the number of items in the schedule.

Adding stored schedules to the current schedule

While a schedule is loaded in the Schedule Manager, you can add it to the current schedule. In doing so, you may insert it between primary events in the current schedule; or you may append it to the end of the current schedule.

Add a stored schedule to the current schedule

1. Depending on where you want to locate the stored schedule, do one of the following.
 - In the Schedule Grid, select the event you want the schedule to start immediately after. Click **Insert** on the Schedule Manager.
 - Click **Append** to add the schedule at the end of the current schedule.

The Schedule Manager

iTX adds the events from the schedule in the Schedule Manager to the current schedule.

Note:

- You can append a schedule containing a fixed event in the past to an empty schedule. iTX calculates event start times from the fixed event; it starts playout of the schedule from the event scheduled for the present time.

Saving the current schedule

Through the Schedule Manager, you may save the current schedule (all the entries currently in the Schedule Grid) in the ways described below.

Modify an existing stored schedule

In this process, iTX overwrites an existing schedule.

1. Ensure the schedule you want to modify is loaded into the Schedule Manager.
2. Click **MODIFY**.

iTX displays a dialog prompting you to confirm that you want it to save the current schedule under the specified name, and so delete the existing schedule with that name.

3. Click **Yes**.

iTX saves the modified schedule.

Save the current schedule as a new schedule

In this process, iTX saves the current schedule under a new name.

1. Click **SAVE AS**.


iTX displays the Enter Schedule Name dialog.

2. Enter a name in the **Name** box. Click **OK** to close the dialog.

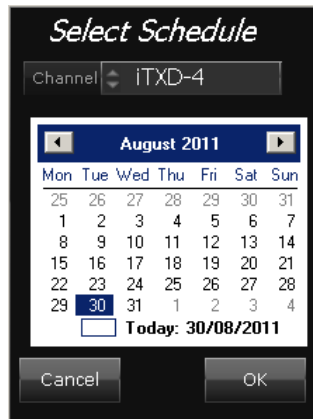
iTX saves the new schedule.

Save the current schedule with channel and date labels

In this process, iTX saves the current schedule as a new schedule identified by a playout date and a channel name. For any given channel, you can save one schedule for each day in this way.

1. Click  next to the **SAVE AS** button.

iTX displays the Select Schedule dialog:



2. Do the following to specify channel and date details.
 - Select a channel in the **Channel** box.
 - Select a date in the calendar.
3. Click **OK**.

iTX saves the new schedule.

Creating sequences and sequence templates

About sequences and sequence templates

A sequence is a distinct group of schedule events that you use together, possibly more than once in the same schedule or in multiple schedules. A sequence template is a sequence that you use as the basis for other sequences.

A typical sequence might contain video clips and secondary events, as this illustration shows:

Start Tim	Type	C	T	N	W	Item Name
13:30:00	Sequence	-	-	II	-	Afternoon sequence
13:30:00	Video Clip	■	T	II	-	Promo - Review
13:33:30	Still	■	T	II	-	This Evening
13:33:30	Voice Over	■	-	II	-	This Evening #001
13:34:00	Video Clip	■	T	II	-	Identification

Labels on the right side of the table:
 - A bracket groups the first row as "Sequence".
 - A bracket groups the last four rows as "Events in sequence".

iTX manages sequences as single event blocks. So you can add a sequence, or move one within a schedule, in a single operation; you do not have to add or move each event individually.

The Schedule Manager

You can create a sequence by selecting events in the Schedule Grid and using the Schedule Manager to save them as a sequence in the System Database.

Once you have done this, you can add the sequence to any schedule from the Content Selector. iTX displays a single unexpanded entry (with a plus sign in front of it) for the sequence in the Schedule Grid:

Start Time	Type	C	T	N	W	Item Name
+13:30:00	Sequence	-	-	f	-	Afternoon sequence

When you select a sequence entry (instead of the individual sequence events) in the Schedule Grid, and save it through the Schedule Manager, iTX gives you the option of creating a sequence or a sequence template in the System Database.

Using a sequence template

Where you want to create different sequences that have a number of common events, you can store the common events in a sequence template.

A simple sequence template for a commercial break might have just two events, a suppress logo event and a restore logo event:

Start Time	Type	C	T	N	W	Item Name
14:00:00.0	Sequence	-	-	f	-	Commercials - sequ
14:00:00.0	Logo-AllOff	-	-	f	-	Suppress Logos
14:00:05.0	Logo-AllOn	-	-	f	-	Restore Logos

Sequence template

Events in sequence template

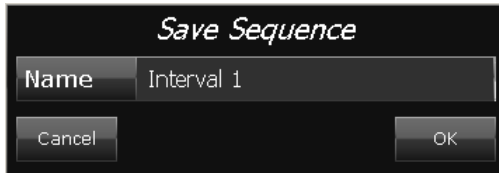
After adding the sequence template to a schedule, you complete the sequence by dragging and dropping the commercials from the Content Selector onto the sequence template.

When the schedule is imported, any the Start Time of sequences templates will be overridden with the Start Time in the schedule itself.

Create a sequence from a group of schedule events

1. In the Schedule Grid, select the events that make up a sequence.
2. Click **Save Sequence** on the Schedule Manager.

iTX displays the Save Sequence dialog:



The dialog box is titled "Save Sequence". It has a text input field labeled "Name" containing the text "Interval 1". Below the input field are two buttons: "Cancel" on the left and "OK" on the right.

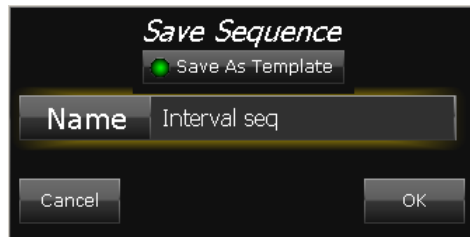
3. Enter a name in the **Name** box.
4. Click **OK** to close the dialog.

iTX saves the sequence in the System Database.

Create a sequence or sequence template from a sequence entry

1. Select a sequence entry (rather than the events in the sequence) in the Schedule Grid.
2. Click **Save Sequence** on the Schedule Manager.

iTX displays the Save Sequence dialog with the template option:



3. Enter a name in the **Name** box.
4. Do one of the following, depending on whether you want to save your selection as a sequence or a sequence template.
 - Ensure **Save As Template** is not selected (the button indicator appears blank) if you want to save your selection as a sequence.
 - Select **Save As Template** (the button indicator displays a green light) to save your selection as a sequence template.
5. Click **OK** to close the dialog.

iTX saves the sequence or sequence template in the System Database.

Creating a looping schedule

Through the Schedule Manager, you can create a looping schedule. When you add a schedule of this type to a playout channel, iTX plays it out repeatedly.

You create a looping schedule by adding a schedule to the Schedule Grid twice – once from the Schedule Manager and once from the Content Selector.

1. In an edit channel with an empty schedule, load a schedule into the Schedule Manager. [More details](#), page 163.
2. Click **Append** on the Schedule Manager.
iTX adds the events from the schedule to the Schedule Grid.
3. Ensure the same schedule is available on the Schedule palette of the Content Selector. [More details](#), page 26.
4. Drag the schedule from the Content Selector and drop it into the Schedule Grid, after the last event in the current schedule.
iTX adds the schedule, as a nested schedule, after the last event in the Schedule Grid.
5. Click **MODIFY** on the Schedule Manager.
iTX displays a dialog prompting you to confirm that you want to save the current schedule under the specified name.
6. Click **Yes**. iTX saves the modified schedule.

The Schedule Manager

Note:

- You need to use the Content Selector to add a looping schedule to a playout channel.
- When you add a looping schedule to the current schedule in a playout channel, the Schedule Grid displays several entries for the schedule: at least one expandable schedule entry (with a plus sign in front of it); and a single nested schedule entry.

Start Time	Type	C	T	N	W	Item Name
+ 10:59:51.07	Schedule	-	-		-	News Wheel
+ 11:59:51.03	Schedule	-	-		-	News Wheel
12:59:50.29	Schedule	-	-		-	News Wheel

The number of expandable schedule entries is determined by the Schedule Lookahead time of the channel you are working in.

As iTX plays out the schedule, it continually adds schedule entries to the Schedule Grid. When the start time of a schedule entry falls within the Schedule Lookahead time, the entry becomes expandable.

Adding an hour or a day to the start time of the current schedule

Through the Schedule Manager, you may put back the start time of the current schedule (all the entries in the Schedule Grid) by an hour or a day.

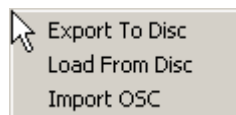
Normally, you only do this when working in an edit channel.

Put back the start of the current schedule by an hour or a day

1. Click **+1** or **+24**.
iTX displays the Schedule Adjust dialog.
2. Click **Yes** to confirm your instruction and close the dialog.
iTX adds an hour or a day to the start time of each event in the current schedule.

The Schedule Manager menu

Right-clicking the Schedule Manager displays the Schedule Manager menu:



Through this menu, you can:

- Export the stored schedule that is currently selected in the Schedule Manager to a network folder or a disk.
- Load a saved iTX schedule from a network folder or a disk into the Schedule Manager.

The Schedule Manager

- Load a schedule that is stored in the format defined by the iTX Import Protocol. Such schedules have the filename extension ".osc". For more information about this, see "Appendix A: The iTX Import Protocol", page 357.

The Next-Event Control Panel

About the Next-Event Control Panel

Through the buttons on the Next-Event Control Panel, you can manually control events in the current schedule:



You can trigger iTX to perform an operation on the next schedule event – i.e. the one following the current on-air event.

- **Cue Next.** Cue the event. An event must be cued before it can go to air. By manually cueing an event before clicking **Take Next**, you can reduce the time iTX takes to respond to your Take request.
- **Take Next.** Take the next event to air, once it is cued. iTX cues the event first, if it is not already cued.
- **Hold Next.** Put the event on hold by making it a manual event. Alternatively, cancel the manual property of an event.
- **Skip Next.** Mark the next event as skipped. iTX removes the event from the Timeline Display but leaves it in the Schedule Grid (allowing it to be unskipped). The event has no effect on the schedule.
- **Roll Under.** Leave the current event on air, while iTX processes the following events without putting them on air. Normally, you roll under a live event to allow it to remain on air without changing the start times of the following events. When you resume normal playout after the roll under, the on-air event fades out; the event in progress fades in and goes to air.

Usually, an operation affects the next primary event. But your system administrator may configure the buttons to work with the next secondary event instead.

Cueing and taking short events

When you click **Cue Next** for a short event (one with a duration of less than 20 seconds), iTX cues any following primary events that are due to start within the next 20 seconds and have a status of Ready; it also cues secondary events that are due to start within the same period. This is to ensure all events are cued in time to play out. iTX does not play out any event it cannot cue (e.g. if the event is not ready). It is recommended that you click **Cue Next** and check that all required events are cued before clicking **Take Next**.

When you click **Take Next**, iTX cues the next item to go to air and any items within a 20 second window of that item's start time, up to a maximum of 10 items. This ensures any following events have time to cue before being played out.

Color coding of Cue Next and Take Next buttons

The color of the **Cue Next** and **Take Next** buttons indicates the status of events in the way described below.

Button	Color	Status of schedule events
Cue Next	Flashing red	The next event and any associated secondary events are being cued.
	Red	The next event and any associated secondary events are cued.
Take Next	Flashing green	Primary and secondary events within the 20-second cueing period are being cued.
	Green	All primary and secondary events within the 20-second cueing period are cued.
	Red	The next primary event is committed for payout.

Resuming normal playback after a schedule interruption

There may be times in the course of a live schedule when iTX does not play out a media item in a schedule event. One reason may be simply that there is no schedule event due to take place; another reason, that the media item in a schedule event, which is due to take place, is unavailable.

At such times, iTX can maintain an audio-visual output from the channel in a way that is outside of the control of a schedule. It does this by playing out a standby video clip or displaying a standby slide (standby items are specified in the channel configuration).

When this happens, you can use **Take Next** to resume playback of the schedule from the next event.

Control the playback of the next event

1. Click **Hold Next**, **Cue Next**, **Take Next** or **Skip Next**.
iTX performs the specified action for the next event.

Note:

- Skipping an event causes it not to take place, but the event stays in the Schedule Grid.

Roll under the current on-air event

1. Click **Roll Under**.

The Next-Event Control Panel

The Roll Under button flashes red while the roll under is active.

The current on-air event remains on air. Following events continue to take place in the Schedule Grid and Timeline Display but do not go to air.

Resume normal playout after a roll under

1. Click **Roll Under**.

The on-air event fades out. The event in progress fades in and goes to air.

Note:

- Click **Take Next** to end the roll under by resuming playout of the schedule from the next event.

The Live Logo Inserter

The Live Logo Inserter

About the Live Logo Inserter



The Live Logo Inserter holds a logo that you can use as a secondary event under manual control: clicking the on/off button causes iTX to instantly switch the logo on or off.

The component displays a thumbnail copy of the logo in the preview window next to the on/off button, and the name of the logo underneath.

Setting up the Live Logo Inserter

Clicking the preview window in the Live Logo Inserter opens the Live Logo Setup dialog:



From this dialog, you can select the logo held by the Live Logo Inserter; and you can call up the Logo Positioning dialog, which enables you to resize and re-position the logo.

Set up the Live Logo Inserter

1. Click the preview window to open the Live Logo Setup dialog.
2. Do the following if you want to select a different logo.
 - Click **Select** to open PinPoint.
 - Search for and select a new logo.
 - Click **OK** to close PinPoint.
3. Do the following if you want to set the properties of the logo.
 - Click the image in the Live Logo Setup window to open the Logo Editor.
 - Set the size and position of the logo. [More details](#), page 332.
 - Click **Options** to display the Logo Options dialog and do the following.
 - Set the transparency of the logo. [More details](#), page 334.
 - Set the transition or vision effect. [More details](#), page 333.
 - Click **OK** to close the Logo Options dialog.
 - Click **OK** to close the Logo Editor.
4. Click **OK** to close the dialog Live Logo Setup dialog.

Using the Live Logo Inserter

Because iTX responds immediately when you click the Live Logo Inserter on/off button, you should take care when using the Live Logo Inserter that you do not disrupt the channel output.

Manually switch a logo on or off in a live schedule

1. Click **On** on the Live Logo Inserter to switch the logo on or off.
The button turns green when you switch a logo on.

Channel-control pop-up layouts

The iTX Channel Control layout has a row of buttons that display pop-up layouts when you click them:

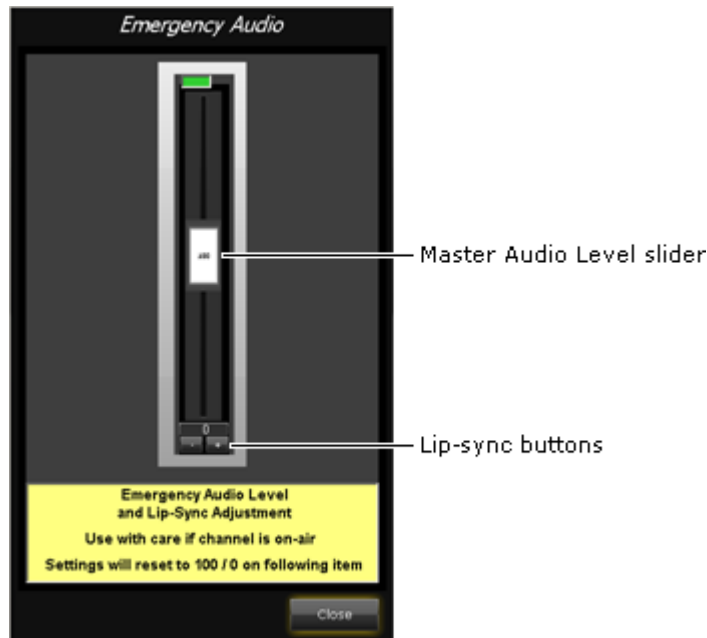


Through these buttons, you can display the following pop-up layouts.

Pop-up layout	What you use it for
Emergency Audio	Adjusting the volume level and relative timing of the audio and video tracks for the media that iTX is playing out.
Channel Health	Checking essential services on a channel Output Server are running normally; remove all logos and captions where any has been left on-screen accidentally.
News Flash (Manual Return)	Inserting and starting a sequence during an on-air event. iTX re-inserts this event after the sequence as a manual event.
News Flash (Automatic Return)	Inserting and starting a sequence during an on-air event. iTX re-inserts this event after the sequence as an automatic event.
Sequence Control	Manually starting and ending a sequence.
Selected Item Control	Manually starting a selected event.

Using the Emergency Audio pop-up layout

The Emergency Audio pop-up layout has features that enable you to adjust the audio level and lip synchronization of the channel output during playback:



Master Audio Level slider


By moving the Master Audio Level slider, you can adjust the volume level of the current schedule event. The number on the slider shows the percentage increase or decrease in the level.

iTX returns the level to normal for the next schedule event.

Lip-sync buttons

The media files for the video clips that you use in schedules are likely to have been created by a wide variety of encoders. (An encoder converts video such as that stored on videotape into a file that you can store on a Media Store.)

In some cases, the encoder may create a file in which the audio and video tracks are slightly out of step with each other. The most noticeable effect of this is a timing error between the voice and lip movements of a speaker in a video clip. You can correct such “lip-sync” errors by using the lip-synchronization buttons as the video is playing out.

Clicking  or  adjusts the audio track forwards or backwards relative to the video track.

iTX resets the lip-sync adjustment for the next schedule event.

Using the Channel Health pop-up layout

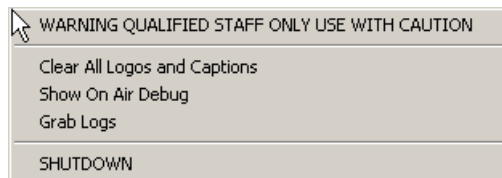
A Channel Monitor may be available on the Channel Health pop-up layout, which you can select from the iTX Channel Control layout:



The Channel Monitor contains a set of indicators that give information on the status of various services that are running for the selected channel. A green light means the associated service is running normally. If any indicator does not display a green light, you may need to tell your system administrator.

Emergency removal of logos and captions

Right-clicking the Channel Monitor displays an emergency engineering menu:



There may be times when you need to override the schedule to remove all logos and captions from a video clip or live feed. You can do this by selecting **Clear All Logos and Captions**.

iTX removes all displayed logos and captions immediately (except ones that are inserted by an external device). Any logo or caption that is scheduled to appear after this action plays out as normal.

Caution:

- You should not select any of the other options on the emergency engineering menu if you are working in a live channel. Doing so could cause an unwanted interruption to the payout.

Using the News Flash pop-up layouts

There are two News Flash pop-up layouts. Each enables you to insert a sequence into the current schedule after the event that is playing out.

You can interrupt this event by manually taking the sequence to air. When you do this, iTX re-inserts the event after the sequence. If the event is a video-clip event, iTX sets an in-point that causes the video clip to resume from the point at which it was interrupted.

The difference between the two pop-up layouts is the way in which they affect the re-inserted event:

- With the Newsflash (Manual Return) pop-up layout, iTX re-inserts the interrupted event as a manual event.
- With the Newsflash (Automatic Return) pop-up layout, iTX re-inserts the interrupted event as an automatic event.

Each pop-up layout has identical features:



The sequence pane displays a list of the assets (or other schedule items) that feature in events in the selected sequence. In the preview window, iTX loads the video clip from an interrupted video-clip event, with the in-point at the point where the interruption happened. You can adjust the in-point (or out-point) of the clip for the re-inserted event before it resumes.

Note:

- On other layouts, the News Flash component may be set up to receive sequence contents from a Schedule Grid, rather than from a PinPoint selection. On these layouts, it does not display the **Load** button.

Interrupt a schedule event for a news flash

1. Click **Load** to open PinPoint.
2. Use PinPoint to select the news-flash sequence. [More details](#), page 188.

Channel-control pop-up layouts

When you close PinPoint, the sequence pane displays a list of the items in the sequence events.

3. Click **Prepare**.

iTX adds the sequence to the schedule immediately after the on-air event.

4. Click **TAKE** to start the news-flash sequence.

iTX re-inserts the interrupted event after the news-flash sequence. Depending on which pop-up layout is selected, the new event may be either a manual event or an automatic event.

5. If the re-inserted event features a video clip, check its in-point. Adjust this, if you want to, by playing the clip in the preview window and using the **Mark In** button.

You may similarly adjust the out-point by using the **Mark Out** button.

6. Click **TAKE** when you want to resume the interrupted event if it is re-inserted as a manual event.

Allow iTX to start the event if it is re-inserted as an automatic event.

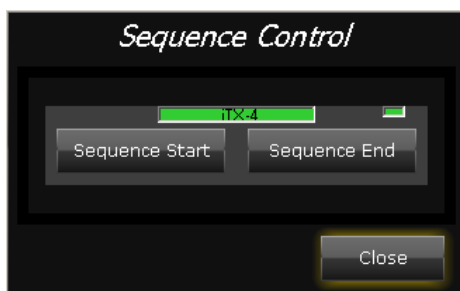
Removing a news-flash sequence before it starts

After you insert a sequence from a News Flash pop-up layout, a **Cancel** button replaces the **Prepare** button.

You may use the **Cancel** button to remove the sequence from the schedule before the sequence starts. iTX then continues playing the on-air event without interruption.

Using the Sequence Control pop-up layout

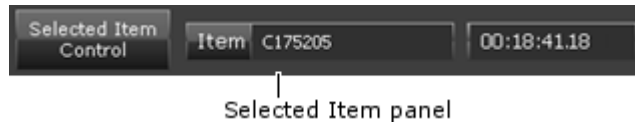
The Sequence Control pop-up layout has two sequence-control buttons:



- Clicking **Sequence Start** causes iTX to start playing the next sequence in the current schedule.
- Clicking **Sequence End** causes iTX to stop running a sequence (skipping any events in it that are still to play out) and start playing out the next primary event in the schedule.

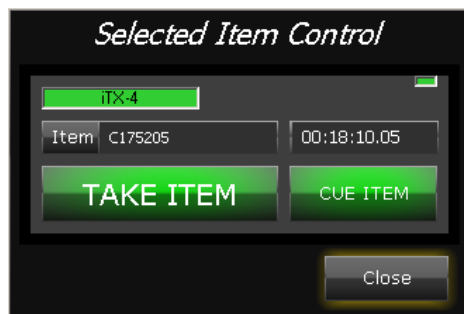
Using the Selected Item Control pop-up layout

When you select any event in the Schedule Grid, the Selected Item panel displays event details:



- The **Item** box displays the name of the asset in the event.
- The time display counts down the time to the start of the event.

Clicking **Selected Item Control** displays the Selected Item Control pop-up layout:



The layout contains the Selected Item Control panel. This displays the same details as the Selected Item panel on the Channel Control layout. You can use the buttons on the layout to perform an action on the selected event:

- You may cue the event.
- You may take the event to air immediately. iTX marks any events between the current event and the selected event as skipped; the current event ends early.

Manually cue a future event

1. Select a future schedule event in the Schedule Grid.
2. Click **Cue Item**.

Manually take a future event to air

1. Select a future schedule event in the Schedule Grid.
2. Click **Take Item**.

Searching with PinPoint

Searching with PinPoint

Your iTX System Database may contain thousands of assets – video clips, logos, stills, schedules, etc. To find particular assets quickly and easily, you use an iTX search tool called PinPoint.

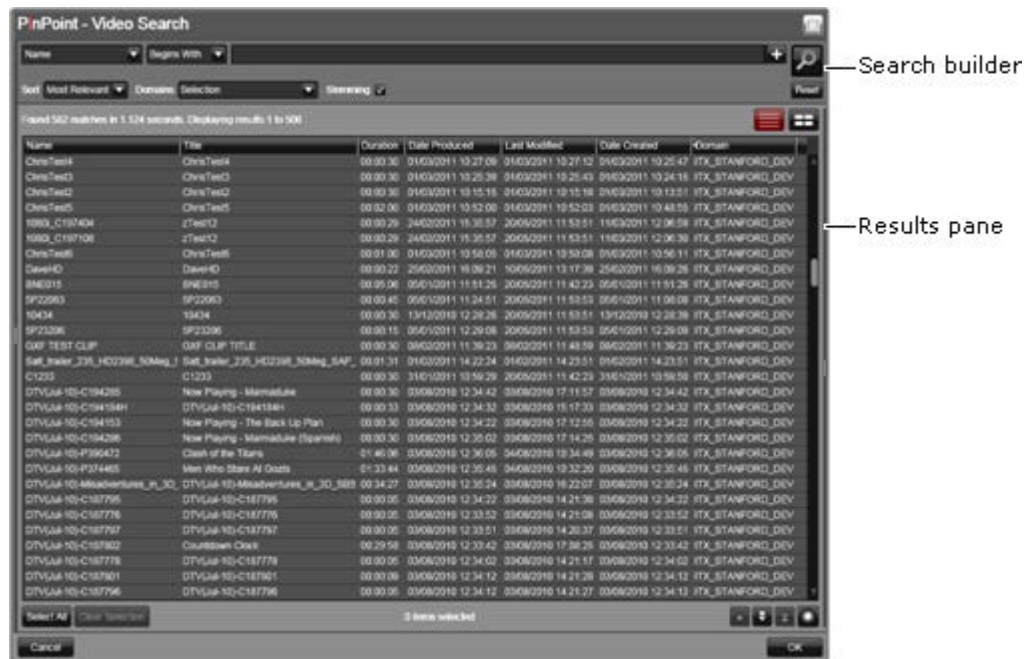
In PinPoint, you create filters that contain search criteria. PinPoint uses these to filter the database and display a results list; i.e. a list of assets that meet your search criteria.

You can view the results list and select an asset, or group of assets, to work with.

The PinPoint dialog and panel

Clicking a search request button, like the one on the Content Selector on the iTX Channel Control layout, causes iTX to display a PinPoint dialog. This has features that you use to search the database for assets of a selected type. On the Asset layout, a PinPoint panel contains the same search features.

This illustration shows the PinPoint dialog for a video-clip search:



The dialog has two main areas. At the top is the search builder, where you define search filters. Below is the results pane, where PinPoint, after searching the database, displays the results list.

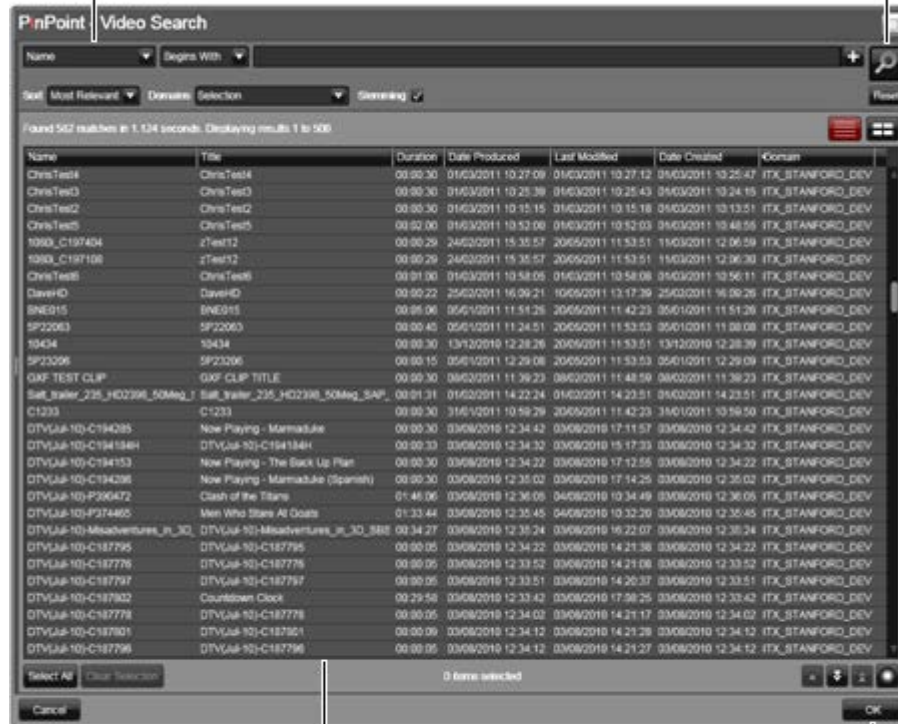
When you open the PinPoint dialog, it opens with a preset filter for the asset type you are searching for. You may set up the PinPoint panel to perform searches for a particular asset type by clicking an asset-type selection button.

Searching with PinPoint

Generally, there are four simple steps to using PinPoint:

1. Specify the search criteria

2. Click the Search button.

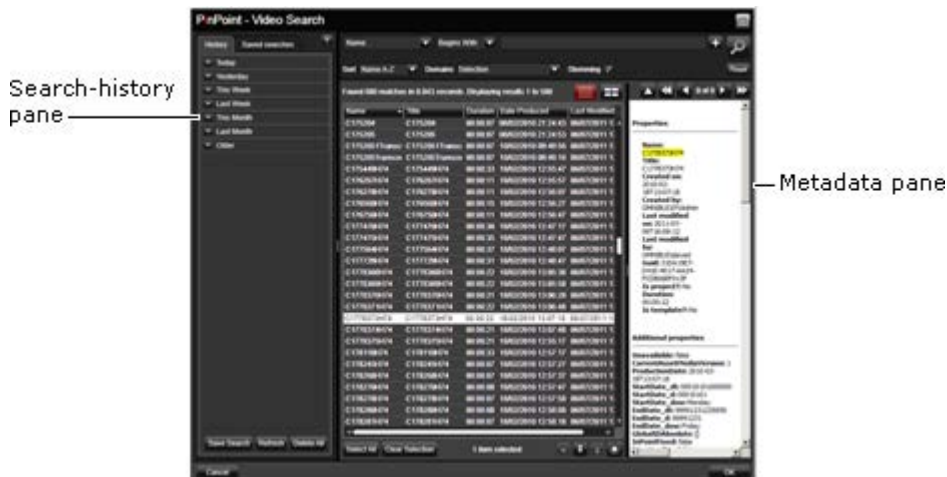


3. View the search results.

4. Double-click an asset; or select an asset and click OK.

Hidden panes

Both the PinPoint dialog and the panel contain panes that are normally hidden when you are not working with them:

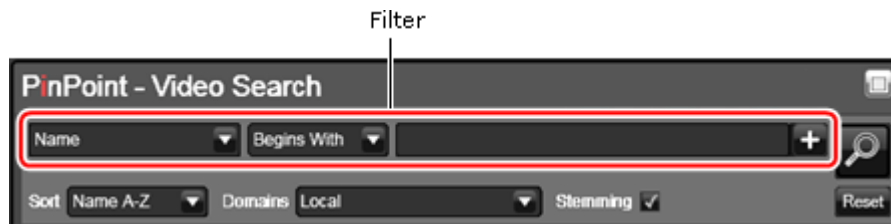


Searching with PinPoint

In the search-history pane, you can view and recall criteria for previous searches. In the metadata pane, you can view all the details the System Database holds for a selected asset.

Search filters

To specify criteria for PinPoint to apply in a search, you create one or more PinPoint filters. You do this in the PinPoint search builder:



PinPoint uses the filters to separate items that meet the criteria from those that do not. This way, it determines which items to include in a results list.

By using multiple filters, PinPoint can increase the preciseness of its searches and return a results list that meets your requirements in the best way.

The number of available filter types depends on the structure of your database and the type of asset you want to search for. We list the most common ones in the following table.

Filter type	Asset property the filter works for
Any Text	Text in any asset field in the System Database. For an item to be included in the results list, all the words you enter must appear in an asset field, unless you insert one of two characters (- or /) immediately before a word: -word (= NOT word) If this word appears in an asset field, PinPoint does not include the item in the results list. /word (= OR word) If this word appears in an asset field, PinPoint includes the item in the results list (unless other criteria prevents it doing so). If this word does not appear in an asset field, the item may still appear in the results list if other criteria are satisfied.
Available	A flag that marks an asset as available for playout or not. The purpose of the flag is to give information to playout operators.
Category	A category that an asset may be associated with, or "tagged to". Search criteria may be that an asset is tagged to a selected category; or is not tagged to that category.
Content Type	A label that describes the nature of the material in an asset. E.g. Commercial, Promo, Movie.
Created	The date and time of the creation of an asset.
Created By	The name of the person who creates an asset.

Searching with PinPoint

Filter type	Asset property the filter works for
Duration	The duration, between marked in- and out-points, of a video or audio clip.
End date	The end of a usage window for an asset.
Global ID	Unique reference number to identify the media file associated with an asset. This is usually an international standard reference such as an ISAN reference, but could be provided by any system that generates unique IDs.
Media	Any of various properties of the media associated with an asset. In specifying a video format (e.g. MPEG-2), you also need to identify a location type (iTX or proxy server) in the same filter.
Modified	The date and time of the most recent modification of an asset.
Name	The filename of an asset.
Notes	Text in annotations associated with an asset.
Placeholder	A flag that identifies an asset as a placeholder clip or not. A placeholder clip is one for which there is a database record but, as yet, no media.
Produced	The date and time of the production of an asset.
Project	A flag that identifies a clip as a project clip or not. A project clip is one that is made up of segments from one or more video clips.
Search block	See the separate topic below, "Search blocks".
Start date	The start of a usage window for an asset.
Sub type	The sub-type of an asset. Each asset can belong to one sub-type classification; e.g. "news", "commercial". The sub-type property assigns default settings for other asset properties.
Template	An asset that is used as a template for other assets. A template assigns default settings to selected asset properties.
Title	The title of the clip — often more descriptive than the filename.

Specifying an asset name in a filter

The piece of criteria that is most often used to find an asset is the asset name.

The best way to find an asset if you know its name is to select a “Name Is” filter and enter the name. PinPoint then only looks for that name in the System Database; but if you do not enter the correct name, PinPoint does not find the asset.

If you know part of a name but not the full name, you may use either of two types of filter:

- A Name filter with one of the options “begins with”, “ends with” or “contains”. You may specify any **sequence of characters** that the name contains.
- An Any Text filter. You may specify any **complete words** that the name contains. You may include wildcard characters in a specified word: ? to represent a single character; *, any number of characters; =, a single number.

With a Name filter, PinPoint only searches the Name fields in the System Database. With an Any Text filter, it searches all fields and so may produce a results list that includes a large number of assets that you are not interested in. For this reason, it is often better to use a Name filter rather than an Any Text filter when searching for an asset by its name.

Search blocks

One of the options in the list of PinPoint filters is SearchBlock. A search block is a group of filters, of any type, all linked by the same logic connector. This may be AND or OR. The logic connector controls how PinPoint applies the filters in determining whether or not to include an item in the results list.

- When an AND connector is used, only items that satisfy the criteria of *all* filters in the search block may appear in a results list. This tends to reduce the number of items in a results list.
- When an OR connector is used, items that meet the criteria of *any* filter in the search block may appear in the results list. This tends to increase the number of items in a results list.

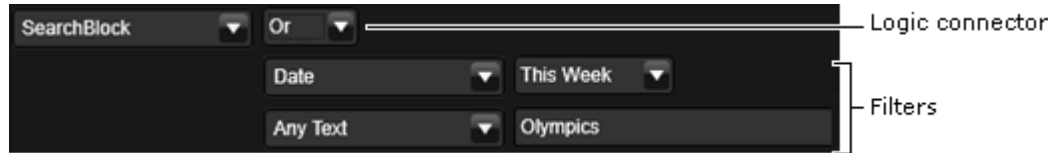
The examples in the table illustrate the differences between using AND and using OR as the logic connector.

Search criteria	Results-list contents
Date Created “This Year” AND Any Text “Olympics”	Items that have been created this year and have the word “Olympics” in their text metadata.
Date Created “This Year” OR Any Text “Olympics”	Items that have been created this year; also, items that have the word “Olympics” in their text metadata.

When you use multiple filters to specify search criteria, PinPoint uses AND connectors to combine the criteria. When you want it to use OR connectors instead, you need to use a search block.

Searching with PinPoint

To build a search block, you select the logic connector and then define the filters that you want the connector to apply to:



Nested search blocks

You can use search blocks within search blocks – these are called “nested” search blocks. PinPoint then finds the results for each search block individually and uses the AND logic connector to combine them.

Specifying the sort order of results

Before starting a search, you select the way in which PinPoint is to sort assets in the results list. For this, you select an option in the **Sort** box:



You can change the sort order for the displayed results list by clicking a column heading.

Multi-domain searching

An iTX domain is a group of iTX machines using the same System Database. A multi-domain system is made up of two or more iTX domains (each with its own System Database) linked together.

PinPoint can search the database of any domain for which it has access rights.

When you use PinPoint in a multi-domain system, you can set it up to search a single domain or any combination of domains. You select domains in the **Domains** box:



Stemming

Stemming is a word that describes the way in which iTX normally performs searches when using an Any Text filter.

When you enter a word as search criteria, iTX identifies the stem of that word — i.e. the main section of the word. The stem may appear in words that are closely related to the one you enter. For example, "sail-" is the stem of sailing, sailed and sailor.

In a stemming search, iTX automatically modifies search criteria to include any words that have the same stem.


This makes it easy for you to specify search criteria when you are unsure about the exact form of a word in a text field; you do not have to enter all the variations of this word, just any word that contains the stem.

You turn stemming on or off through the **Stemming** check box:



Searching

Perform a search


1. Do one of the following, depending on which form of PinPoint you are going to use.
 - Click a search request button (e.g. **Search** on the Content Selector) to open the PinPoint dialog.
 - Click an asset-type selection button to prepare the PinPoint panel to search for a certain asset type (or all asset types).
2. Create the filters you want to use in the search. [More details](#), page 189.
3. Click .
PinPoint performs a search and displays a results list.
4. Navigate through the results list to find the assets you want. [More details](#), page 191.
5. Do one of the following to select one or more assets:
 - Double-click a single asset.
 - Click a single asset; click **OK**.
 - If PinPoint allows multiple selections (see the note below), press Shift while clicking to select a group of adjacent assets; or press Control while clicking to select a group of non-adjacent assets; click **OK**.
 - Click **Select All** to select all assets in the results list; click **OK**.

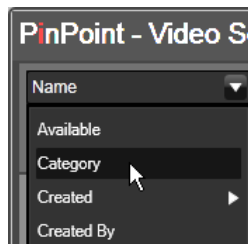
Searching with PinPoint

Note:

- The ability to select multiple assets depends on the circumstances within which PinPoint is operating.
- You can cancel a selection by clicking **Clear Selection**.
- You can vary the widths of the results-list columns by dragging the borders of the column headings.
- You can close the PinPoint dialog without making a selection by clicking **Cancel** or pressing the Escape key on your keyboard.


Create a search filter

1. If you want to add a filter, click 
PinPoint displays a new filter with no criteria.
2. If you want to change the filter type, click the dropdown arrow of a filter-type box to display a list of filter types.



3. Select a filter type.
PinPoint displays features that enable you to specify the filter criteria; these may be dropdown lists, text entry boxes, check boxes or sliders.
4. Using these features, specify the filter criteria for the assets that you want to appear in the results list.

Delete a search filter

1. In the PinPoint dialog, select a filter by clicking in any of its features.
2. Click 
PinPoint removes the filter.

Clear a filter set

1. Click **Reset**.
PinPoint removes all filters except the first one, from which it clears the criteria.

Working in the results pane

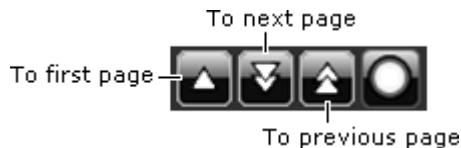
PinPoint can display search results in the results pane in either of two views:

- In List view, it organizes the search results in a list.
- In Thumbnail view, it displays a preview pane for each asset. A preview pane can show a sequence of keyframes and give basic information.

You can switch between views by using the view selection buttons:



Where the search results contain many items, PinPoint presents them over multiple pages. You can select a page at a time by using the arrow buttons below the table:



Working in List view

On each row in the results pane, you can view various details of an asset in the search results. To show more or less information, you may adjust the width of any column by dragging its right border.

Sort a results-list column

You can arrange the results list by sorting any column in ascending or descending order. Note that ascending order for text is from A to Z.

1. Click the heading of the column you want to sort.
 - A pointer next to the column heading indicates the sort order.
2. Click the heading a second time if you want to sort the column in the reverse order.

Change the results-list column format

You can modify the arrangement of columns in the results pane: you can show more or fewer columns; you can re-position columns.

1. Do the following to show or hide a column.
 - Right-click the heading of any column to display a list of available columns. A check mark appears next to the name of a visible column.
 - From the displayed menu, select a column that you want to show or hide.
2. To move a column, select its heading and drag it to a new position in the heading row.

Navigating through a PinPoint list

A page of a results list often contains more items than PinPoint can display at one time. This may also be true for some search-criteria dropdown lists, such as the one that contains categories.

There are a number of ways in which you can move through a list to view its contents. Before doing so, you need to ensure the PinPoint focus is on the list you want to view – click the list to focus on it. You can then:

- If your mouse has a mouse-wheel, roll the wheel forwards or backwards to scroll up or down the list.
- Press the up or down arrow on your keyboard, to move up or down the list by one item at a time.
- Press the Page Up or Page Down key, to move up or down the list by a section at a time.

Navigate to an item by typing initial characters

When you know how the name of an item starts, you can find the item in a PinPoint list by typing the initial characters of its name.

1. Click anywhere within the results list, or dropdown list, to shift the PinPoint focus to that list.
2. If you want to find a name in a particular column of the results list, ensure the results list is sorted by that column, as indicated by the pointer next to the column heading. [More details](#), page 190.

3. Type a character.

PinPoint selects the first item whose name starts with that character. If the names of following items start with the same character, PinPoint highlights the character in these names.

You can use the mouse wheel to scroll up or down the list from the selected item.

4. If you want to move further down this part of the list, type a second character, then a third, and so on.

PinPoint selects the first item whose name starts with the typed characters. If the names of following items start with the same characters, PinPoint highlights the characters in those names.

If you type a character that does not appear at the relevant point in the name of any item, PinPoint ignores the character.

5. If you want to cancel a character after typing it, press the backspace key. Repeatedly pressing the backspace key eventually cancels all the characters you type; you may then restart the procedure with a new initial character.

Working in Thumbnail view

PinPoint displays a preview pane for each asset in a results list.

If the asset is a video clip that has keyframes, the preview pane contains a poster frame (i.e. a keyframe that has been marked to represent the video clip in search results) and some basic clip details:



When you rest your mouse pointer over the poster frame, PinPoint loads all other keyframes of the clip into the preview pane. A red progress bar under the poster frame shows this operation is taking place:



Once the keyframes are loaded, you can display each one in turn by moving your mouse pointer over the image in the preview pane:



Resting your mouse pointer over the title-bar of the preview pane causes an information box to appear:



Where an asset (e.g. an audio clip) has no keyframes, the preview pane shows the details and a description of the asset type:

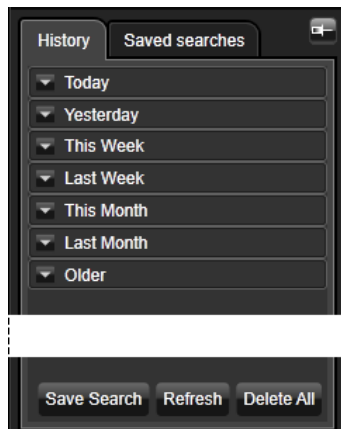
Searching with PinPoint



Repeating searches

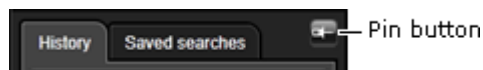
PinPoint stores the set of search criteria for each of your 50 most recent searches, and lets you permanently save any of these. At any time, you can recall search criteria (most recent or saved) and use it to repeat a search.

PinPoint lists the search criteria under two tabs of the search-history pane:



- Criteria for your recent searches appear under the History tab.
- Criteria for any searches you save appear under the Saved Searches tab.

PinPoint automatically hides the pane. You may use the Pin button to keep the pane open:



Show the search-history pane

1. Move your mouse pointer over the left edge of the PinPoint dialog or panel until the pane appears.

You can work in the pane while your mouse pointer is over it; the pane disappears when you move the mouse pointer off it.

2. Click the Pin button if you want to keep the pane open.

PinPoint does not close the pinned pane when you move your mouse pointer away.

Repeatedly clicking the Pin button alternately pins and unpins the pane.

3. Drag the right edge of the pane if you want to resize it.

Repeat a search

1. Show the search-history pane.
2. Select a set of criteria under either tab.
 PinPoint immediately loads the criteria in the search builder, performs a search and displays the search results.

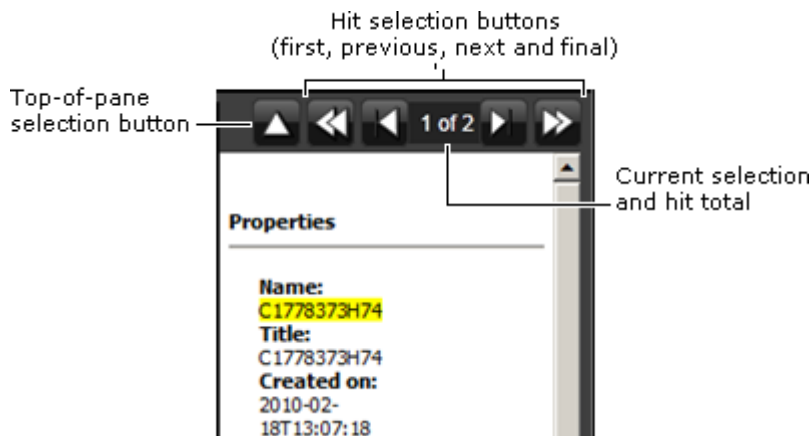
Save a set of search criteria

1. Show the search-history pane.
2. Select a set of criteria under the History tab.
 PinPoint immediately loads the criteria in the search builder, performs a search and displays the search results.
3. Click **Save Search**.
 PinPoint displays the Save A Search pane.
4. Enter a name for the set of criteria in the **Save As** box.
5. Click **Save**.
 PinPoint permanently saves the search criteria and closes the Save A Search pane. It adds an entry for the saved criteria under the Saved Searches tab.

Viewing metadata

In the metadata pane, PinPoint displays all property details for any asset you select in the results pane. It highlights each 'hit' – i.e. each asset property that matches any of the search criteria.

You can use the navigation buttons above the pane to move from one hit to another, or to the top of the pane:



Searching with PinPoint

For a video clip with keyframes, PinPoint shows one of the keyframes as a poster frame (an image chosen to represent the clip and so help to quickly identify it).

You may toggle the pane on or off by clicking the Show/Hide button:



Another way to show the pane is to drag the right edge of the PinPoint dialog or panel to the left (when your mouse pointer appears as a double-headed arrow).

You may resize the pane by dragging its left edge.

Build a search block

1. From the filter-type dropdown list in the search builder, select Search Block.
PinPoint displays a dropdown-list box for the logic-connector option (And or Or) and adds a blank filter to the search block.
2. Select a logic-connector option from the dropdown list.
3. Define the first filter; select a filter type and set the filter criteria.
4. Do the following for each extra filter you want to include in the search block.

- Click the plus sign to the right of the last filter in the search block.

(**Note:** clicking any other button that has a plus sign creates a blank filter outside of the search block.)

- Select a filter type and set the filter criteria.

PinPoint updates the criteria statement as you add filters.

Note:

- You can show and hide the contents of the search block by clicking the arrow button to the left of the Search block filter-type box.

Resizing the PinPoint dialog

You can alternately maximize and restore the PinPoint dialog by using the Resize button:



Searching with PinPoint

Maximize or restore the PinPoint dialog

1. Click the Resize button.

The PinPoint dialog is maximized or restored to its previous size.

Common operational tasks for iTX Desktop features

iTX sometimes displays the same feature in more than one iTX Desktop component. An example is the preview window for video clips: this appears on both the Content Selector and the Event Editor.

It also displays features that are similar to each other and that you use in the same way, such as time-entry boxes, in which you enter time values for event start times and durations.

In this section, we describe how you use some of these features to:

- Preview video clips before using them in schedule events. [More details](#), page 197.
- Mark the boundary points of clips (i.e. their in- and out-points). [More details](#), page 202.
- Change the volume level of video clips. [More details](#), page 203.
- Specify various properties for video clips and voiceover clips. [More details](#), page 203.
- Enter values in time-entry boxes. [More details](#), page 209.
- Switch a voice countdown on or off. [More details](#), page 210.

Playing a video clip in a preview window

The Content Selector and the Event Editor (which appear on the iTX Channel Control layout and similar layouts) display video clips. While a video clip is loaded in one of these components, you can play it, or position it at any frame, by using various controls.

- You can use your mouse pointer. This provides basic playback controls, like those on a videotape machine, depending on its location. As you move the mouse pointer, it displays a shape that indicates the current control. In the center of the image, the pointer can play and pause the clip; to the left, rewind it; to the right, play it fast-forward.



Common operational tasks for iTX Desktop features

- You can use the slider on the duration bar to display the video frame that corresponds to the slider position.



Duration bar Slider


- You can use a boundary-point selection button to instantly position a clip at its in-point or out-point.




In-point selection button

Out-point selection button


Start a clip playing

- Position the mouse pointer in the center of the image while the clip is paused.
The play pointer  appears.
- Click the left mouse button.
The clip starts playing.

Pause a clip while it is playing


- Position the mouse pointer in the center of the image while the clip is playing.
The pause pointer  appears.
- Click the left mouse button.
The clip pauses.

Fast-forward a clip

- Position the mouse pointer in the right of the image while the clip is playing or paused.
The fast-forward pointer  appears.
- Click and hold down the left mouse button.
The clip plays fast-forward while you hold the mouse button down. The fast-forward speed is greater the further to the right that you position the mouse pointer.
- Release the mouse button when you want to stop the fast-forward action.

Common operational tasks for iTX Desktop features



Rewind a clip

1. Position the mouse pointer in the left of the image while the clip is playing or paused.
The rewind pointer  appears.
2. Click and hold down the left mouse button.
The clip rewinds while you hold the mouse button down. The rewind speed is greater the further to the left you position the mouse pointer.
3. Release the mouse button when you want to stop the rewind action.

Shuttle a clip forwards or backwards

1. Drag the slider on the duration bar to the right or to the left to shuttle a clip forwards or backwards.

Position a clip at its in-point or out-point

1. Click the in-point selection button  to display the frame at the clip in-point, or the out-point selection button  to display the frame at the clip out-point.

Indication of the extent of clip media

A video clip usually refers to a segment of media in a media file, rather than to the whole of the media. iTX displays a duration indicator across the bottom of the preview window, showing the position and duration of the clip media:



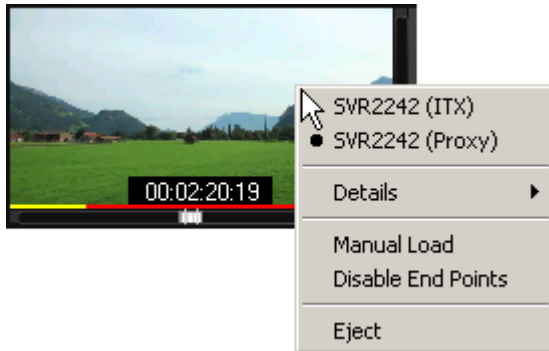
The yellow section of the indicator represents the clip; the red section, the rest of the file.

Note:

- You may show or hide the duration indicator by selecting an option in the preview-window menu (see below).

Using the options in the preview-window menu

When you right-click the preview window, iTX displays the preview-window menu.



The menu gives you options to:

- Select which location to play a clip from, when there are copies of the clip in multiple locations.
- View detailed information about a video clip.
- Display an enlarged still image of the current frame.
- Manually load a video clip into the preview window.
- Hide or show the duration indicator, at the bottom of the preview window.
- Unload a video clip from the preview window.

For a video clip with multiple audio tracks, you can:

- Select a track to listen to.

Select which location to play a clip from

Your iTX system may have a low-resolution version (browse copy) and a high-resolution version (broadcast copy) of a selected video clip. You can choose which version to play in the preview window.

1. Right-click the viewer and select a location from the displayed menu.

iTX displays a term in brackets after a location to show the quality of the file in that location: “ITX” for broadcast-quality media; “Proxy” for browse media.

Note:

- iTX always uses the high-resolution clip in playout schedules.

View detailed information about a clip

1. Right-click the preview window and select **Details** from the displayed menu.

The menu displays the clip location, duration, in-point, out-point and information about the video track and audio tracks. The menu also shows whether or not the clip is a reference clip.

Manually load clips

iTX automatically loads video clips in the preview window as you select them. You may prevent it doing this if you want the option of deciding when to load a clip.

1. Right-click the preview window and select **Manual Load** from the displayed menu.

You then need to click the preview window to load any clip.

Hide or show the duration indicator

You can toggle the duration indicator on and off.

1. Right-click the preview window and select **Disable End Points** from the displayed menu.

iTX alternately shows or hides the duration indicator.

Unload a clip

1. Right-click the preview window and select **Eject** from the displayed menu.

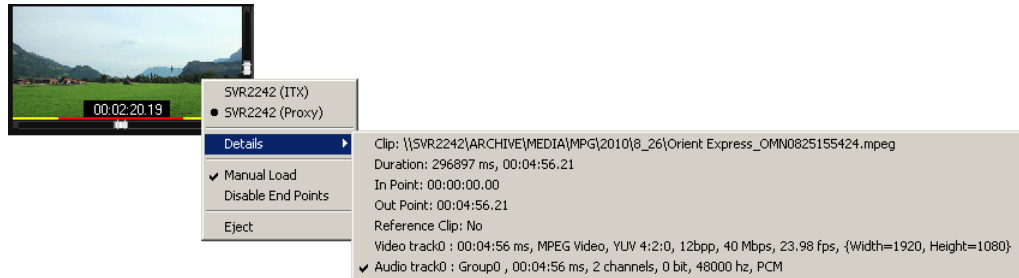
iTX unloads the clip from the preview window.

Check the audio tracks in a clip

When a video clip with multiple audio tracks is in the preview window, you can view details of the audio tracks; you can select any of the tracks to listen to.

1. Right-click the preview window and select **Details** from the displayed menu.

The menu displays the clip details, including information about the audio tracks.



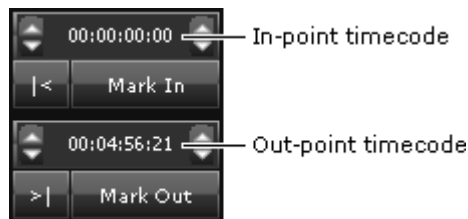
There is a check mark next to the audio track currently selected to play when you play the video clip in the preview window.

2. Select any audio track you want to hear.

The preview window reloads the clip. Play the video clip to hear the selected audio track. [More details](#), page 197.

Marking the boundary points of a video clip

When you load a video clip in the preview window of the Content Selector or Event Editor, iTX displays details of its in- and out-points. You can then edit these points.



Change the in-point or out-point of a video clip

1. While playing a video clip in a preview window viewer, position it where you want to mark the new in-point or out-point.
2. Click **Mark In** or **Mark Out**.

The timecode of the new boundary point appears in the box above the button you click.

Changing the audio level of a previewing video clip

The normal volume level at which the Asset viewer plays out a video clip can be altered. The default level is indicated by the central position of the audio slider when the video clip is loaded in a preview window:



You can cause iTX to play out the clip at a higher or lower volume by adjusting the position of the slider.

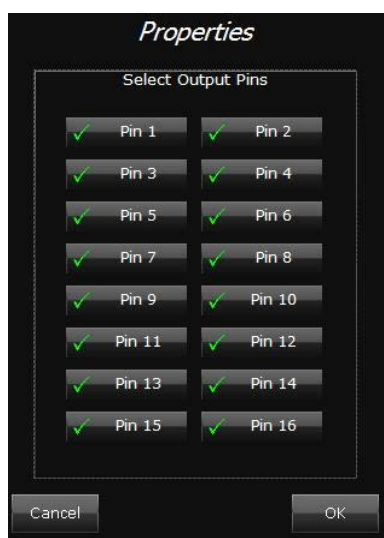
Change the audio level of a video clip

1. While playing a video clip in the preview window, drag the audio slider up or down to increase or decrease the volume of the audio.

Specifying properties for video clips and voiceover clips

While working with a video clip or voiceover clip in the Content Selector or Event Editor, you can specify certain properties through the clip Properties dialog. The available options depend on the type of asset you are working with.

The illustration shows the dialog for a voiceover clip:



Common operational tasks for iTX Desktop features

The clip properties you can specify are:

- Which audio output channels iTX uses to deliver the audio content for a voiceover clip or a secondary video clip. [More details](#), page 206.
- The source-format and active-region specifications of a video clip. [More details](#), page 206.
- Whether a video clip is 3D-stereoscopic or not.
- Looping for a video clip. [More details](#), page 207.
- Copy protection for a video clip. [More details](#), page 207.

We explain these properties below.

Audio output channels

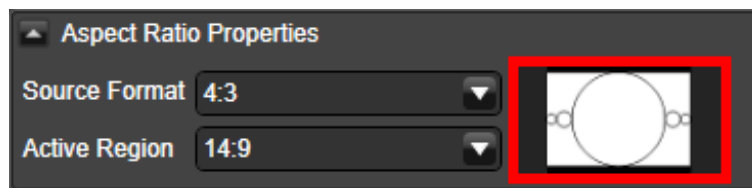
iTX can deliver the audio content of a voiceover clip or a secondary video-clip event on up to 16 PCM output channels. In the dialog, the channels are associated with output pins (channel 1 with pin 1, channel 2 with pin 2, etc.).

Source Format and Active Region settings

Two settings are used to indicate how a video clip should be displayed:

- The **Source Format** box shows the aspect ratio of the source media.
- The **Active Region** box shows the positioning of the image within the display frame (i.e. taking account of any bars).

The **Equivalent Source AFD** box displays the Active Format Description (AFD) code for the selected combination of source format and active region; the box also displays a thumbnail symbol of the AFD code.



Click the graphic to the right of the Source Format and Active Region drop down selectors (highlighted here in red) and the Source formats and active regions dialog box is displayed.

Active Format Descriptor (AFD) code numbers displayed alongside the graphic for each AFD option shown. This makes it easier to verify if the correct AFD code is being inserted in the video when playing out the video asset.

Common operational tasks for iTX Desktop features



The current associated source format and active region combination is highlighted in silver. You can change this combination from here as well from the drop down selectors on the Asset tab. Simply click the combination of source format and active region required and click **'OK'**.

Note:

- The "Pass through" setting for the active region has no equivalent AFD code. You use this setting to allow iTX to play out a video clip without using its internal ARC (Aspect Ratio Converter) functionality.

Identifying 3D-stereoscopic video clips

Each frame in a stereoscopic-3D signal contains two side-by-side video images, from which 3D display equipment forms a 3D picture.

In a 3D playout channel, iTX plays out 3D video clips in the same way it plays out 2D video clips in a 2D playout channel; i.e. by displaying each full frame in turn. No conversion is necessary.

To play out a 2D video clip in a 3D channel, iTX needs to replicate the side-by-side image format that the 3D display equipment requires. It does this by scaling down the image in each frame to half its width and duplicating it. The clip is displayed with no 3D effect.

For a stereoscopic-3D channel, you need to identify which clips are 3D and which are not.

Looping a video clip

You may use a video clip in a schedule event that is longer than the video clip. During the event, iTX plays the clip to the end and then freezes it on the last frame for the rest of the event.

iTX displays a warning for such a video-clip event in the Schedule Grid. [More details](#), page 146.

If you do not want iTX to freeze the last frame, you may set it up to repeat – or *loop* – the video clip until the next event is due. To do so, you select the **Loop** option for the event:

Copy Guard settings

When iTX plays out a video clip, it may insert a copy-protection flag into the video signal. The flag can have any of a number of states, indicating the copying permissions for the video clip:

- Copy Freely. The clip can be copied an unlimited number of times.
- Copy No More. The clip has been copied once; no further copies can be made.
- Copy Once. The clip can be copied once.
- Copy Never. The clip cannot be copied.



By default, iTX sets the copy protection for a video clip to Copy Freely. You can change this setting.

Display the Clip Properties dialog

1. Load a voiceover clip or a video clip in the Content Selector or Event Editor.
2. Click **Properties** to display the Clip Properties dialog.
You may change any of the settings in this dialog.
3. To save any changes, click **OK** to close the dialog.

Select the audio output channels for a voiceover clip or a secondary video clip

1. Select the check boxes of the pins for the channels you want iTX to play out audio content on. Ensure the check boxes for other pins are not selected.

A check box displays a tick, , when it is selected; , a cross, , when it is not.

Set the source format and active region of a video clip

1. Select a source format in the **Source Format** box.
2. Select an active region in the **Active Region** box.
iTX updates the value in the **Equivalent Source AFD** box.

Note:

- You can use a clip template to apply the same source format and active region to multiple video clips. [More details](#), page 329.

Mark a video clip as stereoscopic-3D

When working with a 3D channel, you need to identify which clips are stereoscopic-3D formatted and which are not.

1. Do one of the following depending on the video-clip format.
 - For a video clip that is stereoscopic-3D formatted, select **Stereoscopic**.
 - For a video clip that is not formatted in this way, ensure **Stereoscopic** is not selected.
2. Click **OK** to close the dialog.

Set up looping for a video clip

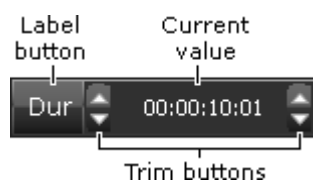
1. Select **Loop** if you want iTX to loop a video clip when its duration is shorter than the event it is used in. Ensure the option is not selected if you do not want this to happen.

Change the copy-protection setting for a video clip

1. Select a copy-protection setting in the **Copy Guard** box.

Entering a value in an iTX time-entry box

Some iTX features enable you to change a value for a time-based property; for example, the duration of an event. iTX displays the current time value in a box to the right of a label button. On each side of the box is a pair of trim buttons:



The time value usually appears in a standard timecode format, with the smallest division being a frame:

hh:mm:ss:ff (hours:minutes:seconds:frames)

The number of frames per second depends on the frame rate of the television standard in use (PAL, NTSC or NTSCdf).

For some audio settings (e.g. voiceover timings), the last part of a time entry may be in milliseconds (ms) rather than frames. The format is then:

hh:mm:ss:nnn (hours:minutes:seconds:milliseconds)

There are three ways in which you can change the current value:

- Clicking the displayed value highlights it. iTX then lets you type over the numbers. You need to press Return on your keyboard, or click outside the time-entry box on the layout, to complete the entry.

Common operational tasks for iTX Desktop features

- Clicking the label button displays the Time Calculator, through which you can enter a new time value. See "Entering a time value through the Time Calculator", page 208.
- Clicking the top or bottom trim button increases or decreases the current value by a fixed amount. The trim buttons on the left of the entry box change the value by large increments; those on the right, by small increments. The size of these increments may differ from one attribute to another. If you use a wheel mouse, you can operate any trim button by resting the mouse pointer over it (the pointer takes the form of a double-headed arrow) and rolling the mouse wheel.

Slightly different time-entry boxes appear on some layouts, such as the Asset layout. These do not have trim buttons, but let you scroll the value of any individual unit in an entry up or down. Clicking a unit value selects it – a flashing cursor appears. You may then change the value in either or two ways:

- You may press the up and down arrow keys on your keyboard.
- After placing your mouse pointer over the value, you may use your mouse wheel.

A red bar under a value shows it is possible to change the value by rolling your mouse wheel:



Using a shortcut when entering a time value

You can quickly enter a time value for a simple round number by omitting pairs of zeros.

In this shortcut process, iTX automatically enters zeros after any colon (:), that is not followed by a number, and for any unit that you do not enter a value for – reading from right to left. iTX treats a period (or full stop) as equivalent to a colon.

So, if you want to quickly enter a time of 10 minutes, type "10."; press Return to enter the new value directly in a time-entry box, or click **OK** if you are working with the Time Calculator. The display then shows the full time value in the timecode format.

Entering a time value through the Time Calculator

You use the Time Calculator to enter a time value in a time-entry box. You may use its calculator functions to calculate a time value.

Common operational tasks for iTX Desktop features



Before using the Time Calculator, you select an input mode and a timecode format:

- The input mode determines how the Time Calculator handles the values you enter. An entry can be treated as a time in the selected timecode format; or as a number of a particular type of unit (frame, second or millisecond). To enter a time for an asset or event property, you select the Time option.
- Selecting one of the available timecode formats causes the Timecode Calculator to display entries in that format. With “None” selected, the Time Calculator displays entries in the normal time-of-day format (ending in milliseconds).

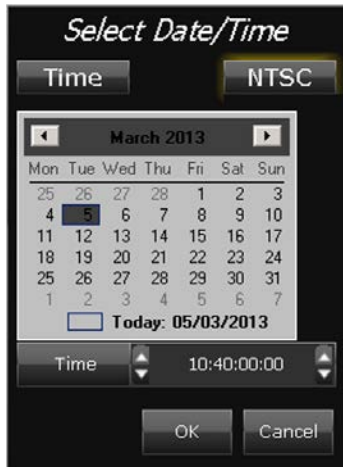
Use the Time Calculator to enter a time value for an in-point, out-point or a duration

1. Click the label button (e.g. **Duration**) of a time-entry box to display the Time Calculator.
2. Select "Time" for the input mode.
3. Select the television standard you are working with (e.g. PAL) for the timecode format.
4. Use the keypad to enter a value. Click **C** to clear the display; click the numbers in the correct order to form the time; separate the numbers by clicking the period (.) to enter a colon (:).
5. Click **OK** to enter the time value and close the Time Calculator.

Entering values in a date-and-time box

For some time-based properties (e.g. the preset time of an event with a Fixed time mode), you specify a date as well as a time. Clicking the label button for the property displays the date-and-time dialog:

Common operational tasks for iTX Desktop features



Through this dialog, you set both a date and a time:

- In the calendar, click a day of the displayed month to select it; or click **Today** to specify today's date. You can display different months by clicking the arrow buttons at the top of the calendar.
- Enter a time value in the **Time** box in one of the ways we describe earlier in this section. [More details](#), page 207.
- Click **OK** to close the date-and-time dialog.

Switching a recorded voice countdown on or off

On the iTX Channel Control layout and similar layouts, two components – the Now Display and the Next Display – can be associated with recorded voice countdowns. You can switch the countdown on or off for either component by clicking **Count**.

The CG application


The CG application

About the CG application

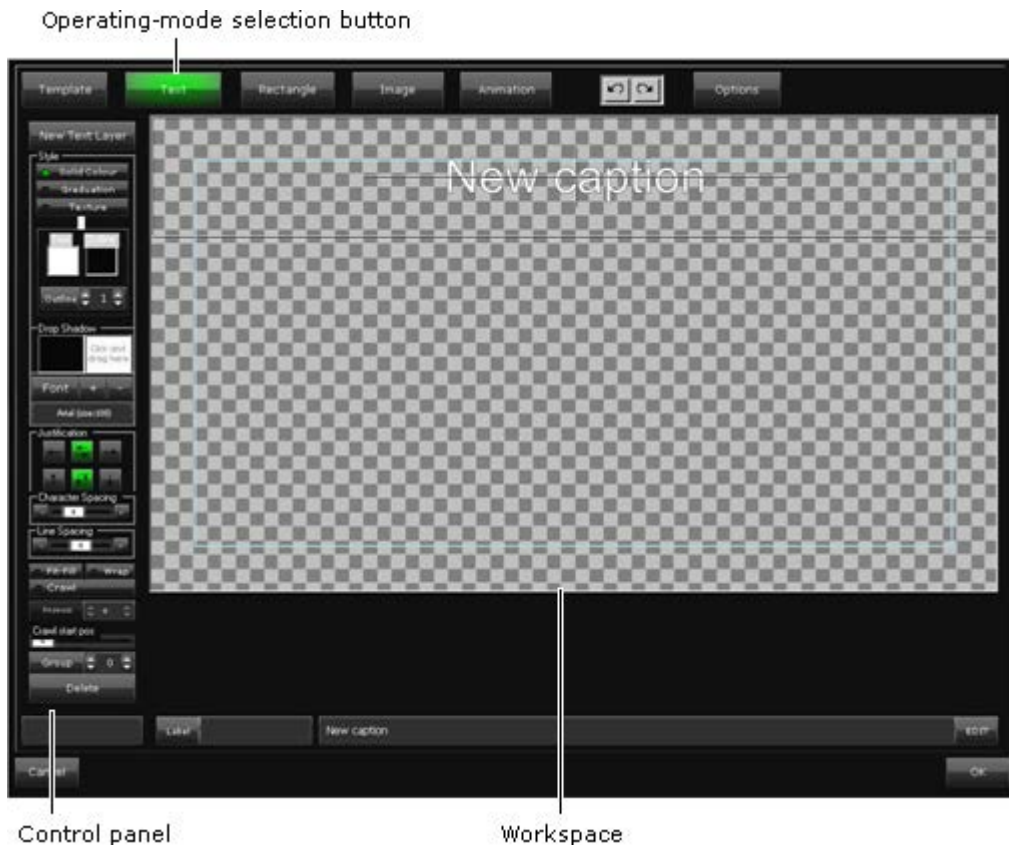
The CG application enables you to create CGs that you can use in iTX layout schedules. In the design of your CGs, you may include:

- Text.
- Colored rectangles.
- Background images, which you import from the Media Store.
- Animated logos, which you import from the Media Store.
- Transitions and vision effects.

Text may consist of characters from any OpenType font that is installed on your machine. The same font must be installed on the Output Server that is to play the CG.

OpenType fonts have a .ttf filename extension and this icon: .

The CG application displays a window with a workspace, a control panel and a set of operating-mode selection buttons:



The CG application

The workspace is an area in which you compose your CGs. It has a checkered background to help you position and resize the objects that form a CG. To the left of the workspace, the control panel contains a set of controls relevant to the selected operating mode.

Operating Modes

The configuration of the control panel changes depending on what operating mode you select for the CG application. For the different types of CG object (text block, rectangle and image), the panel contains different sets of property controls; you use these controls to set the properties of CG objects.

You select the operating mode for the different object types through these operating-mode selection buttons:

- Text
- Rectangle
- Image

There are three other operating-mode selection buttons:

- Animation
- Template
- Options

Through these you can apply transitions and vision effects to CG objects, perform file-management operations on CG templates and set options for the CG application window.

A selection button turns green when you click it to select an operating mode.

Multiple objects and layers

You can include multiple text blocks, rectangles and images in your CG design. The CG application places each object on its own layer. As well as being able to change the properties of objects, you can re-order the layers.

Editable text blocks

Your CG may contain editable text blocks, which are useful for last-minute entering of information in a standard CG template. They allow you to add text to a CG when it is in a CG event in a playout schedule; you may insert the text at any time, up to the point at which iTX gets ready to play out the CG event.

You enter the information through text boxes that appear on the Event Editor when you select the CG event:



Dynamic text blocks

Dynamic text blocks are similar to editable text blocks.

The difference is that, in a dynamic text block, iTX automatically enters information from a specified source into a special space in the text block. The space that receives the information is called a field.

An example is a time-of-day field. In this field, iTX displays the current time, which it receives from the system time source. iTX constantly updates the display while the CG is on air.

Another possible source of information is the primary event that a CG is associated with. The CG may include text, such as a program name, that iTX reads from the media item used in the event.

Transparent objects

You can apply a color fill to an object that lies directly above another object. By varying the transparency of the fill, you blend the objects so that the lower one, instead of being obscured, appears partially visible through the upper one.

Transitions and vision effects

You can apply visual effects to groups of objects. You do this while the CG application is in the animation operating mode.

The CG application

Each CG object is assigned to a group (it may be the only object in the group); groups are numbered from 0-9.

Properties you set for a group apply to all objects in the group. You can set transitions and vision effects for the in- and out-sequences.

Saving your CGs

You store your CGs in work files called CG templates. You can select CG templates in the CG palette on the Content Selector and include them in schedule events. Because CG templates keep all the separate information about the objects and layers, you can edit them at any time in the CG application.

You can flatten a CG template (combine all the objects on a single layer) and export it as a PNG-format graphic.

Working with text

Creating and editing CG text

You can create and modify CG text while the CG application is in the text operating mode.

To create lines of text, you add a text block – on a new text layer – in the workspace; you then enter your text in the text block. You can use various features to set the appearance of the text in a text block.

You can:

- Change the font, font style and size. [More details](#), page 219.
- Create an editable text block. [More details](#), page 216.
- Create a dynamic text block. [More details](#), page 217.
- Apply a drop shadow to the characters. [More details](#), page 220.
- Fill the characters with a solid color. [More details](#), page 221.
- Apply a graduated color fill to the characters. [More details](#), page 221.
- Apply a textured fill to the characters. [More details](#), page 222.
- Align text within its text block. [More details](#), page 219.
- Apply a crawl effect to the text in a text block. [More details](#), page 223.
- Apply a text-layer style to the contents of a text block. A text-layer style is a collection of the settings for all the individual text properties (font, color, etc.). [More details](#), page 224.
- Select a group number for the text block. [More details](#), page 225.

You can include multiple text blocks in your CG; you can change their sizes, and you can position them anywhere within the workspace.

The CG application

Select the text operating mode

1. Click **Text** to select the text operating mode.

The button turns green.

Create a simple text block, containing fixed CG text

1. With the CG application in the text operating mode, click **New Text Layer**.

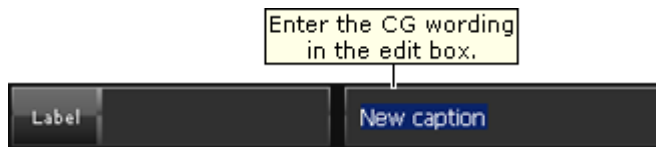
The CG application creates a new text layer. On this layer, it places a text block containing a line of default text:



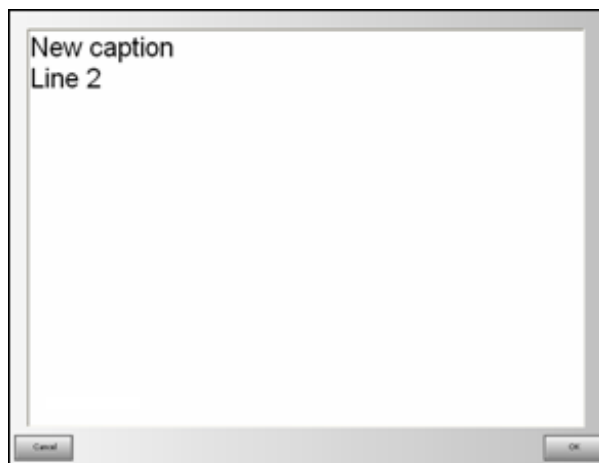
Note: You can create a copy of an existing text block by clicking **New Text Layer** while a text block is selected.

2. Do one of the following to enter words in the text block.

- For a single line of text, enter the text in the edit box below the workspace:



- For multiple lines of text, click **EDIT** to display the text editor:



Enter the text in the text editor and click **OK**.

Your text appears in the text block in the workspace.

Leave the **Label** box blank. You use this only when you want to create an editable or dynamic text block.

The CG application

3. Specify font options for the text. [More details](#), page 219.
4. Set the text alignment. [More details](#), page 219.

Create an editable text block

An editable text block contains a space for displaying text that you enter through the Event Editor on the iTX Channel Control layout.

In creating a CG, you may enter sample text in the space; you can overwrite the sample text in the Event Editor.

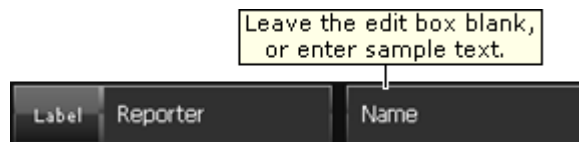
1. Click **New Text Layer** to create a text block, or click an existing text block to select it.
2. In the **Label** box, enter a description (e.g. "Reporter") of the type of information you want to be able to add later.



The text you enter in the **Label** box identifies a text box on the Event Editor; it is not part of the CG.

The Event Editor displays the text box when you select a CG event that is based on the current CG; you enter the required CG text in the Event Editor text box. [More details](#), page 130.

You may leave the edit box blank, or you may enter some sample text.



Any text in the edit box appears as the default entry in the Event Editor text box.

3. Specify font options for the text. [More details](#), page 219.
4. Set the text alignment. [More details](#), page 219.

The CG application

Create a dynamic text block

A dynamic text block contains a field into which iTX inserts specified information at the on-air time.

Available fields for dynamic text blocks:

Field	Sample CG text	Description
FILE	News updates: ...	A text file, such as the text from an RSS feed.
HH:MM	08:35	Time of day.
HH:MM:SS	08:35:15	Time of day.
H:MM	8:35	Time of day.
MM:SS	35:15	Time of day.
ShortDate	20/03/07	Current date.
LongDate	20 March 2007	Current date.
CountDownMM:SS	02:30	Count down from a specified time value.
CountDownM:SS	2:30	Count down from a specified time value.
CountDownSS	30	Count down from a specified time value.
CountUpMM:SS	02:30	Count up from zero.
CountUpM:SS	2:30	Count up from zero.
ParentName	Wimbledon 2007	Name of item in primary schedule event.
ParentTitle	Doubles Final	Title of item in primary schedule event.
ParentNotes	Match-winning shots.	Notes for item in primary schedule event.

1. Click **New Text Layer** to create a text block, or click an existing text block to select it.
2. Click **Label** to display the Select Dynamic Field dialog.
The dialog contains a list of available fields.
3. Select a field.

iTX displays the field name in the **Label** box when you close the dialog:



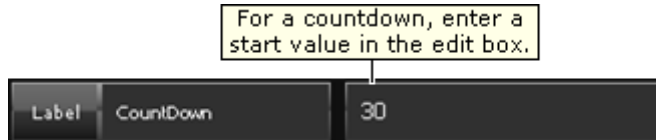
For any type of field other than a file or countdown field, you may clear the edit box; any entry in the edit box does not appear in the CG.

The CG application

- If you select the File field, click **Edit** to display the Windows file-selection dialog.
Through this dialog, select a text file. The text file must be accessible by a network (UNC) path. The name of the text file appears in the edit box:



- If you select one of the countdown fields, enter a start-time value in the edit box:



Enter the value in the format shown in the field name for the particular type of countdown. For example: "2:00" or "30".

- Specify font options for the text. [More details](#), page 219.
- Set the text alignment. [More details](#), page 219.

Note:

- If a CG uses a text file, iTX reads the text file when the CG event is cued. If the text file is updated while the CG event is on air, the CG text is updated.
- Each line ending with a carriage return in a text file is displayed as a separate line of text in a text block.
- A text file used for crawling text must not contain any carriage returns.

Resize and move a text block

You can manually resize and move a text block in the same way you do any other type of CG object. [More details](#), page 234.

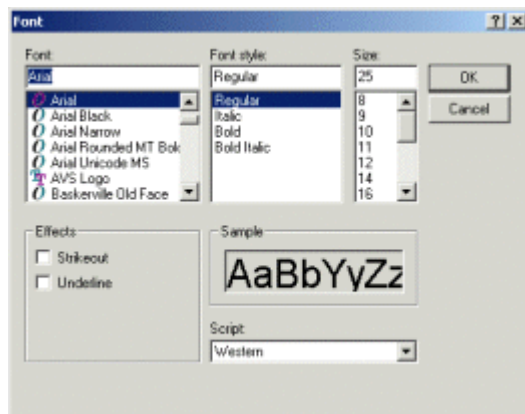
The CG application

Specify a font for CG text

You use the font controls to set the font for text in a selected text block:





1. Select a text block.
2. Click **Font** to display the Font dialog:



3. Select the font, style and size. Click **OK** to close the dialog.

The CG application displays the text with the selected font attributes.

4. To increase or decrease the character size by one point at a time, click  or .

Set the alignment of CG text

You use the two rows of Justification buttons to set the horizontal and vertical position of text within its text block:



The arrows on the buttons show the direction of alignment.

1. Select a text block.
2. Click a CG Justification button in each row to position the text.

The CG application

Set the spacing of CG text

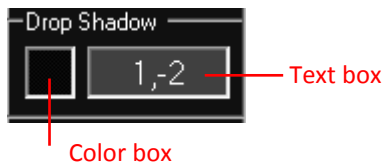
The typesetting controls enable you to adjust the text layout:



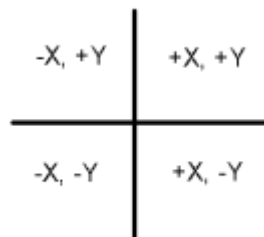
1. Select a text block.
2. To adjust the space between characters (also known as kerning), use the Character Spacing controls: drag the slider or click a nudge button.
3. To adjust the space between lines (also known as leading), use the Line Spacing controls: drag the slider or click a nudge button.
4. To squeeze or stretch a line of text to fit its text box, select **Size to fit**.
5. To allow iTX to insert line breaks in text that is longer than its text block, select **Word Wrap**.

Apply a drop shadow to CG text

You use the Drop Shadow controls to place a drop shadow at any point around text; you can select the color of the shadow.



1. Select a text block.
2. Click the color box to display the Color Selector; pick a color for the drop shadow. [More details](#), page 237.
3. In the text box, enter the shadow offset in terms of X and Y. By setting these values either positive or negative you can specify the direction of the shadow, as shown in the graphic below.



The CG application

Apply a solid fill to CG text

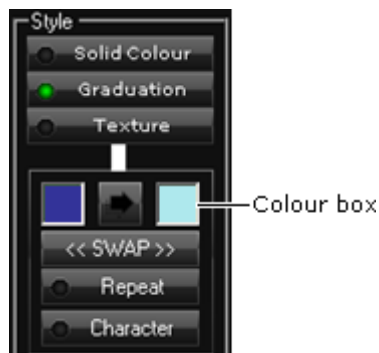
You use the solid-color controls to select fill and outline colors and vary the outline width of characters in a text block:



1. Select a text block.
2. Click **Solid Colour** to display the solid-color controls.
3. Do the following to select fill and outline colors.
 - Click the Text color box to display the Color Selector; pick a fill color. [More details](#), page 237.
 - Click the Outline color box to display the Color Selector; pick an outline color.
4. Do one of the following to select an outline width.
 - Click **Outline** to display a numeric keypad. Enter a value for the outline width using the keypad; click **OK**.
 - Click the trim controls on either side of the Outline box to change the displayed value in steps. You may check the value by clicking **Outline** to display the numeric keypad.

Apply a graduated fill to CG text

You use the color-graduation controls to apply a graduated fill, using any two colors, to the characters in a text block.



The variation between colors can take place across the CG as a whole (Example 1). The graduation can also repeat, in the reverse direction, back to the first color (Example 2).

The CG application

SPORTS

Example 1

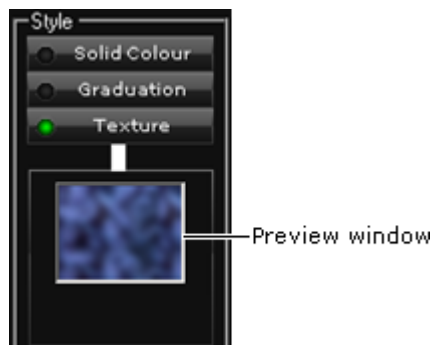
SPORTS

Example 2

1. Select a text block.
2. Click **Graduation** to display the color-graduation controls.
The color boxes show the two colors that are to feature in the fill; the arrow button between them shows the direction of graduation from the first color to the second.
3. Do the following to set the fill properties.
 - Click the left color box to display the Color Selector; pick the first color. [More details](#), page 237.
 - Click the right color box to display the Color Selector; pick the second color.
 - Click the arrow button to set the direction of graduation.
 - Select **Character** (the button indicator displays a green light) if you want the graduation to take place within individual characters; ensure **Character** is not selected if you want the graduation to happen across the CG as a whole.
 - Select **Repeat** (the button indicator displays a green light) if you want the graduation to repeat back to the first color; ensure **Repeat** is not selected if you want just a single graduation between the two colors.
 - Click **SWAP** if you want to change the order of the colors.

Apply a textured fill to CG text

You can give CG text a textured appearance by using an image to fill the characters. For this, you use the textured-fill controls:



This illustration shows text with a textured fill:

SPORTS

1. Select a text block.
2. Click **Texture** to display the image preview window.
3. Click the preview window.

The CG application

The CG application opens PinPoint, the iTX search tool.

4. Use PinPoint to select an image file. [More details](#), page 182.

The CG application applies the fill to the characters in the text block.

Note:

- For iTX to be able to play out text with a textured fill, the required image must be in the location it is in when you create the CG.

Edit CG text

Once you have entered text in a CG text block, you can edit it and change its properties.

1. Select a text block.
2. Do one of the following to edit the wording.
 - Enter the new text in the edit box, below the workspace.
 - Click **EDIT** to open the text editor; enter the new text; click **OK** to close the text editor.
3. Change the font and alignment options for the text, if you want.

Apply a crawl to CG text

Crawling text moves from right to left in a text box before disappearing.

1. Select a text block.
2. Select a group number that is not given to any other object. [More details](#), page 225.
3. Select **Crawl** (the button indicator displays a green light).
4. In the **Repeats** box, enter the number of times you want iTX to play the crawl; 1 for once, 2 twice, etc. Enter 0 if you want iTX to repeat – or “loop” – the crawl while a CG event is on air.
5. If you want to offset the starting point of the crawl from the right edge of the text block, drag the **Crawl start position** slider.

The number on the slider shows the amount of offset in pixels; the maximum number is limited by the size of the text block.

6. Set the speed of the crawl while the CG application is in the animation operating mode. [More details](#), page 239.

The CG application

Note:

- A text block with a crawl must be in its own group with no other object.
- The maximum amount of text allowed in a crawl depends on the selected font size. As a guide, a crawl can contain approximately 25 times the amount of text in a single line that can fit within the width of a HD frame. Too much text may result in iTX not displaying the crawl.
- To cancel a crawl, ensure **Crawl** is not selected.

Save text properties as a text-layer style

After setting the individual properties of text in a text block, you can save the properties as a text-layer style. Then, when you want to make another text block have the same appearance, you only need to apply the style; you do not have to set the text properties individually.

1. Select a text block.
2. Right-click the text block and select **Add To Styles** from the displayed menu.
The CG application displays the Save Text Layer Styles dialog.
3. Enter a name for the style and click **OK** to close the dialog.

Note:

- When you save a text-layer style, it becomes available to all users of the iTX system.
- You can delete a text-layer style by selecting it in the Save Text Layer Styles dialog and clicking **Delete**.

Apply a text-layer style to a text block

You can apply a text-layer style to any text block in a CG.

1. Select a text block.
2. Right-click the text block and select **Apply Style** from the displayed menu.
The CG application displays the Load Text Layer Styles dialog.
3. Select a style and click **OK** to close the dialog.
The text block appears in the selected style.

Note:

- You can delete a text-layer style by selecting it in the Load Text Layer Styles dialog and clicking **Delete**.

The CG application

Set the group number for a text block

A text block, like other objects, has a group number (from 0-9). You apply visual effects to the text block by applying them to the group.

1. Select a text block.
2. Enter a number in the **Group** box.

Delete a text block

1. Select a text block.
2. Click **Delete**.

The CG application removes the text block from the workspace.

You can select and delete multiple text blocks together. [More details](#), page 236.

The CG application

Working with rectangles

Creating and modifying rectangles

You can create and modify rectangles while the CG application is in the rectangle operating mode.

To create a rectangle, you add a default rectangle in the workspace and then modify its appearance. As well as resizing it, you can:

- Fill the rectangle with a solid color. [More details](#), page 227.
- Apply a graduated color fill. [More details](#), page 227.
- Apply a textured fill. [More details](#), page 228.
- Change the color and thickness of the rectangle border. [More details](#), page 229.
- Select a pre-defined layout style for the rectangle. [More details](#), page 229.
- Select a group number for the rectangle. [More details](#), page 230.

You can include multiple rectangles in your CG, and position them anywhere within the workspace.

Select the rectangle operating mode

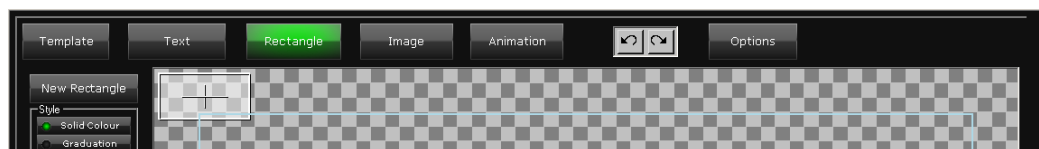
1. Click **Rectangle** to select the rectangle operating mode.
The button turns green.

Create a rectangle

You may create a rectangle as a background for CG text or as a design feature in its own right.

1. With the CG application in the rectangle operating mode, click **New Rectangle**.

The CG application places a default rectangle in the workspace:



You can change the properties of this rectangle while it is selected.

Resize and move a rectangle

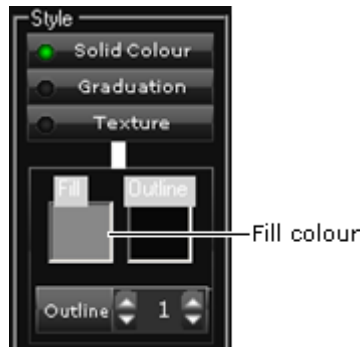
You can manually resize and move a rectangle in the same way you do any other type of CG object. [More details](#), page 234.

You can also set the size and position by applying one of the pre-defined layout styles. [More details](#), page 229.

The CG application

Apply a solid fill to a rectangle

You select the color for a solid fill by using the Fill color box of the solid-color controls:

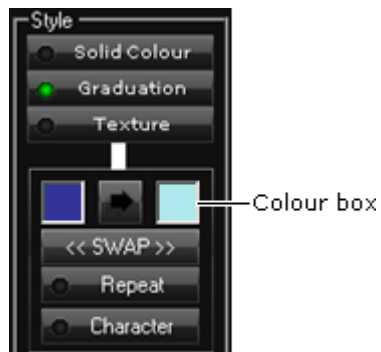


You change the color and thickness of a rectangle border by using the border controls. [More details](#), page 229.

1. Select a rectangle.
2. Click **Solid Colour** to display the solid-color controls.
3. Click the Fill color box to display the Color Selector; pick a fill color. [More details](#), page 237.

Apply a graduated fill to a rectangle

You use the color-graduation controls to apply a graduated fill, using any two colors, to a rectangle:



The CG application

The graduation can be simple, from one color to the other (Example 1). Or it can repeat, in the reverse direction, back to the first color (Example 2).



Example 1

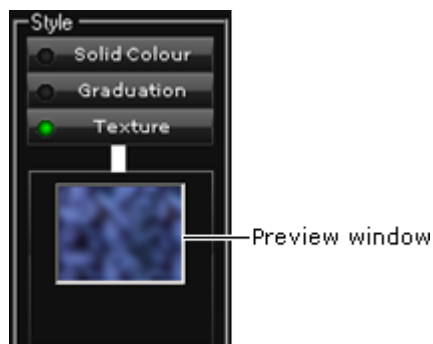


Example 2

1. Select a rectangle.
2. Click **Graduation** to display the color-graduation controls.
The color boxes show the two colors that are to feature in the fill; the arrow button between them shows the direction of graduation from the first color to the second.
3. Do the following to set the fill properties.
 - Click the left color box to display the Color Selector; pick the first color. [More details](#), page 237.
 - Click the right color box to display the Color Selector; pick the second color.
 - Click the arrow button to set the direction of graduation.
 - Select **Repeat** (the button indicator displays a green light) if you want the graduation to repeat back to the first color; ensure **Repeat** is not selected if you want just a single graduation between the two colors.
 - Click **SWAP** if you want to change the order of the colors.

Apply a textured fill to a rectangle

You can give a rectangle a textured appearance by filling it with an image. For this, you use the textured-fill controls:



This illustration shows a rectangle with a textured fill:



The CG application

1. Select a rectangle.
2. Click **Texture** to display the image preview window.
3. Click the preview window.

The CG application opens PinPoint, the iTX search tool.

4. Use PinPoint to select an image file. [More details](#), page 182.

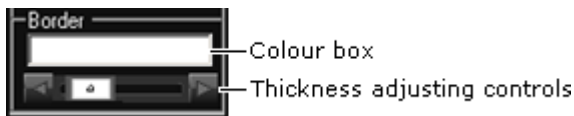
The CG application applies the fill to the rectangle.

Note:

- For iTX to be able to play out a rectangle with a textured fill, the required image must be in the location it is in when you create the CG.

Change the color and thickness of a rectangle border

You can change the color and thickness of a rectangle border by using the border controls:



1. Select a rectangle.
2. To change the border color, click the color box to display the Color Selector; pick the color. [More details](#), page 237.
3. To change the border thickness, drag the slider to the left or right; or click the left or right nudge button.

Select a pre-defined rectangle layout style

Instead of performing manual adjustments, you can set the size and position of a rectangle by selecting one of four pre-defined layout styles. For this, you use the rectangle layout style buttons:



1. Select a rectangle.
2. Click one of the rectangle style buttons to assign a style to the rectangle:
 - **Full Screen**, if you want the rectangle to fill the workspace.
 - **Strap**, if you want the rectangle to form a horizontal strap.

The CG application

- **Side Bar**, if you want the rectangle to form a vertical bar.
- **Block**, if you want the rectangle to appear as a block.

Set the group number for a rectangle

A rectangle, like other objects, has a group number (from 0-9). You apply visual effects to the rectangle by applying them to the group.

1. Select a rectangle.
2. Enter a number in the **Group** box.

Delete a rectangle

1. Select a rectangle.
2. Click **Delete**.

The CG application removes the rectangle from the workspace.

You can select and delete multiple rectangles together. [More details](#), page 236.

The CG application

Working with background images

Using the image controls

You can load and modify images while the CG application is in the image operating mode.

The image controls enable you to add images in a standard image format (JPEG or PNG) to the workspace. Once you have imported an image into the workspace, there are a number of ways in which you can set its properties. As well as resizing it, you can:

- Change the color and thickness of its border. [More details](#), page 232.
- Apply a drop shadow. [More details](#), page 233.
- Select a group number for the image. [More details](#), page 233.

You can include multiple images in your CG, and position them anywhere within the workspace.

Select the image operating mode

1. Click **Image** to select the image operating mode.

The button turns green.

Load an image

1. Click **Load Image**.

The CG application opens PinPoint, the iTX search tool.

2. Use PinPoint to select an image file. [More details](#), page 182.

When you close PinPoint, the CG application displays the image at full size in the workspace:



Note:

- For iTX to be able to play out an image in a CG, the image must be in the location it is in when you create the CG.

The CG application

Resizing an image

You can manually resize and move an image in the same way you do any other type of CG object. [More details](#), page 234.

You can also resize an image by a preset amount, as described below.

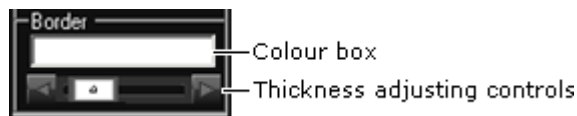
Resize an image by a preset amount

Through the property controls, you can increase or decrease the size of an image by a factor of 50 per cent; you can also make the image fit the workspace.

1. Select an image.
2. Do one of the following.
 - Click **Full Screen** to make the image fill the workspace.
 - Click **50% Smaller** to reduce the image to half its current size.
 - Click **50% Bigger** to enlarge the image by half its current size.

Change the color and thickness of an image border

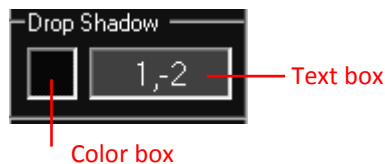
You can change the color and thickness of an image border by using the border controls:



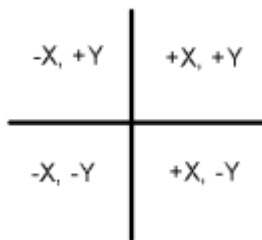
1. Select an image.
2. To change the border color, click the color box to display the Color Selector; pick the color. [More details](#), page 237.
3. To change the border thickness, drag the slider to the left or right; or click the left or right nudge button.

Apply a drop shadow to an image

You use the Drop Shadow controls to place a drop shadow at any point around the image; you can select the color of the shadow.



1. Select an image.
2. Click the color box to display the Color Selector; pick a color for the drop shadow. [More details](#), page 237.
3. In the text box, enter the shadow offset in terms of X and Y. By setting these values either positive or negative you can specify the direction of the shadow, as shown in the graphic below.



Set the group number for an image

An image, like other objects, has a group number (from 0-9). You apply visual effects to the image by applying them to the group.

1. Select an image.
2. Enter a number in the **Group** box.

Delete an image

1. Select an image.
2. Click **Delete**.

The CG application removes the image from the workspace.

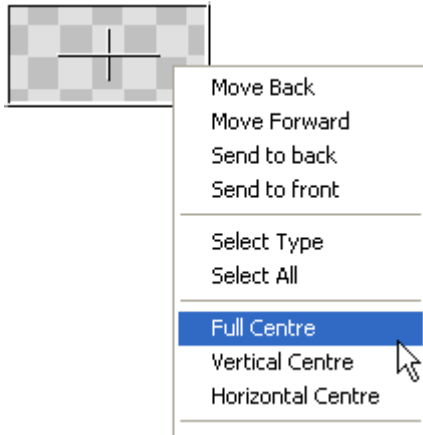
You can select and delete multiple images together. [More details](#), page 236.

The CG application

Resizing and moving CG objects

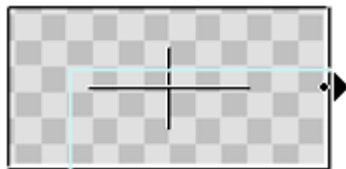
You can manually resize and move objects of any type while they are selected.

You can automatically centralize an object by selecting an option from the CG Application menu:



Manually resize an object of any type

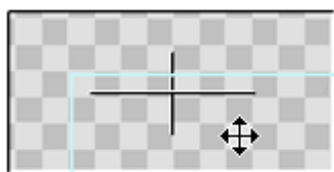
1. Select the operating mode for the type of object you want to resize.
2. Select an object.
3. Position the mouse pointer over any side or corner of the object, so that it changes to the resize pointer. This illustration shows the resize pointer over a rectangle:



4. Click and drag the side or corner.

Manually move an object of any type

1. Select the operating mode for the type of object you want to move.
2. Select an object.
3. Position the mouse pointer within the object, so that it changes to the move pointer. This illustration shows the move pointer over a rectangle:



4. Click and drag the object.

The CG application

You can move multiple objects together after selecting them as a group. [More details](#), page 236.

Automatically centralize an object

Instead of dragging an object, you may select an option from the CG application menu to locate it centrally.

You can perform this procedure while the CG application is in any operating mode.

1. Right-click an object to display the CG application menu and select one of the options:

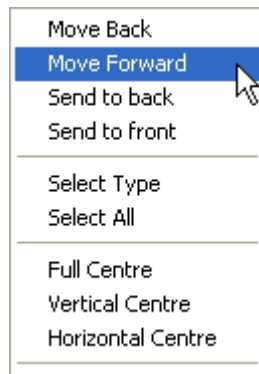
- **Full Centre**, to centralize the object both horizontally and vertically.
- **Vertical Centre**, to centralize the object vertically.
- **Horizontal Centre**, to centralize the object horizontally.

You can select and centralize multiple objects together. [More details](#), page 236.

Changing the stacking order of objects

The CG application stacks objects, one on top of the other, as you add them to the workspace. It puts the first object at the bottom, and the last one at the top. Objects higher up the stack can obscure objects below them.

You can move an object up or down the stack by selecting an option from the CG application menu:



Re-order layers

You can perform this procedure while the CG application is in any operating mode.

1. Right-click an object to display the CG application menu, and select one of the options:
 - **Move Back**, to move the object down one position.
 - **Move Forward**, to move the object up one position.
 - **Send to back**, to place the object underneath all other objects.
 - **Send to front**, to place the object above all other objects.

You can select and move multiple objects together. [More details](#), page 236.

Working with multiple objects

You can select multiple objects together (the objects may be of the same type or of different types). You can then move them together; you can also, in a single operation, change some common properties.

Select multiple objects of any type

You can perform this procedure while the CG application is in any operating mode.

1. Do one of the following to select multiple objects.
 - Click the first object to select it. While pressing the Control key, click other objects.
 - To select all objects in the workspace, right-click to display the CG application menu; select **Select All**.

Select all objects of the same type

1. Select the operating mode for the type of object you want to select.
2. Right-click anywhere in the workspace to display the CG application menu; select **Select Type**.


The CG application

Undoing and redoing changes


The Undo and Redo buttons enable you to restore a CG to a previous state after you have made changes to it:



Undo a change

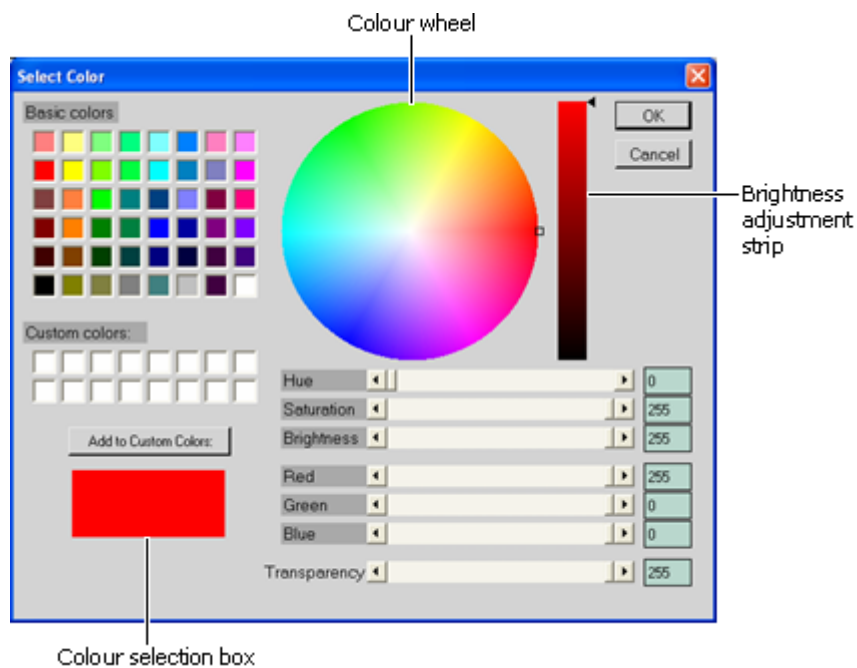
1. Click  to cancel the most recent change to a CG.

Redo a change

1. Click  to re-apply a change after undoing it.

The Color Selector

You display the Color Selector by clicking a color preview box when working with an object of any type:



The CG application

Use the Color Selector

1. Do one of the following to select a color.
 - Click one of the basic colors.
 - Click a custom color if you have stored any.
 - Click a point in the color wheel.
 - Click a point in the brightness adjustment strip, or drag the slider.
 - Use the scroll controls to vary Hue, Saturation, Brightness, Red, Green or Blue.The selected color appears in the color selection box.
2. If you want to store a custom color, click **Add to Custom Colors**.
3. Use the Transparency scroll control to vary the transparency of the selected color fill.
4. Click **OK** to close the Color Selector.

Setting properties (visual effects, crawl speeds) for groups

About groups

Each object in a CG is assigned to one of up to 10 possible groups, numbered 0 to 9. For each group, which may include objects of different types, you can:

- Specify a playout layer. The layer number controls the position of the group in the stacking order of on-air items.
- Set transitions or vision effects for in- and out-sequences. You can schedule an offset from the start of an event for an in-sequence, or the end of an event for an out-sequence.
- Set the crawl speed of a text block (which must be in a group by itself).

To do any of these, you select the group while the CG application is in the animation operating mode.

After setting transitions and vision effects, you may preview them in the CG application.

Select the animation operating mode

1. Click **Animation** to select the animation operating mode.
The button turns green.

Specify a playout layer for a group

1. Enter a group number in the **Group** box.
2. Enter a layer number in the **Layer** box.

The CG application

Set a transition for a group

1. Enter a group number in the **Group** box.
2. Select **In Effect** or **Out Effect** (the button indicator displays a green light).
3. Click a transition selection button to select a transition type:



Simple cut Dissolve

4. Enter a value in the **Duration** box to set the transition duration (in seconds).
5. If you want to set an offset for the transition, enter a value in the **Offset** box.

For an in-sequence, this value controls how long after the start of a CG event the objects in a group start to appear on air. For an out-sequence, it controls how long before the end of a CG event the objects start to disappear.

Set a vision effect for a group

1. Enter a group number in the **Group** box.
2. Select **In Effect** or **Out Effect** (the button indicator displays a green light).
3. Select **Wipe**, **Slide** or **Squeeze** (the button indicator displays a green light).
4. Click one of the arrow buttons to select the direction of the effect:



5. Enter a value in the **Duration** box to set the transition duration (in seconds).
6. If you want to set an offset for the effect, enter a value in the **Offset** box.

For an in-sequence, this value controls how long after the start of a CG event the objects in a group start to appear on air. For an out-sequence, it controls how long before the end of a CG event the objects start to disappear.

Set the speed of a crawl

After applying a crawl effect to a text block while the CG application is in the text operating mode, you may set the speed of the crawl while the application is in the animation operating mode.

We measure a crawl speed in “pixels per field” – the distance text moves from one field to the next.

To set the speed, you enter a value in the **Duration** box. iTX converts this duration value to pixels per field by using a mapping rule that is related to the frame rate of the playout system:

- For an NTSC system, a **Duration** value of 1.0 produces a crawl speed of 30 pixels per frame.
- For a PAL system, a **Duration** value of 1.0 produces a crawl speed of 25 pixels per frame.

The CG application

In either case, a value higher or lower than 1.0 increases or decreases the crawl speed proportionally. So, a **Duration** value of 0.2 produces a crawl speed of 6 pixels per frame in an NTSC system, and 5 pixels per frame in a PAL system.

(iTX approximates results, where necessary, to the nearest whole number of pixels.)

1. Enter a group number in the **Group** box.
2. Enter a value in the **Dur** box.

Preview transitions and vision effects

Once you have set the transitions and vision effects for each group, you can preview the CG.

1. Enter a duration in the **Preview Duration** box.
2. Click **Preview** (the button turns green).

iTX plays the CG, with transitions and vision effects, in the workspace.

Using the template controls

About the file-management buttons

You can perform general file-management tasks while the CG application is in the template operating mode. In doing so, you use the file-management buttons:

- **Load**, to load an existing CG template.
- **Save**, to save changes to your current CG template on the Media Store.
- **Save As**, to save changes to your current CG template in a new CG template on the Media Store.
- **Export Graphic**, to export your current CG template as a graphics file (with a .png filename extension).

Note:

- CG template files have a ".cap" filename extension.

Select the template operating mode

1. Click **Template** to select the template operating mode.

Load an existing CG template

1. Click **Load** to open PinPoint, the iTX search tool.
2. Use PinPoint to select a CG template. [More details](#), page 182.

The CG application

The CG application loads the CG objects in the workspace.

Save changes to the current CG template

In this procedure, you overwrite the previous version of a CG template after making changes to it.

1. Click **Save** to save your changes.

Note: The Save button only becomes active after you load a CG template.

Save changes in a new CG template

In this procedure, you create a new CG template – after either making changes to an existing CG template or designing a new CG template.

1. Click **Save As** to display the CG Save As dialog.
2. Do the following to create a new CG template.
 - In the **Media Watcher** box, select a Media Watcher. If there is more than one Media Watcher in your system, you may need to ask your system administrator which one to use.
 - In the **Name** box, enter a name for the CG template.
 - Click **OK**.

The CG application saves the new CG template as a file with a ".cap" filename extension.

Export a CG template as a graphic

1. After creating your CG, click **Export Graphic** to display the standard Windows Save As dialog.
2. Select a folder; enter a name for the graphic in the **File name** box; click **Save**.

The CG application saves the CG template as a graphics file with a ".png" filename extension.

Load an animated logo

When the CG application is in the template operating mode, you can import an animated logo from the Media Store and add it to a CG. The logo may be in one of two Grass Valley formats: SPG or VAF. The logo sequence must have been ingested onto the Media Store from a TZip file.

A CG with an animated logo must also contain at least one text layer. If no text is to be displayed with the animated logo, simply create a text block and enter a blank space (press the space bar).

1. Click **Set Animated Background**.

The CG application opens PinPoint, the iTX search tool.

2. Use PinPoint to select an animated logo. [More details](#), page 188.

iTX displays the file name below the **Set Animated Background** button.

The CG application

Note:

- The CG application does not display the animated logo in the workspace.
- You may clear the background by clicking **C** next to the **Set Animated Background** button.
- iTX caches animated logos before playing them out.

Change the position of an animated logo

You can re-position an animated logo by using the positioning controls.

1. If you want to move the animated logo, do one of the following.
 - Click the **X** and **Y** trim controls to change the X and Y co-ordinates.
 - Enter specific X and Y values in the **X** and **Y** boxes: click **X** or **Y** to display a numeric keypad; enter the value using the keypad.

Clear the workspace

If there are any objects within the workspace when you start to design a new CG, you can clear the workspace in a single operation.

1. Click **Reset**.

The CG application displays the Reset Template dialog, prompting you to confirm your request.
2. Click **Yes**.

The CG application removes all text, rectangles and images from the workspace.

Setting the CG application window options

About the CG application window options

The workspace contains an invisible grid of horizontal and vertical lines. You can use the grid when resizing or positioning an object – the object "snaps to" (i.e. aligns with) the nearest grid line when the snap-to-grid option is enabled.

Within the workspace, the CG application can display a guide frame that shows the safe area for CG objects; this is the area within which you need to position an object to ensure it is visible in television pictures displayed at the aspect ratio of your playout channel (16x9 or 4x3).

In the options mode, the CG application displays the controls that enable you to set options for the grid and the safe-area guide frame.

Select the options operating mode

1. Click **Options** to select the options operating mode.

The CG application

Set the grid options

1. Click **Snap To Grid** to enable the option (the button indicator displays a green light) if you want the CG application to locate objects on the nearest grid line when you resize or position them; disable the option if you want to be able to resize and position objects freely.
2. In the **Size** box, enter a value for the distance (in pixels, from 0 to 99) between grid lines.

Show or hide the safe-area guide frame

1. Click **Safe Area** to switch the safe-area guide frame on or off.

Closing the CG application

After working on a CG template, you can click **OK** in the CG application window to close the CG application.

If you opened the CG application from the Content Selector, iTX adds the CG template you worked on to the selection pane of the Content Selector; you can then include it in schedule events. If you opened the CG application from the Event Editor, iTX allows you to store changes to the CG template in the selected event.

Closing the application does not save the CG template in the System Database. For this, you need to click **Save** or **Save As** while the CG application is in the template operating mode.

Ingesting files through the Media Store Inbox

If you have media files in a storage format that iTX accepts, you can ingest them into the iTX system by placing them in the Inbox folder on the Media Store. iTX registers the files and transfers them to a permanent storage location, also on the Media Store.

By media file, we mean a file that contains pictures, sound or text that iTX can play out in a television signal. There are different types of such files, including: video files, audio files, still-image files and subtitle files.

There are files of other types that do not contain media but which you can use in the iTX system. These include schedules, clip lists, wipe lists, layouts and license files. You can also ingest such files through the Inbox folder.

Valid formats for media files and other types of file

In general, the Media Watcher can handle files of the types identified by the filename extensions listed below. This information should be used as a guide only, particularly with regard to video formats, for which many different types of codec are available.

Video

.gxf; .mov; .mpg; .mpeg; .mxf

Audio

.mp3; .wav; .wma

Still image

.bmp; .jpg; .jpeg; .png; .tif; .tiff

Animated images

.tzip (animated logos with .tga, .png or .tif files); .spg (an iTX format); .vaf (a Grass Valley format); aezip (container for Adobe After Effects project file)

iTX CG

.cap

Text-based formats

.csv; .scc; .stl; .subs; .xml; .xtl

iTX Import Protocol

.ocl; .osc; .wpl

iTX schedule

.sched2; .itxml

Re-importing media files

When you re-import a file through the Media Store Inbox, iTX deletes all copies of the original file anywhere in the system. For media files, this includes copies that are on the Media Store, in any Output Server cache or in an archive.

If you re-ingest the media file for a video clip, iTX keeps the original video clip in the System Database but may change the in- and out-points. This depends on whether or not these two conditions are met: the new file has the same duration as that specified in the video clip; and the timecode of the start of the media is non-zero.

If both conditions are met, iTX leaves the original in- and out-points unchanged; if either condition is not met, iTX takes the in- and out-points from the new file. This way of determining the boundary points makes it possible for iTX to keep the in- and out-points of a file that is encoded from a VTR (i.e. one with non-zero timecode at the start of the media).

iTX does not allow you to re-ingest a file that has co-references; i.e. one that is referenced by multiple video clips. It rejects any such file placed in the Inbox.

Ingest media files through the Media Store Inbox

For this procedure, you need to have access to the Inbox and Media folders on the Media Store. You may need to ask your system administrator how to access these.

1. From Windows Explorer or by using a mapped network drive, open the Inbox.
2. Copy media files, from a network drive or a removable-disk drive, to the Inbox.

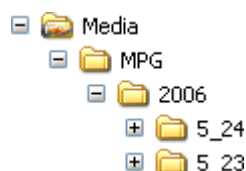
Depending on how you organize media in your system, the Inbox folder may contain subfolders for different categories of file: there may be one folder for news files, another folder for commercials, and so on. Ensure you place the media files in the correct folders, so that the Media Watcher stores them in corresponding folders on the Media Store.

The Media Watcher registers the media files and moves them, one by one, from the Inbox to the Media Store.

If any file is in a storage format that iTX does not accept, the Media Watcher places the file in a folder with the name "Rejected", within the Media folder.

3. If you want to check the file locations, open the Media folder and check its structure of subfolders.

Within the Media folder, the Media Watcher creates a series of folders, similar to the one in this illustration:



Note: Folder names must not contain more than 32 characters.

The folder sequence is: clip storage format (e.g. MPG); current year; today's date (US format).

If the Media folder contains category subfolders, corresponding to ones in the Inbox, the Media Watcher creates a similar folder structure within these.

Ingesting files through the Media Store Inbox

Check that the files appear in the folders for the day on which you ingest them.

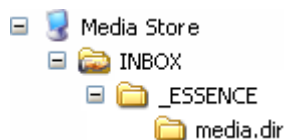
4. If the Media Watcher rejects any files, ask your system administrator to investigate the cause. One reason a file may be rejected is because there are too many characters (more than 60) in its name.

Note:

- If the filename and size of a media file in the Inbox matches that of an existing asset (for example, on an archive or videotape), the Media Watcher registers the media file with the same start and end of the media as the asset.

Ingest reference MOV and MXF files through the Media Store Inbox

You can ingest a reference file – a file referencing video and audio essence files – through the Media Store Inbox. For this procedure, you use the "_ESSENCE" and "media.dir" subfolders of the Inbox.



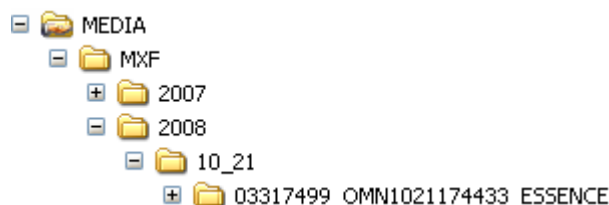
1. For Windows Explorer or by using a mapped network drive, open the Inbox.
2. Copy the video and audio essence files, from a network drive or a removable-disk drive, to the media.dir subfolder of the Inbox.
3. Copy the reference file, from a network drive or a removable-disk drive, to the _ESSENCE subfolder of the Inbox.

The Media Watcher registers the media files and moves them, one by one, from the Inbox to the Media Store.

If any file is in a storage format that iTX does not accept, the Media Watcher places the file in a folder with the name "Rejected", within the Media folder.

4. If you want to check the file locations, open the Media Folder and check its structure of subfolders.

Within the Media folder, the Media Watcher creates a series of folders, similar to the one in this illustration:



The folder sequence is: clip storage format (e.g. MXF); current year; today's date (US format); essence folder.

If the Media folder contains category subfolders, corresponding to the ones in the Inbox, the Media Watcher creates a similar folder structure within these.

Ingesting files through the Media Store Inbox

Check that the reference file appears in the folder for the day on which you ingest it; also, check that the essence files appear in the essence folder.

5. If the Media Watcher rejects any files, ask your system administrator to investigate. Reasons for the Media Watcher rejecting a file may be that there are too many characters (more than 60) in its name; or that there are missing essence files.

Note:

- To update a reference file (for example, to add an audio track), copy the new essence files to the media.dir subfolder of the Inbox; then copy the new reference file to the _ESSENCE subfolder of the Inbox.

The Media Watcher registers the media files and moves them to a new folder within the Media folder. The original video and audio essence files are copied to the new essence folder; the Media Watcher then deletes the original folder.

Ingesting media by using an Encode Server

There are two types of Encode Server that you can use to create media files on a Media Store.

- A video Encode Server records content from a digital video source, such as a line feed, a video server, or a videotape.

You can manually operate an Encode Server from a number of standard iTX Desktop layouts:

- The Manual Ingest layout.
- The Dual Ingest layout.
- The Ingest Multi layout.
- The Tape Ingest layout.

These layouts contain similar features. We explain how to use these features in this section.

Note:

- iTX includes a separate application, called Ingest Manager, which manages the automatic recording of media at specified times. Its main purpose is to perform recordings of feeds that take place at regular intervals; for example, daily recordings of feeds from a news agency.

If Ingest Manager is installed in your iTX system, your iTX Desktop may include layouts that you use to set up automatic recordings. For information about using these layouts, see “Using Ingest Manager”, page 271.

Crash recordings, automatic recordings and batch recordings

From any of the standard ingest layouts, you can operate an Encode Server to perform a crash recording or an automatic recording:

- In a **crash** recording, the Encode Server starts recording immediately you click a **Record** button.
- In an **automatic** recording, the Encode Server starts recording when it receives a frame with a particular timecode.

iTX creates assets in the System Database for the new media files, so that you can use the recorded media in playout schedules.

A third type of recording, which you can set up on the Tape Ingest layout, is a batch recording:

- In a **batch** recording, the Encode Server controls a videotape machine (VTR); it plays a videotape and records multiple selected segments of it.

For a batch recording, you need to pre-register media files before the Encode Server can start recording them. Usually, you do this by placing a clip-registration file in the Inbox folder on the Media Store. From the information in this file, iTX creates assets in the System Database; then, in the ingest process, it links the assets to the media files.

Ingesting media by using an Encode Server

Another way of pre-registering a media file is to create a placeholder clip for it; you can do this on the Tape Ingest layout.

Note:

- The registration file for a batch recording must be in the format for clip lists, as defined by the iTX Import Protocol. For more information about this, see "Appendix A: The iTX Import Protocol", page 357.

Recording from a videotape

For iTX to be able to record media from a videotape, there must be a VTR connected through a control cable to an Encode Server. The video output from the VTR may be connected directly to the Encode Server; or, to allow the Encode Server to receive media from other sources, it may pass through a matrix router.

In automatic and batch recordings, the Encode Server that you choose to perform the recording controls the videotape machine. It moves the videotape to a point that is just before the point specified for the start of recording. The difference between the two points is called the "pre-roll" time.

It then plays the videotape from this point and starts recording after the pre-roll time. It continues to play the videotape for the specified recording duration, or until you stop the recording manually.

In a crash recording, you manually control a videotape machine by using playback buttons on an ingest layout.

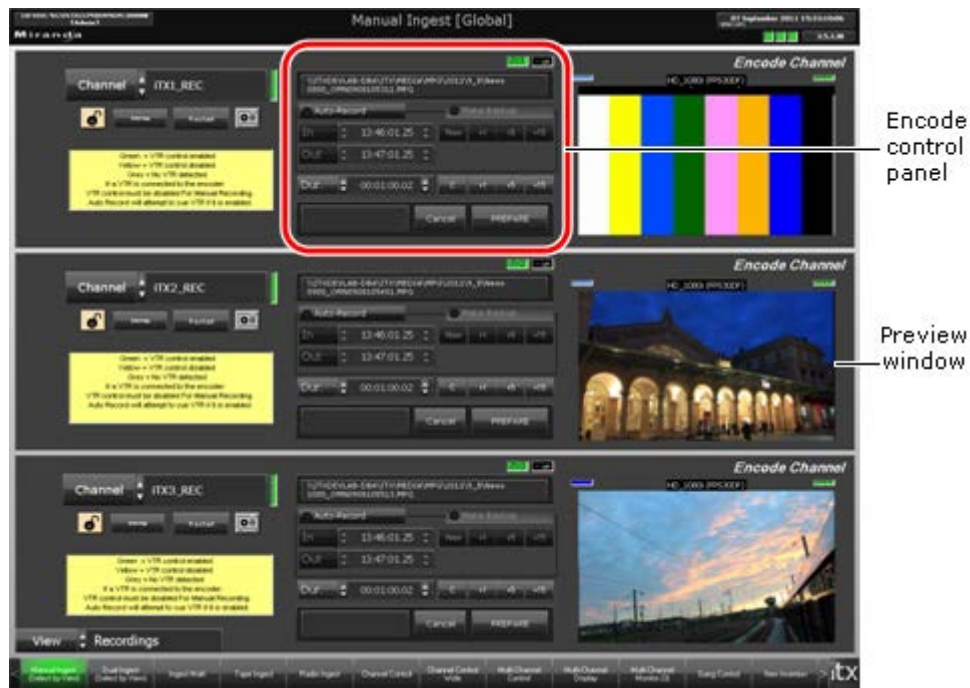
A VTR control button on an ingest layout enables you to switch off the ability of an Encode Server to control a VTR. You should do this when you want the Encode Server to record media from another source instead of the VTR. [More details](#), page 255.

Ingesting media by using an Encode Server

The ingest layouts

The Manual Ingest layout

The Manual Ingest layout contains three identical sets of recording features. These enable you to set up and monitor the recording of line feeds in three recording channels at the same time.



For each recording channel, there is an Encode control panel; you use this to prepare and start recordings, after specifying properties for the new media files. There is also a preview window in which you can view keyframes from the media being recorded.

Ingesting media by using an Encode Server

The Dual Ingest layout

The Dual Ingest layout has two identical sets of recording features, enabling you to control any two available Encode Servers:



From this layout, you can control the recording of media from line feeds or videotapes; you can display a pop-up routing layout, on which you can select which feed goes to an Encode Server.

Ingesting media by using an Encode Server

The Ingest Multi layout

The Ingest Multi layout has six identical sets of recording features:



Ingesting media by using an Encode Server

The Tape Ingest layout

The Tape Ingest layout contains a set of recording features for a single Encode Server:

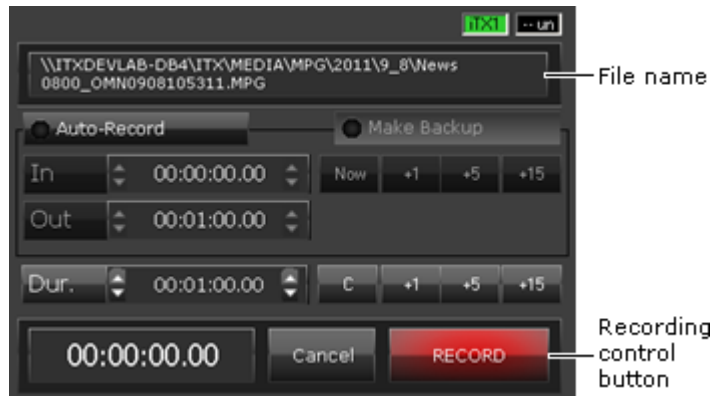


You use this layout to set up and monitor recordings from a VTR.

Ingesting media by using an Encode Server

The Encode control panel

To prepare and start a crash or automatic recording, you use the Encode control panel that is connected to the Encode Server you are going to use for the recording:



For a crash recording, you just need to enter a file name and a duration and then click **Record**.

For an automatic recording, you select **Auto-Record**. The **In** and **Out** boxes then become active, allowing you to set the timecode values at which you want the Encode Server to start and stop recording.



Once a recording starts, you can stop it at any time.

The recording control button changes its function depending on the current stage of the recording process. The button label describes the function: **Prepare**, **Record** or **Stop**.



About the Encode Server lock button

While an Encode Server is recording, it is locked so that only the user who started the recording can control it.

Next to each channel-selection feature is a lock button; the appearance of this changes to show the availability of the relevant Encode Server.

Button	Description
	An unlocked symbol shows that the Encode Server is available to any user.
	A yellow lock button appears when you lock the Encode Server for one recording session. You can modify the recording settings, but no other user can access the Encode Server while it is in this state. All other iTX Desktops show the red lock button (see below). At the end of the session, iTX releases the Encode Server.




Ingesting media by using an Encode Server

Button	Description
	<p>A green lock button appears when you permanently lock the Encode Server.</p> <p>You can modify the recording settings, but no other user can access the Encode Server while it is in this state. All other iTX Desktops show the red lock button (see below).</p> <p>You have to unlock the Encode Server if you want to make it available to any other user.</p>
	<p>A red lock button shows the Encode Server is locked by another user (or by the Encode Server itself, for a batch-recording session).</p>

When an Encode Server is locked, you can view details of the user who has locked it by resting your mouse pointer over the lock button; the details are displayed in a pop-up box.

About the VTR control button

An Encode Server may be set up to record media from either a line feed or a videotape. When you use it to record from a line feed, you need to prevent it trying to operate the VTR at the same time. The VTR control button on an iTX Desktop layout enables you to do this.

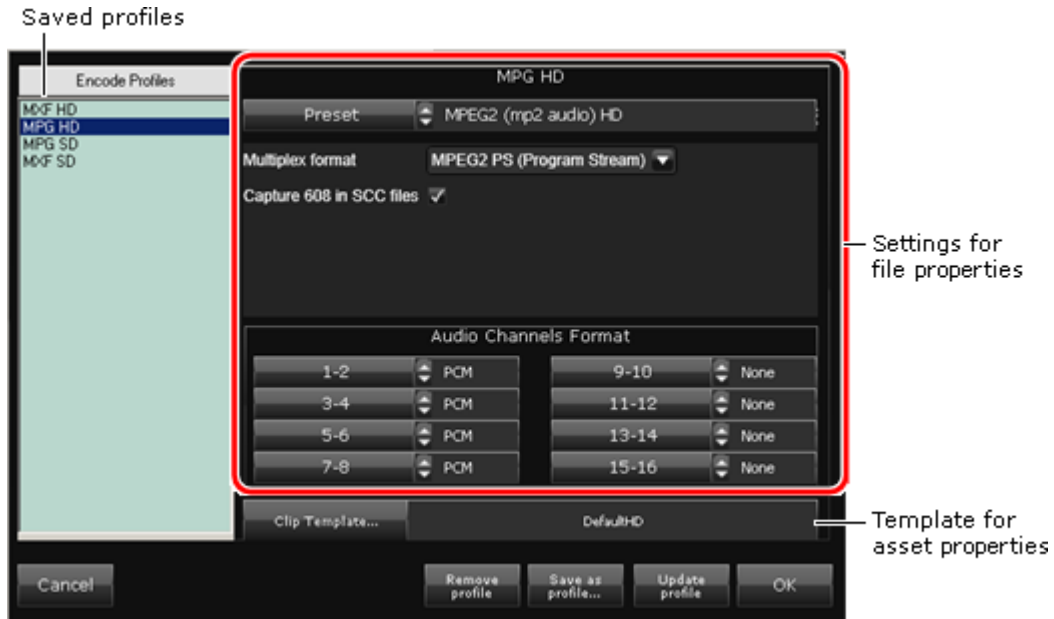
Button	Description
	<p>A grey control button shows there is no VTR connected to the Encode Server.</p>
	<p>A yellow control button shows a VTR is connected to the Encode Server but the Encode Server is prevented from controlling the VTR.</p> <p>You select this state before you perform a crash recording, or when recording from a source other than a videotape.</p>
	<p>A green control button shows a VTR is connected to the Encode Server and the Encode Server is allowed to control the VTR.</p> <p>You select this state for an automatic or batch recording of video output from the VTR.</p>

Setting the structure of the media file created by an Encode Server

Before starting a recording, you can set options that determine the format and quality of the resulting media file. You may save your settings as an encode profile so that you can quickly recall them when you want to use them.

You set these options in the Encode Settings dialog, which you display by clicking **Settings** on an ingest layout:

Ingesting media by using an Encode Server



In the dialog, you specify how the Encode Server should encode the file. You also select an asset template, which iTX uses to set properties for the asset it creates for the file. You can save a group of settings as a new encode profile or modify an existing profile.

Encode presets for video storage formats

A video Encode Server can record SD or HD media. When doing so, it can create a media file in any of a number of storage formats, depending on what encode preset it uses for the recording. An encode preset is a template that contains settings that determine the video properties (storage format, bit rate, etc.) of the files created by an Encode Server.

Examples of possible storage formats are: MPEG-2 (long GOP or I-frame only); MOV; MXF.

There should be a number of presets installed in your system; you select the one you want in the **Preset** box.

Most of the settings in a preset are fixed. There may be a small number that you can modify – if there are, they appear under the **Preset** box after you select a preset.

There are no encode presets for an audio Encode Server.

Audio channels

In the Audio Channels Format boxes, you specify the audio format (uncompressed PCM or encoded AC-3) for the audio channels that you want the Encode Server to capture content on. Selecting "None" prevents the Encode Server capturing audio on the specified channels.

Asset template

You select a clip template in the Clip Template box. A clip template assigns specific properties (e.g. aspect ratio) to the asset iTX creates for a new file.

Ingesting media by using an Encode Server

Encode profiles

You can save a set of encode settings, together with the selected clip template, as an encode profile that you can recall and use repeatedly. The dialog displays a list of saved profiles in the Encode Profiles pane.

Note:

- You should ensure the Encode Server is running on a machine that is powerful enough to handle recordings at the specified bit rates.
- The Encode Server automatically detects the display resolution of the digital video source.

Specify the encode settings and asset template for a recording

1. Click **Settings** to display the Encode Settings dialog.
2. Select a preset in the **Preset** box.
The dialog displays additional settings – if there are any – for the selected preset.
3. Set options for any additional settings.
4. In the Audio Channels Format boxes, specify the audio format for the audio channels from which you want the Encode Server to capture content.
5. Select an asset template in the **Clip Template** box.
6. Do one of the following.
 - Click **OK** to close the Encode Settings dialog if you only want to use them for the current session and do not want to save them as an encode profile.
 - Save the settings as a new encode profile (see below).

Save the settings for a recording as a new encode profile

After setting the properties (preset, audio channels, clip template) for a recording, you may save these as an encode profile. The profile becomes available to all system users.

1. Click **Save as profile** to open the Profile Name dialog.
2. Enter a name for the encode profile in the **Profile Name** box; click **OK** to close the dialog.
The name of the encode profile appears in the Encode Profile selection pane.
3. Click **OK** to close the Encode Settings dialog.
iTX saves the encode profile.

Recall an encode profile

1. Select an encode profile in the Encode Profile selection pane.

The Encode Settings dialog displays the properties of the encode profile under the profile name.

2. Click **OK** to close the Encode Settings dialog.

Update an encode profile

After selecting an encode profile in the Encode Settings dialog, you may modify and save the profile. When you change any of the profile settings, an asterisk (*) appears after the profile name at the top of the dialog. The asterisk indicates the profile has unsaved changes.

1. Click **Update Profile** to save a modified encode profile.

The asterisk after the name disappears.

Delete an encode profile

Once you no longer need an encode profile, you may remove it from the system.

1. Select an encode profile in the Encode Profile selection pane.

2. Click **Remove profile**.

The name of the encode profile is removed from the Encode Profile selection pane.

3. Click **OK** to close the Encode Settings dialog.

iTX deletes the encode profile.

Preparing your iTX system for recordings

Set up a recording source for live ingest

1. Do one of the following, depending on whether or not the source signal passes through a matrix router.
 - If your system does not have a router, ensure the Encode Server is connected directly to the source that it is to record.
 - If you are using a router, ensure the route is correctly set up in the router control panel on the Routing layout.

Set up a recording source for tape ingest

1. Check the Encode Server is linked to a VTR through a control cable.
2. Do one of the following, depending on whether or not the source signal passes through a matrix router.
 - If your system does not have a router, ensure the video output from the VTR is connected directly to the Encode Server.
 - If you are using a matrix router, ensure the route is correctly set up in the router control panel on the Routing layout.

Select a recording channel

1. Select a channel view in the **View** box.

The view should give you access to the recording channels you want to work with.
2. Do one of the following to select a recording channel.
 - On the Manual Ingest or Ingest Multi layout, select the channel in the **Channel** box.
 - On the Dual Ingest or Tape Ingest layout, click a channel selection button.
3. For a crash recording or automatic recording, ensure the Encode Server is unlocked; or lock it from your iTX Desktop. (See below, “

Ingesting media by using an Encode Server

Lock or unlock an Encode Server”.)

You may have to ask another user or your system administrator to release the Encode Server if it is locked.

Deny or allow an Encode Server control of a VTR

When a VTR is connected to an Encode Server, you may use the VTR control button to deny or allow the Encode Server control of the VTR. The Encode Server should only be able to control the VTR when recording from a videotape. [More details](#), page 255.

1. For a crash recording, or a recording from a source that is not a videotape, prevent the Encode Server from controlling a VTR. Do this by clicking the VTR control button so that it turns yellow.
2. For an automatic or batch recording of the video output of a VTR, allow the Encode Server to control the VTR. Do this by clicking the VTR control button so that it turns green.

Lock or unlock an Encode Server

For crash recordings and single automatic recordings, iTX locks an Encode Server just before the start of a recording. Instead of waiting for this to happen, you may manually lock the Encode Server to ensure it is available to you for a recording session; to do so, you use the lock button for that Encode Server. [More details](#), page 254.

1. To lock an Encode Server for one recording only, click the lock button so that it turns yellow.
2. To lock an Encode Server permanently, click the lock button so that it turns green.
3. To unlock an Encode Server, click the lock button so that it displays the unlocked symbol.

Note:

- You must not lock the Encode Server for a batch recording – the Encode Server itself applies the lock before it starts processing the recording jobs.

Set options for new media files and their assets

You need to do this for each recording channel before starting recordings in the channel:

1. Click **Settings** to display the Encode Settings dialog.
2. Set recording options in the dialog. [More details](#), page 255.
3. Click **OK** to close the dialog.

Using the Encode control panel to record media files

Perform a crash recording from a line feed

In this procedure, you manually start a recording while a video or audio feed is playing into an Encode Server. iTX creates an asset based on the name you give the new file.

1. Ensure **Auto-Record** is not selected (the button indicator appears blank) on the Encode control panel.
2. Do the following to set the duration of the recording.
 - If you want to clear the current setting, click **C**.
 - Enter a value in the **Dur** box. [More details](#), page 207.
 - If you want to add 1, 5 or 15 minutes to the current entry, click **+1**, **+5** or **+15**.

3. Click **Prepare**.

iTX displays a dialog requesting you to enter a name for a new media file.

4. Enter a media-file name in the **Media ID** box. Click **OK** to close the dialog.

Note: If you enter a media-file name that matches the name of an existing media file, iTX requests you to confirm you want it to delete the original file before recording a new one.

The Encode control panel displays the name of the new media file and the path to where the file is to be stored. A **Record** button replaces the **Prepare** button.

iTX locks the Encode Server (if you do not manually lock it before starting this procedure).

5. Click **Record** to start the recording.

The Encode Server performs the recording and creates a media file on the Media Store. As the recording is happening, the preview window displays keyframes from the video feed. A **Stop** button replaces the **Record** button on the Encode control panel.

6. Wait for the recording to finish, or click **Stop** to end it at any time.

At the end of the recording, the Encode Server releases the lock (unless you apply the permanent lock before starting this procedure) and the Encode control panel returns to its original state. The system is ready for the next recording.

Set up and start an automatic recording from a line feed

In this procedure, you set up a video Encode Server to start recording when it detects a specified timecode value in a digital video feed. iTX creates a database asset based on the name you give the new file.

1. Select **Auto-Record** (the button indicator displays a green light) on the Encode control panel.
The **In** and **Out** boxes on the Encode control panel become active.
2. Enter the timecode value for the start of the recording in the **In** box. [More details](#), page 207.
3. If you want to specify the point where the recording ends, instead of specifying a duration, enter a timecode value in the **Out** box.
4. Do the following if you want to set the duration of the recording, instead of specifying an out-point.
 - If you want to clear the current setting, click **C**.
 - Enter a value in the **Dur** box.
 - If you want to add 1, 5 or 15 minutes to the current entry, click **+1**, **+5** or **+15**.
5. Click **Prepare**.

iTX displays a dialog requesting you to enter a name for a new media file.

6. Enter a media-file name in the **Media ID** box. Click **OK** to close the dialog.

Note: If you enter a media-file name that matches the name of an existing media file, iTX requests you to confirm you want it to delete the original file before recording a new one.

The Encode control panel displays the name of the new media file and the path to where the file is to be stored. A **Record** button replaces the **Prepare** button.

iTX locks the Encode Server (if you do not manually lock it before starting this procedure).

7. Click **Record** to start the recording.
The Encode Server performs the recording and creates a media file on the Media Store. As the recording is happening, the preview window displays keyframes from the video feed. A **Stop** button replaces the **Record** button on the Encoder Control.
8. Wait for the recording to finish, or click **Stop** to end it at any time.

At the end of the recording, the Encode Server releases the lock (unless you apply the permanent lock before starting this procedure) and the Encode control panel returns to its original state. The system is ready for the next recording.

Perform a crash recording from a videotape

In this procedure, you play a videotape (using playback controls on an iTX Desktop layout) and manually start the recording of the tape. iTX creates a database asset based on the name you give the new file.

1. Ensure **Auto-Record** is not selected (the button indicator appears blank) on the Encode control panel.
2. Do the following to set the duration of the recording.
 - If you want to clear the current setting, click **C**.
 - Enter a value in the **Dur** box. [More details](#), page 207.
 - If you want to add 1, 5 or 15 minutes to the current entry, click **+1**, **+5** or **+15**.
3. Click **Prepare**.

iTX displays a dialog requesting you to enter a name for a new media file.

4. Enter a media-file name in the **Media ID** box. Click **OK** to close the dialog.

Note: If you enter a media-file name that matches the name of an existing media file, iTX requests you to confirm you want it to delete the original file before recording a new one.

The Encode control panel displays the name of the new media file and the path to where the file is to be stored. A **Record** button replaces the **Prepare** button.

iTX locks the Encode Server (if you do not manually lock it before starting this procedure).

5. Using the playback controls on the iTX Desktop layout, start the videotape playing.
6. Click **Record** when iTX reaches the point on the tape where you want to start the recording.

The Encode Server performs the recording and creates a media file on the Media Store. As the recording is happening, the preview window displays keyframes from the video feed. A **Stop** button replaces the **Record** button on the Encode control panel.

7. Wait for the recording to finish, or click **Stop** to end it at any time.

At the end of the recording, the Encode Server releases the lock (unless you apply the permanent lock before starting this procedure) and the Encode control panel returns to its original state. The system is ready for the next recording.

Set up and start an automatic recording from a videotape

In this procedure, you set up an Encode Server to play a videotape and record a specified segment of it. iTX creates a database asset based on the name you give the new file.

1. Select **Auto-Record** (the button indicator displays a green light) on the Encode control panel.
The **In** and **Out** boxes on the Encode control panel become active.
2. Enter the timecode value for the start of the recording in the **In** box. [More details](#), page 207.
3. If you want to specify the point where the recording ends, instead of specifying a duration, enter a timecode value in the **Out** box.
4. Do the following if you want to set the duration of the recording, instead of specifying an out-point.
 - If you want to clear the current setting, click **C**.
 - Enter a value in the **Dur** box.
 - If you want to add 1, 5 or 15 minutes to the current entry, click **+1**, **+5** or **+15**.
5. Click **Prepare**.
iTX displays a dialog requesting you to enter a name for a new media file.
6. Enter a media-file name in the **Media ID** box. Click **OK** to close the dialog.

Note: If you enter a media-file name that matches the name of an existing media file, iTX requests you to confirm you want it to delete the original file before recording a new one.

The Encode control panel displays the name of the new media file and the path to where the file is to be stored. A **Record** button replaces the **Prepare** button.

iTX locks the Encode Server (if you do not manually lock it before starting this procedure).

7. Click **Record** to start the recording.
The Encode Server plays the videotape and performs the recording to create a media file on the Media Store. As the recording is happening, the preview window displays the video feed. A **Stop** button replaces the **Record** button on the Encoder Control.
8. Wait for the recording to finish, or click **Stop** to end it at any time.
At the end of the recording, the Encode Server releases the lock (unless you apply the permanent lock before starting this procedure) and the Encoder Control returns to its original state. The system is ready for the next recording.

Ingesting media by using an Encode Server

Cancelling a recording

You can cancel a recording by clicking **Cancel**.

You may do this either before the recording starts or while it is taking place. iTX removes the asset for the recording from the System Database; it deletes any media files resulting from a cancelled recording that has started.

If you cancel a recording of a media file that already exists in the iTX system, what happens to the original media file depends on how the Encode Server is creating the new one.

The Encode Server may be creating the media file on the Media Store:

- Then, if you cancel the recording *before* the recording starts, the original media file is not deleted; it is left as it was before recording.
- Or, if you cancel the recording *after* the recording starts, the original media file is deleted.

The Encode Server may be creating the media file on the Encode Server machine, before moving it to the Media Store once recording is complete:

- Then the original media file is not deleted; it is left as it was before recording.

Performing a back-up recording

If your iTX system has the ability to perform back-up recordings, the **Make Backup** button becomes active.

If you select the option through this button, two Encode Servers – one main and one back-up – record the same feed. This results in two media files with identical content on the Media Store. The name of the back-up file is the same as that of the main file but includes the suffix "-backup".

If the main media file becomes corrupted, you may re-name the back-up file (remove the suffix) so that iTX can use it in schedule events.

Ingesting media by using an Encode Server

Using the Tape Ingest layout for single or batch ingest

You use the Tape Ingest layout to record the media for placeholder clips from videotapes.

About placeholder clips

The System Database can hold placeholder clips. These are assets that have no associated media files. They are created, for example, for media that is going to be ingested from a videotape.

iTX may create placeholder clips automatically on receiving the required information in one of two ways: either from a traffic system or from a clip list (.ocl file) placed in the Media Store Inbox. Alternatively, you may create placeholder clips manually.

You can use the Tape Ingest layout to create media files and link the placeholder clips to them; the placeholder clips then become normal video clips, available for playout.

Options for ingest on the Tape Ingest layout

From the Tape Ingest layout, you can control the recording of media for placeholder clips in two types of process:

- For batch recording, you build a list of placeholder clips in the Batch Ingest control panel for media that is on a single videotape; you then start the recording process.
- For single recordings, you load placeholder clips one at a time in the Encode control panel and start the recording.



Ingesting media by using an Encode Server

Features in the top, left of the layout enable you to select a placeholder clip from the System Database and load it into the Clip Holder. You can also create a placeholder clip in the Clip Holder.

You can review and modify the in- and out-points of a clip in the Clip Holder, before sending the clip to either the Batch Ingest panel or the Encoder panel for the ingest process.

You can add placeholder clips to the Batch Ingest panel direct from PinPoint, instead of passing them through the Clip Holder.

Create a placeholder clip

1. Click **Create**.

The Asset Creation dialog appears.

2. Do the following to enter the placeholder-clip details.

- Enter a name in the **Name** box.
- Select an asset template in the **Default Template** box.
- Click **Create**.

The dialog closes. iTX displays the clip details in the Clip Holder.

3. Set in- and out-points in the Clip Holder.
4. Click **Save**.

iTX creates a placeholder clip.

Load a placeholder clip in the Clip Holder

1. Do one of the following.
 - Type the name of a clip in the Load Existing Clip By Name panel. As you type, iTX displays a list of clips that start with the typed characters; the more you type the shorter the list becomes. Select a clip from the list.
 - Click **Show Placeholders** to display a list of placeholder clips in the PinPoint results pane (below the **Show Placeholders** button). Select a clip from the list.

iTX displays the details of the selected clip in the Clip Holder. The **Pass to Batch Ingest Control** and **Pass to Encode Control** buttons become active, allowing you to send the clip to either the Batch Ingest control panel or the Encode control panel.

You may modify the in- and out-points, and save them, before sending the clip for the ingest process.

Send a placeholder clip for ingest

1. While a placeholder clip is loaded in the Tape Ingest layout, do one of the following.
 - Click **Pass to Batch Ingest Control** to send the clip to the Batch Ingest control panel.
 - Click **Pass to Encode Control** to send the clip to the Encode control panel.

Add placeholder clips to the Batch Ingest control panel from PinPoint

1. Click **Load placeholders directly for batch ingest**.

The PinPoint dialog appears, with a default filter for placeholder clips.

2. Use PinPoint to select placeholder clips; ensure the clips are for segments of media that are on the same tape.

iTX adds the selected clips to the Batch Ingest control panel, under the Prepare tab, when you close PinPoint.

Set up and start a batch recording

1. Click a channel selection button to select a recording channel.
2. Ensure the Batch Ingest control panel displays the list of placeholder clips you want to record the media for.
3. Do one of the following to start the ingest process.
 - To ingest the media for a single clip, select the clip in the Batch Ingest control panel and click **Ingest selected to *ChannelName***.
 - To ingest the media for all clips, click **Ingest all to *ChannelName***.

If the Encode Server is not locked by any user, it locks itself and immediately starts to process the jobs. If it is locked by a user, it waits until the user removes the lock; it then locks itself and starts processing jobs.

The Encode Server processes jobs in order, starting with the one with the earliest in-point. For each job, it plays the videotape, performs the recording and creates a media file on the Media Store.

The Encode control panel becomes inactive during a batch ingest, but shows the file details; the preview window displays keyframes from the video feed.

At the end of the batch-recording session, the Encode Server releases the lock. The system is ready for the next recording.

4. Select the Monitor tab, if you want to view the progress of the ingest process.

iTX creates an entry under the Monitor tab for each clip; the entries contain details of the required recording jobs. iTX updates the job details as each job progresses.

Note:

- Once the Encode Server locks itself, you cannot unlock it from your iTX Desktop.

Start a recording from the Encode control panel

When you send a placeholder clip to the Encode control panel, the panel displays the clip name.

1. Click **Prepare**.

iTX replaces the clip name in the Encode control panel with the name and path details of the file it is going to create. A **Record** button replaces the **Prepare** button.

iTX locks the Encode Server (if you do not manually lock it before starting this procedure).

2. Click **Record** to start the recording.

The Encode Server plays the videotape and performs the recording to create a media file on the Media Store. As the recording is happening, the Preview Window displays the video feed. A **Stop** button replaces the **Record** button on the Encoder Control.

3. Wait for the recording to finish, or click **Stop** to end it at any time.

At the end of the recording, the Encode Server releases the lock (unless you apply the permanent lock before starting this procedure) and the Encoder Control returns to its original state. The system is ready for the next recording.

Previewing and playing out media while it is being recorded

While an Encode Server is recording media, you may be able to select the video clip for that file on the Asset layout and preview the content – you can view scenes 20 seconds after they have been recorded.

While previewing the video clip, you can mark an in-point and an out-point. You can then include the video clip in a schedule event for playout at any time.

Using Ingest Manager

About Ingest Manager

If Ingest Manager is running in your iTX system, you can use this to automate the process of recording media from video feeds at specified times.

Ingest Manager handles requests to record video feeds that come into your iTX system. The requests may come from one of its own services, the Scheduled Booking Service, which manages advance bookings. Or you may make manual requests for instant recordings through a feature – called the Instant Ingest Request panel – on an Ingest Manager layout.

In response to these requests, Ingest Manager prepares a recording schedule – a list of recording jobs. As each job becomes due, Ingest Manager controls an Encode Server to perform the recording. It can control multiple Encode Servers at the same time, to record different video feeds.

You can monitor the recording schedule at your iTX Desktop, and take action to prevent recording problems.

Depending on the design of your iTX system, Ingest Manager may operate a router to select video feeds. If it does not, it accepts any feed that is connected directly to an Encode Server – we say the feed, in this case, is “hard-wired” into the Encode Server.

Ingest Manager handles two types of recording job: planned and ad-hoc.

Planned recordings

Planned recordings are jobs that Ingest Manager schedules from booking requests made through its Scheduled Booking Service. They may be one-off recordings of feeds that happen just once, or repeat recordings of feeds that happen at regular intervals.

There are two ways of making a booking request: you may do it manually, by using a feature on an Ingest Manager layout; or another application (e.g. an external traffic system) may generate one.

The look-ahead period for planned recordings

Ingest Manager stores booking requests as it receives them. It continually reviews them and identifies what recordings should happen within a certain period, known as its look-ahead period. This is the length of future time covered by the recording schedule; it starts each time Ingest Manager reviews the requests, and typically covers the next 12, 24 or 36 hours. (Your system administrator should be able to tell you what the setting is for your system.)

For requested recordings that fall within its look-ahead period, Ingest Manager adds jobs to the recording schedule.

Ad-hoc recordings

Ad-hoc recordings are not generated through the Scheduled Booking Service. Instead, you decide – usually at short-notice – that you want Ingest Manager to perform a recording; you then manually add a job for it to the recording schedule.

The standard Ingest Manager layouts

Usually you use one of two standard iTX Desktop layouts to interact with Ingest Manager. These have the names:

- Ingest Manager
- Ingest Manager (Naming Rule)

The illustration below shows the second layout. The only difference between this and the first one is that it contains the Naming Rule selector for ad-hoc recordings.



Item	Description
1	Recording Timeline Display
2	Recording Schedule Grid
3	Naming Rule Selector
4	Next Recording Event Display

Using Ingest Manager

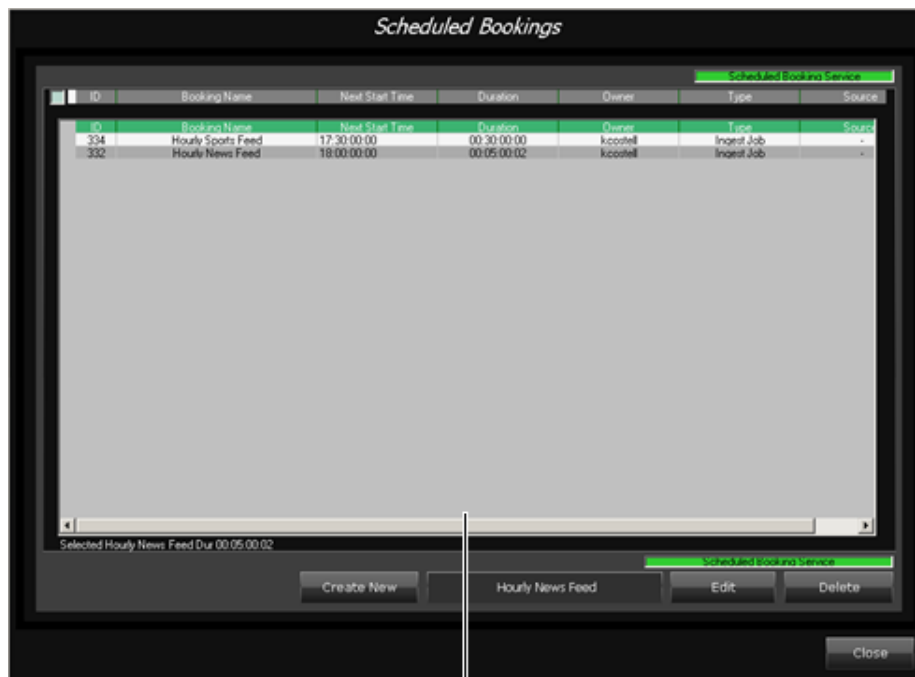
Item	Description
5	Settings button
6	Router Source selection buttons
7	Instant Ingest Request panel
8	Scheduled Bookings pop-up button

Each layout displays the recording schedule in two ways: on a Timeline Display and in a Schedule Grid. You can check the schedule, and see whether or not there are potential problems for any recording.

Each layout also contains an Instant Ingest Request panel. Through this panel, you can insert ad-hoc recording jobs into the schedule. You can also perform actions to manage any recording job in the schedule.

Bookings for planned recordings

You enter requests for planned recordings in the Booking Schedule Grid on the Scheduled Bookings pop-up layout:



Booking Schedule Grid

The layout appears when you click **Scheduled Bookings** on an Ingest Manager layout.

You can also edit and delete requests by using this layout. Deleting a booking request does not cancel recording jobs that Ingest Manager has already scheduled for the request. If you want to prevent a scheduled recording from happening, you need to cancel the job in the Recording Schedule Grid on the main layout.

The Scheduled Booking dialogs

When you request a new planned recording, Ingest Manager displays the Create Scheduled Booking dialog so that you can enter the booking details:



To change a booking, you use the Edit Scheduled Booking dialog. This has the same features as the Create Scheduled Booking dialog; it displays the settings for the selected booking when it opens.

Choosing a clip name when making a booking request

So that iTX can use the media file created in a recording, Ingest Manager has to register the file in the iTX system. It does this by creating a video clip in the iTX System Database before starting the recording.

The name of this video-clip depends on your settings for the booking. You may specify the name in one of two ways:

- You may manually enter the name. This way is suitable for a booking that produces just a single recording; or a booking that produces repeat recordings for the same video clip, where new media replaces the previous media in each recording. For repeat recordings, you set an option that allows Ingest Manager to overwrite a video clip that already exists.
- You may use Ingest Manager to automatically create a name based on a naming rule you select. The naming rule defines the form of the name. It usually includes date and time fields, into which Ingest Manager inserts current values when the recording starts; it also usually includes a text part. This way is suitable for repeat recordings of a regular video feed.

Naming rules are created on a system-administrator layout.

Automatic clip names for repeat recordings

No two video clips in the iTX System Database can have the same name. When entering a booking request for repeat recordings, you should specify that Ingest Manager uses a naming rule that creates a unique clip name for each recording. A naming rule that includes date and time fields does this.

If you select a naming rule that causes Ingest Manager to use the same clip name in repeat recordings, Ingest Manager only creates and registers a media file in the first recording. To avoid overwriting this media file, it does not perform the later recordings.

Creating bookings

Create a booking for a scheduled recording

1. Click **Scheduled Bookings** on an Ingest Manager layout.
The Scheduled Bookings pop-up layout appears.
2. Click **Create New**.
Ingest Manager opens the Create Scheduled Booking dialog.
3. Enter a name for the booking in the **Booking Name** box.
Ingest Manager automatically enters your user name with the current time when it opens the dialog. You can type over this entry to change it.
Note: This name identifies the booking. It does not affect the names of the video clips that Ingest Manager creates for the booking. You use the clip-naming features (see below) to specify video-clip names.
4. Set a start time for the recording in the **Start Time** box.
5. Set either a duration for the recording in the **Booking Duration** box or an end time in the **End Time** box. Changing either setting updates the other automatically.
6. Using the Recurrence buttons, do one of the following to select how frequently recordings are to take place:
 - For a single recording, select **Once Only**.
 - For a regular weekly recording, select a day – **Every Monday, Every Tuesday**, etc.
 - For repeat recordings at an interval you define, select a standard time unit – **Minute(s), Hour(s)**, etc. Then enter a value in the **Every** box.
7. Check the **Item Type** box shows “Scheduled Ingest”.
8. Use the clip-naming features to enter a name or select a naming rule:
 - If you want to name the clip yourself, ensure **Use Name Service** is not selected; enter a name in the **Clip Name** box.

If the booking is for repeat recordings, select **Re-use same clip name for every recording** if you want Ingest Manager to delete the previous version of a clip and create a new one for each recording. Ensure this option is not selected if you do not want Ingest Manager to do this.

Using Ingest Manager

- If you want Ingest Manager to name the clip from a naming rule, select **Use Name Service**. Select a naming rule from the list of those available in the **Naming Rule** box. A sample name, based on the rule, appears in the **Clip Name** box.

To create different clips for repeat recordings, you need to use the Name Service and select a naming rule that creates a unique name at each recording.

9. Use the router selection buttons to specify the recording source:

- Ensure **Leave Unassigned** is not selected.
- In the **Router Matrix** and **Router Source** boxes, select the router and the source that the recording feed is connected to. Select “Hardwired” if Ingest Manager is not set up to operate a router.

Note: If Ingest Manager is set up to operate a router, and your Ingest Manager layout has router-source selection buttons, you can omit the router details from the booking. You do this by selecting **Leave Unassigned**. Once the recording is scheduled, the router source can be added through the Instant Ingest Request panel.

10. Select a group of Encoder Servers in the **Device Pool** box.

Ingest Manager schedules recordings to take place on one of the Encode Servers in the device pool; it selects the first available Encode Server.

11. Select an encode profile in the **Encode Profile** box.

Note: You can create encode profiles in the Encode Settings dialog, which you can display from the main layout. [More details](#), page 257.

12. Click **Save And Close**.

Ingest Manager closes the Create Scheduled Booking dialog and displays an entry for your new booking in the Booking Schedule Grid. It adds recordings that are due within the look-ahead period to the recording schedule.

13. Click **Close** to close the Scheduled Bookings pop-up layout.

Note:

- For single recordings, Ingest Manager removes the entry from the Booking Schedule Grid once it has scheduled the recording. Entries for bookings that produce repeat recordings stay in the Booking Schedule Grid until you delete them.

Editing bookings

Edit a booking for a scheduled recording

1. Click **Scheduled Bookings** on an Ingest Manager layout.
The Scheduled Bookings pop-up layout appears.
2. Select a booking in the Booking Schedule Grid.
3. Click **Edit**.
Ingest Manager opens the Edit Scheduled Booking dialog, showing the booking details.
4. Enter the new details for the booking.
5. Click **Save and Close**.
Ingest Manager updates the booking and closes the Edit Scheduled Booking dialog. Your changes do not affect any recording jobs that are already scheduled for the booking.
6. Click **Close** to close the Scheduled Bookings pop-up layout.

Managing bookings

Delete a booking for a scheduled recording

1. Click **Scheduled Bookings** on an Ingest Manager layout.
The Scheduled Bookings pop-up layout appears.
2. Select a booking in the Booking Schedule Grid.
3. Click **Delete**.
Ingest Manager deletes the booking and removes the entry from the Booking Schedule Grid. If any recording jobs are already scheduled for the booking, these take place – unless you cancel them in the Recording Schedule Grid.
4. Click **Close** to close the Scheduled Bookings pop-up layout.

Suspend the scheduling of recordings for a booking

You can temporarily prevent Ingest Manager from scheduling recordings for a booking; you do not have to delete the booking.

1. Click **Scheduled Bookings** on an Ingest Manager layout.
The Scheduled Bookings pop-up layout appears.
2. Select a booking in the Booking Schedule Grid.
3. Click **Edit Booking**.

Using Ingest Manager

Ingest Manager opens the Edit Scheduled Booking dialog, showing the booking details.

4. Select **Booking Disable** (the button indicator displays a red light).
5. Click **Save and Close**.

Ingest Manager leaves the booking entry in the Booking Schedule Grid but does not schedule any more recording jobs for it. If any recording jobs are already scheduled for the booking, these take place – unless you cancel them in the Recording Schedule Grid.

6. Click **Close** to close the Scheduled Bookings pop-up layout.

Resume the scheduling of recordings for a booking

1. Click **Scheduled Bookings** on an Ingest Manager layout.

The Scheduled Bookings pop-up layout appears.

2. Select a booking in the Booking Schedule Grid.
3. Click **Edit Booking**.

Ingest Manager opens the Edit Scheduled Booking dialog, showing the booking details.

4. Ensure **Booking Disable** is not selected.
5. Click **Save and Close**.

Ingest Manager resumes the scheduling of recordings for the booking.

6. Click **Close** to close the Scheduled Bookings pop-up layout.

About the Instant Ingest Request panel

Through the Instant Ingest Request panel, you can arrange at short notice for Ingest Manager to make an ad-hoc recording. Ingest Manager schedules the recording to start almost immediately (after allowing time for the selected Encode Server to get ready to record) or at a time you specify.



In scheduling the recording, Ingest Manager uses information displayed in the Instant Ingest Request panel:

- In the **Device Pool** box, an Encode Server group. Ingest Manager chooses an Encode Server from the group to perform the recording.
- In the **Duration** box, the duration of the recording.
- In the **Time** box, the start time of the recording.

Using Ingest Manager

- In the **Source** box, the router source that is to supply the video feed. In a system where Ingest Manager does not operate a router, the selection is “Hardwired”.
- In the **Recording Name** box, a clip name for the media file formed in the recording.

The panel starts with default entries. You may change some of these before requesting Ingest Manager to add a job to the recording schedule.

If Ingest Manager is set up to select a video feed by operating a router, you can wait for the recording to start before you select a router source. When no router source is specified, Ingest Manager schedules the recording for the Unassigned track (which you can view on the Timeline Display).

At any time before the recording finishes, you can change the clip name, recording duration and router source.

Editing a recording job

When you select a job in the Recording Schedule Grid, its property details appear in the Instant Ingest Request panel. You may then edit some of these properties (such as the duration or clip name).

Managing a recording job

While a job is selected in the Recording Schedule Grid, you can use the Instant Ingest Request panel to perform certain actions for it. You can:

- Manually start a recording, once the required video feed and Encode Server are ready.
- Stop a recording that is in progress. Ingest Manager saves the media it has already recorded for that job.
- Cancel a recording, either before it starts or while it is happening. When you cancel a recording that is in progress, Ingest Manager deletes any media resulting from the recording.
- Delay the recording until you choose to start it manually; i.e. put the job on hold.

Using the Instant Ingest Request panel

We describe how to perform various tasks using the Instant Ingest Request panel below.

Where a task requires you to select a recording job in the Recording Schedule Grid, you need to select the main entry for the job (i.e. not the recording entry that appears when you expand the job entry):

Start Time	Type	Source	Device	Item Name	Duration	Status
17:15:00.00	Ingest Job	Live 5	-	20\09\11-17:15:00	00:05:00.00	Ready
17:15:00.00	Record	Live 5	iTX1_REC	20\09\11-17:15:00 [All Video Encoders]	00:05:00.00	Ready
18:15:00.00	Ingest Job	Live 5	-	20\09\11-18:15:00	00:05:00.00	Ready
19:15:00.00	Ingest Job	Live 5	-	20\09\11-19:15:00	00:05:00.00	Ready
20:15:00.00	Ingest Job	Live 5	-	20\09\11-20:15:00	00:05:00.00	Ready
21:15:00.00	Ingest Job	Live 5	-	20\09\11-21:15:00	00:05:00.00	Ready

Main job entry

Ingest Manager then enters the recording details in the Instant Ingest Request panel.

Request an ad-hoc recording

Here we describe how to set all the properties for an ad-hoc recording. If you want the recording to happen immediately, you may choose to start the recording with the default settings, and change some of them as the recording takes place.

- On the Instant Ingest Request panel, click **Clear** to reset the panel for a new job.
The panel shows a set of default entries.
- Select a group of Encoder Servers in the **Device Pool** box.
Ingest Manager schedules recordings to take place on one of the Encode Servers in the device pool; it selects the first available Encode Server.
- Specify a recording duration in the **Duration** box.
 - To change the current duration entry, click the entry to highlight it, or drag the cursor to highlight just the figures you want to change; type the new value over the old one.
 - Click **+5**, **+10** or **+15** if you want to add 5, 10 or 15 minutes to the current entry.

Note: You can clear the current entry by clicking **C**.
- Specify a recording start time in the **Time** box.
 - Click **NOW** for an immediate recording.
 - To change the current start-time entry, click **Time** to display the date-and-time dialog. Through this dialog, set the date and time for the recording start.
 - Click **+5**, **+10** or **+15** if you want to add 5, 10 or 15 minutes to the current entry.

Note: You can clear the current entry by clicking **C**.
- Do one of the following to specify a name for the new clip.
 - Enter a clip name in the **Recording Name** box.
 - Select a naming rule in the **Rules Available** box (above the panel). [More details](#), page 282.

Using Ingest Manager

6. If Ingest Manager is set up to select a video feed by operating a router, click a source selection button to select a router source.

The name of the selected source appears in the **Source** box.

7. Click **Create Recording**.

Ingest Manager inserts an entry for a new recording job in the Recording Schedule Grid and displays a block to represent it on the Timeline Display.

On the Instant Ingest Request panel, the entry in the **State** box changes from “New” to “Ready” as recording preparations progress. The **Create Recording** button changes to a **Cue Recording** button.

You can wait for Ingest Manager to perform the recording at the specified time. Or, you can manually start the recording early. [More details](#), page 281.

Edit an entry in the recording schedule

You can change the properties of a job, either before it starts or while it is in progress.

1. Select a job in the Recording Schedule Grid.

The Instant Ingest Request panel displays details of the recording properties.

2. Enter new details for the properties you want to change.

When you change any property, a flashing **Update Recording** button appears in place of the **Cancel Recording** button.

3. Click **Update Recording**.

Ingest Manager prompts you to confirm that you want to update the recording job.

4. Click **Yes**.

Ingest Manager updates the recording job.

Stop a recording that is in progress

1. Select an in-progress recording job in the Recording Schedule Grid.

On the Instant Ingest Request panel, the **Stop Recording** button appears in place of the **Create Recording** button.

2. Click **Stop Recording**.

Ingest Manager stops the recording and saves the media that it has already recorded.

Manually start a recording job

Once Ingest Manager is ready to perform a recording job, you can manually start the job instead of waiting for it to start at the scheduled start time.

1. Select an unstarted recording job in the Recording Schedule Grid.

As Ingest Manager gets ready to perform the recording, the **Cue Recording** button appears on the Instant Ingest Request panel in place of the **Create Recording** button.

Using Ingest Manager

2. Click **Cue Recording**.

Ingest Manager cues the selected Encode Server and replaces the **Cue Recording** button with the **Start Recording** button.

3. Click **Start Recording**.

Ingest Manager starts the recording.

Put a recording job on hold

1. Select an unstarted recording job in the Recording Schedule Grid.

2. Select **Hold** (the button indicator displays a red light) on the Instant Ingest Request panel.

A flashing **Update Recording** button appears in place of the **Cancel Recording** button.

3. Click **Update Recording**.

Ingest Manager puts the recording job on hold. As the scheduled start time of the job passes, Feed Manager assigns a new start time for the job – one minute later than original start time.

While the job remains on hold, Ingest Manager continues to assign a new start time, a minute later, each time the latest one passes.

You should start the job manually when you want the recording to start. [More details](#), page 281.

You can allow Ingest Manager to start the job by turning off **Hold** and then clicking **Update Recording**.

Cancel a recording job

You can cancel a job, either before it starts or while it is in progress.

1. Select a job in the Recording Schedule Grid.

2. Click **Cancel Recording** on the Instant Ingest Request panel.

Ingest Manager prompts you to confirm that you want to delete the recording job.

3. Click **Yes**.

Ingest Manager cancels the recording; it removes the entry from the Recording Schedule Grid. If you cancel a recording that is in progress, Ingest Manager deletes any media it has recorded for the job.

Using a naming rule for an ad-hoc recording

On the Ingest Manager (Naming Rule) layout, a Naming Rule Selector is linked to the Instant Ingest Request panel. You can use this to select the naming rule that Ingest Manager uses to automatically create a clip name.

Select a naming rule

1. Select a naming rule in the **Rules Available** box of the Naming Rule Selector.

If the naming rule includes a free-text element, the box to the right of the **Rules Available** box becomes active; this allows you to add your own text to a name. The box displays an 'x' for each character you can add.

Ingest Manager creates a name (based on the selected naming rule) for the resulting media file and its clip; it enters the name in the **Recording Name** box.

You may edit this name if you want to.

Note:

- If you click **Clear** on the Instant Ingest Request panel, Ingest Manager creates a new name based on the selected naming rule.

Monitoring and managing scheduled recordings

On an Ingest Manager layout, you can monitor the progress of jobs in the recording schedule by viewing information on the Timeline Display or in the Schedule Grid. You can check that there are no problems, such as missing feeds or unavailable Encode Servers. You can delete jobs from the recording schedule.

Since the layout gives you access to Ingest Manager services that may be shared by other users, the layout may display information about scheduled recordings requested by any of these users.

Recording-status colors

Ingest Manager highlights the entries in the Recording Schedule Grid different colors to show how recording jobs are progressing; it uses the same set of colors for the blocks on the Timeline Display. We explain the color codes below.

Color code	Meaning
Gold on light grey	Ingest Manager has accepted the recording request.
Black on white	Ingest Manager has checked the recording details.
Black on yellow	The system is not yet ready to start the recording.
Black on green	Ingest Manager is cueing the Encode Server.
Black on dark green	The Encode Server is ready.
Light grey on dark red	Recording is about to start.
White on red	Recording is taking place.
Dark grey on grey	The recording has successfully completed.
Yellow on black	There is a problem with the recording.
Yellow on grey	The recording has failed.

Select which tracks appear on the Timeline Display

On the Timeline Display, Ingest Manager gives information about the router sources and Encode Servers that feature in recording jobs. It presents this information through two channels:

- In the Ingest Control Service channel, the router sources that supply live feeds.
- In the Ingest Control Service Resources channel, the Encode Servers.

For each router source and Encode Server, there is an associated track in each channel. You can choose which tracks appear on the Timeline Display.

1. Click **Ingest Control Service** or **Ingest Control Service Resources** on the Timeline Display to select a channel.

2. Click **Select Tracks**.

Ingest Manager displays the track-selection dialog.

3. Ensure the tracks you want to view on the Timeline Display appear in the Selected Tracks list:

- To add tracks to this list, select them in the **Available Tracks** list and click **Add**.
- To remove tracks from this list, select them in the list and click **Rem**.

You can change the track order by clicking the **Up** or **Down** button after selecting any track in the **Selected Tracks** list. Clicking **Alpha** sorts the **Available Tracks** list alphanumerically.

4. Do one of the following, depending on how you want the Timeline Display to present information.

- Ensure **Collapse Tracks** is not selected (this is the normal setting) if you want to view information on separate horizontal tracks.
- If you want to view all information on a single horizontal track, select **Collapse Tracks** (the button indicator displays a green light).

5. Click **OK** to close the dialog.

Selected tracks appear on the Timeline Display.

Zoom the Timeline Display

You can change the length of the timeline represented on the Timeline Display.

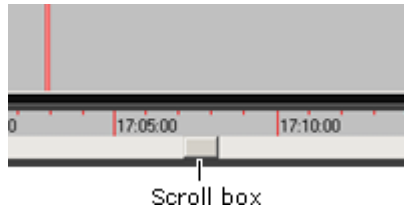
1. Drag the zoom slider up to show a longer period, or down to show a shorter period:



View different parts of the timeline

You can shift the focus of the Timeline Display to view different periods.

1. Do one of the following to show a different period on the Timeline Display.
 - Drag the scroll box to the left or right:



- Click **Now** to focus the Timeline Display on the present time.

Change the channel selection for the Recording Schedule Grid


1. If you want to view general job details, click **Ingest Control Service** on the Timeline Display.
2. If you want to view details of Encode Servers allocated for recording jobs, click **Ingest Control Service Resources** on the Timeline Display.

Change what columns appear in the Recording Schedule Grid

For each Ingest Manager channel, you can specify what categories of information the Recording Schedule Grid displays. You can also select the Grid font.

1. Right-click any point within the display area of the Schedule Grid, and select **Define View** from the displayed menu.

The Schedule Display Setup dialog appears.


2. If you want to change the current font, click **Font** to display the Font dialog; select a typeface, style and size; click **OK** to close the Font dialog.
3. Do the following for each category of information you want to appear in the Schedule Grid.
 - In the **Available Fields** list, click the name of the column that you want the Schedule Grid to display.
 - Click  to add the column to the **Displayed Fields** list.
 - To re-position a column, click its name in the **Displayed Fields** list; then click either **Move Up** or **Move Down**. The Schedule Grid displays columns according to their order in the Displayed Fields list.
4. Click **OK** to close the Schedule Display Setup dialog.

Note:

- The Recording Schedule Grid does not use the **Allow drag/drop**, **Disable Quick Modifiers** and **Filter Sub-Items** options in the Schedule Display Setup dialog.

Adjust column widths in the Recording Schedule Grid

You can change the width of the columns in the Recording Schedule Grid to vary the amount of information that is visible.

1. Rest your mouse pointer over a column border in the heading row so that the pointer appearance changes to ; drag the border to adjust the column width.

Filter the list in the Recording Schedule Grid

You can filter the list in the Recording Schedule Grid so that it contains only entries of a similar type. For instance, you might want to view only the details of the recordings that a particular Encode Server is scheduled to perform. To do so, you define a filter for the relevant column. After defining a filter, you can switch it on and off.

1. Right-click the heading of the column you want to base the filter on.
iTX displays the Filter On dialog, which contains a list of all the different entries in the column.
2. Select the entry you want to use for the filter and click **OK**.
iTX revises the list to show just the entries containing the selected column entry.
3. Left-click the column heading to alternately switch the filter on and off.

Delete an entry in the Recording Schedule Grid

By deleting an entry in the Recording Schedule Grid, you cancel the corresponding recording job. You can do this either before the recording starts or while it is in progress.

1. In the Recording Schedule Grid, right-click the entry for the job you want to cancel; select **Delete** from the displayed menu.

Ingest Manager prompts you to confirm that you want to cancel the recording.

2. Click **Yes**.

Ingest Manager cancels the job and removes the entry from the Recording Schedule Grid. If a recording is in progress when you cancel it, Ingest Manager deletes any media that it has already recorded.

Note:

- You can cancel all scheduled recordings by selecting **Delete All** instead of **Delete** from the menu.
- You can use the Instant Ingest Request panel to cancel a recording. [More details](#), page 282.
- If you want to stop a recording that is in progress, and keep the media that has already been recorded, you need to use the Instant Ingest Request panel. [More details](#), page 281.

Responding to failed recordings

A scheduled recording will fail if none of the Encode Servers in the selected device pool is available; this may be due to devices being offline or in use.

If recordings fail regularly, it may be necessary to select different device pools or create new ones to use other Encode Servers.

Preparing media items for playout

Preparing media items for playout

Once you have ingested media files into your system, there are a number of tasks you may need to perform to get the files ready for playout and to manage the storage of the files. In this section, we describe how to use the Asset layout for these tasks.

About the Asset layout

You use the Asset layout to manage system assets; i.e. the media items in the System Database and the media files on the Media Store that these items relate to. The media items contain the information (such as the in- and out-points of a video clip) that iTX uses in scheduling operations. The media files hold the media for the video clips, CGs, logos, and so on, that iTX plays out in schedule events.

Note on terminology:

In general, where we use the word “asset” in this manual, we mean a media item in the System Database.

The Asset layout has these main features:



Preparing media items for playout

Item	Description
1	Media Viewer
2	PinPoint panel
3	Property Editor
4	Clock
5	Media Store Gauge

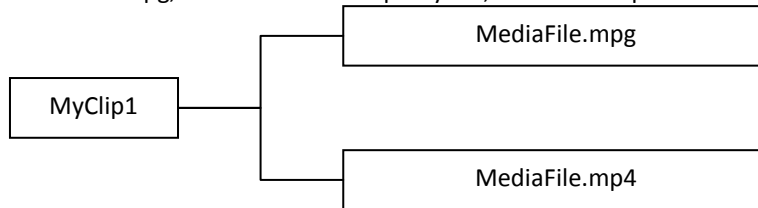
On this layout, you can:

- Use PinPoint to search the System Database and produce a list of assets that meet specified criteria; then select any of these assets to work with on the layout.
- Preview a video clip in the Media Viewer. While doing so, you can trim the video clip by changing its in- and out-points.
- Listen to an audio clip and view its waveform in the Media Viewer.
- Preview a selected still image, logo or CG in the Media Viewer.
- View a frame from an animated image or logo sequence in the Media Viewer.
- View and edit the properties of an asset in the Property Editor.
- Attach notes to an asset.
- Check the locations of media files for an asset.
- Delete an asset from the System Database.
- Delete the media file for an asset from an iTX Media Store or an archive.
- Archive the media file for an asset.
- Restore the media file for an asset from an archive.
- Generate a low-resolution (proxy) version of a video clip.
- Tag an asset with categories.
- View and modify an asset template.
- Check the Media Store Gauge to get an estimate of the amount of free space there is on the Media Store.

About database assets and media files

When iTX ingests a media file through the Inbox on a Media Store, it creates an asset for the file in the System Database. The database asset includes a media ID to identify the file. Any proxy version and keyframes generated from the media file have this same media ID.

The diagram below shows a video clip, MyClip1. This is linked to a broadcast file, MediaFile.mpg, and a low-bit-rate proxy file, MediaFile.mp4.

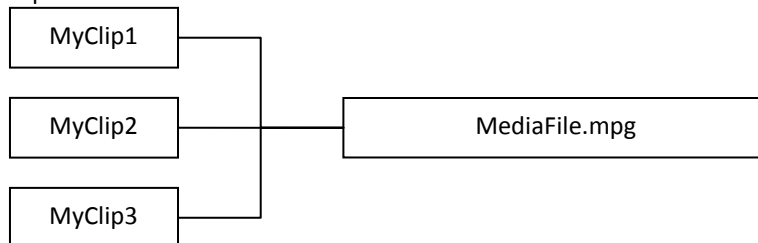


Co-references

After loading a video clip in the Media Viewer on the Asset layout, you may create copies of it with different pairs of in- and out-points. This is commonly done to reduce a long clip, like a movie, to a few smaller segments.

The new video clips are **co-references** of the original video clip (and each other); i.e. they are independent assets that link to the same media file.

We may create two new clips, MyClip2 and MyClip3, from MyClip1. This diagram shows the clips linked to the broadcast file:

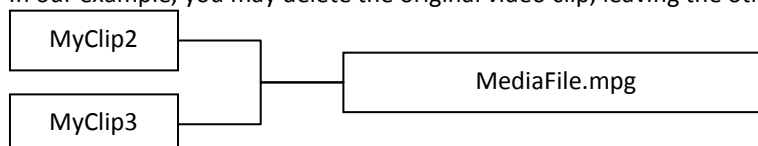


All three clips are co-references.

Deleting assets and media files

On the Asset layout, you can delete any asset or media file.

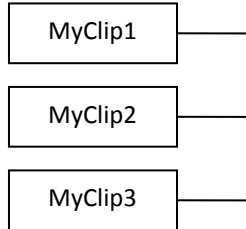
In our example, you may delete the original video clip, leaving the other two intact:



When you delete the last (or only) asset that a media file is associated with, iTX automatically deletes the media file.

Preparing media items for playout

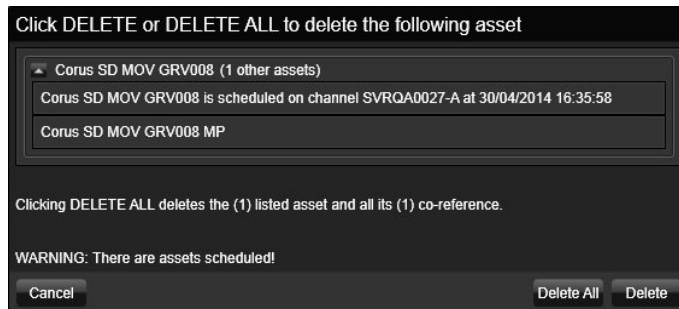
When you delete a media file instead of an asset, iTX does not automatically delete any assets that the file is associated with. So, if we delete the broadcast and proxy files in our example, the video clips are left with no file links:



For this reason, when you want to delete an asset completely, we recommend you delete just the database asset and allow iTX to delete the media.

Warning when a user deletes an asset in iTX that is in a live schedule

If either a parent or a co-reference asset is part of a live schedule or a schedule that is loaded into a live channel, the operator will receive a warning in the deletion dialog informing them which channel or channels the asset is scheduled on, along with the time and date that the first instance is due on air.



The user is given the option to delete the selected asset or the selected asset and all associated co-referenced assets.

Re-ingesting a media file

If you place a new media file in the Inbox and it has the same name as a media file for which there is a database asset, iTX replaces the original media file with the new one on the Media Store; it links the database asset to the new file; it assigns the media ID of the original file to the new file.

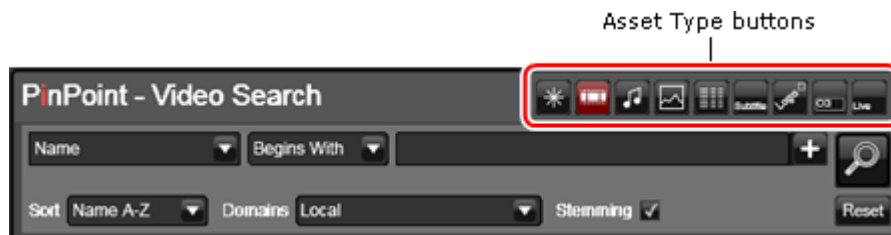
User rights

What rights you have to work with an asset depend on what permissions are assigned to you on that asset. In general, most operators have the right to view and modify assets, such as change their in- and out-points, but not to delete them. Permission to delete assets is normally given to special groups of operators, such as media managers. [More details](#), page 316.

Searching for assets

On the Asset layout, PinPoint appears in a panel rather than as the dialog that you can display from some layouts (for example, when you click **Search** on the Content Selector on the iTX Channel Control layout). The PinPoint panel contains the PinPoint window and some preset filter buttons.

The PinPoint window has the same features as the PinPoint dialog, including a search builder and a results pane. Also, it has some asset-type selection buttons:

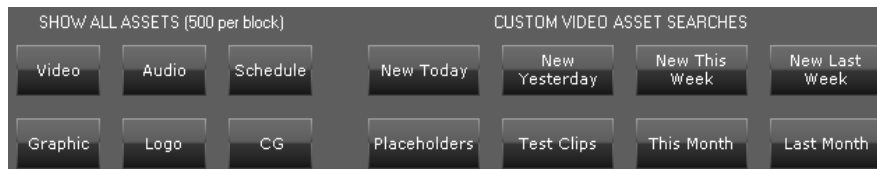


Through these buttons you can set up PinPoint to search for just a particular type of asset, or for assets of any type.

Normally, there are asset-type selection buttons for video clips, audio clips, CGs, logos, still images and schedules. There may be more buttons, for other asset types, or fewer; this depends on how your system administrator configures the Asset layout.

You specify search criteria in the search builder, in the same way you do when using the PinPoint dialog. [More details](#), page 182.

Alternatively, you may use the preset-filter buttons:



These buttons store search criteria. Clicking any of them prompts PinPoint to perform a search using the stored criteria.

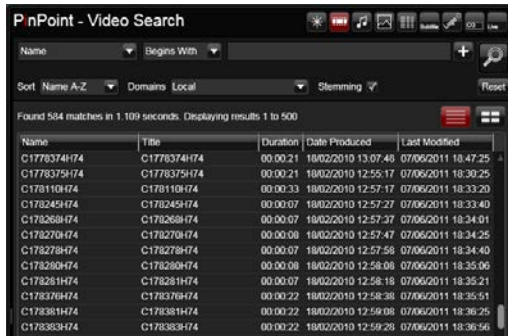
After a search, assets that meet the search criteria appear in the results pane in the PinPoint window.

From the results, you can select an asset to work with on the layout. iTX passes selection details to other layout features: the Media Viewer, in which you may load the associated media file; the Property Editor, which displays the asset details.

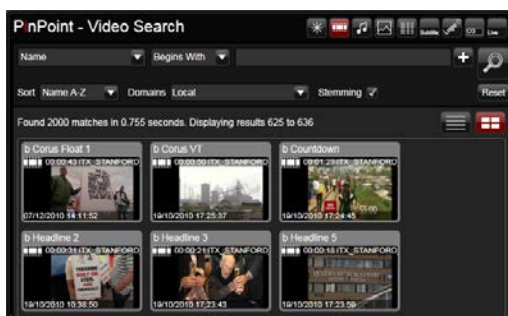
Viewing search results

Just as when you use the PinPoint dialog, you can view the search results in two ways. You can view the results as a list:

Preparing media items for playback



Or you can view them as a series of thumbnail images:



You select the type of view through the view selection buttons:



Select an asset to work with

- Do one of the following to display a list of assets in the results pane.
 - Specify search criteria in the search builder of the PinPoint panel. Click the Search button. [More details](#), page 188.
 - Click a preset filter button; e.g. **Video** for all video clips.

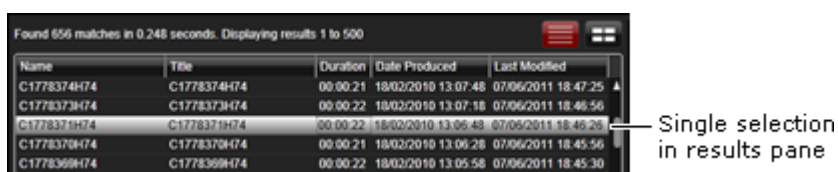
The results pane displays a list of assets.

- Select an asset in the results pane.

iTX displays the asset details in the Property Editor. If the asset is a video clip, audio clip or any type of image, you can load the media file in the Media Viewer.

Selecting single or multiple assets

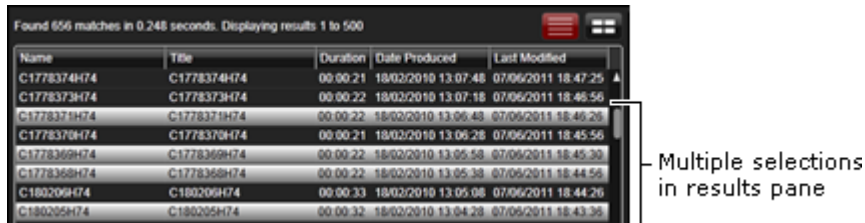
In most cases you view and edit details for one asset at a time on the Asset layout.



Preparing media items for playback

The Property Editor displays the name of the selected asset in its header bar.

Sometimes, you may want to perform the same asset-management task on a batch of assets; for example, to change category tagging or to delete multiple media files from a particular type of location. You may do this after selecting multiple assets (by pressing the Shift or Control key while clicking in the results pane).



Instead of a single asset name in the header bar, the Property Editor displays: “Multiple Items Selected” followed by a number that shows how many assets are selected.

Viewing a media file in the Media Viewer

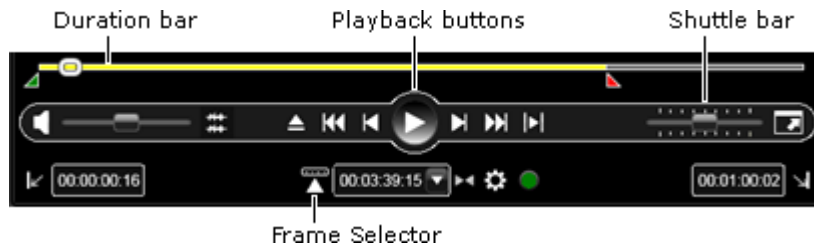
When you select an asset for which there is a media file available, you can load the file in the Media Viewer. This works in different ways for different asset types:

Asset type	Media Viewer operation
Video clip Audio clip	Options you set for the Media Viewer affect how it handles the file: <ul style="list-style-type: none"> The Media Viewer may automatically load the file; or it may wait for you to load it. Where there is more than one media file for a video clip, the Media Viewer selects one of a default type to load. You may specify the default type. You may override the default selection by loading any other available file for the clip. The Media Viewer may load the complete file or just the section defined in the asset (i.e. between marked in- and out-points). <p>You set these options in the Media Viewer Settings menu. More details, page 298.</p>
Graphic (Still image)	The Media Viewer displays the image.
Logo	The Media Viewer displays the logo. Clicking the Media Viewer window opens the Logo Editor with the logo loaded; you may use the Logo Editor to modify the logo properties. More details , page 331.
CG	The Media Viewer displays the CG.

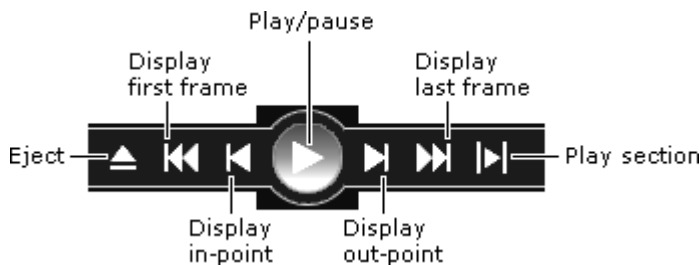
Preparing media items for playback

Playback features for video and audio clips

To play a file in the Media Viewer you may use a number of features on the Media Viewer control panel:



The playback buttons control various play and position operations:

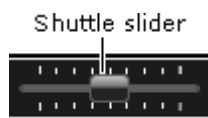


The length of the duration bar represents the duration of the media loaded in the Media Viewer. By moving your mouse pointer over the bar, you can view a series of keyframes from the file (if the asset has keyframes):



The slider on the bar shows the relative position of the frame displayed in the Media Viewer. Clicking any point on the bar moves the slider to that point and causes the Media Viewer to display the corresponding frame.

You may drag the shuttle slider to move quickly forwards or backwards through the file:



The further from the center you drag the slider, the faster the shuttling speed.

You may set the audio level you hear at your workstation by moving the volume slider:

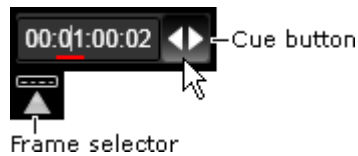


Preparing media items for playout

The position of the volume slider does not affect the audio level for playout, which is a property of the asset; you may change the asset property in the Media Viewer Settings menu or in the Property Editor.

Where a selected media file has multiple audio tracks, you can use the track-selector button to display a list of the tracks; you can then select a track from the list and play it in the Media Viewer.

Clicking the frame-selector button opens a timecode box with a cue button next to it:



By entering a value in the timecode box and clicking the Cue button, you can move the file in the Media Viewer to the frame with the specified timecode.

Instead of the control-panel features, you may use the mouse pointer in the Media Viewer window to play the media file.

The pointer performs different actions depending on its position in the image.

[More details](#), page 197.



Trimming features for video and audio clips

The Media Viewer control panel has a number of features for marking the boundary points of a video or audio clip:



The yellow section of the duration bar, between the in- and out-point markers, represents the portion of the media file referred to in the clip. The timecode boxes give the timecode values for the boundary points, and the duration of the clip.

You may do either of the following to change the in- and out-points.

- Drag the in-point and out-point markers to new points on the duration bar. The timecode boxes update as you drag the markers.

Preparing media items for playout

- Enter new values directly in the timecode boxes. The markers move to the corresponding points on the duration bar.

Another way of marking an in- and out-point is to play a clip in the Media Viewer and click the Mark In and Mark Out buttons:



Mark In button

Mark Out button

Note:

- The Media Viewer only displays the frames between the limits of the loaded media. So, when just the portion of media in a video clip is loaded, the Media Viewer does not display the frames outside the marked boundary points.
- If you want to extend the clip beyond either of these points, you should ensure the Media Viewer loads the whole file – rather than just the clip media – by selecting **Use Media Limits** in the Settings menu. [More details](#), page 298.

Display of VANC data

If a media file contains VANC data (e.g. timecode, AFD data), the Media Viewer displays the lines above the video image that carry this data. A pattern of dots and dashes represent the VANC data:



Working with a video clip while it is being recorded

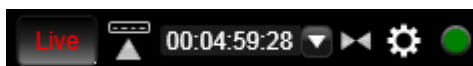
For some video-storage formats (e.g. MXF), you may be able to preview a video clip while the media is being recorded; i.e. while the media file is growing.

When playing a growing file, the Media Viewer displays the following extra features.

- A green recording bar, below the duration bar:



- A frame-selection button, labeled “Live”:



The green recording bar, which gets longer as the recording goes on, shows how much of the recording has taken place. The yellow duration bar, in this case, represents the scheduled length of the recording.

You can perform a number of actions while the recording is taking place:

Preparing media items for playout

- You can drag the slider along the duration bar to view any frame of the recorded media. (You cannot drag the slider past the end of the recording bar.)
- You can view the latest available frame by clicking **Live**.
- You can change the boundary points of the video clip.
- You can set in- and out-points and create co-reference clips.

Resizing the Media Viewer

You can display the Media Viewer at full-screen size (hiding the layout) by clicking the Maximize button:

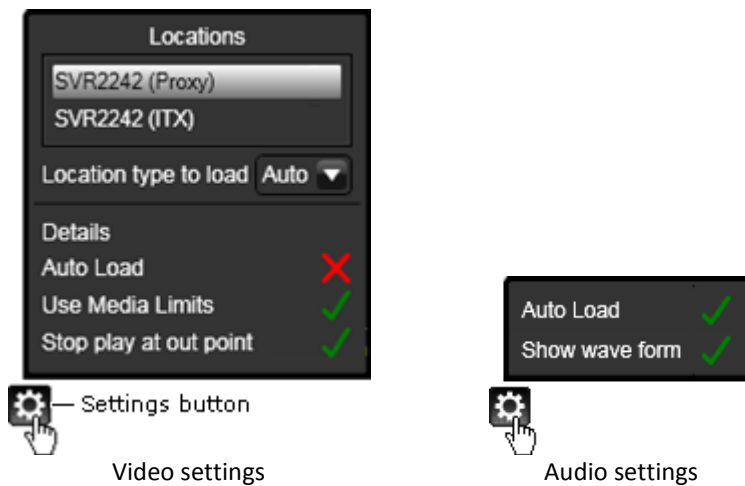


At full-screen size, the button becomes a Minimize button; clicking this returns you to the layout.

Double-clicking the Media Viewer window has the same effect as using the buttons.

Media Viewer settings

The Media Viewer Settings button appears when you select a video clip or an audio clip in the results pane. Clicking this button displays the Media Viewer Settings menu for the file type:



You may also display the Settings menu by right-clicking the Media Viewer window.

Preparing media items for playout

Through the menu, you can select options for the Media Viewer and change some properties of the loaded asset. We describe these in the following table.

Option	Description/comments
(Locations list)	<p>A list of all the locations that hold a media file for the asset. The list shows the name of the location and (in brackets) the location type.</p> <p>You may select any one of these to load the file from that location in the Media Viewer.</p>
Location type to load	<p>The default type of location from which the Media Viewer loads a selected asset. This may be iTX or proxy.</p> <p>A broadcast-quality file on a Media Store has an iTX location; a low-bit-rate file on a Media Store, a proxy location.</p> <p>To minimize the impact on network operations, you normally set up the Media Viewer to load the proxy version.</p> <p>An auto option allows the Media Viewer to select any available type; it first tries to load a proxy version; if one is not available, it loads the file from an iTX location.</p>
Details	<p>Display of information about the media file, including details of video and audio tracks.</p>
Auto Load	<p>The Media Viewer may automatically load a file for the selected asset or wait for you to manually load it.</p>
Use Media Limits	<p>The Media Viewer may load the full media file or just the marked portion (between the in- and out-points) in the asset.</p>
Stop play at out-point	<p>When playing a full media file, the Media Viewer may stop at the marked out-point of the asset or continue to the end of the media.</p>
Show waveform	<p>For an audio-only file, a display of the audio waveform showing the variation of loudness over the duration of the clip.</p>

Preview and modify a video or audio clip in the Media Viewer

1. Select a video clip or an audio clip in the results pane.

If the Auto Load option is selected in the Settings menu, the Media Viewer loads the associated file; it displays the first frame of a video clip or the audio waveform of an audio clip.

If the option is not selected, the Media Viewer displays “Click to Load”.
2. If the file is not loaded automatically, click anywhere in the Media Viewer window to load it.
3. Use the Media Viewer playback controls to play the clip. [More details](#), page 197.
4. Using the Media Viewer features, change any of the following.
 - The clip in-point or out-point. [More details](#), page 202.
 - The clip duration, using the Duration controls. You can also use these controls to set the duration to 20, 30 or 60 seconds. [More details](#), page 105.
 - The audio level. [More details](#), page 203.
5. Save your changes.

Note:

- The Media Viewer displays “No Proxy or iTX Locations” if there is no available file.

Preparing media items for playout

Working with the Property Editor

When you select an asset in the results pane, the asset name appears in the header bar at the top of the Property Editor. Details of various properties are arranged under a number of tabs, which we describe in this section.



If you select multiple assets in the results pane, the header bar shows how many are selected.

Asset flags

In the Property Editor, you can select values for various “flags” for an asset. A flag is a property that has one of (usually) two possible values; changing the value may alter the way in which iTX handles the asset.

An example is the Clip Available flag. This marks a clip as either available or unavailable for playout. Where the flag is not selected (an asset is unavailable), iTX displays a warning indicator in the Schedule Grid; it does not display the warning indicator for assets that are available.

Expanding panels

To make the best use of available space in the Property Editor, some panels are collapsible. A Show/Hide button in the title bar identifies such panels:

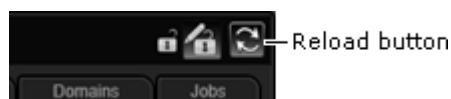


Show/Hide button

Clicking the button expands or collapses a panel.

Reloading an asset

As you work with an asset on the Asset layout, an operator at another iTX Desktop workstation may change some of the asset properties. To ensure the details in the Property Editor are up to date, you may need to reload the asset. You do this by clicking the Reload button:



Preparing media items for playout

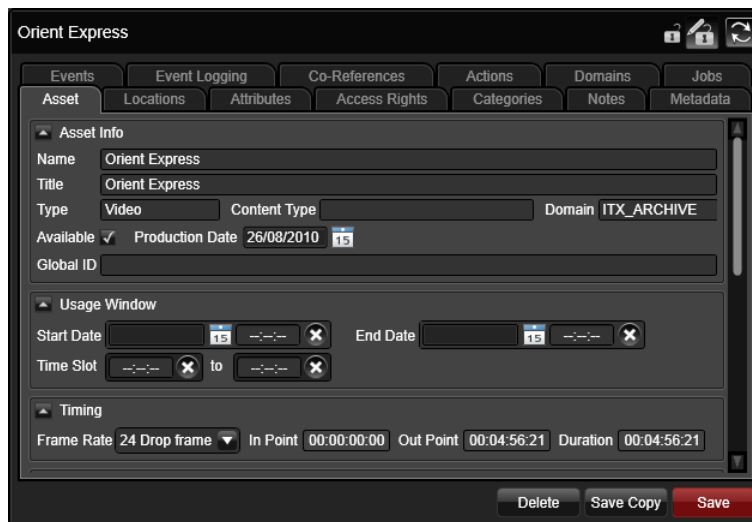
Asset locking

Depending on your user rights, you may be able to lock or unlock assets. Locked assets cannot be deleted and allow only a certain amount of modification. [More details](#), page 325.

Saving asset changes

To keep any changes you make to an asset, you need to use one of the Save buttons. [More details](#), page 324.

The Asset tab



Under the Asset tab, you can view details of key properties of an asset and edit some of these. Some properties are relevant only to certain asset types. For example, only video clips and audio clips have in- and out-points.

You can:

- Change the name and title of an asset.
- Set an availability flag.
- Change the production date.
- Specify a usage window and time slot.
- Edit the timing properties of a video clip or an audio clip.
- Specify aspect-ratio details – AFD values (Source Format and Active Region).
- Specify normal or reverse field order for a video clip.
- Select a vision effect.
- Mark a video clip as a 3D video clip and specify the 3D playout mode.
- Adjust audio properties – lip sync and volume level.

Change the name or title of an asset

1. Enter a new name or title in the **Name** or **Title** box.

Set the availability flag

The Clip Available flag provides information that you can view in the Schedule Grid; it does not affect playout.

1. Select the **Available** check box if an asset is available for playout; clear the check box if the asset is not available for playout.

Note:

- The Schedule Grid displays a warning icon for any video clip that is marked as not available. You may ignore the warning and let iTX play out the clip.

Change the production date

iTX automatically records the dates on which assets are created and modified; you cannot manually change these. You can, however, set a production date for an asset.

1. Enter a date in the **Production Date** box.

Specify a usage window

A usage window is a period within which it is acceptable to broadcast an asset. Like the availability flag, it does not affect playout; but it gives a warning in the Schedule Grid if the asset is scheduled for playout outside of the period.

You may define a usage window in a number of ways: by a start date only; an end date only; both a start and end date; or the start and end times of a daily time slot.

If you set a usage window that is a daily time slot, you may also set date limits for it; for example, to allow the broadcast of a commercial between certain times for a fixed period.

1. If you want to specify a date range as a usage window, do any of the following to set start and/or end limits.
 - Enter a date in the **Start Date** box. You may also enter a time in the associated start-time box.
 - Enter a date in the **End Date** box. You may also enter a time in the associated end-time box.
2. If you want to specify a daily time slot, do any of the following to set start and/or end limits.
 - Enter a time in the **Time Slot** start-time box.
 - Enter a time in the **Time Slot** end-time box.
3. Click the Clear button if you want to cancel a date or time entry.

Set timing properties

In the Timing section, you can view and edit the boundary points and duration of a video clip or audio clip.

You may select a frame rate in the **Frame Rate** box. This is for display purposes only and does not affect playout.

1. Do any of the following if you want to change the timing properties of an asset.

- Enter a new value in the **In Point** box.
- Enter a new value in the **Out Point** box.
- Enter a new value in the **Duration** box.

The duration changes automatically when you move either the in-point or the out-point. The out-point moves when you change the duration.

Change aspect-ratio properties for a video clip

The Property Editor displays details of the source format and active region for a video clip.

- The source format is the aspect ratio of the video frame; this may be 4:3 or 16:9.
- The active region describes how the video image is inset into the video frame and takes account of any horizontal or vertical bars. For example, a 4:3 frame may contain a 16:9 letterboxed image.

These two properties together form an AFD (Active Format Description) code that iTX can transmit in the output video signal. The code is used by digital television receivers to display the video content in the best way.

The Property Editor displays a symbol to represent the AFD code:



1. To change the source format by itself, select an aspect ratio in the **Source Format** box.
2. To change the active region by itself, select an image arrangement in the **Active Region** box.
3. To change both properties by selecting an AFD symbol, do the following.
 - Click the AFD symbol to display the Source Formats and Active Regions dialog.
 - Select the AFD symbol for a particular combination of source format and active region.
 - Click **OK** to close the dialog.

Change the field playout order

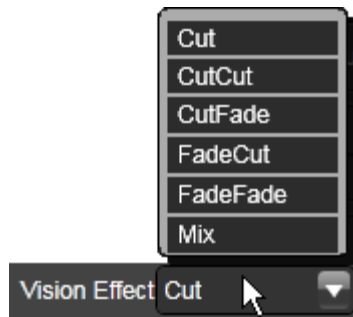
iTX displays the alternate fields of interlaced video files in a particular (default) order during playout.

In some files, the field order may be different to the default playout order; iTX then has to display the fields in the reverse order. You identify these files by selecting the Reverse Field Order flag.

1. Select the **Reverse Field Order** check box for any file encoded with fields in reverse order; ensure the check box is cleared for files with fields in the normal order.

Change the transition type or duration

Some assets (e.g. video clips, logos) have a transition or vision effect associated with them. Clicking the **Vision Effect** box displays a menu of available options:



Different effects are possible for different asset types.

The **Vision Effect Duration** box shows the duration of the effect.

1. Do any of the following to change the type of vision effect or its duration.
 - Select a vision effect in the **Vision Effect** box.
 - Enter a duration in the **Vision Effect Duration** box.

Identify an asset that is stereoscopic-3D formatted

For playout of an asset in a channel that is set up to provide a stereoscopic-3D service, you need to specify if the asset is stereoscopic-3D formatted or not.

1. Do the following to identify a stereoscopic-3D asset.
 - Select the **Is 3D** check box.
 - Select the image presentation mode in the **3D Mode** box.
2. Ensure the **Is 3D** check box is not selected for any asset that is not stereoscopic-3D formatted.

For a stereoscopic-3D channel, iTX converts video clips and logos that do not have the stereoscopic-3D flag selected so that they play out in a way in which receiving equipment can display them.

Adjust audio properties

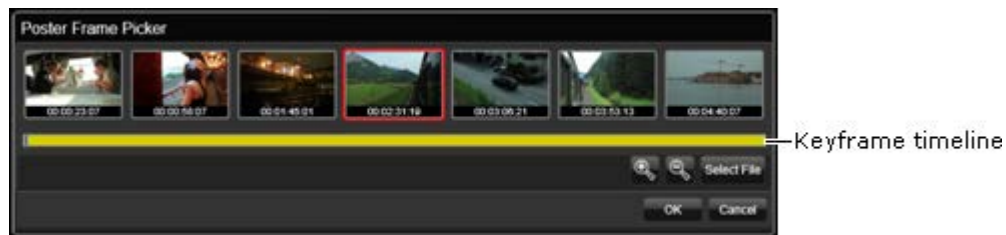
You may correct audio-video timing (“lip sync”) errors for video clips. You can adjust volume levels for video clips and audio clips.

1. Enter a value in the **Lip Sync** box for the number of frames by which you want iTX to play an audio track earlier or later than the video track.
2. Enter a percentage value in the **Volume Level** box, to increase or decrease the volume at which iTX plays out audio content. A setting of 100 indicates the volume level stored in the media file.

Select a poster frame

For any asset, you can select a poster frame to represent the content of the asset in search results. For video clips, you normally select a keyframe for this purpose. For other types of asset, you may select any image file (in one of the supported formats).

To select a poster frame for a video clip, you use the Poster Frame Picker:



The Poster Frame Picker displays a sample set of keyframes from a selected video clip. Below the keyframes is a timeline that represents the duration of the clip. The timeline has a yellow indicator bar; this shows the segment of the video clip from where the sample keyframes are taken. The interval between the displayed keyframes depends on the length of this segment.

By using the Zoom In button to zoom into the timeline about a selected keyframe, you can view keyframes at closer intervals from a smaller segment. As you do this, the yellow indicator bar gets shorter. You can slide the indicator bar along the timeline to view keyframes at similar intervals from different clip segments.

The Zoom Out button enables you to zoom out from the timeline, to view sample keyframes from longer clip segments.

You may use an image that is not a keyframe as a poster frame. Instead of selecting a displayed keyframe, you find the image after clicking **Select File** to open the Windows Open dialog.

For other types of asset apart from video clips, you use the Windows Open dialog to select an image.

Select a keyframe as a poster frame for a video clip

1. Click **Set Poster Frame**.
iTX displays the Poster Frame Picker. A red outline appears around a selected keyframe.
2. Do any of the following, as necessary, to display the keyframe you want to use as the poster frame.

Preparing media items for playout

- Click a sample keyframe about which to zoom in our out.
 - Use the Zoom In and Zoom Out buttons to view a set of keyframes from a narrower or wider range about the selected keyframe.
 - Drag the yellow indicator bar along the timeline toe view keyframes from different segments.
3. Click a keyframe to select it.
 4. Click **OK** to close the Poster Frame Picker.
The Property Editor displays the poster frame.

Select an image that is not a keyframe as a poster frame for a video clip

1. Click **Set Poster Frame**.
iTX displays the Poster Frame Picker.
2. Click **Select File**.
The Windows Open dialog appears.
3. Use the dialog to select an image file. Click **OK** to close the Poster Frame Picker.
The Property Editor displays the poster frame.

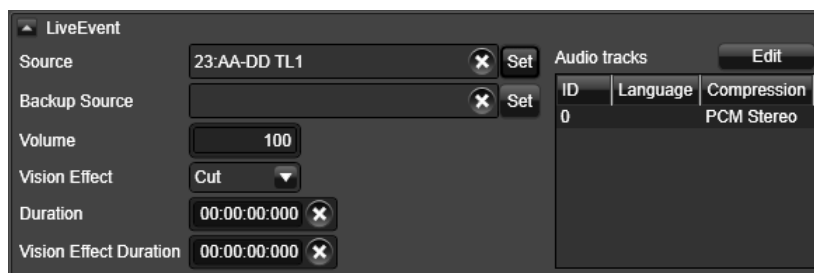
Select a poster frame for an asset other than a video clip

1. Click **Set Poster Frame**.
The Windows Open dialog appears.
2. Use the dialog to select an image file. Click **OK** to close the Poster Frame Picker.
The Property Editor displays the poster frame.

Create or modify a live event

You can create live events or modify existing ones on the Asset layout.

When you select a live event in the results pane of the PinPoint panel, the Live Event section under the Asset tab of the Property Editor displays the properties:



Preparing media items for playout

To create a live event, you start with the live-event template (called “Default”) or with another live event. In the properties for the new live event, you specify the router source for the live feed; you may also specify a back-up router source and set various playout properties.

In a system with main and back-up playout channels, iTX routes the back-up router source to the back-up channel when a live event is scheduled in a main playout channel.

Note:

- iTX creates the live-event template the first time it starts up.
1. Use PinPoint to search for live events.
 2. Select the Default live event, or any live event, in the results pane of the PinPoint panel.
The Property Editor displays the properties.
 3. Do the following to specify a router source.
 - Click **Set** next to the **Source** box to display the Router Source Picker.
 - Select a router matrix in the **Matrices** box, and then a router source from the displayed list. To quickly find the router source you want, you may type the start of its name in the search box above the list; only router sources with names that begin with the same characters then appear in the list.
 - Click **OK** to close the Router Source Picker.

The name of the source appears in the **Source** box. You may clear this entry at any time by clicking the clear button on the right of the box.

4. Do the following to specify a back-up source, if you want to.
 - Click **Set** next to the **Backup Source** box to display the Router Source Picker.
 - Select a back-up source in the same way as you select the source in the previous step.
 - Click **OK** to close the Router Source Picker.

The name of the back-up source appears in the **Backup Source** box. You may clear this entry at any time by clicking the clear button on the right of the box.

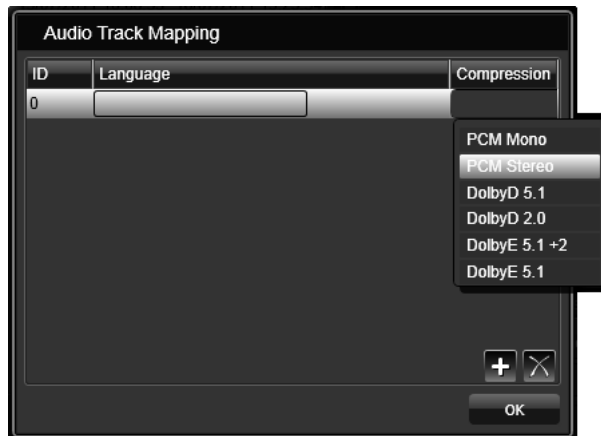
5. Set any of the other properties as necessary:
 - Audio level in the **Volume** box.
 - Default duration for the live event in the **Duration** box.
 - Vision effect and duration in the **Vision Effect** and **Vision Effect Duration** boxes.
 - Audio-track configuration in the Audio Tracks panel. See below, “Audio Tracks panel”.
6. Click **Save** to save the selected asset, or **Save Copy** to create one.


In the Save As box that appears when you click **Save Copy**, iTX automatically enters the router-source alias as the name; you may change this, if you want to, before creating the live event.


You may add a live event to the Live palette of the Content Selector on the iTX Channel Control layout; you can then manually create schedule events that feature the live feed.

Audio Tracks panel

In the Audio Tracks panel, you specify the format and distribution of the audio content in a live event; you can also identify different language tracks. iTX uses this information in determining which audio tracks to play out. To enter the information, you use the Audio Track Mapping dialog:



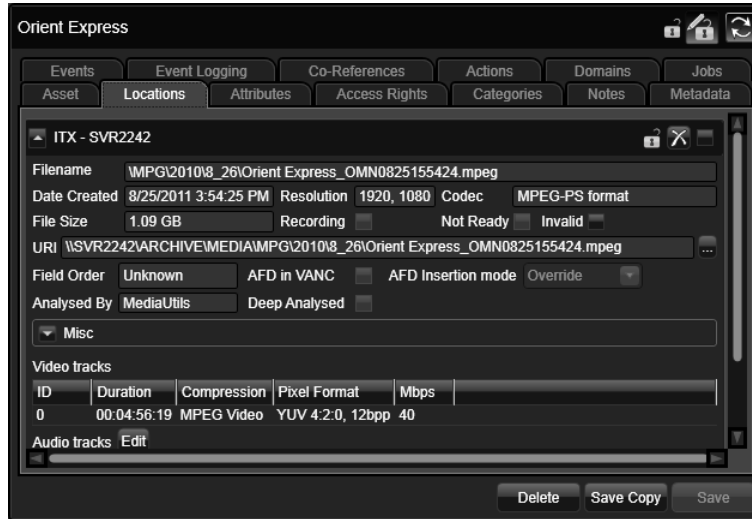
1. Click **Edit** in the Audio Tracks panel.
The Audio Track Mapping dialog appears.
2. Do the following for each audio track you want to list.
 - Click  to create an entry row for an audio track. Each track has its own ID; the first has an ID of 0; the second, 1; and so on.
 - Click in the Compression column and select an audio format from the displayed list.
 - If you want to identify the language of the track, click in the Language column to display the Language Selection dialog; use this to select a language and click **OK** to close the dialog.

You may delete any track entry from the list by selecting it and clicking .

3. Click **OK** to close the Audio Track Mapping dialog.
The track details appear in the Audio Tracks panel.

Preparing media items for playback

The Locations tab



Under the Locations tab, the Property Editor displays details of the media files associated with a selected asset. For each file, there is a specific location.

For video clips, there may be different types of file – broadcast copies and low-bit-rate (proxy) versions. The Property Editor displays a separate entry for each one. The entry for a broadcast-quality file includes details of individual video and audio tracks.

One of the entries is usually expanded, showing full details for a particular location, including the path (URI) of the file. You may collapse the entry onto a single line.

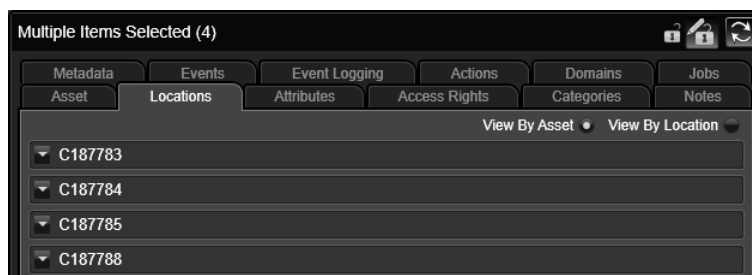
Selection of multiple assets

If you select multiple assets in the results pane, the Property Editor organizes their files in groups. There are two ways in which it can do this:

- It can group files that are associated with the same asset. So, the broadcast and proxy files for a particular asset are in the same group.
- It can group files that are in the same location. So, broadcast files on an iTX Media Store are in one group; proxy files are in another; and so on.

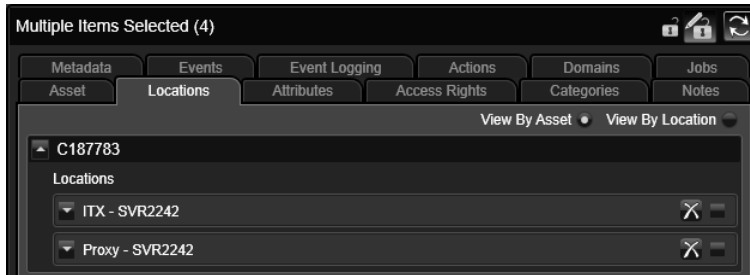
By clicking **View By Asset** or **View By Location**, you can switch the Property Editor between two views, based on the way groups are formed.

When files are grouped by asset, the Property Editor displays an entry for each asset:



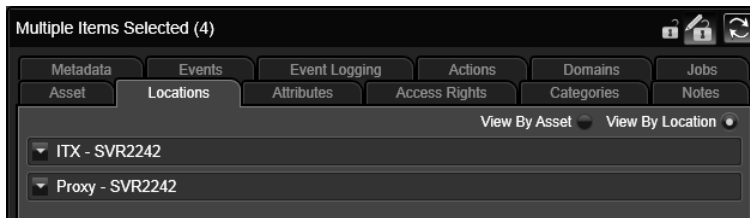
Preparing media items for playback

You can expand an asset entry to view the location details of each file:

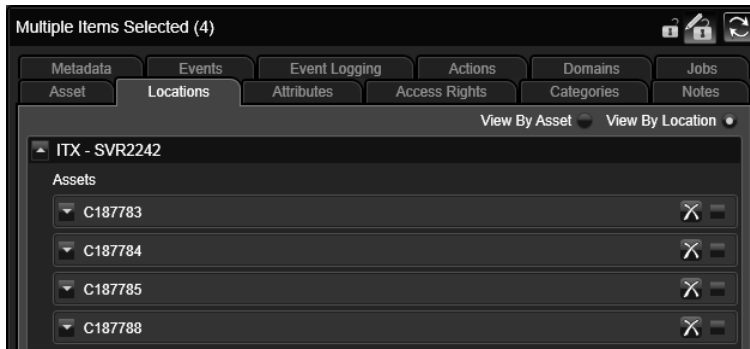


You can then expand any location entry to view the file details.

When files are grouped by location, the Property Editor displays an entry for each location:



You can expand a location entry to view entries for assets with files in that location:



You can then expand any asset entry to view the file details.

Deletion features

You can delete files from one location at a time or from a batch of locations together. Each file entry has two deletion features – a delete button and a delete check box:



You use the button to delete the file described in the entry. You use the check box to mark this file for batch deletion.

Preparing media items for playout


Note:

- Deleting a file does not delete any associated asset from the System Database.
- If you delete all the files that are associated with a video clip, that clip becomes a placeholder clip; i.e. a database asset with no media file. You can re-use the asset by encoding new media; or by placing a new file with the same name as the deleted file in the Media Store Inbox.

As well as viewing information about files in different locations, you can use the features under the Locations tab to:

- Open the folder that contains a file.
- Delete any of the files associated with a single asset.
- Delete any of the files for a batch of selected assets.
- Add language tags to audio tracks.
- Manually group mono audio tracks of a broadcast file to allow iTX to use them in a stereo or Dolby E output signal.


Open the folder for the file associated with an asset

1. Select an asset in the results pane.
2. Expand the file entry in the Property Editor.
3. Click  next to the **URI** box.
iTX opens the Windows folder that contains the file.

Note:

- You should only use this operation to check a file is in a specified location. If you want to delete the file, you should use iTX to do it; using a Windows option would create an error in the System Database.

Delete a file for a single asset

1. Select an asset in the results pane.
2. Click  in the entry for a particular location.
iTX displays a dialog requesting you to confirm you want to delete the file. If the file is for a video clip or an audio clip, the dialog lists any other assets (co-references) that use the file.
3. Click **OK**.
iTX uses the Media Watcher to delete the file.

Delete multiple files for a single asset


1. Select an asset in the results pane.

Preparing media items for playout

2. Select the delete check box in the entry for any location that you want to delete the file from.
3. Click **Delete Selected Locations**.
iTX displays a dialog requesting you to confirm you want to delete the files. If the files are for a video clip or an audio clip, the dialog lists any other assets (co-references) that use the files.
4. Click **OK**.
iTX uses the Media Watcher to delete the file.

Delete multiple files from the same location

You may use the following procedure to make space available in a particular location.

1. Select a group of assets in the results pane.
2. Select **View By Location** to display the location-based group view.
3. Expand the group entry for the location you want to remove files from.
4. Do one of the following, depending on whether you want to delete files one at a time or in a batch.
 - Click  for each file you want to delete.
 - Select the delete check box for each file you want to delete. Click **Delete Selected Locations**.
iTX displays a dialog requesting you to confirm you want to delete files. If the files are for a video clip or an audio clip, the dialog lists any other assets (co-references) that use the files.
5. Click **OK** to close the confirmation dialog.
iTX uses the Media Watcher to delete the files.

Manage audio tracks for a video clip

The Property Editor displays details of the individual audio tracks in the broadcast-quality file of a selected video clip. The details include two properties that you can modify:

- The group to which a mono track belongs. iTX can use mono tracks in the same group to produce a PCM stereo or Dolby E output signal.
- A language tag, which identifies the language of the audience the track is intended for (English, Spanish, etc.).

To modify the properties, you use the Audio Track Mapping dialog:



Manually group mono tracks

Usually iTX automatically adds track-grouping information to an asset when it ingests the broadcast-quality file. You only need to perform the following procedure where this does not happen.

1. Click **Mapping** to open the Audio Track Mapping dialog.
2. Select tracks you want to group.
3. Click the button (**Dolby E 5.1 + 2**, **Dolby E 5.1**, or **PCM Stereo**) that denotes the output format that the mono tracks can be used to produce.
4. Click **OK** to close the dialog.

Note:

- You can use the Audio Track Mapping dialog to reverse the automatic grouping iTX performs on ingest; to do so, you change a track marked as PCM Stereo or Dolby E to mono.

Preparing media items for playout

Add a language tag to a track

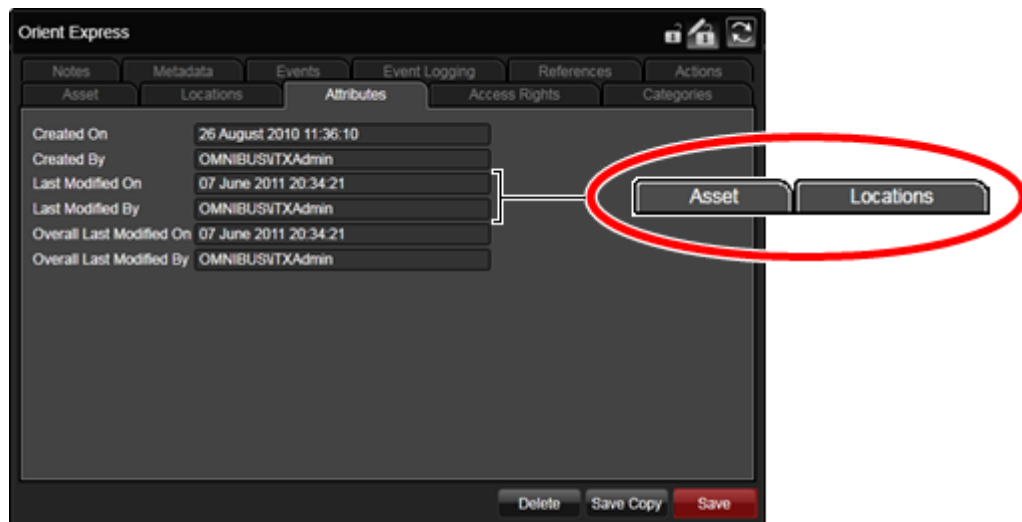
1. Click **Mapping** to open the Audio Track Mapping dialog.
2. Click a Language box to display the Language Selection dialog.
3. Select a language and click **OK** to close the dialog.

The Property Editor displays the name of the selected language in the Language box.

4. Click **OK** to close the Audio Track Mapping dialog.

The Attributes tab

The Attributes tab shows details of when an asset was created and last modified:



There are two sets of last-modified details.

- “Last modified” refers to changes made to properties listed only under the Asset and Locations tabs.
- “Overall last modified” refers to editing under these and other tabs (Notes, Metadata, etc.)

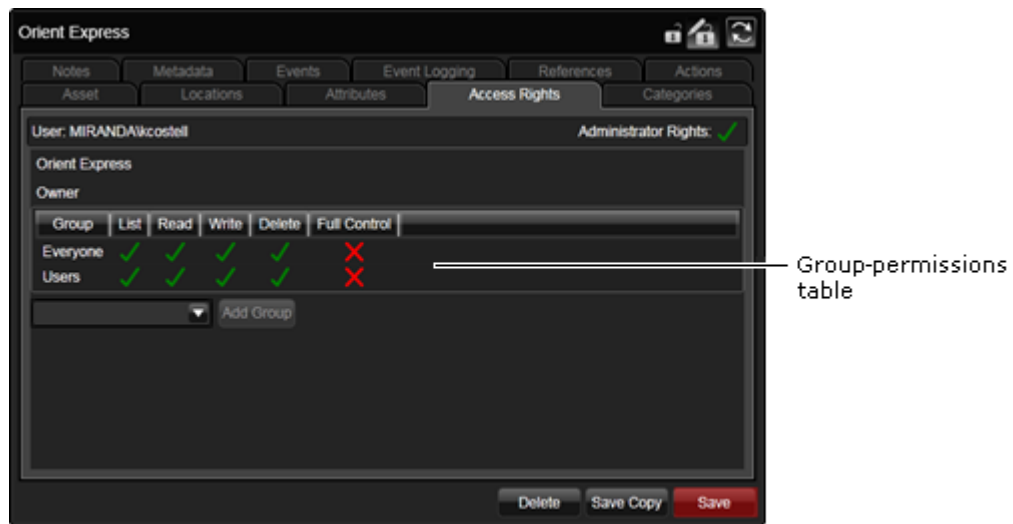
Preparing media items for playout

The Access Rights tab

A number of permissions, giving different levels of user rights, can be set for any asset:

- **List** allows you to view an entry for the asset in a PinPoint results pane.
- **Read** allows you to view an asset and open the associated media file; for example, to play a video clip or listen to an audio clip.
- **Write** allows you to modify an asset; for example, by adjusting the in- and out-points.
- **Delete** allows you to delete the asset and associated media file.
- **Full Control** gives you all the other permissions and lets you change these for any group or user.

You can view the settings for a selected asset under the Access Rights tab:



Under this tab, the Property Editor displays a table of user groups and their permissions.

Permissions are set when an asset is created. They are assigned to user groups, which are defined in the iTX security system. Groups and permissions are specified in a template that is used to create the asset.

The permissions for each group usually depend on what requirements users in the group have for using and managing assets. So, in a particular system, a group of transmission operators may be able to view and play media files, while only media managers may have the right to delete files.

You have full user rights for all assets if you are a member of the Administrators group. The user-details entry shows whether or not you have these rights:



Other groups may be assigned full control for the asset. If you are in one of these groups, you can change permission sets for the asset; you can add groups and set permissions for them.

Change the clip permissions for a user group

1. In the group-permissions table, click the check marks of any permissions you want to change.

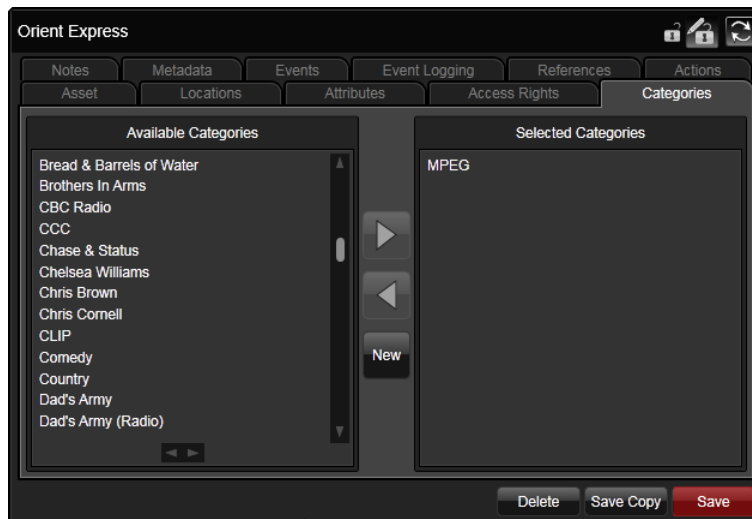
Assign clip permissions to a new user group

1. Select a group in the Add Group dropdown list.
2. Click **Add Group**.
The Property Editor adds an entry for the new group in the group-permissions table; it assigns a default set of permissions to the group.
3. Click the check marks of any permissions you want to change.

The Categories tab

A category provides a label that denotes some aspect of an asset, or something that a group of assets have in common. For example, the category "Sports" may be used to indicate video clips with sports content. Specifying categories as search criteria helps you to find assets in a PinPoint search. [More details](#), page 182.

When iTX creates an asset for a media file that is placed in the Inbox folder, it tags the asset with categories; the categories are based on the folders in which iTX stores the media files. You can modify which categories the asset is tagged with. You do this under the Categories tab of the Property Editor:



Under this tab, the Property Editor displays two panes and a set of buttons. The Selected Categories pane shows which categories the selected asset is tagged with; the Available Categories pane contains a list of all other categories. Using the buttons, you can:

- Tag an asset with a category.
- Untag an asset from a category.
- Create a category.

Preparing media items for playout

Tag an asset with a category

1. Select an asset in the results pane.
2. For each category you want to tag the asset with, do the following.
 - Select the category in the Available Categories pane.

- Click .

Untag an asset from a category

1. Select an asset in the results pane.
2. For each category you want to untag the asset from, do the following.
 - Select a category in the Selected Categories pane.

- Click .

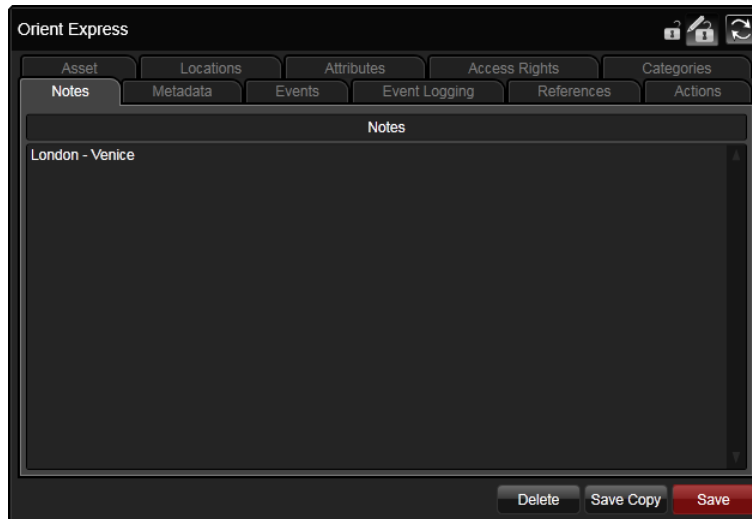
Create a category

1. Click **New** to display the New Category dialog.
2. Enter a name for the category.
Note: The category name should not contain more than 32 characters.
3. Click **OK** to close the dialog.

The new category appears in the Available Categories pane.

Preparing media items for playout

The Notes tab



Under the Notes tab, you can write comments in the Notes Editor and attach them to the selected asset. Anyone working with the asset afterwards can read your comments.

PinPoint searches notes for words specified in an Any Text filer.

Attach notes to a media item

1. Select an asset in the results pane.
2. Enter your comments in the Notes Editor.
3. Click **Save**.

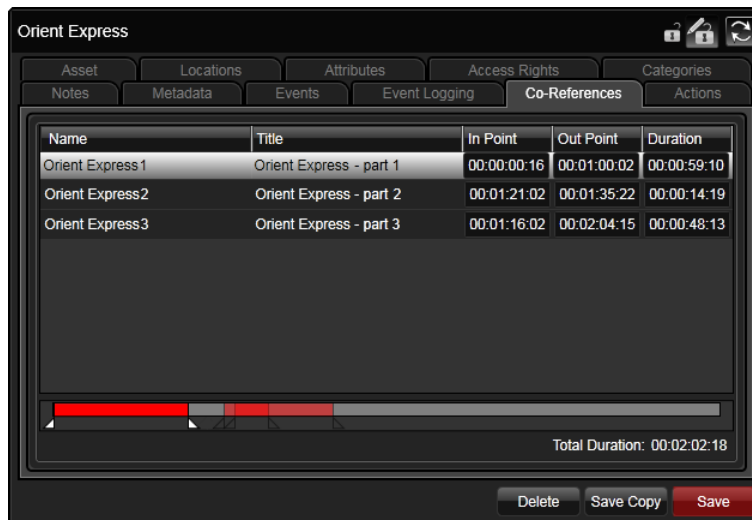
Preparing media items for playout

The Co-References tab

A number of video clips may be created for the same media file. This happens, for example, when you create a video clip for a long media file and then use it to create clips for shorter segments of the file. [More details](#), page 290.

These clips, referring to the same media file, are “co-references”.

When an asset you select in the results pane has related co-references, the Property Editor shows details of these under the Co-References tab:



Below the list of co-references, the Property Editor shows their positions on a timeline that represents the duration of the media file.

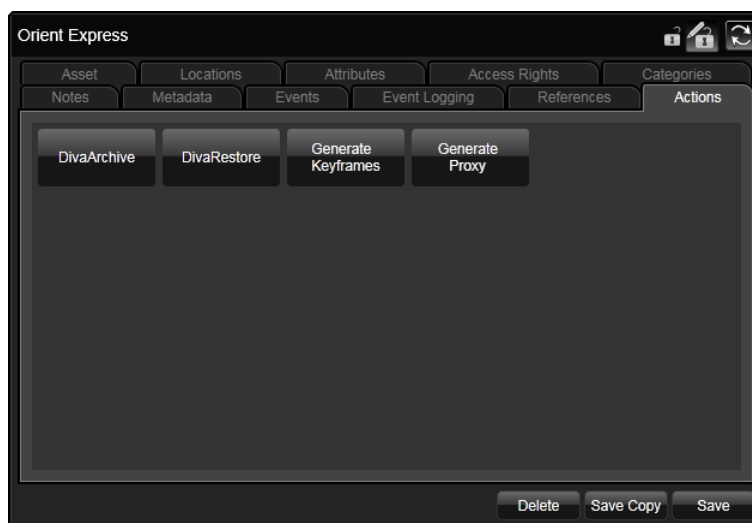
Preparing media items for playout

The Actions tab

iTX has a number of services – called job services – that can perform special actions on assets. An example is the Keyframe Generation Service; this can create a set of keyframes from a media file.

A job service checks a job-request list, which iTX holds. When it finds a job that it can do, it does it.

Some job requests are generated automatically (and added to the list) in system processes. For example, the generation of keyframes when a media file is ingested through the Media Store Inbox. Other requests you can make manually by using one of the buttons under the Actions tab:



Under this tab, you can request a job service to:

- Create a set of keyframes for a video clip.
- Create a low-bit-rate proxy version for a video clip.
- Copy a media file to an archive system.
- Copy a media file from an archive system to an iTX Media Store.

You may request the job service to perform the same action on a batch of assets.

Note:

- What action buttons appear under the tab depends on what services are installed in your iTX system. Your system may need licenses for some job services.

Create a low-bit-rate proxy copy of a video clip

1. Select a video clip in the results pane.
2. Click **Generate Proxy Media**.
iTX displays a dialog showing that a job has been created.

Note:

- The job service that creates proxy media files can be configured to automatically create keyframes at the same time. You may need to check with your system administrator whether or not your system has this functionality.

Create a set of keyframes for a video clip

1. Select a video clip in the results pane.
2. Click **Generate Keyframes**.
iTX displays a dialog showing that a job has been created.

Archive a media file to a DIVArchive

When you archive a media file, the DIVArchive copies the source media file from the Media Store. You may manually delete the source media file from the Media Store once it is archived.

1. Select a video clip in the results pane.
2. Click **Diva Archive**.
iTX displays a dialog showing that a job has been created.

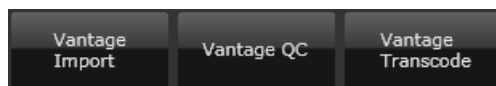
Restore a media file from a DIVArchive

When you restore a media item, the DIVArchive places the restored media file in the iTX Inbox; the Media Watcher registers the media file and moves it to a Media folder on the Media Store.

1. Select a video clip in the results pane.
2. Click **Diva Restore**.
iTX displays a dialog showing that a job has been created.

Vantage jobs

If your iTX system is set up to work with a Telestream Vantage system, extra action buttons appear under the Actions tab:



Through these buttons, you can request a Vantage job service to:

- Transcode the media file for an asset.
- Perform a quality-control (QC) check on the media file for asset.
- Import the media file for an asset.

Preparing media items for playout

The operational steps that are to be carried out by the Vantage system are defined in Vantage workflows; there are different workflows for different job types.

When performing a job, the job service requests the Vantage system to run a particular workflow; you specify this workflow when you manually request a job.

Use a Vantage system to transcode a media file

In a transcode job, a media file on an iTX Media Store is selected for transcoding. The Vantage system creates a copy of the file in a different format to the original and places it in a folder on the Media Store.

1. Select a video clip in the results pane.
2. Click **Vantage Transcode**.
iTX displays the Vantage Transcode Parameters dialog.
3. Select a Vantage workflow in the **Workflow** box; click **OK** to close the dialog.
iTX displays a dialog showing a job has been created.

Use a Vantage system to perform a QC check on a media file

In a QC check, the Vantage system examines a media file for black frames; the job service records the results in the metadata of the asset for the file.

1. Select a video clip in the results pane.
2. Click **Vantage QC**.
iTX displays the Vantage Transcode Parameters dialog.
3. Select a Vantage workflow in the **Workflow** box; click **OK** to close the dialog.
iTX displays a dialog showing a job has been created.

Use a Vantage system to import a media file

When importing a media file, the Vantage system selects a file on an external media store and makes a copy of it on an iTX Media Store. Depending on what workflow the system uses, the original file may be QC-checked and transcoded in the process.

1. Select a video clip in the results pane.
2. Click **Vantage Import**.
iTX displays the Vantage Transcode Parameters dialog.
3. Do the following to set the job options.
 - Select a Vantage workflow in the **Workflow** box.
 - Select the location of the original file in the **Source** box.
 - Select the iTX Media Store on which the system is to place the copy of the file in the **Destination** box.
 - Click **OK** to close the dialog.

Preparing media items for playout

iTX displays a dialog showing a job has been created.

Saving assets

When you save an asset, after changing any of its properties, you may overwrite the original asset in the System Database. For this, you use the **Save** button:



Instead of overwriting an original asset, you may save a modified version as a separate asset. You do this by using the **Save Copy** button to save a copy of the modified asset:



The new asset refers to the same media file as the original asset. (iTX does not duplicate the media file for the new asset.)

Save a modified asset

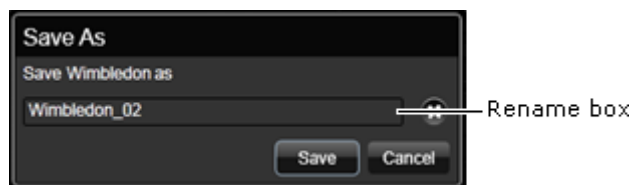
1. Click **Save** to save an asset after modifying it.

iTX overwrites the original asset.

Create a copy of an asset

1. Click **Save Copy** to create a copy of an asset.

iTX displays the Save As dialog:



2. Enter a name for the new asset in the rename box.
3. Click **OK** to close the dialog.

iTX creates an asset with the specified name.

Change a duplicate name while saving a copy of an asset

No two assets of the same type can have the same name. iTX prevents you giving a copy of an asset a name that is already used by an asset of the same type. It displays a warning dialog:

Preparing media items for playout



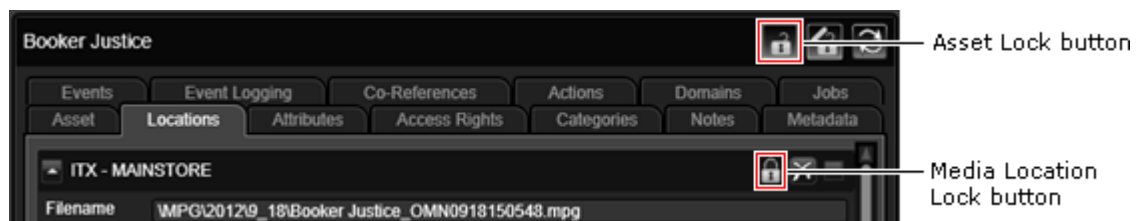
Locking assets and media-file locations

If you have the required user rights, you can lock or unlock assets and media locations.

- A locked asset cannot be deleted, either by a user or by an application (e.g. Missing Materials Manager). It cannot be modified either, except as the result of certain operations. See below, “Operations allowed with locked assets”.
- A locked media location cannot be removed from an asset, whether or not the asset is locked. So, the media file in that location cannot be deleted.

Your iTX user rights depend on security attributes that are given to you by your system administrator. There are different ones for locking and unlocking items. With the Lock security attribute, you can lock items; with the Unlock security attribute, you can unlock them.

You apply or release a lock by clicking the Lock button in the header bar for the asset or location:



The Lock button icon changes depending on the button’s state: a locked padlock identifies a locked asset or media location; an unlocked padlock, an unlocked asset or media location.



The Lock button becomes active only when you can perform the operation indicated by the icon. At other times, the button has no effect.

Operations allowed with locked assets

In general, none of the properties of an asset can be modified while the asset is locked. Values, such as those for in- and out-points, appear dimmed in the Property Editor:



Preparing media items for playout

It is possible, though, to perform a number of operations that result in information being added to the asset. Examples include adding and removing locations.

You may copy a media file that is referenced by one of the asset locations to a new location; the new location is then added to the asset. This happens when you restore a file from an archive to an iTX Media Store: the Media Store is added as a location to the asset. It also happens when a proxy media file is created for an asset that has none, the proxy location is added to the asset.

You may remove an unlocked media location from a locked asset. iTX deletes the media from that location if it is not required by any other asset.

You may add keyframes to a locked asset that has none.

iTX can add transmission information – as-run details – to a locked asset that is used in a playout channel.

You can add metadata to the source clips of published project clips (i.e. ones for which there are media files).

Locked assets cannot be used in Workflow processes.

Edit Unlock state

If you have the Asset Unlock security attribute, you can temporarily unlock an asset and its media locations for editing. To do so, you put the asset into the Edit Unlock state by clicking the Edit Unlock button:



In this state, the asset allows you to change any of its editable properties but only from your current iTX Desktop. While you do this, the asset cannot be modified by another operator unless that operator unlocks the asset for editing at a different iTX Desktop.

If an asset is unlocked for editing by two operators at the same time, only the changes made by the first operator to save the asset take effect; the other operator's changes are discarded.

When you save your changes, the asset returns to the normal locked state.

The properties you can change are mainly under the Asset and Locations tabs of the Property Editor.

Note:

- You cannot unlock a media location for an asset in the Edit Unlock state.

Copying a locked asset

You may create a copy of a locked asset. The new asset is unlocked when it is created; its media locations have the same lock status as those in the original asset.

Preparing media items for playout

Re-importing the media file to a locked media location

Sometimes, it may be necessary to replace the media file for an asset. You cannot do this if the associated media location is locked – you must first unlock this media location.

Locking media locations in co-references

An asset may share the same media file with other assets. Such assets are called co-references. If a location of the file is locked or unlocked for any co-reference, the change is displayed by the other co-references.

This illustration shows an example of a video clip with an unlocked proxy location:



If the location is locked for a co-reference, it is also locked for the video clip in our example:



Note:

- You need to reload the video clip to update the display of the lock status on the Asset layout.

Batch operations with locked items

Batch operations, such as deleting multiple assets, cannot be performed if any item in a selected group is locked.

Lock an asset

1. Select an asset in the results pane.
2. Click the Lock button so it shows the locked-padlock icon.
3. Click **Save**.

iTX locks the asset and its media locations. You may unlock the media locations one by one.

Preparing media items for playout

Lock a media location

1. Select an asset in the results pane.
2. Under the Locations tab, display the entry for the media location you want to lock.
3. Click the Lock button so it shows the locked-padlock icon.
4. Click **Save**.
iTX locks the media location.

Unlock an asset

1. Select an asset in the results pane.
2. Click the Lock button so it shows the unlocked-padlock icon.
3. Click **Save**.
iTX unlocks the asset and all its media locations. You may lock the media locations one by one.

Unlock a media location

1. Select an asset in the results pane.
2. Under the Locations tab, display the entry for the media location you want to unlock.
3. Click the Lock button so it shows the unlocked-padlock icon.
4. Click **Save**.
iTX unlocks the media location.

Edit a locked asset

1. Select an asset in the results pane.
2. Click the Edit Unlock button.
The asset appears unlocked for editing – at your work station only. The Edit Unlock button is highlighted to show the asset is in the Edit Unlock state. The asset Lock button continues to show the asset is locked (to other users).
3. Modify the asset.
4. Click **Save**.
The asset returns to the normal locked mode.

Note:

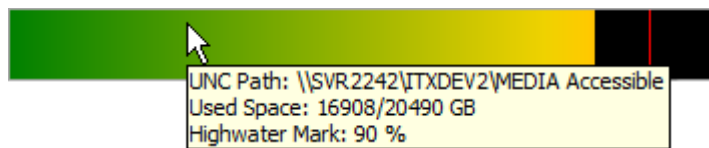
- You can exit the Edit Unlock mode without saving changes by clicking the Edit Unlock button.

Reading the Media Store Gauge

The Media Store Gauge gives you a visual indication of the amount of free space in the Media Store.

The green block represents the proportion of space taken up by media files; the black block, the proportion of free space. The green block can reach a point 70 per cent along the Gauge. For used space above that, the gauge displays an amber block; then, above a level of 90 per cent, a red block.

1. To view details of the network path to the Media Store and the amount of used space, rest your mouse pointer over the Gauge:



A red horizontal line indicates the “high-water mark” for the Media Store: iTX does not add files to the Media Store when the amount of used space is at this level.

About asset templates

Each asset in the System Database has a template assigned to it.

The template stores settings for a group of asset properties; for example, the aspect ratio of a video clip. It applies these settings to any asset to which it is assigned – so removing the need for you to set the properties individually.

After the asset template has set the properties for an asset, you may change them by using the features on the Asset layout.

An asset template is assigned to an asset during ingest.

- When you import a media file through the Media Store Inbox, the Media Watcher assigns a default asset template to the asset it creates.
- If you want the Media Watcher to assign a different template to an asset, you may place the media file in an Inbox sub-folder that has the same name (with the characters in the same case) as an asset template. The Media Watcher then uses this template for the asset.
- When you use an Encode Server to record media onto the Media Store, you select an asset template in the Encode Settings dialog.

A number of default templates for different asset types are created in the System Database when the system is installed. These include the DefaultHD template for HD video clips and the DefaultSD template for SD video clips.

On the Asset layout, you can change the settings in any asset template. You can create asset templates based any of the default ones, or on other asset templates.

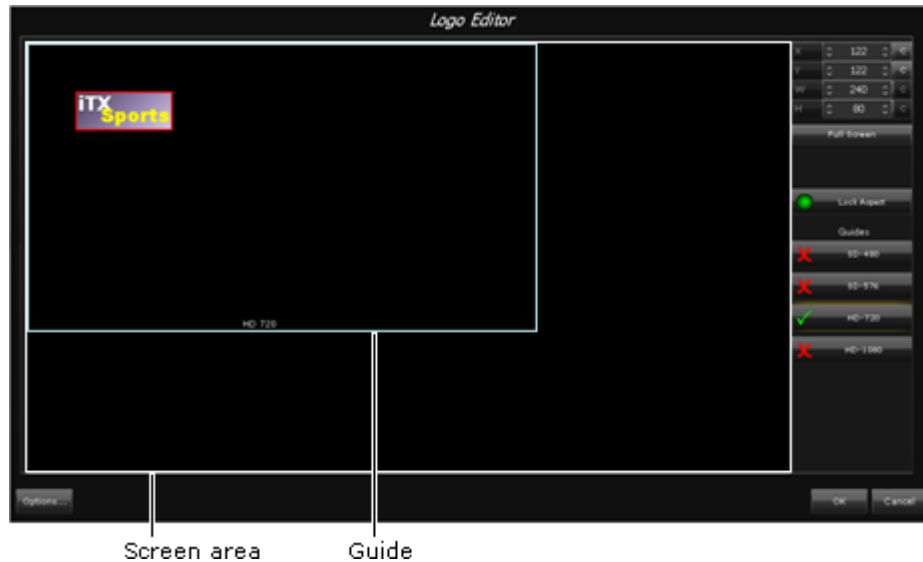
Preparing media items for playout

Create or modify an asset template

1. Use PinPoint on the Asset layout to find a list of asset templates.
2. Select one of these to display its properties in the Property Editor.
3. Modify any properties you want to.
4. Do one of the following to save your changes.
 - Click **Save** to overwrite the original asset template.
 - Click **Save As** to create a new asset template.

Working with the Logo Editor

When you select a logo on the Asset layout, the Media Viewer displays the logo and shows its position relative to the top, left corner of the screen. From the Media Viewer, you can open the Logo Editor and modify logo properties:

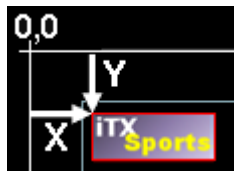


The Logo Editor displays a window with a default aspect ratio to represent the video-frame area. Within this window, you can display guide frames for various display resolutions (SD and HD) to help you position the logo. Clicking a guide button (**SD-480**, **SD-576**, **HD-720** or **HD-1080**) shows or hides a guide frame.

A measurements panel displays values (in pixels) for the position and size of the logo:

X	122	C
Y	122	C
W	240	C
H	80	C

The X and Y numbers show the distances of the top, left corner of the logo from the top, left corner of the screen area:



The W and H numbers give the width and height of the logo.

In the Logo Editor, you can change logo properties. You can:

- Re-position the logo.
- Resize the logo. Animated logos are not resizable.
- Adjust the logo transparency.

Working with the Logo Editor

- Set a transition for the logo.
- Assign the logo to a particular layer.
- Mark the logo as in the native format for a stereoscopic-3D playout channel; i.e. one that displays in stereoscopic 3D without iTX having to re-format it.

Display a logo in the Logo Editor

1. On the Asset layout, select a logo in the results pane of the PinPoint panel.
iTX displays the logo in the Media Viewer.
2. Click the Media Viewer.
The Logo Editor opens with the logo loaded; a green border around the logo shows it is selected.
3. Click the logo if you need to re-select it (the logo has a red border when it is not selected).
You can change logo properties while the logo is selected. Any changes you make take effect when you click **OK** to close the Logo Editor.

Re-position a logo

1. Select a logo in the Logo Editor.
2. Do one of the following to move the logo.
 - Position the mouse pointer within the logo and drag the logo into the new position:



- Change any of the values in the **X** and **Y** boxes. [More details](#), page 336.

Resize a logo

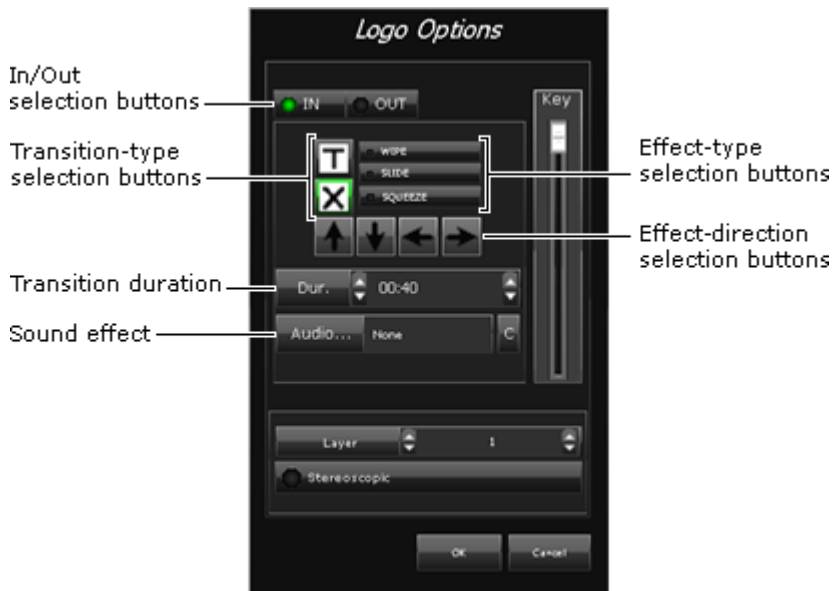
1. Select a logo in the Logo Editor.
2. If you want to keep the same aspect ratio when resizing the logo, select **Lock Aspect**; ensure this option is not selected if you want to adjust the width and height separately.
3. Do one of the following to resize the logo.
 - Click and drag any side or corner of the logo:



- Change any of the values in the **W** and **H** boxes. [More details](#), page 336.

Set a transition or vision effect for a logo

iTX can apply a transition or vision effect when switching a logo on and off; it can also play a sound effect at the same time. You set options that control such operations in the Logo Options dialog:



1. Select a logo in the Logo Editor.
2. Click **Options** to display the Logo Options dialog.
3. Select **IN**. Then do one of the following to set the transition or vision effect for the logo in-point.
 - Click a transition-type selection button to select a cut or cross-fade transition. If you select a cross-fade transition, set the transition duration by entering a value (in seconds:frames) in the **Dur** box.
 - Click **WIPE**, **SLIDE** or **SQUEEZE** to select a vision effect; click one of the arrow buttons to select the direction; enter a value (in seconds:frames) in the **Dur** box to set the duration of the effect.
4. Select **OUT**. Then do one of the following to set the transition or vision effect for the logo out-point.
 - Click a transition-type selection button to select a cut or cross-fade transition. If you select a cross-fade transition, set the transition duration by entering a value (in seconds:frames) in the **Dur** box.
 - Click **WIPE**, **SLIDE** or **SQUEEZE** to select a vision effect; click one of the arrow buttons to select the direction; enter a value in the **Dur** box to set the duration of the effect.
5. Do the following if you want iTX to play a sound effect with a visual effect.
 - Select **IN** or **OUT** depending on whether you want to associate a sound effect with the in-point or out-point.
 - Click **Audio** to open PinPoint. Use PinPoint to select an audio file from the System Database. [More details](#), page 188.

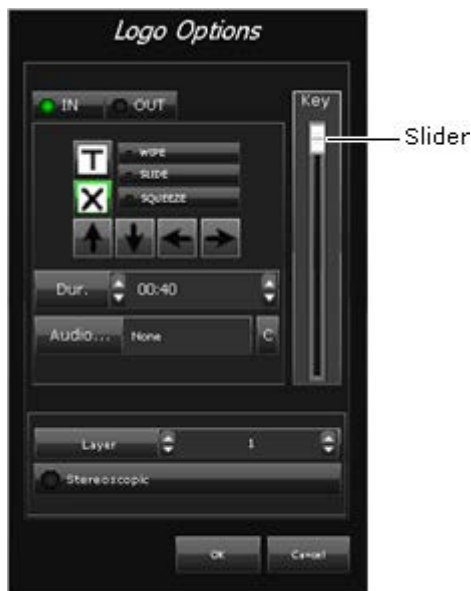
When you close PinPoint, the name of the selected file appears in the **Audio** box.

Note: You may cancel your selection of a sound effect by clicking **C**, to the right of the **Audio** box.

6. Click **OK** to close the Logo Options dialog.

Adjust the transparency of a logo

A logo has a transparency property, called its key level, which controls how much of the underlying video image shows through the logo. You can adjust this in the Logo Options dialog:



1. Select a logo in the Logo Editor.
2. Click **Options** to display the Logo Options dialog.
3. Move the **Key** slider down or up to make the logo more or less transparent.

Click **OK** to close the Logo Options dialog.

Assign a logo to a layer

iTX can stack logos on up to ten layers, numbered 1 to 10. By assigning a logo to a higher-numbered layer, you may ensure a logo is not obscured by any other overlapping logo.

1. Select a logo in the Logo Editor.
2. Click **Options** to display the Logo Options dialog.
3. Enter a layer number in the **Layer** box.
4. Click **OK** to close the Logo Options dialog.

Mark a logo as stereoscopic-3D formatted

Each frame in a stereoscopic-3D signal contains two side-by-side video images, from which 3D display equipment forms a 3D picture.

In a 3D playout channel, iTX plays out 3D logos in the same way it plays out 2D logos in a 2D playout channel; i.e. by displaying each full frame in turn. No conversion is necessary.

To play out a 2D logo in a 3D channel, iTX needs to overlay the logo on each of the side-by-side video images in a frame. It does this by scaling down the logo to half its width and duplicating it. It positions one logo, relative to its image, slightly offset from the other logo relative to its image. This creates an impression of the logo appearing in front of the video image.

The apparent distance between the logo and the video image depends on the size of the offset; this, in turn, is based on the number of the layer to which you assign the logo.

When working with a 3D channel, you need to identify which logos are stereoscopic-3D formatted and which are not.

1. Select a logo in the Logo Editor.
2. Click **Options** to display the Logo Options dialog.
3. Do one of the following depending on the logo format.
 - For a stereoscopic-3D formatted logo, select **Stereoscopic**.
 - For a logo that is not in this format, ensure **Stereoscopic** is not selected. Enter a layer number in the **Layer** box.

The higher the layer number, the further in front of the video image the logo appears.

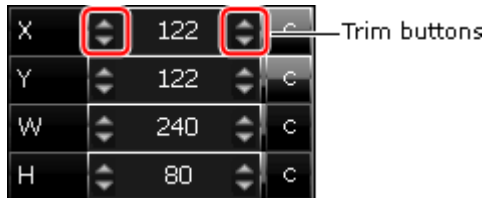
4. Click **OK** to close the Logo Options dialog.

Note:

- Ensure **Stereoscopic** is not selected for any logo that is to play out in a standard 2D channel.

Entering values in the measurements panel

You can change a value in the measurements panel in a number of ways.



You may:

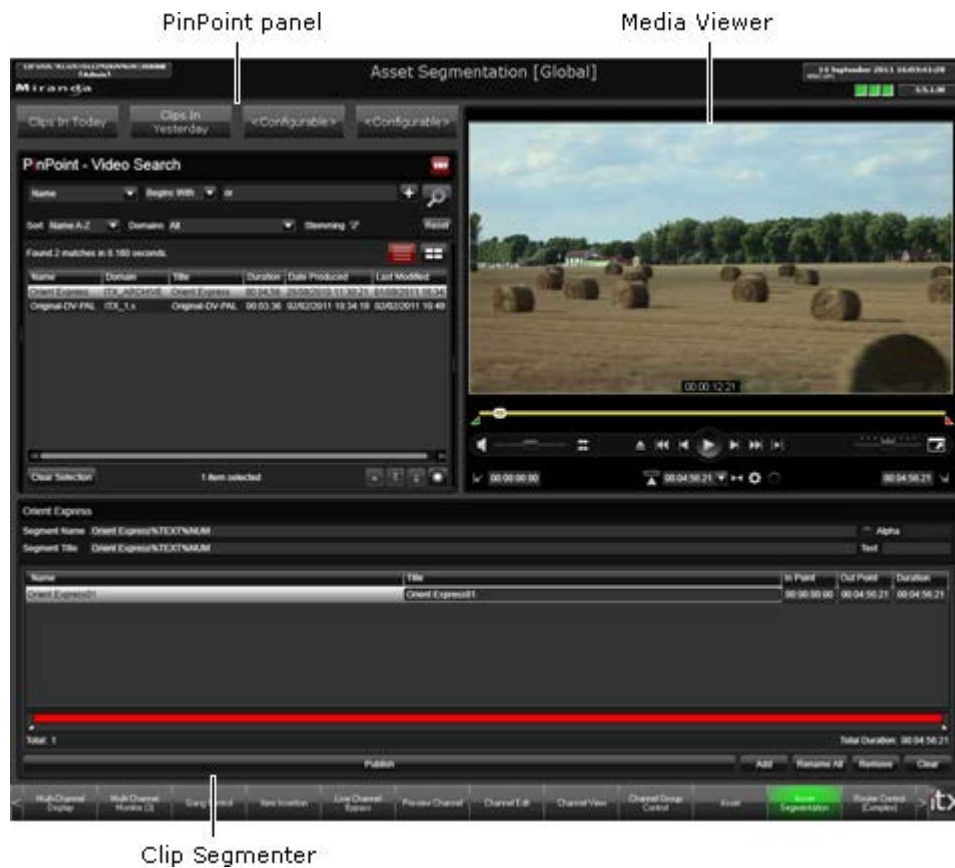
- Enter a number directly into any box; pressing the Return key completes an entry.
- Enter a number into any box by using a numeric keypad: click **X**, **Y**, **W** or **H** to display the numeric keypad; use the keypad to enter the value.
- Quickly enter the maximum width or height by clicking **C** to the right of the **W** or **H** box.
- Quickly enter a zero position by clicking **C** to the right of the **X** or **Y** box.
- Click a trim button to change a value in steps. An upper trim button increases a value, while a lower one decreases it. A left trim button changes a value in large steps; a right one, in small steps.

Working on the Asset Segmentation layout

Working on the Asset Segmentation layout

If you have a long video clip, you may want to divide it into segments that you can schedule for playout independently. You can do this by creating a separate video clip for each segment. The segment clips refer to different parts of the same media file; you do not need to create new media files for them.

For this process, which we call segmenting, you may use the Asset Segmentation layout:



The layout has a PinPoint panel and a Media Viewer, similar to the Asset layout. It also has a special component, called the Clip Segmenter, for creating clip segments from a base video clip.

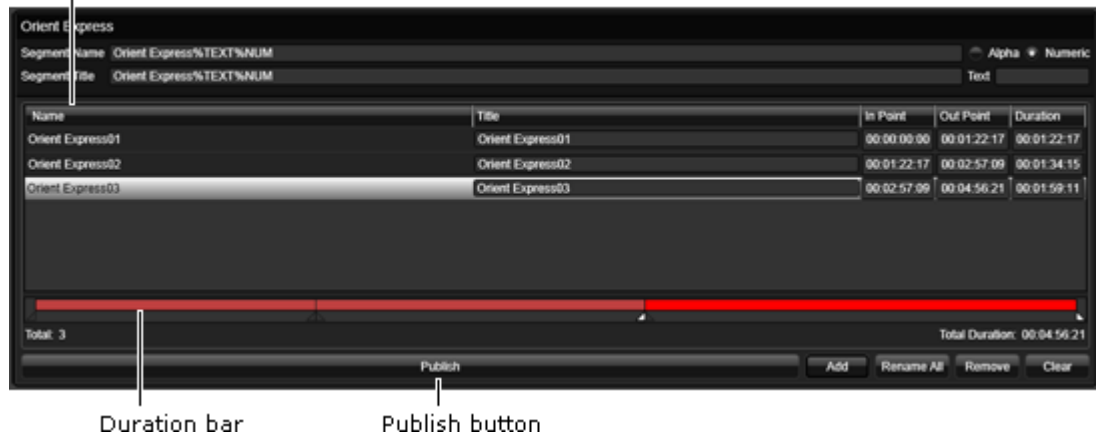
Through this layout, you can:

- Use PinPoint to display a list of video clips.
- Select a video clip for segmenting – the base video clip – and load it in the Clip Segmenter.
- Use the Clip Segmenter to create segments from the base video clip.
- Adjust the boundary points of any segment while playing the segment in the Media Viewer.

Working on the Asset Segmentation layout

Clip Segmenter features

Segment list



Duration bar

Publish button

The Clip Segmenter has these main features:

- A segment list – containing details of the segments you create from the base video clip.
- A duration bar. The length of this bar represents the duration of the media file that the base video clip refers to. A bright red section, between in- and out-point markers, shows the location in the file of the media for a selected segment; dull red sections show the media locations for other marked segments.
- A **Publish** button. Clicking this button creates separate video clips for all the segments in the segment list.

Each time you add a segment, iTX gives it a name that includes the name of the base video clip and a part name (see below); the part name distinguishes the segment from other segments of the same video clip. iTX also gives the segment a title if the base video clip has one. The clip name and title appear in the **Segment Name** and **Segment Title** boxes in the Clip Segmenter.

You may edit the name and title, including the part name, in the segment list.

About the part name

The form of the part name, for both the name and title, depends on options you set for the Clip Segmenter. It may start with an optional prefix, such as "Part". It always has an ID character, a number or letter that iTX generates. The ID character changes (in numerical or alphabetical order) for each clip, to make each segment name unique. So, you may have a set of segments called *MyVideoClip Part 01*, *MyVideoClip Part 02*, etc.

In the Clip Segmenter **Name** and **Title** boxes, the optional prefix is represented by a special term, "%TEXT"; the part name by another special term, "%NUM".



You may edit the text before the terms and add text after them in these boxes. You should not edit the terms themselves, though, since doing so prevents iTX creating the part name.

Working on the Asset Segmentation layout

Load a base video clip in the Clip Segmenter

1. Do one of the following to display a list of video clips in the results pane of the PinPoint panel.
 - Specify search criteria in the PinPoint search builder. Click the Search button. [More details](#), page 188.
 - Click a preset filter button; e.g. **Clips In Today** for all video clips.

The results pane displays a list of video clips.

2. Select a video clip in the results pane.

iTX loads the clip into the Clip Segmenter and makes it the first segment; it displays an entry for it in the segment list.

The part of the duration bar that represents the segment turns bright red. For media outside of the segment, the duration bar appears grey.

The Media Viewer displays the first frame of the segment.

Create segment clips from a base video clip

While a base video clip is loaded in the Clip Segmenter, you can create segment clips from it.

1. Do one of the following to define the first segment.
 - Move the in- and out-point markers on the duration bar in the Clip Segmenter.
 - Enter new timecode values in the In Point and Out Point (or Duration) columns of the segment list.
 - Enter new timecode values in the in-point and out-point (or duration) boxes in the Media Viewer.
 - While playing the video clip in the Media Viewer, click the Mark In and Mark Out buttons.

As you make a change by using one feature, the other features update to show the new in- or out-point.

2. Do the following for each segment you want to add.

- Click **Add Segment**.

iTX creates a segment that starts at the out-point of the last segment and extends to the end of the media file; it displays an entry for it in the segment list.

The part of the duration bar that represents the segment media turns bright red. The parts that represent the media for other segments appears dull red.

The Media Viewer displays the first frame of the segment.

- Set the in- and out-points of the new segment, using any of the methods described in step 1.

3. After defining all the segments you want to, click **Publish**.

iTX creates a clip for each segment and clears all segments from the Clip Segmenter.

Working on the Asset Segmentation layout

Note:

- You may select any segment by clicking its entry in the segment list or the section of the duration bar that represents it. You may then adjust its in- and out-points.
- A segment may overlap other segments.
- You can remove a segment from the segment list by selecting it and clicking **Remove Segment**.
- You can remove all segments by clicking **Clear**.

Set segment-naming options

You can specify the prefix, if you want one, in the part name, you can select whether iTX uses a number or a letter as the ID character.

1. Do any of the following before adding a segment.
 - Enter any required prefix in the **Text** box.
 - To specify a number as the ID character, select **Numeric** before you add a segment.
 - To specify a letter as the ID character, select **Alpha** before you add a segment.

Rename segments

If you change the ID-character type (number or letter) while adding segments, the segment list may contain some segments with a number in their part names and some with letters. You can rename the segments so that all part names are consistent.

1. Select **Num** or **Alpha**.
2. Click **Rename All**.

iTX renames all segments according to the order in which they appear in the base video clip and the select ID-character type.

Using iTX with a keyboard or hard panel

Using iTX with a keyboard or hard panel

For various tasks you perform at an iTX Desktop (e.g. the operation of the **Take Next** button), you may use a keyboard or hard panel. Your system administrator needs to make this functionality available if you want to use it.

Optional features

As well as the features you use for basic playout, iTX includes a variety of optional features for other playout operations. Some of these features may already be available on standard layouts; any that are not may be added to a layout by a Grass Valley engineer. (In some cases, a feature may require a license before it becomes available.)

In this section, we tell you how to use these optional features:

- The Live CG Inserter. [More details](#), page 343.
- The Gang Hold, Cue and Take Next controls. [More details](#), page 343.
- The Count To Control. [More details](#), page 344.
- The Schedule Preview Control. [More details](#), page 345.
- The Global Editor. [More details](#), page 348.
- The Live Channel Management panel. [More details](#), page 350.
- The Live Video Inserter. [More details](#), page 352.
- The Recue Item control panel. [More details](#), page 354.

Your system administrator may add a channel for checking on missing media to one or more of your channel views. This channel is available if the Missing Materials Manager (an iTX service) is included in your iTX system:

- The Missing Material status channel. [More details](#), page 355.

Some layouts can be configured to automatically control the output to a video monitor as you switch channels or channel views. You can then view:

- The schedule events in a selected channel. [More details](#), page 356.
- The next events to play out in various channels of a selected channel view. [More details](#), page 356.

Optional features

The Live CG Inserter



You use the Live CG Inserter to instantly switch a CG on or off during a live schedule, without creating a schedule event for the CG.

Set up the Live CG Inserter

Before you can use the Live CG Inserter, you need to load it with a CG.

1. Click the preview window to open the CG application.
2. Do one of the following to prepare a CG for loading in the Live CG Inserter.
 - Load an existing CG in the workspace of the CG application.
 - Create a CG in the workspace of the CG application.

[More details](#), page 211.

3. Click **OK** to close the CG application.

The Live CG Inserter displays a thumbnail copy of the CG in the preview window, and the name of the CG underneath.

Manually switch a CG on or off during a live schedule

1. Click **On** to switch the CG on or off.

Next-event gang buttons



The **Gang Hold Next**, **Gang Cue Next** and **Gang Take Next** buttons give you manual control of the next event in the live schedule of all playout channels in the selected channel view.

For all live schedules in the selected channel view, you can:

- Put the next event on hold.
- Cue the next event; i.e. get it ready for playing.
- After the event is cued, take it to air.

Your system administrator may give different labels to these buttons.

Optional features

Hold the next event in all live schedules in a selected channel view

1. In the Channel View selector, select a channel view.
2. Click **Gang Hold Next**.
iTX puts the next event on hold in all live schedules in the selected channel view.

Cue the next event in all live schedules in a selected channel view

1. In the Channel View selector, select a channel view.
2. Click **Gang Cue Next**.
iTX cues the next event in all live schedules in the selected channel view.

Take the next event to air in all live schedules in a selected channel view

1. In the Channel View selector, select a channel view.
2. Click **Gang Take Next**.
iTX takes the next event to air in all live schedules in the selected channel view.

The Count To Control



Event selection box

The Count To Control counts to, or from, a selected event. You may select the event either in the Schedule Grid or in the control itself.

The Count To Control shows the name of the event and one of the following:

- The time to the start of the event; the time is given after a minus (-) sign.
- The time that has passed since the start of the event, if the event has already started; the time is given after a plus (+) sign.

The time value is in the format: hh:mm:ss (hours:minutes:seconds).

Select a schedule event for a count

1. Do one of the following.
 - Select an event in the Schedule Grid.
 - Click the event selection box in the Count To Control. The Select Item To Count To dialog appears. Select a schedule event; click **OK** to close the dialog.

The Schedule Preview Control

If your iTX system includes a preview channel, you may preview the transitions at the start and end of schedule events before iTX plays them out in a playout channel. For this, you use the Schedule Preview Control:



You can preview a single schedule event or a group of schedule events. iTX plays out any associated secondary events that fall within the preview period.

About the Preview Channel layout

The Schedule Preview Control appears on the Preview Channel layout, which you may display on your iTX Desktop workstation.

This layout contains channel-selection features, together with a Timeline Display and Schedule Grid for any selected channel. It also contains a Timeline Display and Schedule Grid for the preview channel.

You can select events in any playout or edit channel and use the Schedule Preview Control to copy them to the preview channel. You can then monitor the playout of these events in the preview channel, while watching the channel output on a preview monitor.

Set the preview durations

1. To set the preview duration for the start of the event, enter a value in the **IN** box; or move the **IN** slider.
2. To set the preview duration for the end of the event, enter a value in the **OUT** box; or move the **OUT** slider.

Preview the start of a schedule event

1. On the Preview Channel layout, select an event in a playout or edit channel.
2. Click **PVW In**.

iTX plays the event in the preview channel. It plays the end of the previous event, the in-transition and the start of the selected event.

Preview the end of a schedule event

1. On the Preview Channel layout, select an event in a playout or edit channel.
2. Click **PVW Out**.

iTX plays the event in the preview channel. It plays the end of the selected event, the out-transition and the start of the following event.

Optional features

Preview a group of selected schedule events

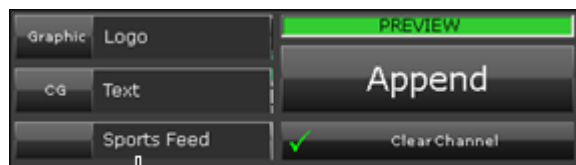
1. On the Preview Channel layout, select a group of events in a playout or edit channel.
2. Click **PVW Block**.

iTX plays the events in the preview channel. For each one, it plays the end of the previous event, the selected event and the start of the following event.

It plays the selected events in full, unless the duration of an event is longer than a channel allows; in which case, it plays just a portion of the event, including the start, end and transitions.

The Direct Preview Control

In an iTX system with a preview channel, you may use the Schedule Preview Control to view transitions; we describe how you do this in the previous topic. Alternatively, you may use another component to view marked portions of video clips. The component you use for this is the Direct Preview Control:



Video-clip selection box

A layout with this component usually also contains these components:

- A PinPoint panel.
- A Media Viewer.
- A Schedule Grid, displaying the contents of the schedule in the preview channel.

You use the PinPoint panel to select a video clip and load it into the Direct Preview Control. You may play the video clip in the Media Viewer and adjust its in- and out-points.

You may then play the video clip with its modified boundary points in the preview channel. To do so, you use the **Append** button to create an event in the preview-channel schedule; iTX inserts the video clip in its own sequence in this schedule.

You can include a still image with a CG before the video clip in the sequence by specifying them in the Direct Preview control.

As you add one clip after another to the preview-channel schedule, iTX plays out the sections of them between their marked points.

Note:

- A CG, if used, should show the name or title of the video clip. For iTX to be able to insert the correct information in the CG, the CG must have an editable text block containing either "NAME" or "TITLE" (in block capitals) in the **Label** box. [More details](#), page 216.

Add a sequence with a video clip to the preview-channel schedule

1. Select a video-clip in the PinPoint panel.
The clip name appears in the video-clip selection box of the Direct Preview Control.
2. Load and play the video clip in the Media Viewer. Modify its in- and out-points if you want to.
3. Do the following if you want iTX to include a still image with a CG in the sequence it creates for the video clip.
 - Click **Graphic** to display the PinPoint dialog; select a still image. The name of the still image appears in the **Graphic** box when you close the PinPoint dialog.
 - Click **CG** to display the PinPoint dialog; select a CG. The name of the CG appears in the **CG** box when you close the PinPoint dialog.

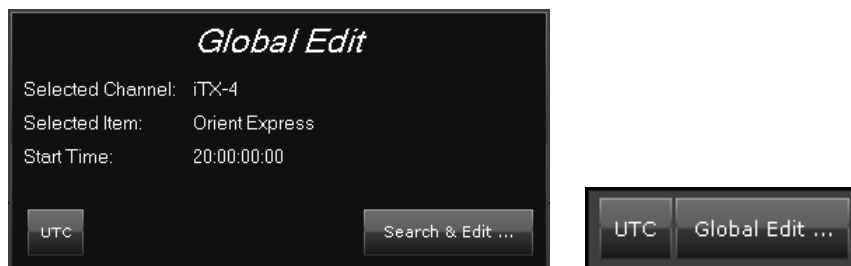
Note: Both items are needed for this option. If either item is not specified, iTX omits the other one from the sequence.
4. Do one of the following, depending on how you want iTX to modify the schedule in the preview channel when it creates the sequence for the video clip.
 - Select **Clear Channel** if you want iTX to remove all existing events from the preview channel.
 - Ensure **Clear Channel** is not selected, if you want iTX to create a sequence after the last event in the schedule.
5. Click **Append**.
iTX adds a sequence containing the video clip, and any specified still image and CG, to the preview-channel schedule.

The Global Editor

By using the Global Editor, you can modify a number of schedule events at the same time if they use the same asset. You can replace the asset (e.g. a video clip or logo) in these events; or you can change a particular event property, such as the event start time.

- The Global Editor allows you to modify events in schedules in multiple playout and edit channels in a selected channel view.
- The channels may be in different iTX domains in a multi-domain system.

Depending on the design of an iTX Desktop layout, the Global Editor appears in one of two sizes (with identical functionality in each case):



The Global Editor displays a **UTC** button when any channel in the channel view is set up for displaying local times that are different from Co-ordinated Universal Time (UTC); the differences may be due to time-zone or daylight-saving offsets from UTC. It may be possible to switch the button on or off (see the note below) to show times in UTC or local time.

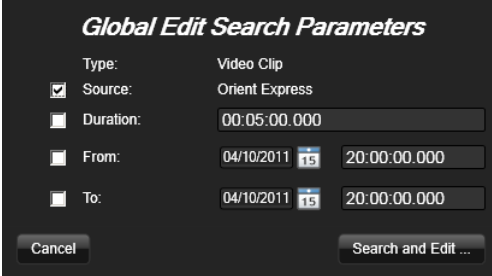
Note:

- The UTC option is only available when all the channels in the view have the same time-zone and daylight-saving offsets. If these settings are different for any channel, the option is permanently selected (the button displays a red light) and all times appear in UTC.

Optional features

Using the Global Editor

To use this feature, you select an event that uses the asset that is to be the focus of the schedule changes. You then specify search criteria, based on this asset, in the Global Edit Search Parameters dialog:



Global Edit Search Parameters

Type: Video Clip

Source: Orient Express

Duration: 00:05:00.000

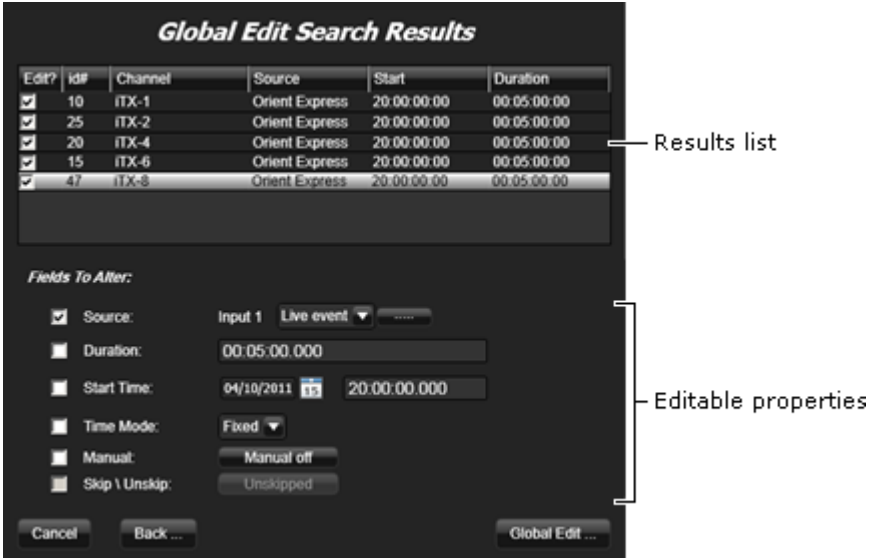
From: 04/10/2011 15 20:00:00.000

To: 04/10/2011 15 20:00:00.000

Cancel Search and Edit ...

The search criteria may include the asset name, event duration and a playout time window.

In performing a search, the Global Editor gets a list of events that meet the search criteria. It displays the list in the Global Edit Search Results dialog:



Global Edit Search Results

Edit?	id#	Channel	Source	Start	Duration
<input checked="" type="checkbox"/>	10	ITX-1	Orient Express	20:00:00.00	00:05:00.00
<input checked="" type="checkbox"/>	25	ITX-2	Orient Express	20:00:00.00	00:05:00.00
<input checked="" type="checkbox"/>	20	ITX-4	Orient Express	20:00:00.00	00:05:00.00
<input checked="" type="checkbox"/>	15	ITX-6	Orient Express	20:00:00.00	00:05:00.00
<input checked="" type="checkbox"/>	47	ITX-8	Orient Express	20:00:00.00	00:05:00.00

Results list

Fields To Alter:

Source: Input 1 Live event

Duration: 00:05:00.000

Start Time: 04/10/2011 15 20:00:00.000

Time Mode: Fixed

Manual: Manual off

Skip \ Unskip: Unskipped

Cancel Back ... Global Edit ...

Editable properties

The dialog also lists the properties you can change for these events.

You select the schedule events you want to modify and specify the changes you want to make to them. Instead of changing events, you may skip (or unskip) them.

Important:

- Because the Global Editor can instantly make multiple changes to live schedules, you should use it very carefully. Using it wrongly could cause unwanted schedule changes or interruption to playout in live channels.

Use the Global Editor to make schedule changes in multiple channels

For this procedure, you use the Channel Group Control layout, or a customized layout that contains the Global Editor.

1. Select a channel view.
2. Select a layout or edit channel in which there is a schedule loaded.
3. Select an event in the Schedule Grid.
4. If the option is available on the Global Editor, switch the **UTC** button on to work with UTC times; or off, to work with local times.
5. Click either **Search and Edit** or **Global Edit** (depending on which version of the Global Editor appears on your layout).

The Global Editor displays the Global Edit Search Parameters dialog.

6. Do any of the following, depending on what you want to use for search criteria.
 - Select the **Source** check box if you want to use the asset name.
 - Select the **Duration** check box if you want to use the asset duration. You may modify the displayed duration.
 - Select the **From** check box if you want the Global Editor to find events that start after a particular date and time. You may change the displayed date and time.
 - Select the **To** check box if you want the Global Editor to find events that start before a particular date and time. You may change the displayed date and time.
7. Click **Search and Edit**.

The Global Editor searches schedules in the selected channels for events that meet the search criteria. It displays a list of these events in the Global Edit Search Results dialog.

8. Select the check boxes of events you want to change.
9. Select the check boxes of properties you want to change.
 - If you select the **Source** check box, you may replace the asset in the selected events with a video clip, a live event or a logo; you select one of these types from the dropdown list next to the asset name. To select the new asset, you use PinPoint (which you open by clicking the search button).
 - If you choose to skip or unskip the selected events, the other properties become unavailable. Similarly, the **Skip/Unskip** option becomes unavailable once you choose to change any of the other properties.

10. Click **Global Edit**.

The Global Editor makes the required schedule changes and closes the Global Edit Search Results dialog.

The Live Channel Management panel

On a standard iTX Output Server, one service controls the playback of events; this service operates the “main” channel.

Optional features

It is possible for an Output Server to have a second service that can also control the playout of events. This service, which is normally used to insert a live programme into a running schedule, operates the “live” channel.

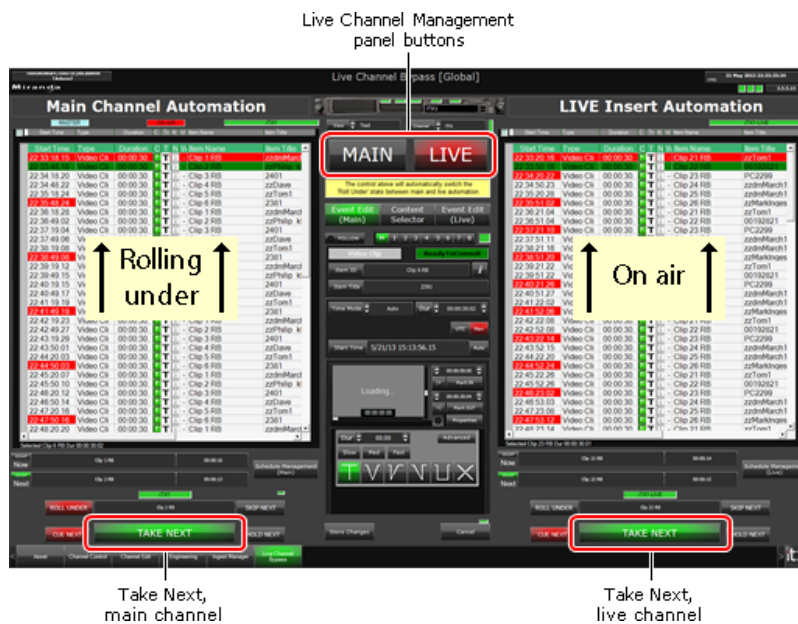
These channels are operated by the services TXPlay and TXLive, and are identified as ‘main’ and ‘live’. At any time, either channel may be connected to the Output Server to provide the SDI output for transmission; the other channel is ‘by-passed’.

When both channels are running schedules, only one of them can be on air – playing out events and providing the channel output to a transmission system. The other channel processes its schedule without playing out events; we describe this channel as “rolling under” the on-air channel.

To select which channel provides the channel output, you use the Live Channel Management panel:



The panel appears on the Live Channel Bypass layout, along with features for modifying and controlling schedules in the two channels:



Switch the source of the channel output

1. Click **MAIN** or **LIVE** to select the channel that is to provide the channel output.

The button displays a red light, showing the channel is on air.

You may switch the output to the rolling-under channel at any time. When you do, the channel starts playing out events from the point it is at in its schedule; the other channel then rolls under.

Optional features

Handling of manual events in the main channel while rolling under

When a manual event becomes due to play out in the main channel, the operator clicks Take Next to keep the schedule rolling under; the live channel remains on air.

When it becomes necessary to play events to air from the main channel, the operator clicks Main. The main channel is then connected to the Output Server.

In earlier versions of iTX, clicking Take Next for a rolling-under channel automatically took the channel out of rolling-under mode and put the next event on air. The software modification makes a clearer separation between the roles of the Take Next and the Main/Live buttons.

The Live Video Inserter

Sometimes, you may want to play out individual video clips, small groups of video clips or a live event without using an iTX schedule. You can do this by using the Live Video Inserter:



This component holds one or more video clips, ready for insertion in events in a playout channel to which it is connected. It creates events for the clips in the playout channel in the order in which it holds the clips. It makes the first event a manual event and the following ones automatic events.

You load the video clips into the component in one of two ways:

- Clicking **Load** on the component opens PinPoint, which you then use to select one or more video clips. The component loads the clips in the order in which it gets them from PinPoint.
- You select events in an edit channel connected to the component. The component loads the video clips for these events in the order in which they appear in the edit channel. It also loads any logos associated with the clips. The logos keep the properties (e.g. duration, time offset) and relationship to their video clips that they have in the edit channel.

When the playout order of multiple clips is important, you should use the second method and arrange the events in the edit channel in the required order. This means you do not then have to re-arrange the events in the playout channel after they are created.

You may change the in- and out-points of the first clip in the Live Video Inserter, before creating an event with it in the playout channel.

The Live Video Inserter clears any events that are in the playout channel before adding new ones.

Optional features

If the Output Server you are going to use for playout has a live feed connected directly to it, you can use this to play out a live event (instead of video-clip events). For this to work, there must be a live asset in your system with the name "LIVE".

Using the Live Video Inserter on the Line Playback layout

A number of standard layouts contain the Live Video Inserter. Below, we describe how to use the component on the Line Playback layout, where it is set up to load clips from both PinPoint and an edit channel. The layout has two schedule grids with separate Channel Selectors; these allow you to select channels from a particular channel view. For the upper Schedule Grid, you select an edit channel; for the lower one, a playout channel.

Select edit and playout channels on the Line Playback layout

1. Select a channel view in the **View** box.
2. Select an edit channel in the upper **Channel** box. Check that both the upper Schedule Grid and the Live Video Inserter display the channel name.
3. Select a playout channel in the lower **Channel** box. Check that both the lower Schedule Grid and the Live Video Inserter display the channel name.

Load video clips in the Live Video Inserter from PinPoint

1. On the Live Video Inserter, click **Load** to open PinPoint.
2. Use PinPoint to select one or more video clips. [More details](#), page 188.

The Live Video Inserter loads the clips when you close PinPoint.

The **Load** box shows either the clip name (if there is only one loaded) or the total number of loaded clips (when there is more than one).

The preview window shows the details of the first loaded clip. You may load and play the clip in the preview window and modify its in- and out-points.

Load video clips in the Live Video Inserter from an edit channel

1. Use the layout scheduling features (Content Selector, Event Editor and Schedule Manager) to add events to the edit channel that the upper Schedule Grid is connected to. The events should feature the video clips you want to play out.
2. Select one or more video-clip events in the upper Schedule Grid.

The Live Video Inserter loads the video clips from the events as you select them. It also loads any logos in secondary events associated with these video-clip events.

The **Load** box shows either the clip name (if there is only one loaded) or the total number of loaded video clips and logos (when there is more than one).

The preview window shows the details of the first loaded clip. You may load and play the clip in the preview window and modify its in- and out-points.

Optional features

Add video-clip events to a playout channel from the Live Video Inserter

1. With one or more video clips loaded in the Live Video Inserter, click **Insert Items**.
The Live Video Inserter clears any events from the playout channel to which it is connected. It then creates video-clip events in this channel for all the video clips it holds; it creates logo events for any video clips that have logos associated with them. The first event is a manual event.

Add a live event to a playout channel from the Live Video Inserter

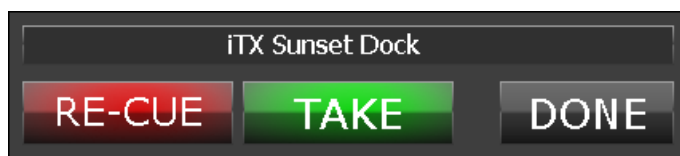
1. Ensure the playout channel has a live feed and there is a live asset called "LIVE" in the System Database.
2. Click **Insert Live** on the Live Video Inserter.
3. The Live Video Inserter clears any events from the playout channel to which it is connected. It then creates a manual live event with a duration of 1 hour in the channel.

Take events to air from the Live Video Inserter

1. Click **Cue Next** on the Line Playback layout to cue the first event in the playout channel.
2. Click **Take** on the Live Video Inserter to put this event on air.

The Recue Item control panel

The main purpose of the Recue Item control panel is to enable you to replay an event from earlier in the schedule, or to restart the current event when there is a problem. It also works, though, on future schedule events and enables you to take events to air from an edit channel.



The panel controls the playout of single or multiple selected events in a playout channel, which we refer to as the target channel. The events are inserted in the target channel from a source channel.

A playout channel can act as both the source and target channel. The selected events may include sequences or complete schedules.

The panel contains three buttons that operate on the selected events:

- Click **Re-Cue** to insert the selected events in the target channel and cue the first of them to the first frame.
- Click **Take** to put the first of the inserted events on air. The following events play out in their turn. When the last event finishes, iTX continues to display the last video frame.
- Click **Done** to mark the selected events as skipped in the source channel.

Optional features

Where the source and target channels are the same, the selected events are inserted after the current on-air event. Where the source and target channels are different, the target channel is cleared when the selected events are inserted and when the operation is marked as done.

The Re-cue control can also be configured to only act upon the current on air item. This configuration property is called "Follow on air item". For more information see the "iTX System Administrator Guide".

The Missing Material status channel

Missing Materials Manager is an optional iTX service. It checks specified schedules for schedule events with missing media files. It operates its own information channel through which it provides details of the missing files.

You can see which media files are missing by selecting this channel on the iTX Channel Control layout.



The files appear in playout order, with the earliest required one at the top of the list. If the schedule event is included in more than one live schedule, the earliest event appears in the Schedule Grid, with the Schedule# column displaying the number of schedules in which the event appears.

When a schedule event requires a media file that is stored in an archive location (for example, on a Front Porch Digital DIVArchive), the Media Watcher copies the file to a Media folder on the Media Store.

Note:

- Just as when you set up the column arrangement in the Schedule Grid for a playout channel, you can set up the Schedule Grid columns for the Missing Material channel. [More details](#), page 150.

Automatic display of schedule events on a video monitor

If your iTX system is set up to control a matrix router, any of the channel-control layouts may be configured to connect a playout channel to a video monitor. Two configurations are possible, producing different effects:

- The monitor displays the schedule events in a selected channel.
- The monitor displays the next event due to play out in any on-air channel in a selected channel view.

Display the schedule events in a selected channel

1. Do one of the following, depending on which channel-selection feature is available on the layout you are using.
 - Select a channel in the Channel Selector. You may do this on the iTX Channel Control layout, for example.
 - Select a channel on the Timeline Display. You may do this on the Multi-Channel layout, for example.

iTX connects the selected channel to the video monitor. This displays the schedule events as iTX plays them out.

Display the next events in the different channels of a channel view

1. Select a channel view through the Channel View selector.

At the scheduled start time of the next event that is due to play out in any channel in the channel view, iTX connects the channel to the video monitor. This displays the event for an amount of time set in the layout configuration.

As iTX plays out events in various channels in the same channel view, it connects each channel to the video monitor as the next event becomes due to play out in that channel. When events are due to play out at the same time, only the first one is displayed on the video monitor.

Appendix A: The iTX Import Protocol

Through the iTX Import Protocol, you can import clip lists, schedules and wipe lists into the iTX system. You ingest them into the system by placing them in the Inbox folder on the Media Store. [More details](#), page 245.

In this section, we show you the format for the following files:

- Clip lists (.ocl files), consisting of all the information iTX needs for the video clips.
- Schedules (.osc files), containing all the information iTX needs to play out a programme.
- Wipe lists (.wpl files), consisting of a list of video clips you want to delete from the database.

For more information about the iTX Import Protocol, contact iTX Support.

Formatting clip lists

Clip lists are built from a series of video clips.

Each item begins with "CLIP" and finishes with "END". Each line is terminated with a carriage return or a carriage return and a line feed.

The following clip list consists of three video clips:

```
CLIP
CLIP_ID Local News-1712
TITLE Local News-1712
TC_IN 00:00:15:00
TC_OUT 00:08:45:00
TC_DUR 00:08:00:00
END

CLIP
CLIP_ID World News-1712
TITLE World News-1712
TC_IN 00:00:00:00
TC_OUT 00:05:00:00
TC_DUR 00:05:00:00
END

CLIP
CLIP_ID Sporting News-1712
TITLE Sporting News-1712
TC_IN 00:00:00:00
TC_OUT 00:07:30:00
TC_DUR 00:07:30:00
END
```

Note:

- Ensure the clip ID of each video clip has the characters in the same case as the corresponding media file on the Media Store.

Formatting schedules

Schedules are built from a sequence of schedule-event records.

Each schedule event begins with "ITEM" and finishes with "end". Each line ends with a carriage return or a carriage return and a line feed. The schedule ends with "end" on a separate line.

Schedules with a local time code (due to an offset from UTC or daylight saving time) must be converted to UTC before they are imported. A conversion tool is available from iTX Support.

You must associate a schedule with a channel by placing the schedule inside a folder; the name of the folder must be the same (and the characters in the same case) as the iTX channel the schedule belongs to. To import a schedule, you place the folder in the Inbox.

The following schedule consists of a video clip, a CG and a video clip with a logo:

```
ITEM
clip Local News-2403
mode 1
type 1
tc_in 00:00:15:00
tc_out 00:10:15:00
end

ITEM
clip CAPTION
mode 4
overlay 1
preset_time 00:00:15:00
tc_out 00:00:10:00
data Local News CG|With:Mike
Barker|
end

ITEM
clip World News-2403
mode 1
type 1
tc_in 00:00:00:00
tc_out 00:10:00:00
logo_0 1
end

end
```

Note:

- Your system administrator associates the logo and CG references in imported schedules to the media files in the iTX system.
- Ensure the clip ID of each schedule event has the characters in the same case as the corresponding media file on the Media Store.

Formatting wipe lists

Wipe lists are a list of clips to be deleted from the system.

Each line contains the clip ID of the clip to be deleted. Each line is terminated with a carriage return or a carriage return and a line feed.

The following file causes these six clips to be deleted from the database and their media files removed from all storage areas, unless the media is referenced by other clips:

```
Documentary-Rainforest  
Adventure  
Documentary-Desert Exploration  
Documentary-Forest Ecology  
Kids-In Your Garden  
Kids-Learn to Cook  
Kids-Neighbourhood Safari
```

Note:

- Ensure the clip ID of each clip has the characters in the same case as the corresponding media file on the Media Store.