USER MANUAL

PART 9 - EDITING - EDIT WHILE PLAYOUT

Version 6.0 - November 2012

IP.Director

Copyright

Disclaimer

The information in this manual is furnished for informational use only and subject to change without notice. While every effort has been made to ensure that the information contained in this user manual is accurate, up-to-date and reliable, EVS Broadcast Equipment cannot be held responsible for inaccuracies or errors that may appear in this publication.

Improvement Requests

Your comments will help us improve the quality of the user documentation. Do not hesitate to send improvement requests, or report any error or inaccuracy on this user manual by e-mail to doc@evs.com.

Regional Contacts

The address and phone number of the EVS headquarters are usually mentioned in the Help > About menu in the user interface.

You will find the full list of addresses and phone numbers of local offices either at the end of this user manual (for manuals on hardware products) or at the following page on the EVS website: http://www.evs.com/contacts.

User Manuals on EVS Website

The latest version of the user manual, if any, and other user manuals on EVS products can be found on the EVS download center, on the following webpage: http://www.evs.com/downloadcenter.

Table of Contents

What's New?

The following table describes the sections updated to reflect the new and modified features on IPDirector from version 6.0 (compared to version 5.9).

In the user manual, the icon 

has been added on left margin to highlight information on new and updated features.

Click the section number (or the description) in the table to jump directly to the corresponding section.

Section	Description
1.1.1 - 1.1.4 - 1.1.3 - 1.2.2	The on-air timeline can be played out on a single player channel supporting the "Mix on one channel" functionality.
1.1.3	The EWP mode can be used with 4-channels EVS video servers.
1.1.5	The EWP mode can be used with the BEPlay.
1.3.1	Two fields have been added on the EWP Control Panel: TLO remaining time and TLO expected TC OUT.
1.7	Possibility to mange GPI in TLO.

1. Edit While Playout

1.1. Introduction

1.1.1. General Description

Purpose

The Edit While Playout mode allows the users to play out a timeline in IPEdit while editing the same timeline in the same instance of the IPEdit application.

- The timeline editing is performed on the IPEdit engine PGM3/4.

  The "edit timeline" is called the TLE.

- The timeline playout is performed on the IPEdit engine PGM1/2 or on a single channel supporting the "Mix on one channel" functionality.

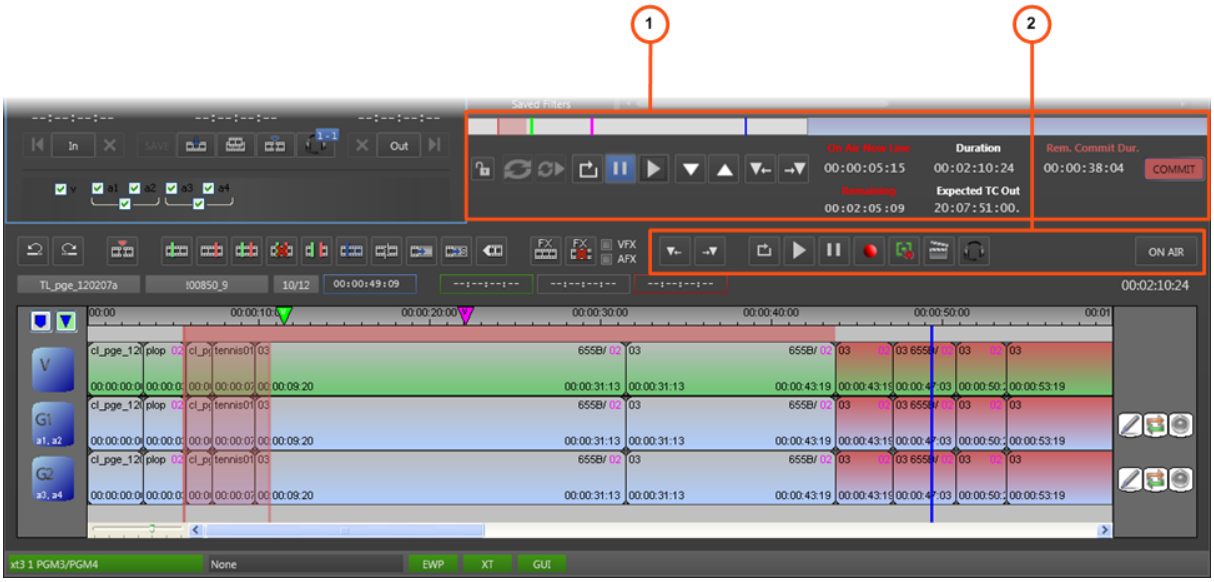
  The "on-air timeline" is called the TLO.

The on-air timeline is updated by applying the editing actions performed on the TLE to the TLO, via a **COMMIT** button.

This is possible to use the EWP mode (Edit While Playout mode) in a Master/Slave configuration, so that it offers a failover mechanism in a redundant setup.

User Interface

Both TLE and TLO are managed on the same instance of IPEdit, and are visible on the same Timeline display. The TLE editing is performed as usual with the commands above the Timeline display. The TLO playout and related actions is managed via dedicated commands, displayed on the EWP Control Panel:



Area		See section
1.	TLO commands of the EWP Control Panel	"Edit While Playout Control Panel" on page 5.
2.	TLE transport commands	See sections "Locators Buttons" and "Transport Command Bar" in the chapter on IPEdit.

1.1.2. Limitations

The EWP mode (Edit While Playout mode) has the following limitations:

- When the editing actions on the TLE have been committed to the TLO, it is not possible to undo the commit. The user has to undo the editing actions in the TLE and to re-commit to the TLO.
- All modifications are applied and committed for the future only, not in the past.

1.1.3. Channel Assignment

Two timeline engines are required to use the Edit While Playout mode: one for timeline editing and another one for timeline playout.

The availability of the EWP mode and the assignation of channels among both timeline engines will depend on the number of EVS server channels and the use of channels with 'Mix on one channel'.

Several situations can occur. They are described in the next sections.

EVS Servers with 6 or 8 Channels

With a 6- or 8-channels EVS server, PGM3/4 are used as timeline engine for timeline editing and PGM1/2 are used as timeline engine for timeline playout.

If PGM1 is a normal channel, both PGM1 and PGM2 will be needed as timeline engine for timeline playout.

If PGM1 supports the 'Mix on one channel' functionality, it will be sufficient for use as timeline engine for timeline playout. So, PGM2 will be free and could be used for any other purpose.

EVS Servers with 4 Channels

The Multicam application running on a 4-channels EVS server must have 3 player channels.

PGM1/PGM2 will be used as timeline engine in IPEdit, for the TLE. Then, the EWP mode will be available only if PGM3 is a 'Mix on one channel'. In this case, PGM3 is used as timeline engine for the TLO.

1.1.4. Activating the Edit While Playout Mode

Prerequisite

As the Edit While Playout mode requires 4 player channels, or 3 player channels with one of them supporting the 'Mix on one channel'.you need to ensure you are running a compatible Multicam application on the EVS server with which you are working. When you use the Master/Slave redundancy, IPEdit will thus require the same configuration on each server. See section "Channel Assignment" on page 2.

Activation

To activate the EWP mode, click the 

button at the bottom of the IPEdit main window.

Result

When the EWP mode becomes active, the following occurs:

- The button turns green: 

.
- If IPEdit is used in a Master/Slave configuration, the Master/Slave connection status is displayed on the status bar, next to the 

button.
- The EWP Control Panel is added on the main IPEdit window. See section "Edit While Playout Control Panel" on page 5.

Deactivation

- Click the 

button again to deactivate the EWP mode.

1.1.5. Using the EWP Mode with the BEPlay Remote

The BEPlay must be physically connected and recognized by the IPDirector hardware. The channels must have been assigned to the remote Function buttons as described in the section 'Assigning Channels to Function Buttons' in the chapter 'System Management – Remote Control Management – BEPlay Remote' of the manual.

The player channel associated to the TLO cannot be controlled by the BEPlay.

The player channels from the timeline engine of the TLE can be controlled as follows. Pressing the Function button assigned to the odd player channel gives access to the IPEdit Timeline pane. Pressing the Function button assigned to the even player channel gives access to the IPEdit Player pane.

Refer to the BEPlay Remote section of the manual for more information on the controller.

1.2. Master/Slave Redundancy

1.2.1. Introduction

Purpose

The Master/Slave redundancy feature is available with the Edit While Playout mode. It makes it possible to synchronize the content of a timeline being edited on the Master (main) EVS server running IPEdit to a Slave (backup) EVS server also running IPEdit.

This redundancy allows providing a failover mechanism when using the Edit While Playout mode in IPEdit.

Terminology

To make it short, we will use the following terms:

- "Master IPEdit" to refer to the IPEdit application working with the Master EVS server
- "Slave IPEdit" to refer to the IPEdit application working with the Slave EVS server.

1.2.2. Requirements for Master/Slave Redundancy

If you want to use the Edit While Playout mode with the Master/Slave configuration, you need to:

- Have the same versions of IPDirector
- Work with 6-channel EVS servers having the same Multicam version
- Work with the Multicam application, having 4 PGMs on each EVS server, or 3 PGMs with one of them supporting the 'Mix on one channel'. See section "Channel Assignment" on page 2.
- Associate your EVS servers in Master/Slave relationship in the Redundancy tab of the Remote Installer. Master/Slave servers need to have exactly the same genlock, same LTC timecode signal, and same source signal on the recorders selected for redundancy.

For more information on how to set up the redundancy between a Master and Slave EVS server, please refer to the Technical Reference manual.

1.2.3. Redundancy Status in IPEdit

You can check that both Master and Slave EVS servers are correctly connected in the Status bar of IPEdit.

The following connection status information related to the Master/Slave redundancy can be displayed:

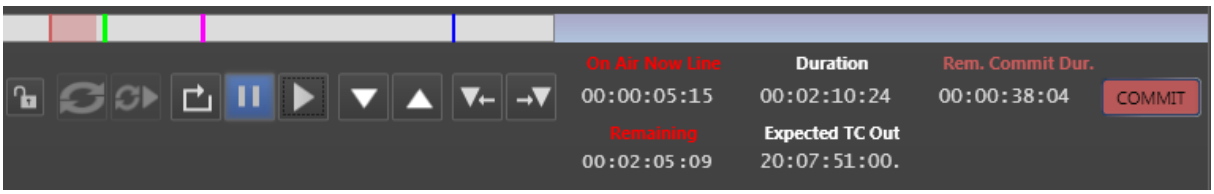
Displayed information	On M/S	Meaning
Connected to master 	On Slave server	The EVS server is available and the SDTI connection is established between the Master and the Slave servers.
Connected to slave 	On Master server	The EVS server is available and the SDTI connection is established between the Master and the Slave servers.
Error: not connected to master 	On Slave server	The Master server is not available on the routing.
Error: not connected to slave 	On Master server	The Slave server is not available on the routing.
Error: No SDTI between master and slave 	On Slave server	No SDTI connection is established between the Master EVS server and the Slave EVS server.
Error: No SDTI between slave and master 	On Master server	No SDTI connection is established between the Master and Slave EVS servers.

1.3. User Interface

1.3.1. Edit While Playout Control Panel

Introduction

When the EWP mode is active, the EWP Control Panel is displayed on the main IPEdit window, between the Browser and the Timeline pane:



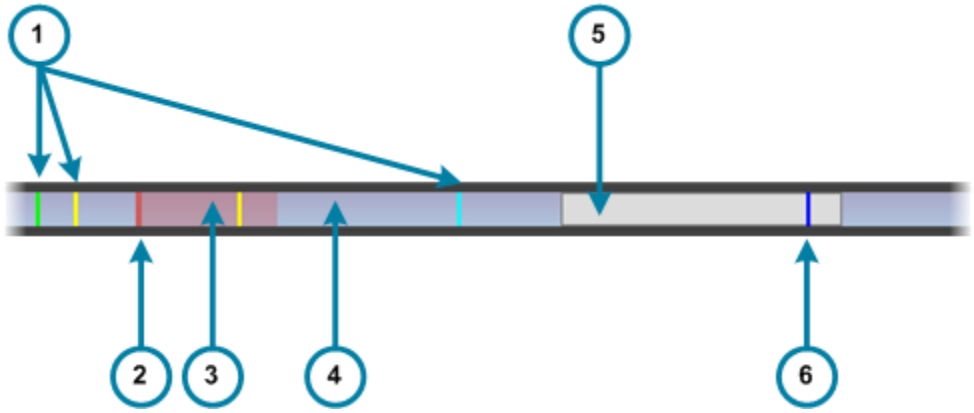
The EWP Control Panel makes it possible to:

- Control the TLO playout
- Perform synchronization actions between both TLOs in a Master/Slave configuration
- Get the nowline positions, and useful duration information in the Edit While Playout mode
- Commit the changes from the TLE to the TLO.

The various buttons and fields available in the EWP Control Panel are described in the following sections.

TLO Preview Bar

The TLO preview bar displays a read-only summary of the TLO with the following elements:



Area		Description / See section...
1.	Locators (various colors)	See section "Using Locators" in the chapter on IPEdit.
2.	TLO Nowline	The nowline of the on-air timeline is displayed in red.
3.	Security zone (red)	The TLO Security zone is the portion of the timeline after the TLO nowline on which the Timeline Engine will not be able to commit changes from the TLE to the TLO. This zone is defined by the Timeline Engine.
4.	Full Timeline (blue)	Graphical representation of the full TLE duration.
5.	TLE portion visible in Timeline display (white)	Graphical representation of the TLE portion currently visible in the timeline.
6.	TLE Nowline	The nowline of the edit timeline is displayed in blue, as usual in IPEdit.

The TLO preview bar is refreshed after a commit, and the nowline moves in real time.

Lock Button

When the user clicks the **Lock** button  , it turns to  . This means the PGM1/2 are locked, and the Transport Control commands and **COMMIT** button are no longer available.

When the user clicks again the **Lock** button, it unlocks the PGM1/2, and the commands become available again. The lock on the player channels is however preserved, as usual.

Transport Command Bar

Operation	User Interface Button	Description
TLO Recue		Clicking **TLO Recue** button loads the on-air timeline on the first frame of the first element.
TLO Pause		Clicking the **TLO Pause** button stops the playout of the TLO at the current position.
TLO Play		Clicking the **TLO Play** button starts the playout of the TLO from the nowline position.

Master/Slave Synchronization Buttons

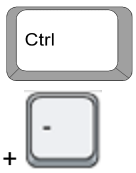
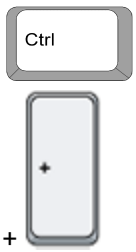
Operation	User Interface Button	Description
Sync TLE		The **Sync TLE** button is only relevant with the Master/Slave redundancy. In this configuration, the **Sync TLE** button allows synchronizing the TLE on the Master and the Slave instances of IPEdit. This means that: • The TLE is copied from the "Master IPEdit" to the "Slave IPEdit". • The timeline elements are created as clips on the Slave EVS server. The user can execute this command from either the Master or the Slave IPEdit. A global message is displayed in the global status bar to inform the user if the timeline has been successfully synchronized, or if the synchronization has failed. It is recommended to synchronize the TLEs regularly after committing changes to the Master TLO.
TLO PlaySync		The **TLO PlaySync** button is only relevant with the Master/Slave redundancy. In this configuration, clicking the **TLO PlaySync** button on the Slave IPEdit will synchronizing the TLO playout on the Slave IPEdit to the TLO playout in progress on the Master IPEdit. When the synchronized playout of both TLOs is active, the button is displayed on a colored background on the Slave IPEdit.

Note

The TLO on the Master IPEdit needs to be in PLAY for the **TLO PlaySync** command to work on the Slave IPEdit.

Speed Nudging Buttons

The speed nudging consists of transport commands that allow adjusting manually and momentarily the playout speed of a timeline in order to resynchronize the playing TLO to an external program feed played through a vision mixer.

Operation	User Interface Button	Keyboard Shortcut	Description
TLO Nudge Decrease		 + (on numeric pad)	Clicking the **TLO Nudge Decrease** button decreases temporarily the TLO playout speed. Then, it comes automatically back to its original speed. If you click the button several times, the speed decrease effect lasts longer.
TLO Nudge Increase		 + (on numeric pad)	Clicking the **TLO Nudge Increase** button increases temporarily the TLO playout speed. Then, it comes automatically back to its original speed. If you click the button several times, the speed increase effect lasts longer.

Locator Buttons

Operation	User Interface Button	Description
Go To Next Locator		The **Go To Next Locator** button on the EWP Control Panel makes it possible to move the TLO nowline to the next locator defined in the timeline.
Go To Previous Locator		The **Go To Previous Locator** button on the EWP Control Panel makes it possible to move the TLO nowline to the previous locator defined in the timeline.

For more information on locators, refer to the IPEdit user manual.

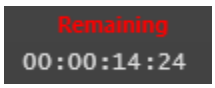
Field and Duration Information

TLO On-Air Nowline Position

This field displays the timecode position of the on-air nowline, or TLO nowline. This is the red nowline on the Timeline Display area.

Note
If you want to position the TLO nowline to a specific timecode, you can type the requested timecode in this field, and press **ENTER**.

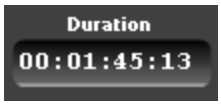
TLO Remaining



New!

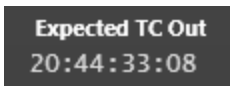
This field displays the remaining time between the TLO on-air nowline position and the end of the TLO.

TLO Effective Duration



This field displays the effective duration of the TLO.

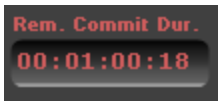
TLO Expected TC OUT



New!

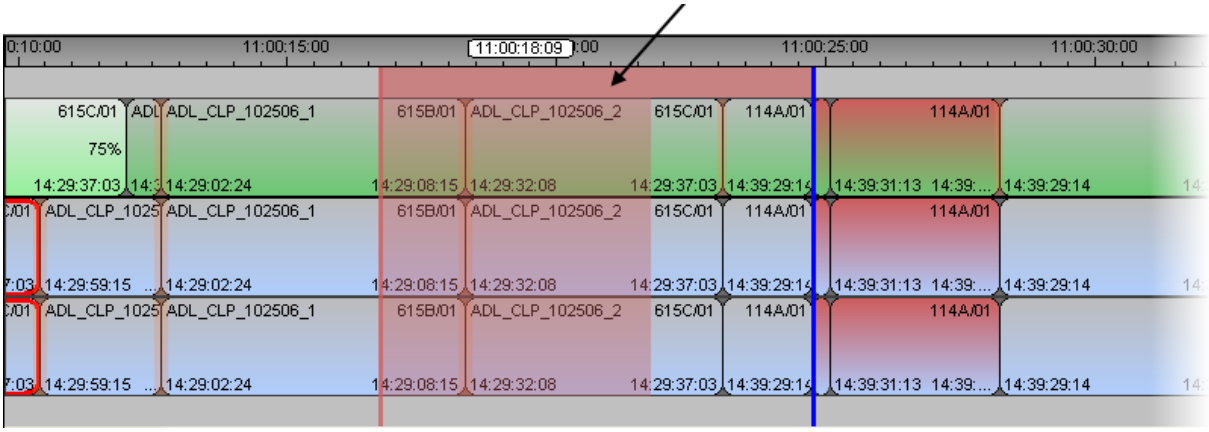
This field displays the expected LTC value when the TLO will finish to play, based on the TLO effective duration.

TLO Remaining Commit Duration

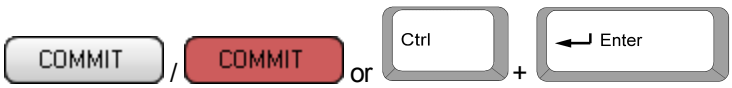


This field displays the duration between the TLO nowline and the first TLE element that has not been committed yet.

The TLO Remaining Commit Duration is represented by a red area in the upper Lasso Selection area on the Timeline Display:



TLO Commit Button



The **COMMIT** button allows applying the editing actions performed on the TLE to the TLO, even when the TLO Control Panel is locked.

The 

button will have a white background, as long as the TLE is the same as the TLO. In this case, no changes have to be committed.

The 

button will become red as soon as the user performs an editing action on the TLE. This means the **COMMIT** button is active, and editing actions can be applied from the TLE to the TLO.

The 

button will blink red/white when the TLO Remaining Commit duration (duration between the TLO nowline and the first changes still to be committed) is equal or less than the value defined in the **Remaining Commit Threshold Warning** setting. For more information on this setting, refer to the section "Remaining Commit Threshold Warning" on page 15.

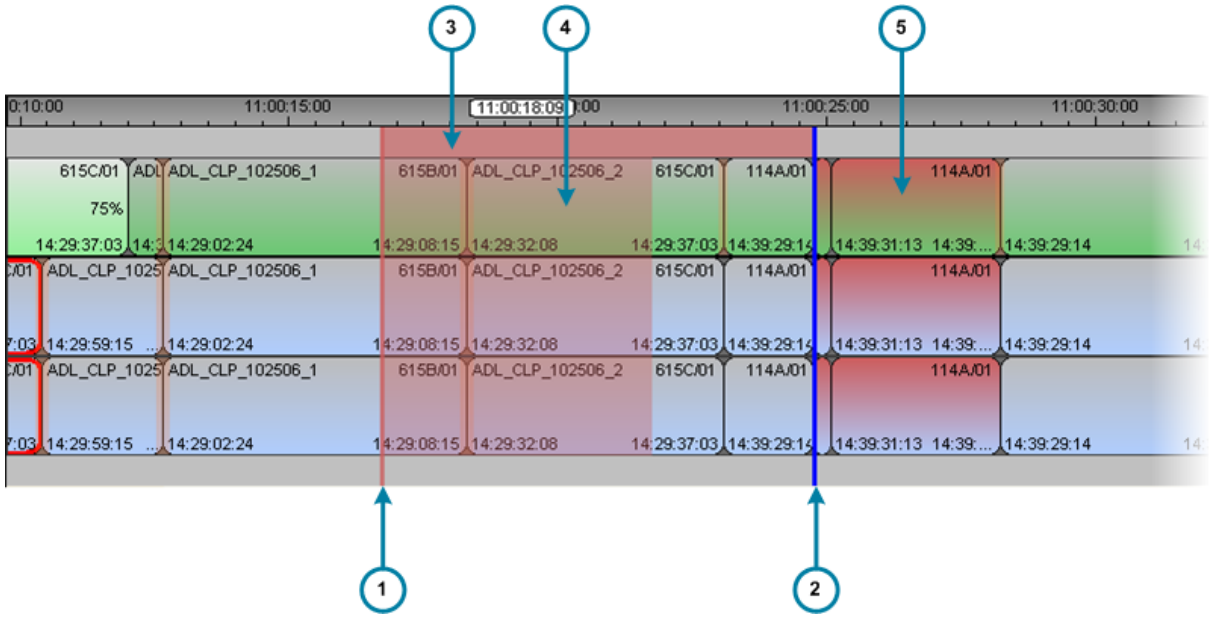
Commit Button Contextual Menu

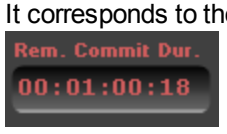
Right-clicking the **COMMIT** button gives access to another Commit action:

See section "Overwrite the Edit Timeline with the On-Air Timeline" on page 13 for more information on these features.

1.3.2. Timeline Display in Edit While Playout Mode

When you are editing the timeline, you work on the TLE. As long as you have not applied the changes from the TLE to the TLO, the Timeline Display area will be similar to the following screenshot:



Area		Description
1.	TLO Nowline	The nowline of the on-air timeline is displayed in red.
2.	TLE Nowline	The nowline of the edit timeline is displayed in blue, as usual in IPEdit.
3.	TLO Remaining Commit Duration	This red zone in the upper lasso selection area above the Timeline display represents the duration between the TLO nowline and the first TLE element that has not been committed yet. It corresponds to the **TLO Remaining Commit Duration** field: 

Area		Description
4.	TLO Security Zone	The TLO Security zone is the portion of the timeline after the TLO nowline on which the Timeline Engine will not be able to commit changes from the TLE to the TLO. This zone is defined by the Timeline Engine.
5.	Uncommitted Changes	On the timeline display, the A/V material that contains uncommitted changes has a reddish layer, on the top of the usual element color.

1.4. Committing Actions in Edit While Playout Mode

1.4.1. Introduction

The editing actions performed on the edit timeline must be committed to the on-air timeline.

Afterwards, it is not possible to move back to the TLO as it was before the commit action. Users have to undo the editing actions in the TLE and to re-commit to the TLO.

Editing actions performed on the TLE and not yet committed can also be canceled by overwriting the TLE with the TLO.

1.4.2. Committing the TLE

You need to click the 

button to commit the changes from the TLE to the TLO.

When the TLO is being played out, only the uncommitted changes located after the TLO security zone are applied to the TLO.

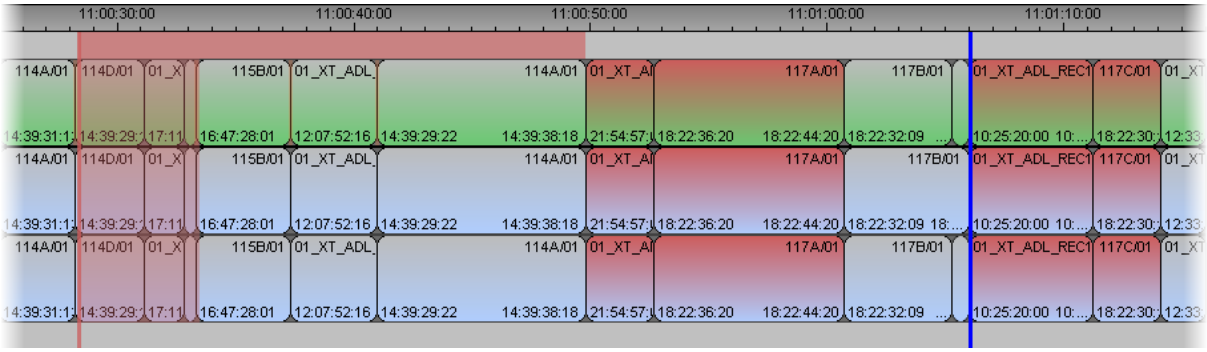
When the TLO is on pause, the whole TLE is reapplied to the TLO. This commits all uncommitted changes, without taking into account the security zone.

The following screenshots show the timeline display before and after a commit action.

Before Commit

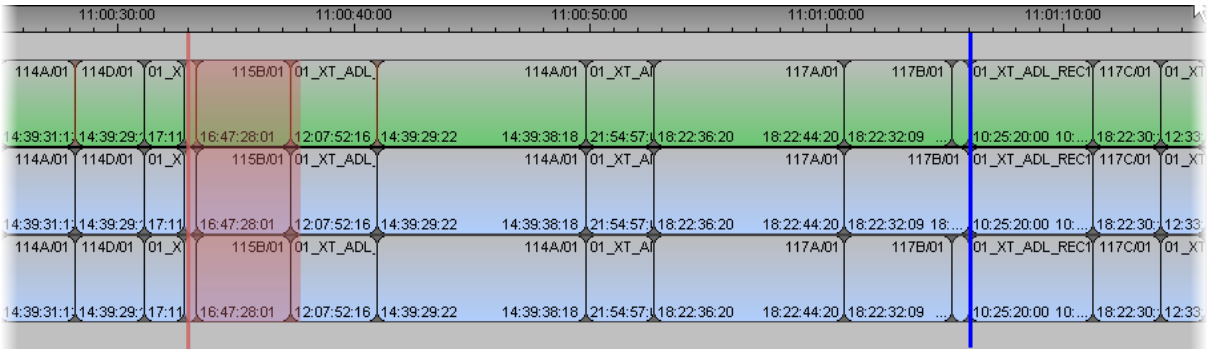
The TLO is being played out: the TLO nowline is moving forward.

The Remaining Commit Duration extends from 11:00:28:XX to 11:00:49:XX.



After Commit

After committing the changes, the TLE is the same as the TLO. The remaining Commit Duration is no longer displayed, and all timeline elements have their usual color.



1.4.3. Overwrite the Edit Timeline with the On-Air Timeline

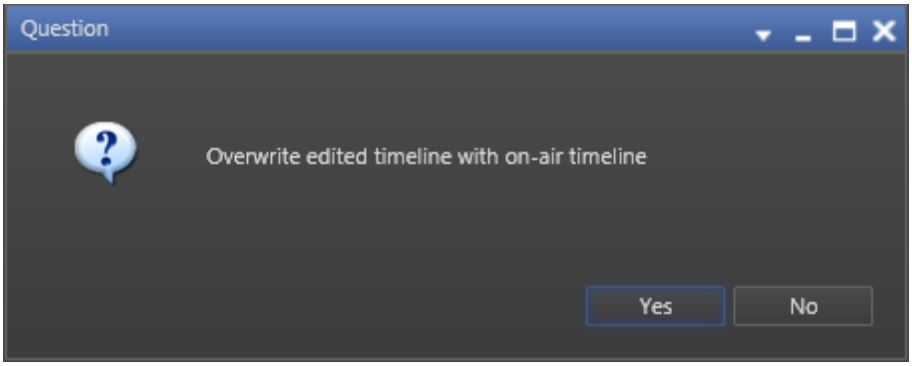
If you do unwanted changes, and want to reset the TLE to the situation when you last committed your changes, you can overwrite the edit timeline with the material from the on-air timeline as follows:

1. Right-click the **COMMIT** button.

   The following contextual menu is displayed:

2. Select **Overwrite edited timeline with on-air timeline**.
3. Confirm the operation by clicking **Yes** on the displayed warning message:



1.5. Edit While Playout Mode in a Master/Slave Configuration

1.5.1. Connection Between Master and Slave EVS Server

Before you start working, you should check that the Master and Slave EVS servers are connected together.

To do this, open IPEdit on the IPD workstations connected to the Master and Slave EVS servers, and check the connection messages on the Status bar of IPEdit.

The message on the Master IPEdit should specify the connection to the Slave is established.

The message on the Slave IPEdit should specify the connection to the Master is established.

1.5.2. How to Synchronize the Timeline on the Slave IPEdit

When you use the Edit While Playout mode in a Master/Slave configuration, proceed as follow before you start using the Edit While Playout mode:

1. Start IPEdit on the IPD workstation working with the Master EVS server, and load the timeline on which you want to work as usual.
2. Start IPEdit on the IPD workstation working with the Slave EVS server, and create a timeline with the same A/V configuration as the timeline loaded on the Master IPEdit.
3. On the Slave IPEdit, click the  button.

   After a few seconds, a timeline identical to the timeline loaded on the Master IPEdit is loaded.

   This timeline has the same name as the main one, but it has different IDs and is stored on the Slave EVS server.

The same timelines are now loaded on the Master and Slave IPEdit. You can start working in the Master IPEdit.

1.5.3. Working Process in a Master/Slave Configuration

After both timelines have been loaded and synchronized for the first time in your Master and Slave IPEdit, you will typically work in the following way:

1. Start the TLO playout on the Master IPEdit.
2. On the Slave IPEdit, click  to synchronize the TLO playout.
3. Edit the TLE on the Master IPEdit.
4. On the Master IPEdit, click 

to apply the changes from the TLE to the TLO.
5. Click  to synchronize the TLE of the Slave IPEdit.
6. On the Slave IPEdit, click 

to apply the changes from the TLE to the TLO.

The steps 4 to 6 will be repeated each time you perform changes on the TLE on the Master IPEdit.

Note

The functions that allow synchronization between the Master and the Slave timelines are Sync and PlaySync.

The TLO Play, Pause, Recue, Speed Nudging, and Commit functions are used independently (hence not synchronized) on the Master and the Slave IPEdit.

1.6. Edit While Playout Settings

1.6.1. Accessing the EWP Settings

To access the settings related to the Edit While Playout mode, click the menu **Tools > Settings**, and select the category **IPEdit > Edit While Playing** in the tree view.

1.6.2. Remaining Commit Threshold Warning

This settings allows defining when the **COMMIT** button will start blinking red/white. This will draw the user's attention to the fact that (s)he should perform a commit because the TLO nowline is coming near to the first uncommitted changes.

The value defined in this setting corresponds to the duration between the TLO nowline and the first uncommitted change.

1.7. Managing GPI in TLO

Introduction

On some occasions, users may want to apply a GPI when the TLO nowline is on a specific timecode. As the TLO nowline and the TLE nowline are separated in time, users must be able to define GPIs linked to the TLO or to the TLE. For example, the use of an external device on the on-air channel needs to be triggered by a TLO GPI.

Warning

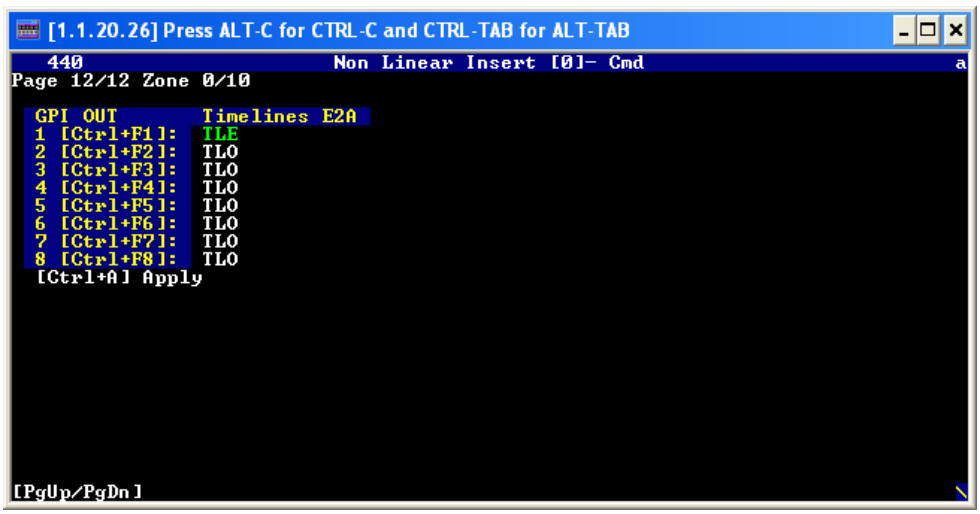
This should be performed by an appropriate technical staff as it involves a DEBUG screen on the EVS Video Server.

How to Set the GPI Mode

To do so, proceed as follows:

1. On the EVS video server, go to debug screen by pressing **CTRL+ALT+D**, then go to screen 440, page 12/12.
2. For the GPI you want to assign to the TLE, type **CTRL**+ the corresponding **Function** key.

   In the following example, type **CTRL** + **F1**



   The timeline associated to the GPI 1 turns to TLE.

   Changes not yet saved are highlighted in green.

3. Press **CTRL** + **A** to apply the change(s).

   This information is stored in the setup and kept when re-starting the application.

EVS Headquarters
Liège Science Park
16, rue Bois St Jean
B-4102 Seraing
Belgium

Corporate
+32 4 361 7000

North & Latin America
+1 973 575 7811

Asia & Pacific
+852 2914 2501

Other regional offices
www.evs.com/contact

To learn more about EVS go to **www.evs.com**