User Manual

Web AD Editor

INDEX

1 INTRODUCTION

The **Web AD Editors** is a cloud-based user friendly application of FingerCloud to create, edit and verify audio description files**.**

This editor is totally inter-connected to the Accessibility Content Manager (ACM) of FingerCloud for the video, access service and support files. Metadata is also provided from the ACM.

The main stakeholders that will benefit from the use of the Web AD Editors are the following:

- Access service producers (service providers and freelancers) make usage of the Web AD Editor to produce and edit the audio description (AD) files on a fully cloud-based environment. There are two cases:
    - The producer makes use of the broadcaster's FingerCloud licence. In this case all the production tasks are assigned by the broadcaster who provides all the support materials such as the LQ video file and metadata. The producer will use the Editor Interface of the ACM to view and complete the production tasks assigned to them. In this case the Web AD Editor is run from the production task of the Editor Interface of ACM.
    - The producer performs all the workflow of uploading the programme support materials such as the LQ video and metadata, and also performs the access service production. In this case the producers uses the Content Management Interface of the ACM to upload the support materials such as LQ video and metadata, and also to create, import and export access service files. In this case the Web AD Editor is run from the Content Management Interface of ACM.
- Broadcaster's QA department make usage of the Web AD Editor via the Content Management Interface of ACM to verify the access service files.
- Broadcaster's accessibility department make usage of the Web AD Editor via the Content Management Interface of ACM to preview the access service files.

In the Annexes the user will find useful information such as audio description type in 360º, a list of Errors and Warnings and a list of the shortut keys.

Note: When the Web AD Editor is run from a production task in the Editor Interface of ACM, the editing features available in the editor are limited according to the editing permissions granted to the production task by the broadcaster, so such limitations include:

- Settings: only if this permission is granted, the producer will be able to modify the editor settings for this production, such as default duration, separation, characters, regions, import or export profiles, etc.
- Time slot: when the production task has been limited by a time slot (from one time-code to another time-code), the producer will only be able to edit the section of the programme in the time slot, so no time-code outside of the time slot is accepted and the video can only be played inside the time slot. This limitation is used by the broadcaster when the access service production is distributed to various producers by dividing the whole programme in several time slots and assigning each time slot to a different producer.

2 How to Access Web AD Editor

In order to access the ACM, there are some basic requirements:

- Hardware: PC with at least i5 processor, 8 GB RAM. Screen resolution should be at least 1920×1080 pixels (a good graphics card is recommended).
- Hardware: PC with at least i5 processor, 8 GB RAM. Screen resolution should be at least 1920×1080 pixels (a good graphics card is recommended).
- Browser: Last version of Chrome or Firefox (at least Chrome version 74 or Firefox version 65).
- Fast internet connection as the tools are online and videos are used along the workflow.

The user logs in the ACM via the web browser (figure 1) and enters username and password previously provided by the administrator.

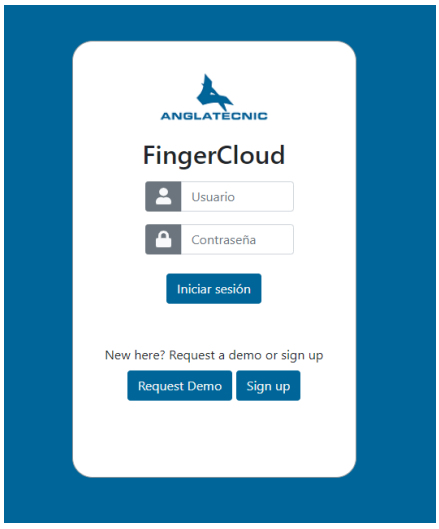


Figure 1: Login page

Once in the ACM, to run the Web AD Editor depends on the stakeholder and it is via one of the ACM interfaces:

- To learn how to run the Web AD Editor from the Editor Interface of the ACM read the chapter 4.3 (Editor Interface) of the Accessibility Content Manager User.
- To learn how to run the Web AD Editor via the Content Management Interface of the ACM read the chapter 4.2 (Content Management Interface) of the Accessibility Content Manager User Manual.

3 WEB AD EDITOR

Figure 2, displays the editor window. This window is divided into an upper and down side. The upper side is only designed for viewing, setting and verification purposes. The down side is purely for edition and final preview.

The editor is responsive, so you may wish to set the browser zoom adequately (Ctrl+mouse wheel up or Ctrl+mouse wheel down) to fit all the boxes adequately in the screen.

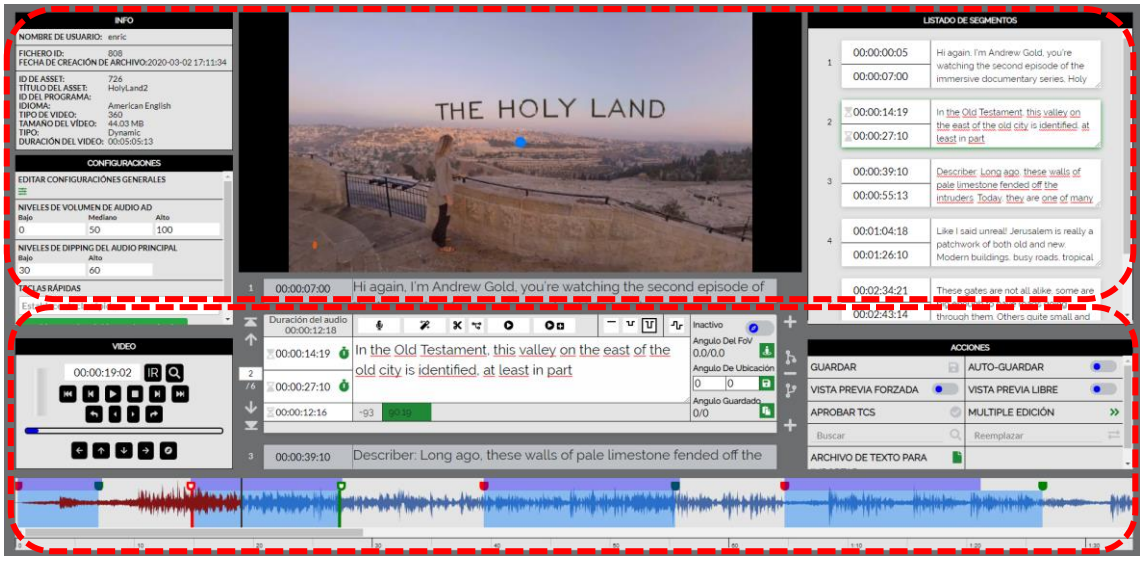


Figure 2: Web AD Editor

Moreover, it gives the possibility to the user to audio-describe videos in both 2D and 360º videos. Depending on the video uploaded for the task, they are headed to the appropriate version of the editor (either 2D or 360º). In this user manual, the 360º video audio description edition/production is presented as it is more comprehensive. Functionality of 2D videos audio description edition/production is the same except for angle-related functions which are not active while the user is working with a 2D video. By reading this document, you will be able to work with both 2D and 360º videos.

4 HOW TO PRODUCE SEGMENTS

It is assumed that now you are inside the Web AD Editor. Let's take a look at how we use the editor to create an audio description segment from scratch.

Your first tools are video controls. Table 1 demonstrates all the buttons with their functionality. With these buttons you navigate through the video, move the video Field of View (FoV) and jump to the video frame you wish.

Video controls	
	
The above buttons are classic buttons to control videos accompanied by buttons compatible with 360º functionality which will be explained further. In order for the editor to be more intuitive, there is a time-line at the bottom of the page with see-through colours which symbolise the characters of speakers in time (more information later in the document). The waveform in the time-line helps the user find the desired moment of the video faster.	
Frame backward	This button makes the video go backwards frame by frame (Alt+shift+left).
Fast backward	This button makes the video go backwards with a fast speed (F5).
Slow backward	This button makes the video go backwards with a slow speed (F6).
Toggle play/pause	This button plays and pauses the video (F2). **Note:** The F2 shortcut is used to Play and to Pause the video alternatively, nonetheless the F3 shortcut has also been added to Pause the video only.
Stop	This button makes the video stop and go to the beginning (F9).
Slow forward	This button makes the video go forward with a slow speed (F7).
Fast forward	This button makes the video go forward with a fast speed (F8).

Video controls	
Frame forward	This button makes the video go forward frame by frame (Alt+shift+right).
Find segment by TC	With this button, you can find the segment that contains the TC (Ctrl+Shift+F).
Jump backward	This button helps the user to jump some frames backward. The number of the frames to be jumped is configurable in General Settings (see table 5) (F1).
Jump forward	This button helps the user to jump some frames forward. The number of the frames to be jumped is configurable in General Settings (see table 5) (F4).
Move FoV left	With this button you move the Filed of View (FoV) to the left in the spherical video (Alt+left). You can also use the mouse and left button over the video, and move to the left to do the same.
Move FoV up	With this button you move the FoV up in the spherical video (Alt+up). You can also use the mouse and left button over the video, and move up to do the same.
Move FoV down	With this button you move the FoV to the down in the spherical video (Alt+down). You can also use the mouse and left button over the video, and move to the bottom to do the same.
Move FoV right	With this button you move the FoV to the right in the spherical video (Alt+right). You can also use the mouse and left button over the video, and move to the right to do the same.
00:00:05:22 GO	Enter a specific time of the video, press GO and you are taken to that video frame.
Move FoV to "Speaker's location"	By pressing this button, the FoV moves to the angle where the speaker of current segment is found (Alt+F).
	Wometer of testing microphone

Table 1: Video controls

After being in the appropriate moment of the video, you need to enter the script of the audio description (AD) segments with their correct time-codes, figure 3 displays all the information you need in this sense. You can enter the script text and record/synthesize the audio/voice one by one or enter all the script and then start recording/synthesizing all the AD segments. The sequence presented in this document is based on creating a single AD segment from scratch completely, that is to enter the script with TCs and record/synthesize the audio/voice one by one.

For each AD segment you have to enter the script text in the text field and after finding the appropriate video frames the time codes (TCs) must be entered: TCin by clicking on the TCin clock icon (Shift+Page up) and TCout by clicking on the TCout clock icon (Shift+Page down). The third row below them shows the segment duration.

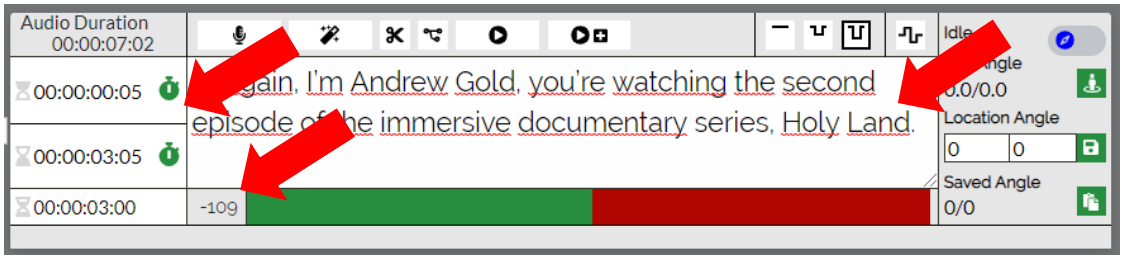


Figure 3: Script editing

The below reading speed thermometer reflects the difficulty of the AD segment for the given duration. At first it is green, then if we are excessing the ideal difficulty it turns into red. The number (109 here) shows the remaining number of allowed characters.

When you are sure about the text itself and its time-codes next step begins. However, this editor works in 360º media and matter of angles is important. So next step is setting proper angles for the segments which is done in the same area demonstrated in figure 3. Table 2 gives you the appropriate information.

AD Segment edition – Angles	
By default, at first the video has the current angle as longitude: 0.00° and latitude: 0.00° Also, the **idle** option can be marked when there is no speaker in the 360º scene.	
	Idle: Only when the AD segment does not bear a specific spherical position.
	FoV angle: This is the current field of view angle (FoV) and it changes while we move the FoV of the video ourselves. it corresponds to the video direction that we see (you can change the

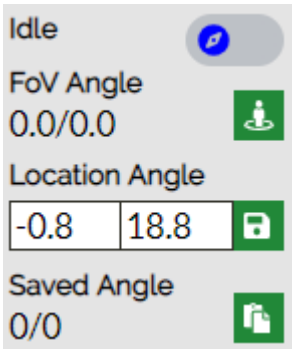
AD Segment edition – Angles	
	FoV angle using the navigation buttons in the video control area or moving the mouse with left button over the video). The green button next to it (Alt+Enter) sets the FoV angle to the "Location angle" fields of the segment (see next row).
	Location angle: This is set by the audio describer. It corresponds to the angle in the 360º sphere where the AD segment is located. It is illustrated as a colour dot over the video. It is important to know how to bind an angle to the AD segment. This is done solely by finding the desired angle by moving the FoV and setting it to the current segment (to know how to set an FoV angle to "Location angle" see the above row). By pressing the green save button next to it, the "Location angle" values are transferred to the "Saved angle" (Alt + C) fields so the angle can be used later in other segments (see next row).
	Saved angle: This angle is kept in this register (see previous row) so it can be used in other segments. The button next to it pastes the "Saved angle" to the "Location angle" of the segment (Alt+V). The aim of this button is to use the angle from another segment that was copied previously.

Table 2: AD segment edition - angle settings

After finishing setting the proper angle for the segment, you may start the procedure of AD recording/synthesising. Table 3 explains the audio controls.

AD segment audio controls	
	
Above the text area, a number of buttons are viewed which are related to the audio of the AD segment and its presentation.	
Audio record 	The user is able to record the audio of the AD segment by pressing the "Record" button (Shift + F2). When pressed, a **yellow** bar under the text area appears which goes on for about 2 seconds (this time is customizable by user in the General Settings, see table 6) and it gives time to the user to

AD segment audio controls	
	prepare themselves. When the yellow bar turns **red** it means that the recording has started so the user has to speak now. Finally when the user surpasses the segment duration the red bar starts to blink, this is not potentially an error but it is something that the user needs to be aware of, because it surpasses the time assigned to this segment.
Voice synthesis 	This button is only available for the languages which have voice synthesis at the platform (English & Spanish currently). This button is an automated text to speech (**voice synthesis**) tool which converts written segments to audio automatically when pressed. (if existing a recorded segment, this will replace it as well with previous confirmation received from the user).
Short & Long test 	After the recording/synthesising audio/voice the user can check the result using one of this two buttons: • Short test: it runs a test of the result from 2 seconds before TCin until 2 seconds after TCout of the segment (Shift + F3). • Long test: it runs a test of the result from 4 seconds before TCin until 4 seconds after TCout of the segment (Shift + F4). The durations above are customisable by user in the General Settings (see table 6).
Set dipping level to main audio 	By pressing one of these buttons the user can change the dipping level that the main audio will perform during the AD segment. For instance the high dipping should be used when there is a lot of noise in the programme audio.
Dipping from previous segment 	Additionally, there is an option named “Dipping from previous segment”. When being on, the dipping starts at the TCout frame of the previous segment and ends at the TCout frame of the current segment, in other words, the dipping includes the time between the previous and the current AD segment which is useful when the AD segments are very close.

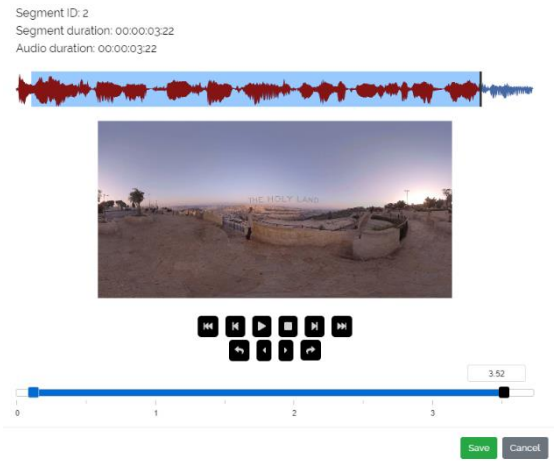
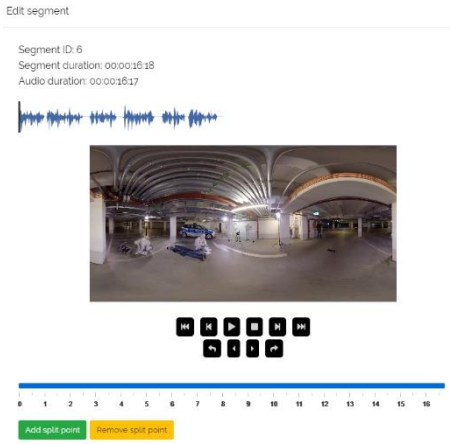
AD segment audio controls	
Cut audio	 By pressing this button a dialogue appears from where the user can cut the ending parts of the recorded audio by moving the points indicated in the following image (Shift + F5).
Split audio	 By pressing this button a dialogue appears from where the user can split the recorded audio into several audio segments. For that the user plays the media until they find the right frame and then presses the Add Segment button. The user repeats this procedure for additional splits (Shift + F6). A new segment is created after the current one for each new audio segment.

Table 3: AD segment audio control

In addition to all the above tools, there is a time-line representation of the video (table 4) which displays important information about the AD segments and audio/voice files.

The prepared segments and then the audio/voice files are displayed along the waveform as below:

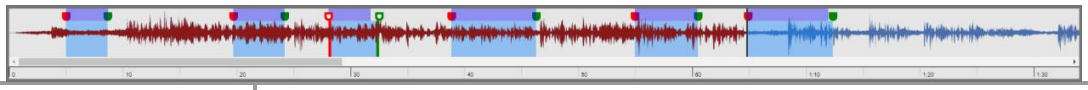
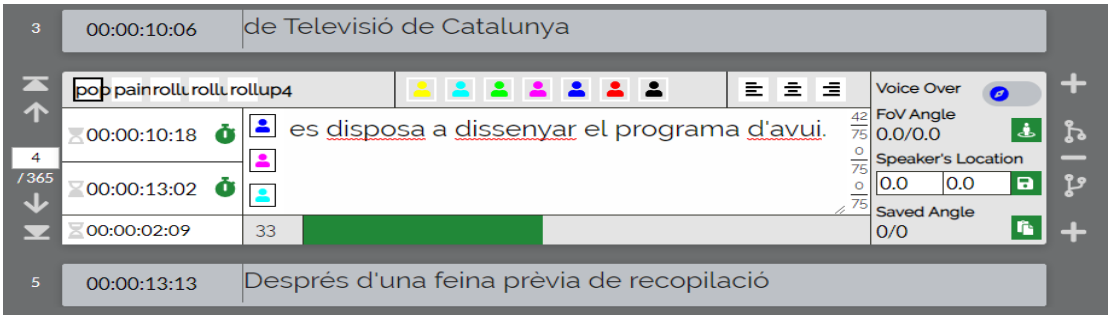
Video Waveform in time	
	
Purple band	Demonstration of audio/voice files for its below specific segments in time.
Blue band	Demonstration of the prepared segments in time.
	Segment TCin
	Segment TCout

Table 4: Video timeline

You may want to repeat the procedure for the remaining AD segments and finish them all. You may need some buttons in order to organise/edit/improve the sequence of the AD segments. Table 5 shows you the buttons (and their shortcuts) you have available for this purpose.

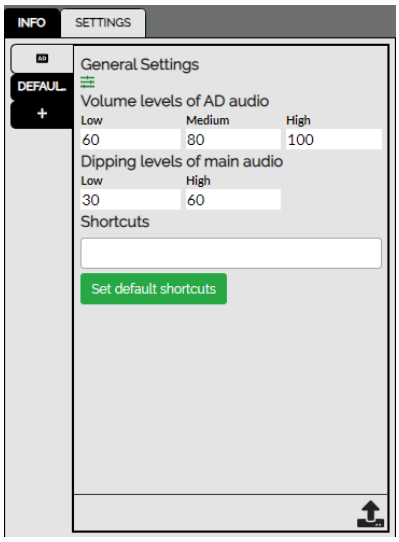
AD Segment edition – buttons	
	
The buttons are visible in this box, also the top and bottom grey areas display the previous and next segment.	
First segment	This button takes you to the first AD segment (Alt + Page up).
Previous segment	This button takes you to the previous AD segment in relation to your current position (Page up).
Next segment	This button takes you to the next AD segment in relation to your current position (Page down).
Last segment	This button takes you to the last AD segment (Alt + Page down).

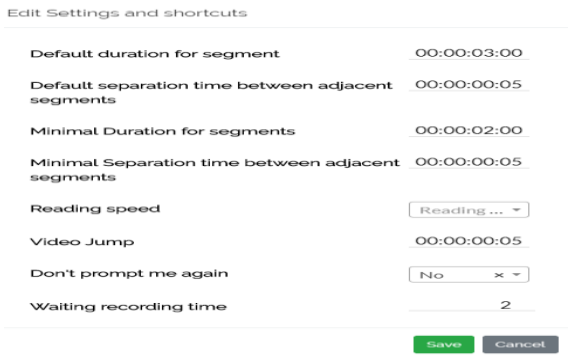
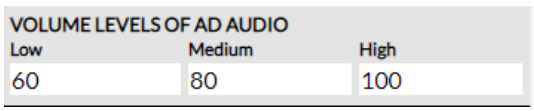
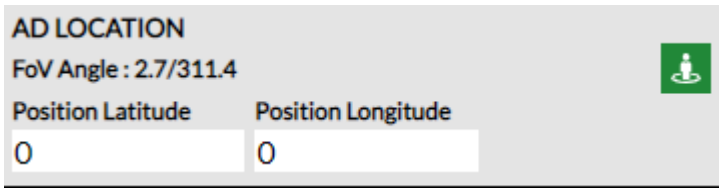
AD Segment edition – buttons	
2 /6 **Jump to segment**	This part takes you to a specific AD segment. But you need to enter the number of the AD segment. It also informs you of the total number of AD segments.
Insert segment before	This button is useful for the insertion of a new AD segment before the existing segment (Ctrl+U).
Split segment on cursor position	This button splits the current AD segment text into two AD segments (Ctrl + Insert). In such condition, the recorded audio will belong to the first AD segment and also the time-codes remain unchanged.
Delete segment	This button deletes the selected AD segment (Ctrl+D).
Join segment with next	This button joins the current AD segment with its next one and creates a single segment containing both texts of the previous ones. The reading speed thermometer is modified accordingly but timings remain the same as the first previous segment (Ctrl + Delete). In such condition the audio of the resulting segment will be inherited from the first one and the audio of the second segment – in the case of existence – will be deleted. The time-codes remain unchanged.
Insert segment after	This button is useful for insertion of a new AD segment after the existing AD segment (Ctrl + Shift + U).

Table 5: AD segment edition - navigation buttons

5 MORE OPTIONS

The procedure in which we produce a segment is over, but we still have more options to work with. Remember the dipping and buttons that were introduced earlier, all these are customisable using “SETTINGS”. Table 6 shows the setting for the file and editor.

AD settings	
Settings Profiles	 By means of Setting Profiles the user can have pre-defined editor settings for different types of production. Each user may have more than one Settings Profile stored in its database. On the left side of the Settings Profile pannel the user will find serveral tabs: • The first tab with an audio description icon is called File Profile and contains the settings extracted from the access service file, so these are the settings that were used during the previous edition of the file. • The following tabs correspon to the different Settings Profiles that are stored in the user database. • The following tab contains a '+' button to create a new Settings Profile. On the right side of the Settings Profile pannel the settings are displayed and can be modified by the user. Each profile contains a name and the data described in the following rows of this table. Once the settings have been edited, the user must save them using the corresponding button on the bottom right of the panel (Save current profile). If the user wants to delete one of its Settings Profile, the profile has to be selected and then click on the "Remove current profile". A Settings Profile can be exported to a file (.json) to be shared between producers or to save it as a backup in the local disk. Therefore this file can be imported by another user, for instance to apply the same character colors in all the files within a series. To export a Settings Profile, the user must choose a profile and then click on the "Export profile from server" button. To import

AD settings	
	a Settings Profile from a JSON file, the user must click on the “Import profile settings to current profile”, and then select the file from the local disk. The editor uses the settings of the profile that is selected on the left side. When the user saves the file, the settings used during the production will be saved in the file in order to have the same settings when the file is open by any user. When the editor is run with an access service file, the profile selected by defauld is the File Profile with the setting that were used during the previous edition of the file.
General settings	 Pressing this icon, the following dialogue appears for the general setting of the editor that are saved for the user (audio describer).  If any of the minimal numbers above are not met the user gets an error when verifying the AD and needs to fix it before continuing (see table 7).
Volume levels of AD audio	 These settings are the volumes that the final user (home user) will be able to choose for the AD audio. These settings are saved in the AD file.
AD location	 This setting is only available when dealing with a Classic and Static AD types in 360º videos, as in these cases it is necessary to indicate where the AD will be anchored in the 360º sphere. A table with all AD types in 360º

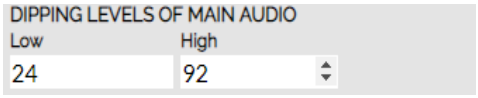
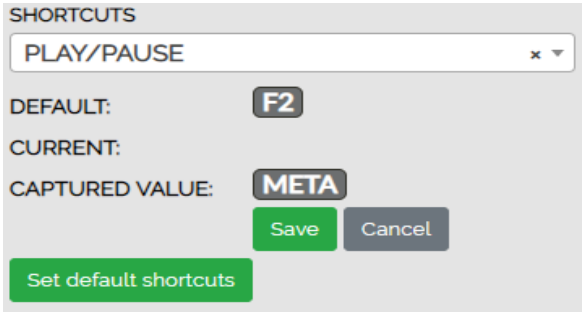
AD settings	
	environment is available as an annex at the end of this document. These settings are saved in the AD file. The green button transfers the FoV location angle to the angle fields.
Dipping levels of main audio	 These settings are the dipping levels that can be used in the segments. When a segment with a dipping level is run, the main audio volume is lowered during the AD segment. These settings are saved in the AD file.
Shortcuts	 During the production of audio description, it is convenient to work only with keyboard instead of changing between keyboard and mouse buttons constantly. As a result, the functions of the editors have a shortcut key as default as well. These default shortcuts are configurable and can be changed from here by the user. By pressing the “Set default shortcuts” the user can recover the default shortcuts. A list of the default shortcuts for the editor is presented as an annex at the end of this document. The shortcuts are also shown when hovering over the buttons in the Web AD Editor. **WARNING: Some shortcuts are not advisable (for example the ones that are used for editing the segment script and some that are used by the browser). There is a blacklist of key combinations that cannot be used as shortcuts; however, the user must be aware when customizing specific shortcuts (for instance not to use the same key for two different shortcuts).**

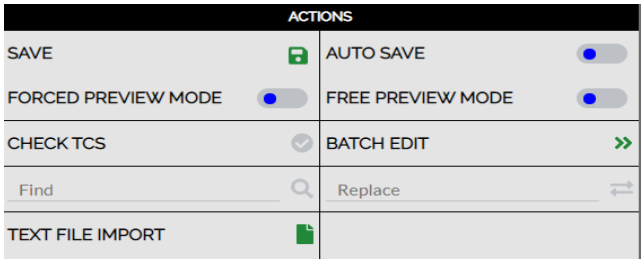
Table 6: AD settings

Table 7, describes the options available in GENERAL SETTINGS and their definition.

General settings	
Default time duration for segments	The default time duration of AD segments, if not set by the user.
Default time separation between segments	The default time separation between AD segments, if not set by the user.
Minimum time duration for segments	Minimum time duration for AD segments that needs to be met. If not, the user will receive and error when checking TC at the end.
Minimum time separation between segments	Minimum time separation between AD segments that needs to be met. If not, the user will receive and error when checking TC at the end.
Reading speed	It can either be set to WPM (Word Per Minute) or CPS (Character Per second). Both are measurements of average typing speed parameters but with different criteria (Word or Character/minute or second). For the purpose of typing measurement a word is standardized to five characters or keystrokes, including spaces and punctuation.
Video jump	In video controls, there are buttons that jump a number of frames backward or forward. This defines the number of frames to be jumped.
Waiting recording time	The time in seconds which the editor waits for the user to prepare to start recording (when the bar is yellow).
Short test time	The previous and ending time when running a short test of the AD segment.
Long test time	The previous and ending time when running a long test of the AD segment.

Table 7: General settings

The last step to take after finishing edition is verification and for that we use the preview modes. The general actions on the AD file are explained in Table 8, so here we can also find a description of the preview modes.

AD actions	
	
Save	This button saves the work.
Auto save	Saves the contents automatically when activated.
Check TCs	By pressing this icon the timings are checked. As mentioned in table 7, if the minimal criteria set in the settings are not met in some AD segments, an error will appear for those AD segments. If everything is OK the icon turns green (Ctrl + Q). Hovering over the AD segment with the error will show the description and solution. A table containing the possible errors is presented as an annex at the end of this document.
Forced preview	This mode is used for verification. This verification mode makes it easier for the describer as the video will move the Field of View (FoV) by changing the current FoV angle when needed during the playback of the video. The user cannot freely move the FoV as the video itself takes them back to the FoV that is described (to the "Location angle" of the AD segment) each time that an AD segment starts (F11). When this mode is on, the user cannot do editing any more and needs to turn it off when edition is required (F11). **Note**: when clicking this button, Check TCs is executed first.
Free preview **[360º edition only]**	This mode is used for verification. This verification mode is more real for the describer as if playing back the video using HMD. It means that the user can move the FoV freely (it is not fixed to the segment location angle) during the playback of the video. When this mode is being on, the user cannot do editing any more and needs to turn it off (F12). **Note**: when clicking this button, "CHECK TC" (see the row before the previous one) is executed first and if there is any error the preview is not executed until the errors are fixed.

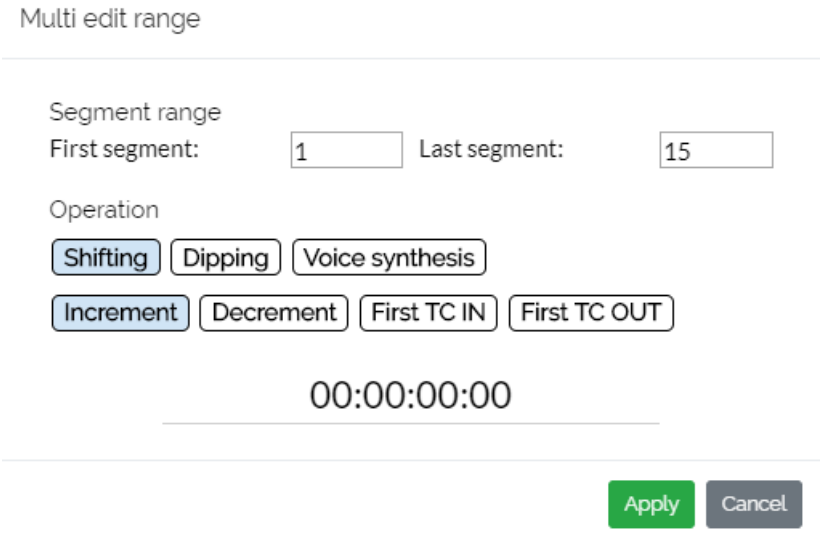
AD actions	
Batch edit	This edits a group of AD segments based on the operation (shifting, dipping, voice synthesis) chosen by the user similar to below figure. The user chooses a range of segments by their numbers and then an operation which can be: increment, decrement, first TCin or first TCout.  **This Voice Synthesis button is only available for the languages which have voice synthesis on the platform.**
Find/Replace	This helps the user find specific words and replace them if needed.
Text file import	This button imports the segment texts from a text file.

Table 8: AD actions

Also at the upper side you have informative sections (figure 4):

- On your left, general information of the production task.
- On your right, the script: texts with their numbers and time-codes.
- Blue dot, current “Location angle” [360º edition only].

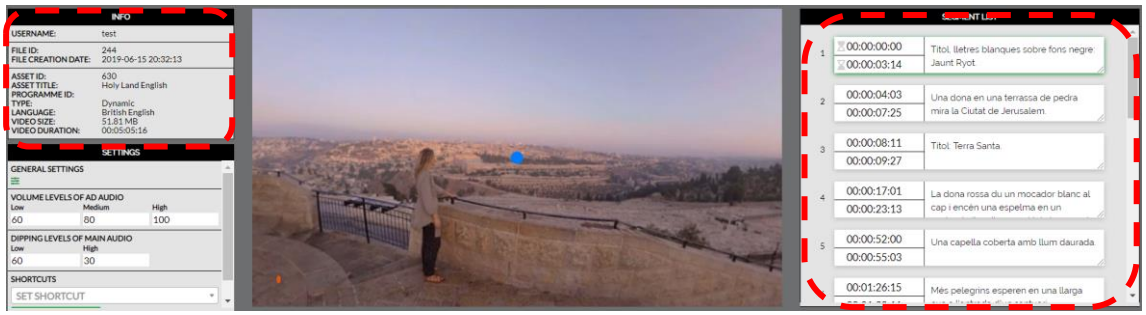


Figure 4: Information of the task

ANNEX I: AD TYPES

Term	Description
Classic	AD centred in the scene.
Static	AD anchored to the scene.
Dynamic	AD comes from where the described point of interest (AD anchored to the point of interest).

ANNEX II: ERRORS & WARNINGS

Message	Cause
Error: Minimum duration fail	This error appears in the AD segments that don't meet with the minimum duration (TCout – TCin < minimum duration). The minimum duration can be changed in General Settings.
Error: Minimum separation fail	This error appears in the AD segments that don't meet with the minimum separation between adjacent segments (TCin current segment – TCout previous segment < minimum separation). The minimum separation can be changed in General Settings.
Warning: Segment overlapping	This error appears when two AD segments are overlapped. Either the script TCs overlap (TCin current < TCout previous) or the audios overlap (TCin current < TCin previous + audio duration).
Error: Unordered TC values	This error appears in the AD segments that are not in order (TCin current < TCin previous).

ANNEX III: DEFAULT SHORTCUT KEYS

Functionality	Shortcut button
Toggle play/pause	F2
Pause	F3
Jump backward	F1
Jump forward	F4
Fast backward	F5
Slow backward	F6
Slow forward	F7
Fast forward	F8
Stop (Jump video to first frame)	F9
Frame backward	Alt + Shift + Left
Frame forward	Alt + Shift + Right
Move FoV left	Alt + Left
Move FoV right	Alt + Right
Move FoV up	Alt + Up
Move FoV down	Alt + Down
Move FoV to “Location angle” of the segment	Alt + F
Previous segment	Page up
Next segment	Page down
First segment	Alt + Page up
Last segment	Alt + Page down
Find segment with video TC	Ctrl + Shift + F
Set TCin	Shift + Page up
Set TCout	Shift + Page down

Functionality	Shortcut button
Jump video to TCin frame	Ctrl + Alt + Page up
Jump video to TCout frame	Ctrl + Alt + Page down
Set FoV angle to “Location angle” of the segment	Alt + Enter
Copy “Location angle” of the segment to “Saved angle”	Alt + C
Paste “Saved angle” to “Location angle” of the segment	Alt + V
Record audio segment	Shift + F2
Short test	Shift + F3
Long test	Shift + F4
Cut audio	Shift + F5
Split audio	Shift + F6
Split segment on cursor point	Ctrl + Insert
Join segment with next	Ctrl + Delete
Delete segment	Ctrl + D
Insert segment before	Ctrl + U
Insert segment after	Ctrl + Shift + U
Check TCs	Ctrl + Q
Forced preview	F11
Free preview	F12