

EDucation and DIgital Cultural LABoratory



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Video Editing Module



VIDEO EDITING MODULE

Introduction

The aim of this module is to train pre-school teachers to create videos that can illustrate the EDUCLAB cultural workshops carried out with the children.

To facilitate the use of a common platform, OpenShot software was selected, a free Open Source and cross-platform tool (Windows, iOS, Linux) that is easy to use and for which numerous resources and tutorials are available. For those who are already familiar with video editing, it will still be possible to use other software of their choice.

By learning the basic concepts of video editing, the pre-school teachers involved will acquire the fundamental knowledge to edit videos composed of video content, images, audio and texts. The tools needed to create the videos will be:

- Personal Computer
- Video editing software (OpenShot - <https://www.openshot.org>)
- Audio recorder (microphone or smartphone)
- Video recorder (video camera or smartphone)
- Camera or smartphone
- A scanner or a camera to acquire the kids' drawings

The contents of the videos made, with particular attention to Chapter 4 of the EDUCLAB Toolkit "Narratives and Oral Histories" about the diffusion of popular traditions (dance, music, proverbs, rhymes, songs, ancient crafts, traditional foods), will be illustrated through the construction of a narrative. These will consist of the assembly of the various resources (audio, video, texts) collected during class meetings in the presence of children with the participation of family members previously identified during open meetings in order to select the most suitable people to tell the customs and traditions of their territory and the place of origin of the new citizens.



Defining your project

Before starting to create a video, the most important step is to do a basic project planning. Without this essential activity you will risk getting into video editing without a clear idea of the final result you want to achieve, having produced much more material than necessary, which will take a long time for selection or, even worst, you will realize that there are essential materials missing (video, audio or photos) to obtain the result you would have liked. The advice is therefore to devote time to the initial project definition to save a lot of time in the editing phase and ultimately obtain better results.

You must therefore try to write the structure of the project, create a **script** and possibly also a **storyboard**. What cannot be written cannot be done!

Here is a brief and chronological list of the various phases of a video project.

1. Brainstorming

The first step is the definition of the idea of the project through a brainstorming activity. In this phase all the critical elements and the definition of the nature of the video project will emerge. It will be necessary to conclude this important initial phase with a clear idea of what the video we are going to create will have to express and communicate to those who will watch it.

2. Planning

To better organize all the phases of the project it will be important to define a clear planning in order to have clearly in mind all the activities that will be carried out without unnecessary confusion. Knowing your assignment in advance and aiming for the result you want will help you do a good job.

3. Screenplay and storyboard

In our case we are obviously not talking about the script of a movie, probably a few lines will be enough to describe the project, but in any case writing them down will help you make it happen. Drawing a simple storyboard will also be of great help when editing the video.

4. Set the scene

Before shooting the video footage it will be important to define the place where the video will be shot, the background that will be used, the necessary lighting. These things must be decided and prepared in advance in order to get the best results. It is important to carry out tests to be sure that the shooting will be good.



5. Video, audio and photo shooting

This will be the most important step for a video project because if the shooting does not go well it will not be possible to obtain a good final result. During this phase it is important to carefully check that everything is working as expected, that the equipment is charged and properly functioning.

6. Video editing

After the shooting and the collection of all the materials (photos, audio, texts) you can move on to the actual editing. Following the structure of the project that you initially defined, if you have collected all the necessary materials, this phase can take place without any particular problems and you will eventually be able to obtain the result you had in mind. In the next chapter you will learn the basics of OpenShot video editing software that you will use to make your video projects.



Video editing software

Install OpenShot

The software is available on most operating systems (including Linux, Mac, and Windows). In order to install OpenShot on your computer you need to download the appropriate version from the official download page: <https://www.openshot.org/download/>.

After downloading the installer just double-click on the file and follow the install instructions. Now that you have installed the software on your computer we can start going through the basic functionalities in order to familiarize with the user interface and then approach your first project.

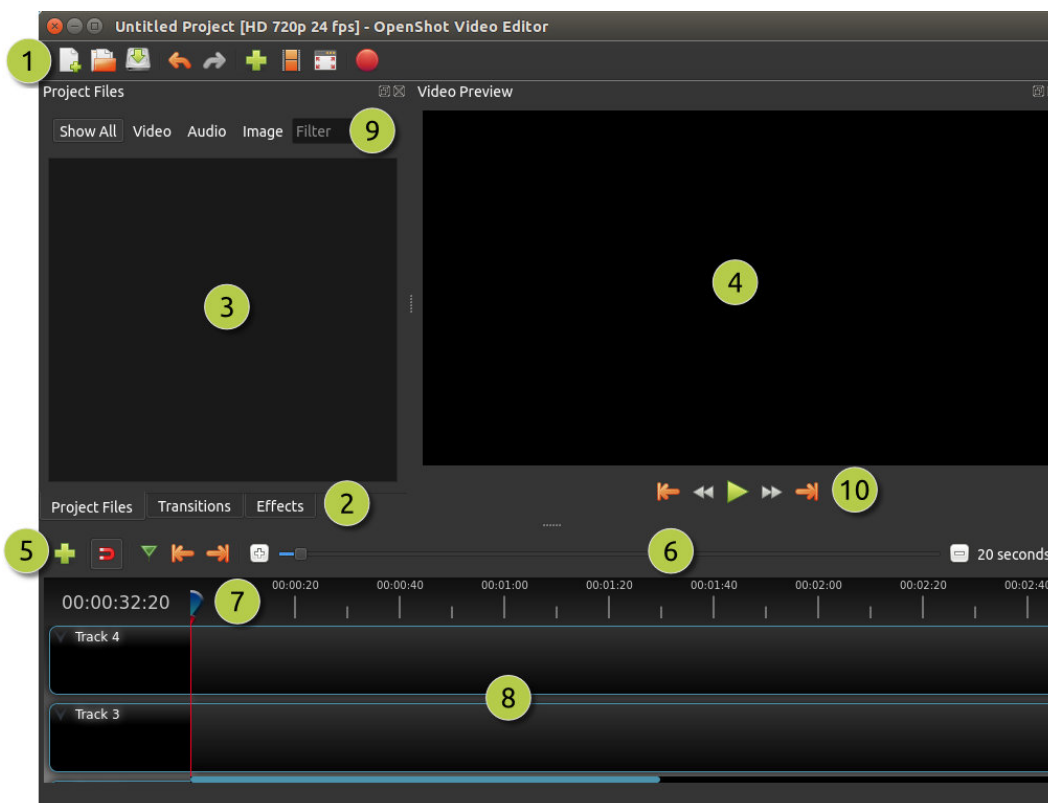
OpenShot's basic concepts

Source: <http://www.openshot.org/static/files/user-guide>

Main Window

After opening OpenShot you will find one main window which contains most of the information, buttons, and menus needed to edit your video project.

Overview





#Name	Description
1Main Toolbar	Contains buttons to open, save, and export your video project.
2Function Tabs	Switch between Project Files, Transitions, and Effects.
3Project Files	All audio, video, and image files that have been imported into your project.
4Preview Window	This is the area that the video will playback on the screen.
5Edit Toolbar	This toolbar contains buttons used for snapping, inserting markers, and jumping between markers.
6Zoom Slider	This slider will adjust the time-scale of your timeline.
7Play-head / Ruler	The ruler shows the time-scale, and the red line is the play-head. The play-head represents the current playback position.
8Timeline	The timeline visualizes your video project, and each clip and transition in your project.
9Filter	Filter the list of items shown (project files, transitions, and effects) by using these buttons and filter textbox. Enter a few letters of what you are looking for, and the results will be shown.



Tracks & Layers

OpenShot uses tracks to layer videos and images. The top most track is the top layer, and the bottom track is the bottom layer. If you are familiar with layers in a photo editing application, then you should be quite familiar with this concept. OpenShot will mix each layer together, just like a photo editing application. You can have an unlimited number of tracks, but typically a video project will not need more than 10 (or so) tracks.

For example, imagine a 3 track video project



#Name	Description
1Top Track	Clips on this track will always be on top and visible
2Middle Track	Clips in the middle (might or might not be visible, depending on what is above them)
3Bottom Track	Clips on this track will always be on the bottom



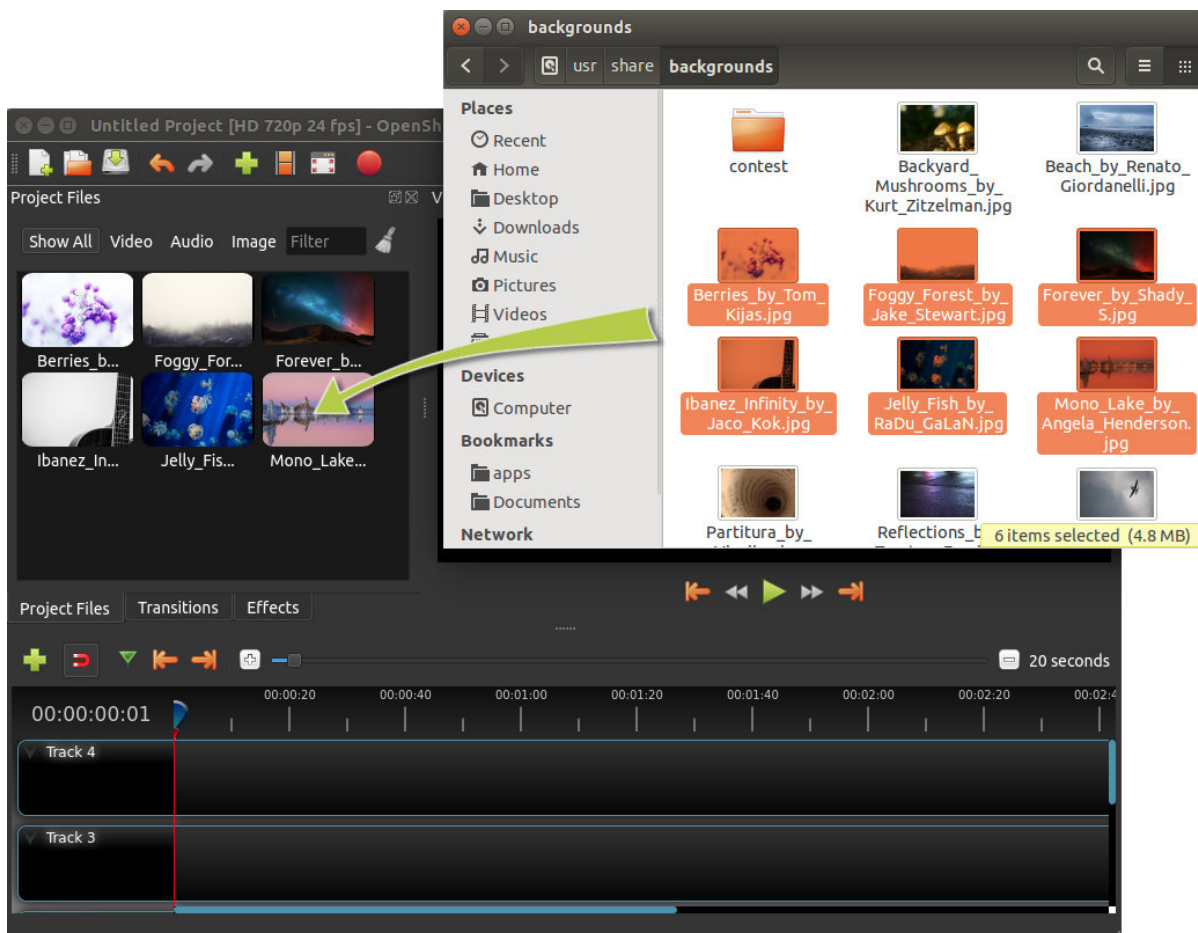
Files

Before we can begin making a video, we need to import files into OpenShot. Most media file types are recognized, such as videos, images, and audio files. Files can be viewed and managed in the Project Files panel.

Import Files

There are many ways to import media files into OpenShot.

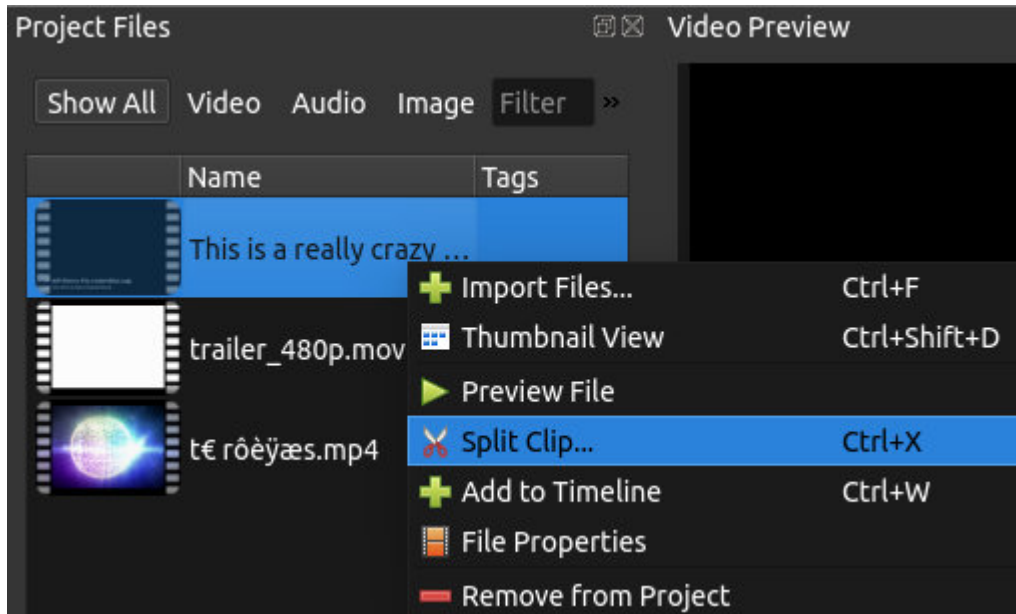
<i>Name</i>	<i>Description</i>
Drag and Drop	Drag and drop the files from your file manager (file explorer, finder, etc...)
Right Click→Import	Right click in the Project Files panel, choose Import Files...
File Menu→Import	File menu→Import Files...
Import Files Toolbar	Click the Import Files... toolbar button (on the top menu)





File Menu

To view the file menu, right click on a file (in the Project Files panel). Here are the actions you can use from the file menu.



<i>Name</i>	<i>Description</i>
Import Files...	Import files into your project
Thumbnail/Detail	Toggle the view between details and thumbnails
Preview File	Preview a media file
Split Clip...	Split a file into many smaller clips
Edit Title	Edit an existing title SVG file
Duplicate Title	Make a copy, and then edit the copied title SVG file
Add to Timeline	Add many files to the timeline in one step
File Properties	View the properties of a file, such as frame rate, size, etc...
Remove from Project	Remove a file from the project



Split Clip

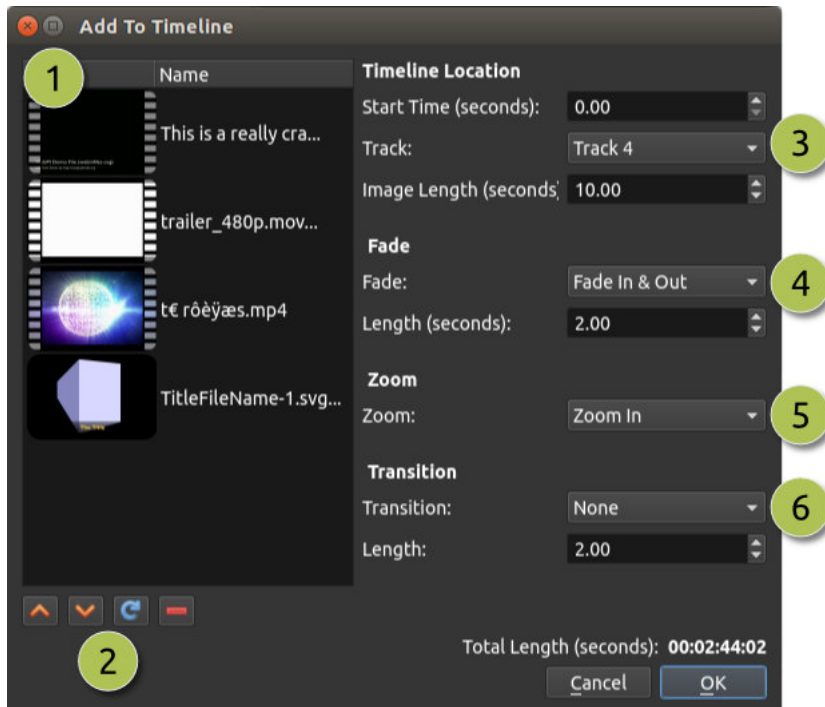
If you need to cut a file into many smaller clips before editing, the Split Clip dialog is built exactly for this purpose. Right click on a file, and choose Split Clip... from the file menu. This opens the Split Clip dialog. Use this dialog to quickly cut out as many small clips as you need. The dialog stays open after you create a clip, to allow you to repeat the steps for your next clip. When you are finished, simply close the dialog.



#Name	Description
1 Start of Clip	Choose the starting frame of your clip by clicking this button
2 End of Clip	Choose the ending frame of your clip by clicking this button
3 Name of Clip	Enter an optional name
4 Create Clip	Create the clip (which resets this dialog, so you can repeat these steps for each clip)

Add to Timeline

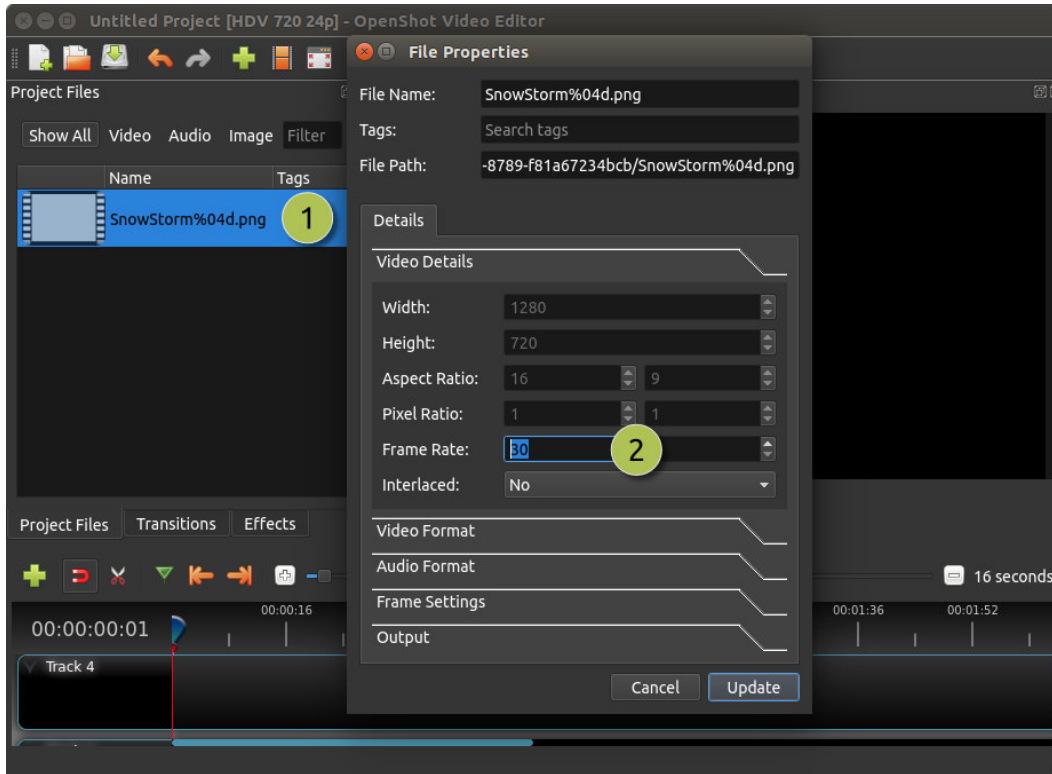
In certain cases, you might need to add many files to the timeline at the same time. For example, a photo slide show, or a large number of short video clips. The Add to Timeline dialog can automate this task for you. First, select all files you need to add, right click, and choose Add to Timeline.



#Name	Description
1 Selected Files	The list of selected files that need to be added to the timeline
2 Order of Files	Use these buttons to reorder the list of files (move up, move down, randomize, remove)
3 Timeline Position	Choose the starting position and track where these files need to be inserted on the timeline
4 Fade Options	Fade in, fade out, both, or none
5 Zoom Options	Zoom in, zoom out, or none
6 Transitions	Choose a specific transition to use between files, random, or none

Properties

To view the properties of any imported file in your video project, right click on the file, and choose File Properties. This will launch the file properties dialog, which displays information about your media file. For certain types of images (i.e. image sequences), you can adjust the frame rate on this dialog also.



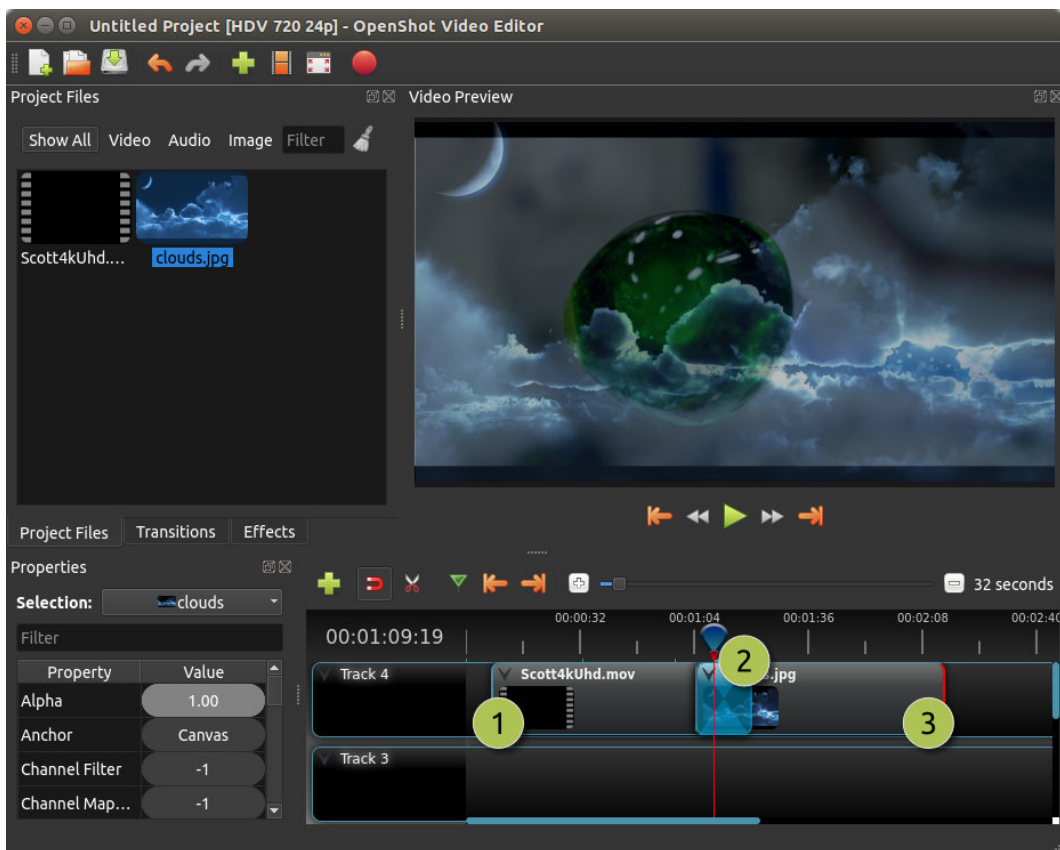
#Name	Description
1 File Properties	Select an image sequence in the Project Files panel, right click and choose File Properties
2 Frame Rate	For image sequences, you can also adjust the frame rate of the animation



Clips

Each media file you add to the OpenShot timeline is called a clip, and is visualized by a dark, rounded rectangle (as seen in the screenshot below). A clip has a large number of properties, which affects how the clip is rendered and composited, such as scale, location, rotation, and alpha. These properties can also be animated over time, and when combined together, can create some amazing effects.

Overview



#Name	Description
1Clip 1	A video clip
2Transition	A gradual fade transition between the 2 clips
3Clip 2	An image clip



Cutting & Slicing

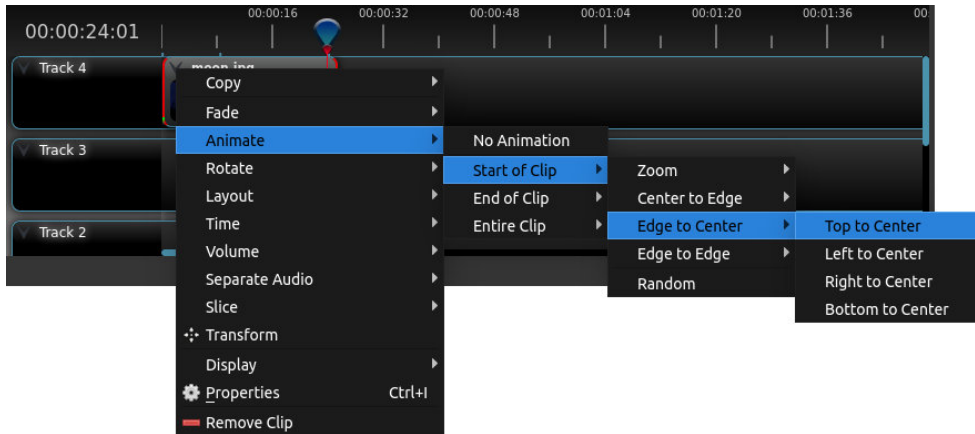
OpenShot has many easy ways to adjust the start and end positions of a clip (otherwise known as cutting). The most common method is simply grabbing the left (or right) edge of the clip and dragging. Here is a list of methods for cutting clips in OpenShot:

<i>Name</i>	<i>Description</i>
Slice	When the play-head (i.e. red playback line) is overlapping a clip, right click on the clip, and choose Slice
Slice All	When the play-head is overlapping many clips, right click on the play-head, and choose Slice All (it will cut all intersecting clips)
Resizing Edge	Mouse over the edge of a clip, and resize the edge
Split Dialog	Right click on a file, and choose Split Clip . A dialog will appear which allows for creating lots of small cuts in a single video file.
Razor Tool	The razor tool cuts a clip wherever you click, so be careful. Easy and dangerous.



Preset Menu

OpenShot has tons of great preset animations and clip properties, such as fading, sliding, zooming, etc... These presets can be accessed by right clicking on a clip.



Name	Description
Fade	Fade in or out a clip (often easier than using a transition)
Animate	Zoom and slide a clip
Rotate	Rotate or flip a video
Layout	Make a video smaller or larger, and snap to any corner
Time	Reverse and speed up or slow down video
Volume	Fade in or out the volume for a clip
Separate Audio	Create a clip for each audio track
Slice	Cut the clip at the play-head position
Transform	Enable transform mode
Display	Show waveform or thumbnail for a clip
Properties	Show the properties panel for a clip
Copy / Paste	Copy and paste key frames or duplicate an entire clip (with all key frames)
Remove Clip	Remove a clip from the timeline



Transform

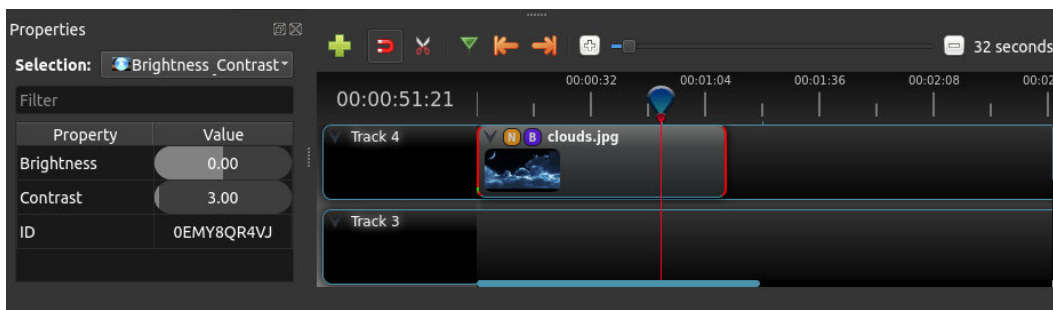
To quickly adjust the location and scale of a clip, select a clip on the timeline, right click and choose **Transform**. Grab any of the small blue handles to adjust scale, and grab the middle circle to move the image. Note: Pay close attention to where the play-head (i.e. red playback line) is. Key frames are automatically created at the current playback position, to help create animations.



For more info on key frames and animation, see the **Animation** chapter.

Effects

In addition to the many clip properties which can be animated and adjusted, you can also drop an effect directly onto a clip. Each effect is represented by a small letter icon. Clicking the effect icon will populate the properties of that effect, and allow you to edit (and animate) them.





Properties

Below is a list of clip properties which can be edited, and in most cases, animated over time. To view a clip's properties, right click and choose **Properties**. The property editor will appear, where you can change these properties. Note: Pay close attention to where the play-head (i.e. red playback line) is. Key frames are automatically created at the current playback position, to help create animations.

<i>Name</i>	<i>Description</i>
Gravity Type	The gravity of a clip determines where it snaps to it's parent
Scale Type	The scale determines how a clip should be resized to fit it's parent
Frame Display Type	The format to display the frame number (if any)
Scale X	Curve representing the horizontal scaling in percent (0 to 1)
Scale Y	Curve representing the vertical scaling in percent (0 to 1)
Location X	Curve representing the relative X position in percent based on the gravity (-1 to 1)
Location Y	Curve representing the relative Y position in percent based on the gravity (-1 to 1)
Rotation	Curve representing the rotation (0 to 360)
Alpha	Curve representing the alpha (1 to 0)
Time	Curve representing the frames over time to play (used for speed and direction of video)
Volume	Curve representing the volume (0 to 1)
Shear X	Curve representing X shear angle in degrees (-45.0=left, 45.0=right)
Shear Y	Curve representing Y shear angle in degrees (-45.0=down, 45.0=up)
Channel Filter	A number representing an audio channel to filter (clears all other channels)
Channel Mapping	A number representing an audio channel to output (only works when filtering a channel)
Has Audio	An optional override to determine if this clip has audio (-1=undefined, 0=no, 1=yes)
Has Video	An optional override to determine if this clip has video (-1=undefined, 0=no, 1=yes)
Waveform	Should a waveform be used instead of the clip's image
Waveform Color	Curve representing the color of the audio wave form

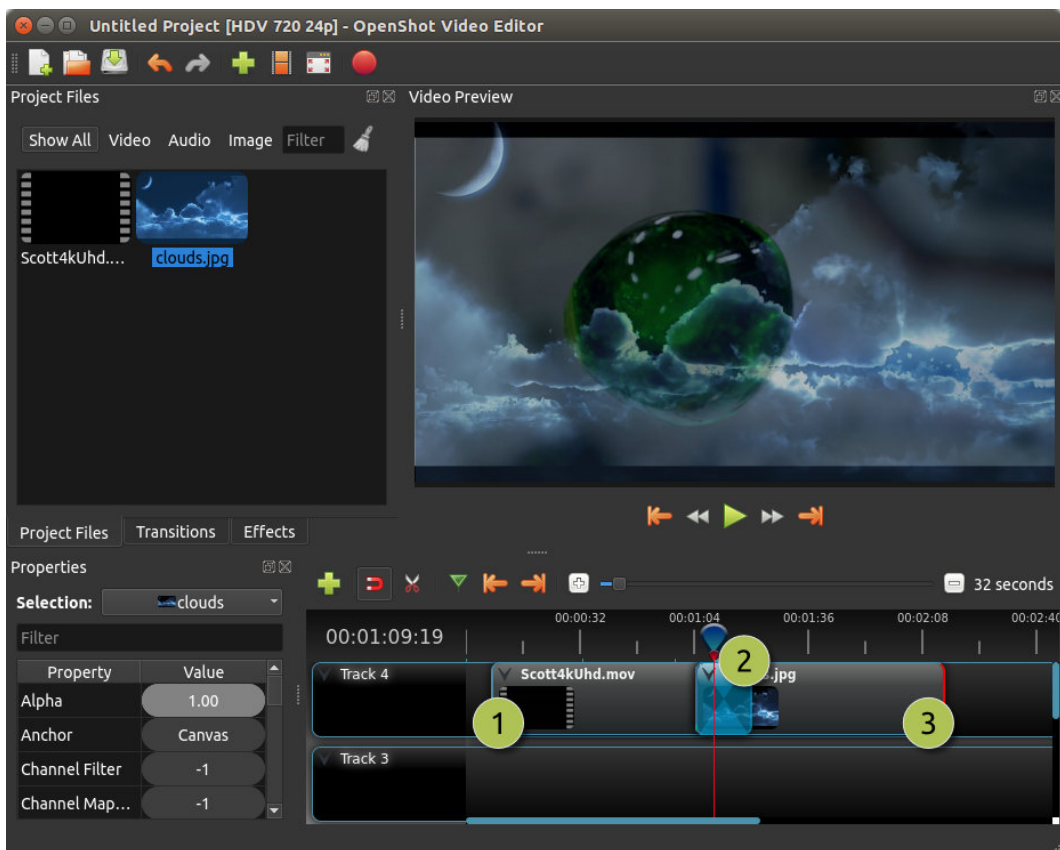
For more info on key frames and animation, see the **Animation** chapter.



Transitions

A transition is used to gradually fade (or wipe) between two clips. In OpenShot, transitions are represented by blue, rounded rectangles on the timeline. They are automatically created when you overlap two clips, and can be added manually by dragging one onto the timeline from the **Transitions** panel. A transition must be placed on top of a clip (overlapping it), with the most common location being the beginning or end.

Overview

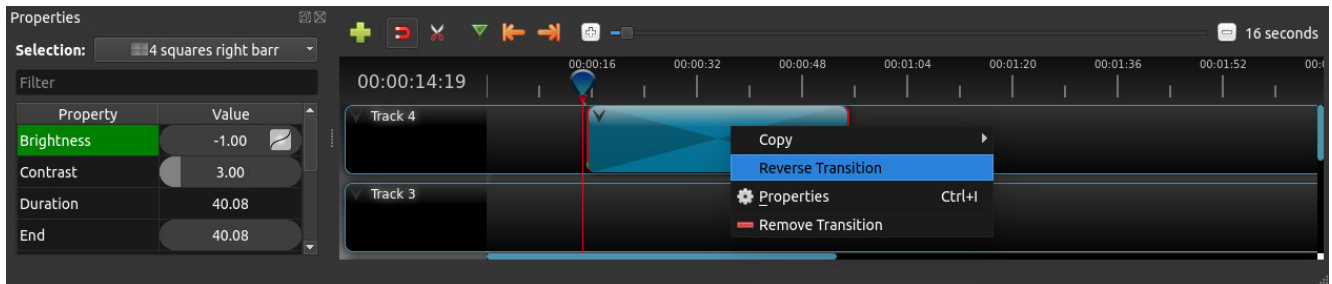


#Name	Description
1Clip 1	A video clip
2Transition	A gradual fade transition between the 2 clips, created automatically by overlapping the clips.
3Clip 2	An image clip



Direction

Transitions adjust the alpha/transparency of the clip below it, and can either fade from opaque to transparent, or transparent to opaque. Right click and choose **Reverse Transition** to change the direction of the fade. You can also manually adjust the **Brightness** curve, animating the fade in any way you wish.



Cutting & Slicing

OpenShot has many easy ways to adjust the start and end positions of a transition (otherwise known as cutting). The most common method is simply grabbing the left (or right) edge of the transition and dragging. Here is a list of methods for cutting transitions in OpenShot:

<i>Name</i>	<i>Description</i>
Slice	When the play-head (i.e. red playback line) is overlapping a transition, right click on the transition, and choose Slice
Slice All	When the play-head is overlapping many transitions, right click on the play-head, and choose Slice All (it will cut all intersecting transitions)
Resizing Edge	Mouse over the edge of a transition, and resize the edge
Razor Tool	The razor tool cuts a transition wherever you click, so be careful. Easy and dangerous.

Properties

Below is a list of transition properties which can be edited, and in most cases, animated over time. To view a transition's properties, right click and choose **Properties**. The property editor will appear, where you can change these properties. NOTE: Pay attention to where the play-head (i.e. red playback line) is. Key frames are automatically created at the current playback position.

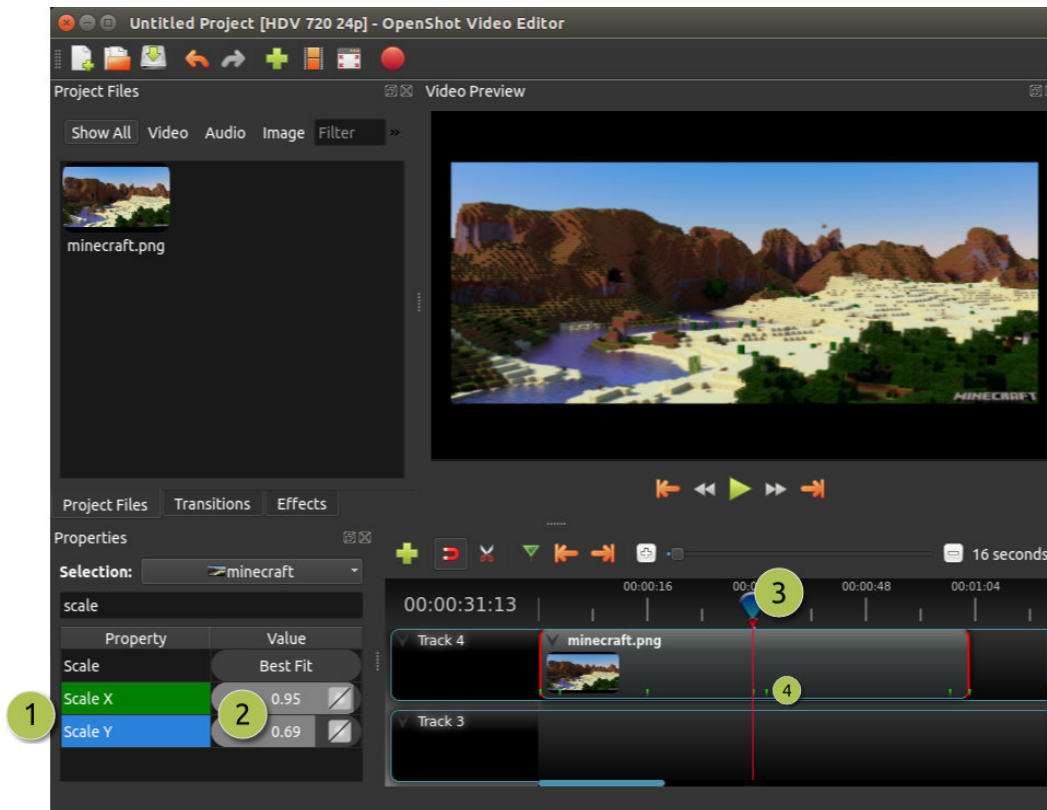
<i>Name</i>	<i>Description</i>
Brightness	Curve representing the brightness of the transition image, which affects the fade/wipe (-1 to 1)
Contrast	Curve representing the contrast of the transition image, which affects the softness/hardness of the fade/wipe (0 to 20)
Replace Image	For debugging a problem, this property displays the transition image (instead of becoming a transparency)



Animation

OpenShot has been designed specifically with animation in mind. The powerful curve-based animation framework can handle most jobs with ease, and is flexible enough to create just about any animation. Key frames specify values at certain points on a clip, and OpenShot does the hard work of interpolating the in-between values.

Overview



#Name	Description
1 Green Property	When the play-head is on a key frame, the property appears green
1 Blue Property	When the play-head is on an interpolated value, the property appears blue
2 Value Slider	Click and drag your mouse to adjust the value (this automatically creates a key frame if needed)
3 Play-head	Position the play-head over a clip where you need a key frame
4 Key frame Markers	Small green tick marks are drawn at all key frame positions (on a clip)



Key Frames

To create a key frame in OpenShot, simply position the play-head (i.e. playback position) at any point over a clip, and edit properties in the property dialog. If the property supports key frames, it will turn green, and a small green tick mark will appear on your clip at that position. Move your play-head to another point over that clip, and adjust the properties again. All animations require at least 2 key frames, but can support an unlimited number of them.

To adjust the **interpolation mode**, right click on the small graph icon next to a property value.

<i>Name</i>	<i>Description</i>
Bézier	Interpolated values use a quadratic curve, and ease-in and ease-out
Linear	Interpolated values are calculated linear (each step value is equal)
Constant	Interpolated values stay the same until the next key frame, and jump to the new value



Bézier Presets

When using a Bézier curve for animation, OpenShot includes more than 20 curve presets (which affect the shape of the curve). For example, **Ease-In** has a more gradual slope at the beginning, making an animation move slower at the beginning, and faster at the end. **Ease-In/Out (Back)** has a gradual beginning and ending, but actually goes past the expected value and then back (producing a bounce effect).

To choose a curve preset, right click on the small graph icon next to a key frame.

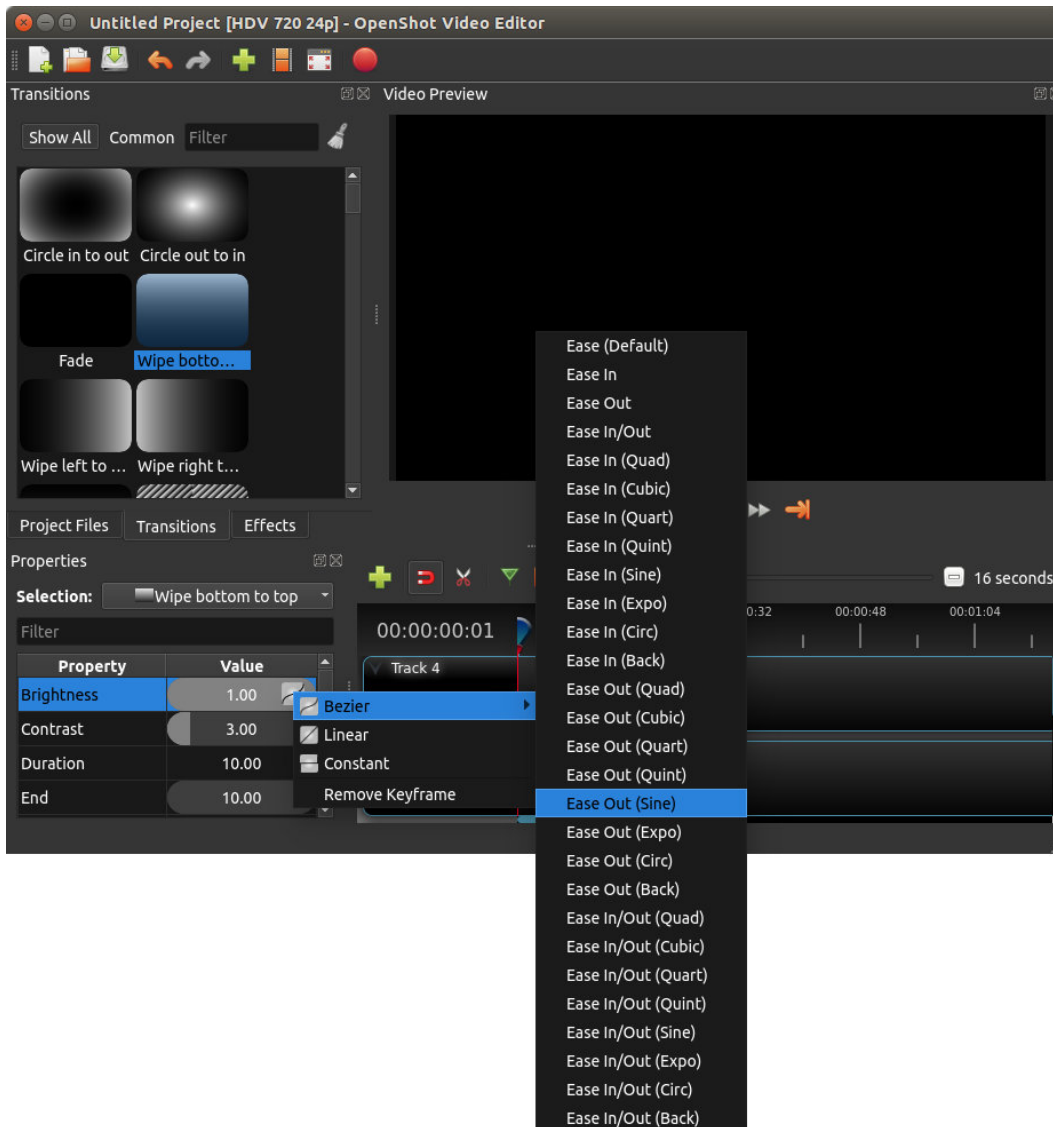
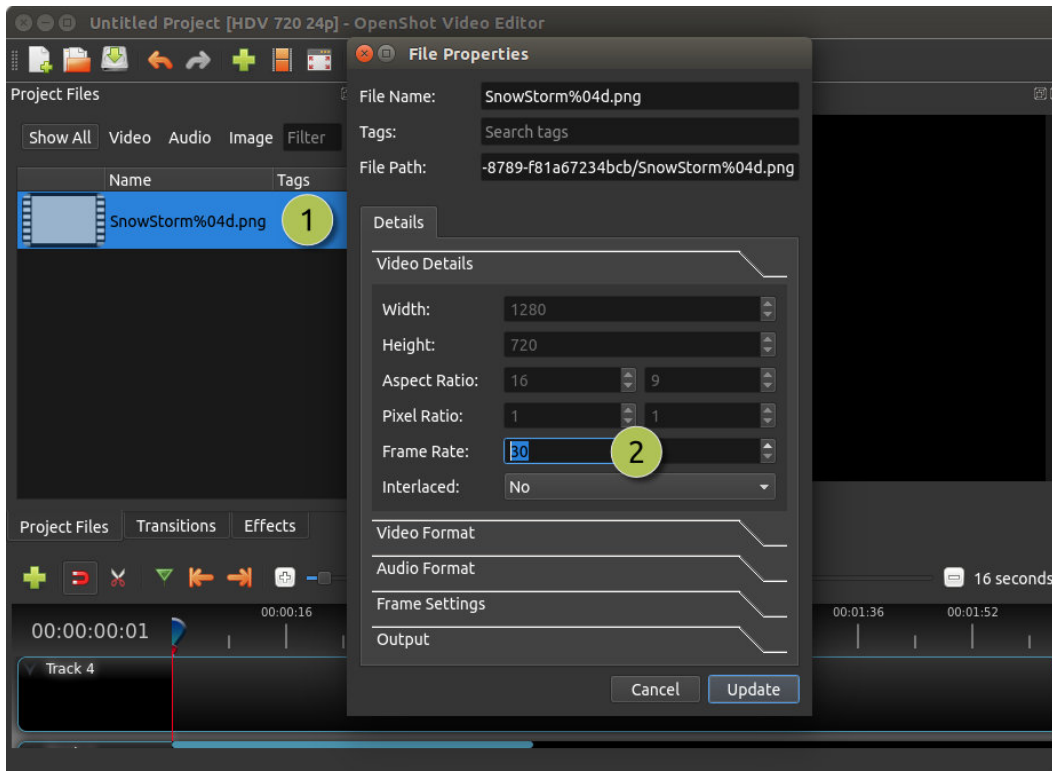




Image Sequences

If you have a sequence of similarly named images (such as, cat001.png, cat002.png, cat003.png, etc...), you can simply drag and drop one of them into OpenShot, and you will be prompted to import the entire sequence.

To adjust the frame rate of the animation, right click and choose **File Properties** in the **Project Files** panel, and adjust the frame rate. Once you have set the correct frame rate, drag the animation onto the timeline.



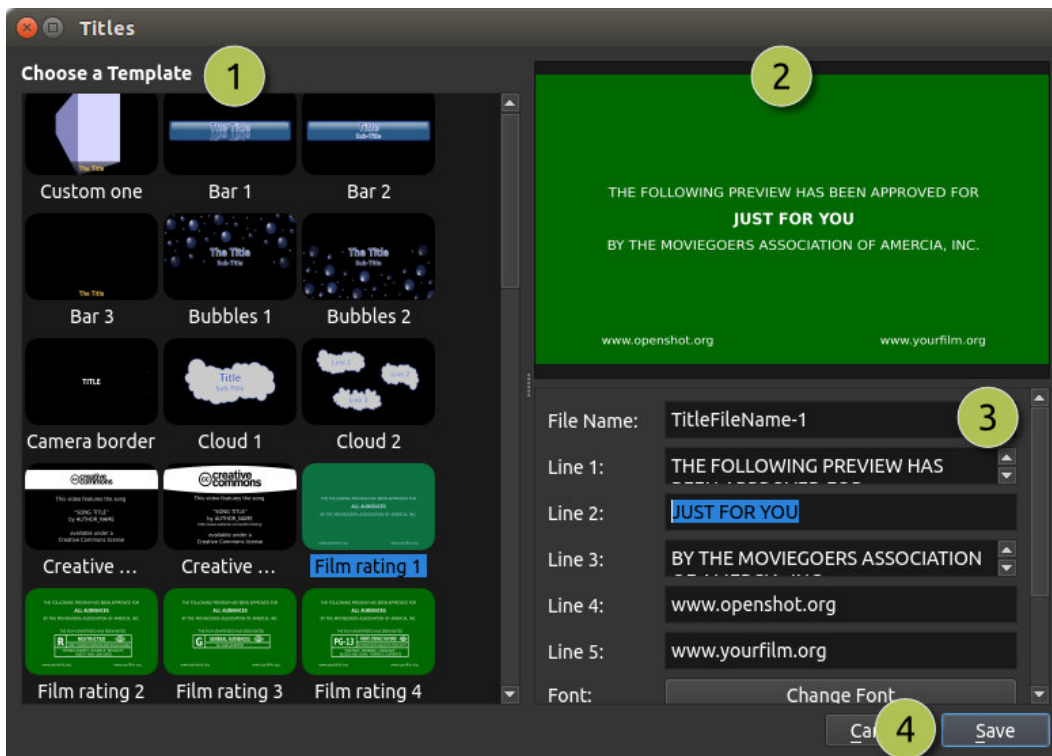
#Name	Description
1 File Properties	Select an image sequence in the Project Files panel, right click and choose File Properties
2 Frame Rate	Adjust the frame rate of the animation. Typically, hand-drawn animations use 12 frames per second.



Titles

Adding text and titles is an important aspect of video editing, and OpenShot comes with an easy to use Title Editor. Use the Title menu (located in the main menu of OpenShot) to launch the Title Editor. You can also use the keyboard shortcut **Ctrl+T**.

Overview



#Name	Description
1Choose a Template	Choose from any available vector title template
2Preview Title	Preview your title as you make changes
3Title Properties	Change the text, colors, or edit in an advanced SVG image editor (such as Inkscape)
4Save	Save and add the title to your project

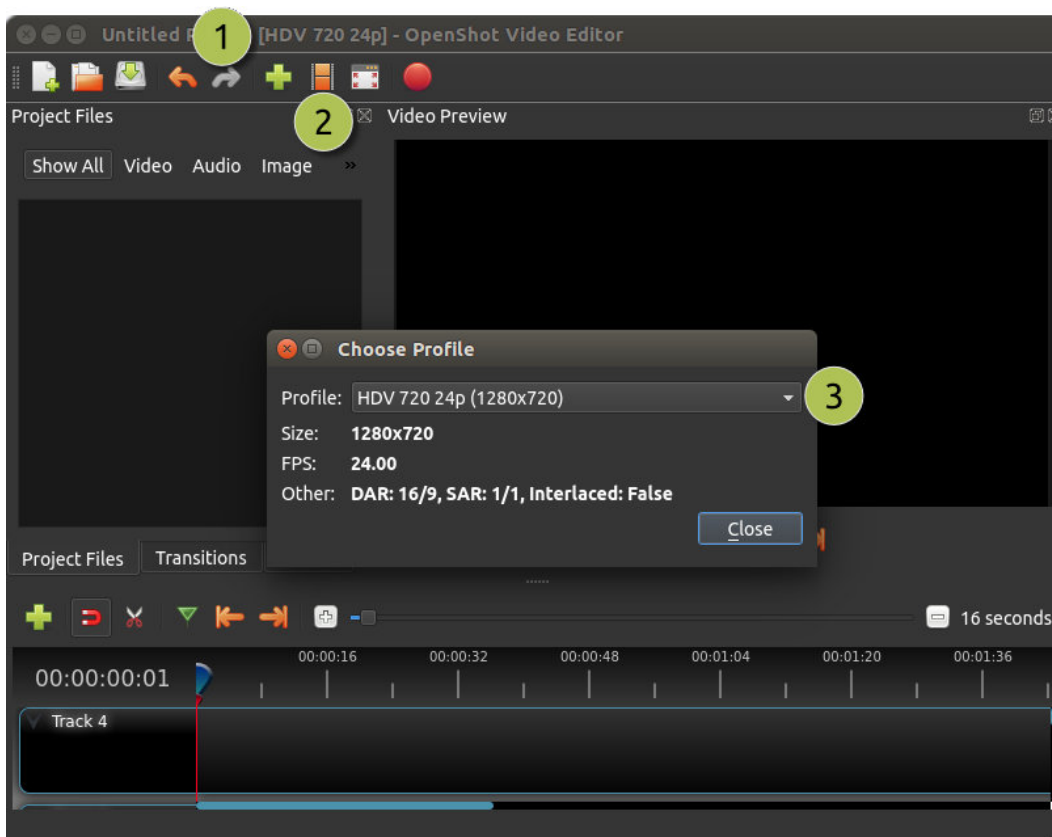


Profiles

A profile is a collection of common video settings (size, frame rate, aspect ratio, etc...). Profiles are used during editing, previewing, and exporting to provide a quick way to switch between common combinations of these settings.

Project Profile

The project profile is used when previewing your project and editing. The default project profile is “HD 720p 24fps”. It is best practice to always switch to your target profile before you begin editing. For example, if you are targeting 1080p 30fps, switch to that profile before you begin editing your project.

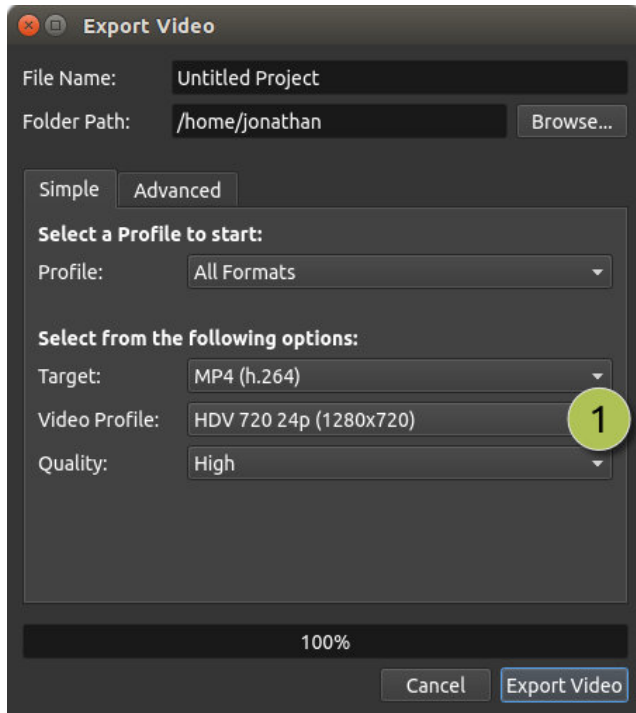


#Name	Description
1Title Bar	The title bar of OpenShot displays the current profile
2Profile Button	Launch the profiles dialog
3Choose Profile	Select a profile for editing and preview



Export Profile

The export profile always defaults to your current project profile, but can be changed to target different profiles.



#Name	Description
1Choose Profile	Select a profile for export



Learning resources

To easily master the use of OpenShot, you can find several video tutorials on YouTube. We list here some existing tutorials in English. However if you search on YouTube it is likely that you can find more, and also something in your own language.

Quick 30 minutes guide for beginners

https://youtu.be/l_r12b99TIg

OpenShot dedicated YouTube Channel

<https://www.youtube.com/user/JonOomph/videos>

Project Coordinator



Co&So (Italy)
www.coeso.org

Project Partners



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Município de Lousada (Portugal)
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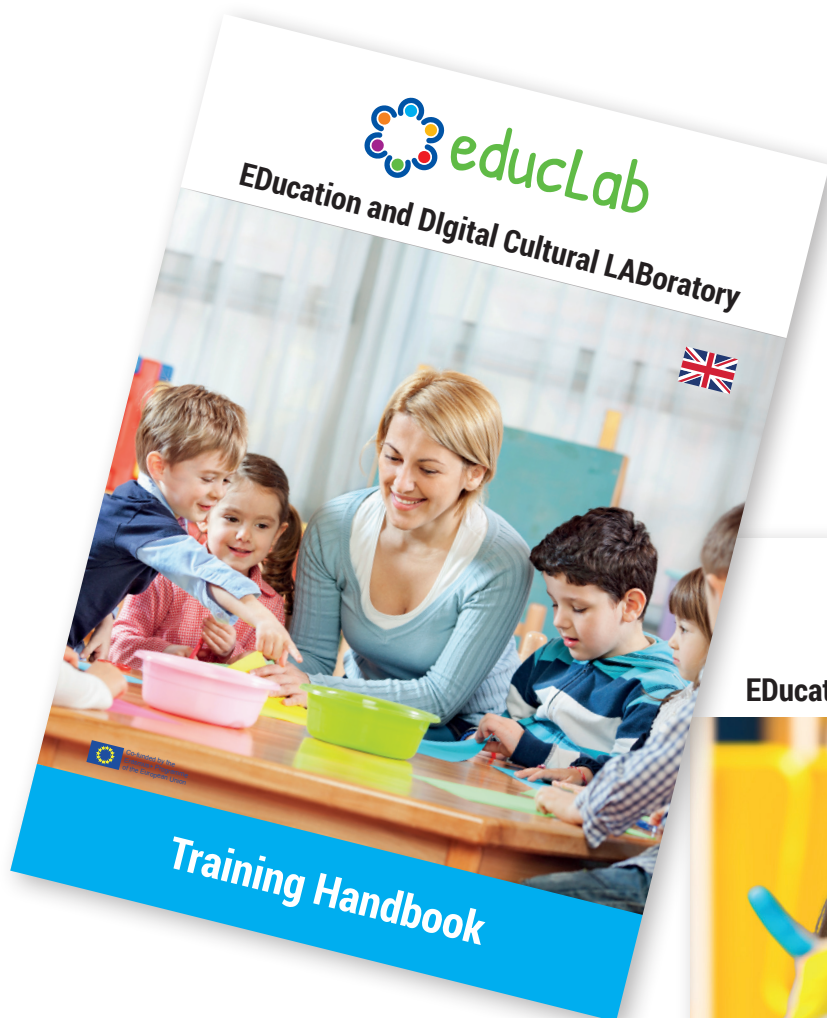
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Socială și Protecția Copilului Harghita
Harghita Megyei Szociális és
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