CinGG's workflow is different!

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Cinelerra-GG (**CinGG**) is a feature-rich but complex program to learn. It has an old-fashioned workflow that harkens back to the days of film, analog editing, and reels. Tracks in their entirety or on partial regions are very important and involve constant use of the *Arm Track* button to turn them on or off. The exact placement of the *insertion point* (playhead, in Premiere Pro) is also important. Finally, many actions and keyframes are done directly on the tracks instead of in the effects panel. In fact everything in CinGG is keyframable and not just the effects. In CinGG the Timeline is track based while in the other NLEs the Timeline is clip based.

In other NLEs, when you add an effect to a clip in the Timeline that effect is linked (embedded) with the clip; moving the clip forward or backward in the Timeline, its effects will move together with the clip. If keyframes had been added on an effect, they will move in accordance with the clip. To see the clip's effects these NLEs use a kind a form where you can add or delete the keyframes.

In Cinelerra-GG, you can add an effect to all of the track or a selected area (section, region). Adding an effect only to the area of that clip, you can move the effect together with the clip using *Drag and Drop editing mode* feature. If keyframes had been added on that effect, they will move in accordance with the clip, but only if they are within the clip area. When you add a lot of effects to a clip, or to some clips in the same track, that track will increase its height; this could lead to confusion on a large Project.

Nowadays the most widely used workflow, because it is convenient, easy, and fast, is the clip-based workflow, the most representative example of which is Adobe Premiere Pro (**PP**). In short, to use CinGG you have to read the manual and learn a new workflow different from the most commonly used one (<u>manual</u>). To meet the needs of new users, we provide here a comparison with Adobe's NLE (similar to that of many other programs) and explain how to solve the editing differences in CinGG. Indeed there are some alternative methodologies to duplicate the capabilities of other NLEs described here that may make your usage of CinGG more attuned to your expectations. One of the more compelling reasons for providing this document is to assist users who wish to migrate from Windows, where PP runs, to Linux where CinGG was developed.

GUI

PP: It presents a single workspace with total freedom to change its interface in ratios and window sizes. It has three preset workspaces: Import, Edit and Export but you can add custom ones. In all cases it maintains the unity of a single window.

CinGG: Has 4 main independent windows. They can also be hidden to leave space for the others. They can be resized and translated. Some users prefer to have a single main windowed group to more easily minimize/maximize the 4 main windows as a single entity when switching to another program temporarily. You can do so by utilizing the *xdotool* (available for download) which gives you the ability to focus windows as a group. How to do this is outlined in Focus Group windows. Besides moving the windows where you want them to be initially, once you establish them in your preferred location, the next time you start CinGG, they will be in the same place where you left them. In addition, you can setup and save 4 placement layout variations to bring up later for each specific scenario you are working on. Use the Window pulldown and Save layout option to set up and later Use layout to have that layout go into effect. See Layouts.

Waveform

PP: shows waveform halved to save space.

CinGG: you can change the default setting (whole waveform) to a Rectify waveform in the Flags section of the Settings pulldown, option Preferences, Appearance tab. Check the box which says "Timeline Rectify Audio" and if you already have video/audio on the Timeline, reload them for the change to take effect. See <u>Flags</u>.

IMPORTING MEDIA

PP: you can drag media files, folders and subfolders directly into the Project window. The pattern of folders and subfolders will be maintained.

CinGG: you import everything into the Resouces window Media folder, solely through the internal file manager. There are many possibilities for import and logical operators to sort media. A personal folder structure, but not subfolders, can be done manually after importing mediafiles. See <u>Import</u><u>Files</u>.

TIMELINE

Structure

PP: is simply the collection of clips and sequences. There are few features that affect the tracks in their entirety and the correlations between them; everything is resolved at the clip level. Each clip is independent of the others. The first thing to do is to create a new empty sequence in the Project Panel, then you can insert the clips on the timeline.

CinGG: Timeline organization is important, and there is a lot of "global" functionality in the patchbay. To make the various tracks independent you have to act on the arm/disarm track buttons in the patchbay. See <u>Patchbay</u>. The first thing to do is to create a new project (in *File* \rightarrow *New Project* window) that will automatically appear on the timeline even if it is still empty. The timeline cannot exist without a project; a default project will be loaded if we do not create it.

Playback

PP: Count on "multimedia cache" and, if possible, hardware acceleration of decoding. Proxies and "render preview" can be used.

CinGG: Proxies and background rendering can be used. Some codecs can be decoded with vaapi, vdpau and cuda. Other optimizations are: <u>do not Play every frame</u> while working in certain situations. Drawing video thumbnails and picons on the timeline can be very slow. There are ways provided in the manual to help for smaller/slower computers. For example, you can disable picon drawing for these files with the <u>draw media</u> toggle in the patchbay to speed up operations.

Color Management

PP: Supports ICC profiles, OpenColorIO and ACES color management. **CinGG:** It has no unified color management, but each part treats colors as it needs. The internal engine works in 32-bit float. See <u>Best practice in pre-editing</u>. For more tips on how CinGG processes colors on the timeline see <u>Color Space and Color Range Affecting Playback</u>, <u>Automatic</u> <u>"Best Model" Media Load</u> and <u>Overview on Color Management</u>.

Rotoscoping

PP: has sophisticated rotoscoping capabilities to separate the object from the background (with rotbrush or the pen tool) and to fill the hole left by the mask with the background (patching). Mask tracking can be done. Other even more sophisticated rotoscoping can be done in After Effects. **CinGG:** the <u>mask tool</u> has several features but not those characteristic of rotoscoping (roto-paint; patching, tracking; etc). A possible workaround is to double the video track on which to act with the mask and use keyframes in <u>autos</u> mode to move it.

Clips

PP: clips are media (or parts of it) complete in themselves and independent from other clips and the timeline.

CinGG: edits can be media (or part of it) but can also be any region of the timeline between In/Out Points or in a highlighted area, on which you can do editing operations. Clips in CinGG are those that are created in the Viewer window or in the timeline via the *to clip* command and brought into the Resources window, inside the Clips folder, where they can be renamed and a description added. These, once brought into the timeline, are renamed edits. In CinGG the difference between edits and clips is not important and you can use them as synonyms. However, the difference of clips as it is intended in PP is important because CinGG is based on tracks, not on edits/clips.

Cutting a region

PP: if you cut a part of the clip in its place the blank space remains.

CinGG: the track is a continuous entity; cutting out a part implies that the edits to the right of the cut move to the left to occupy the blank space. You have to use the Mute Region [m] command to overwrite the selected region with a blank space. You have to remember that muting occurs along the entire stack of tracks so you have to disarm the tracks you do not want to include. See <u>Cut and Paste</u>.

Cut

PP: The razor tool cuts one clip into two new clips; including the audio part.

CinGG: cutting an edit in two is not possible because of Track Optimization. This can be remedied by doing a single frame cut, or you can use Split (Blade cut) functions which creates hard edges. See <u>Blade Cut</u>. You have to remember that cutting occurs along the entire stack of tracks (along the insertion point) so you have to disarm the tracks you do not want to include.

Drag and Drop

PP: moving one or more video clips, also moves the corresponding audio clips. There is the Link/UnLink function.

CinGG: there is a <u>Drag and Drop</u> mode, however it is important to take into account the independence of the video track with the corresponding audio track: it is easy to lose synchronization. There is no *Link/UnLink* function. The workaround is to merge the A/V edits into a group. Or use the "Gang Media" mode (based on Master/slave tracks) after which you can move the edits at the same time. For extensive details see <u>Ganged Tracks</u>. A third method is to double-click

on an edit whose selection will also cover other edits lined up on other tracks and of the same length. You can copy/cut clips in one instance of the program and paste them onto another instance of the program. Remember that a clip, in CinGG, is only a track region occupied by the clip. It is not a stand-alone clip.

Selecting clips

PP: you can use the mouse to create a rectangular selection of a rectangular region; all clips that touch that region are selected.

CinGG: you can use <u>grouping</u> of edits, but this has to be done edit by edit or with the Select Edits command on an illuminated region of the timeline. Or you can use LMB drag and drop at the same time as the Alt key, so all edits you hover the mouse cursor over will be selected. See <u>Snapping</u>.

Shortcuts

PP: you have the classic key behaviors: **copy** = **Ctrl** + **c**; **save** = **Ctrl** + **s**; etc. **CinGG:** this scheme of shortcuts is not respected: **copy** = **c**; **save** = **s**; etc. Currently there is no

solution to change shortcuts due to CinGG having been initially written around the year 2000 when both the hardware and software were not as flexible or as fast as today. See <u>Shortcuts</u>.

j,k,l

PP: are standard keys in almost all NLEs and are used to playback sequences on the timeline without using a mouse or keypad.

CinGG: other keys are used and cannot be changed because j, k and l are already assigned to other functions. However, you can use the keys j,k,l preceded by *Alt* to perform the PP j,k,l functions. Or you use the numeric keypad with the 0, 1, 3 keys. With the same keys you cannot get fast forward, slow forward, or single frame; there are separate keys for each of these functions. Arrows are also not available for playback because they are reserved for sophisticated insertion point (cursor) movements. With the use of the Shuttle hardware, the user can at least define different timeline operations associated with different keypresses. See <u>Shuttle</u>.

EDITING

Three Points Editing

PP: Classic editing mode. With 2 points in the source window you determine the clip you want to import into the sequence. With the playhead on the timeline we determine the third insertion/overwriting point.

CinGG: It is a same as PP, but named <u>Two Screen Editing</u>.

Effects

PP: apply directly to each affected clip (or selection of clips) and work only in it. If you move or copy a clip. It also takes effects, keyframes, markers, etc with it. Keyframes are set from the Control Panel.

CinGG: you can apply them to one or more edits, to the whole track or even to several regions of the timeline, after you have selected them. It is important to remember that the effects are tied to the tracks or parts of them and not to the edits. In case the effects are applied to individual clips, they

can be considered to be part of a single group. Thus to be able to move and copy effects along with clips, there are special commands in Cut and Paste mode, via middle mouse button, or using Drag and Drop mode. Keyframes are applied and managed on the timeline. There are multiple types of <u>keyframes</u>. See <u>Plugins</u>.

Adjustment layer

PP: creates a top track in which to put the effects. It is a special track and is used to apply effects simultaneously to multiple clips.

CinGG: Because of its focus on tracks in their whole, CinGG has always had similar functionality to the Adjustment Layer. You can apply the effect to the whole track or create a new empty overlay track on which to use only the effects.

Multicam

PP: with one command (with many options) you synchronize the media and with another you create the mixers and output in the Program window. Click on the "Rec" button to activate recording. You enable recording with the appropriate command, and then by clicking on a mixer you start recording the clip that will be the first in the final multicam sequence. When you want to switch to another clip you click on a second mixer and so on, building the final sequence. We can stop play or let it go from one mixer to another. You can then return to the various clips in the sequence to edit them and replace them with other mixers and use trim to search for the best trim of the edges.

CinGG: You can do automatic synchronization by timecode (<u>timecode</u>) or manual synchronization by waveform (<u>Align Mixers</u>). With timeline play you see the mixer and the corresponding track running. When we want to create the first clip we click on stop and then on the corresponding mixer. Then again play, stop and click on a second mixer to get the second clip and so on until the final multicam sequence is complete. You can't see anything on the Compositor window because the mixer tracks have playback disabled. It is from the timeline and mixers that we can choose the end point of the clip. Basically in PP we choose, via mixer, the beginning of the recording of the clip while in CinGG we choose, via mixer, the end of the clip. Once the sequence is complete you can go back into the various clips to edit them and to do trimming of the edges (Roll). See <u>multicam</u>.

Titler

PP: You can write, do editing and transformations directly in the Program monitor (also rotations). There are basic vector graphics features. Animation can be done with keyframes or by connecting to After Effects. There are many presets that can be used.

CinGG: the titler behaves like real text editing; a few advanced graphical and motion functions are not present (rotation; typewriter effect; vector graphics). This can be remedied by putting titles in a track of their own where you can apply the effects and transformations you need. Teletype (Typewriter) effects can be resolved manually with keyframes or with masks + keyframes. There are no presets, but you can create them manually. See <u>Title</u>.

Fonts

PP: It has system fonts and Adobe Fonts available. Many companies provide fonts and presets for Adobe programs.

CinGG: there are multiple ways to get the exact font you need with the easiest being to simply add an environment variable with explicit location of the desired font before you start up CinGG as shown here:

export BC_FONT_PATH=<colon-separated-search-path-for-fonts>

Other solutions are described in the manual in the paragraph <u>Fonts Addition</u>.

3D fonts

PP: relies mainly on After Effects and 3D presets. It has no real ability to create 3D text. **CinGG:** It has no functionality for 3D text. As a workaround can use *Drop Shadow* and *Outline* options in the Title plugin. Or download free 3D fonts from the internet and add as explained in the previous *Fonts* section. Finally, use Inkscape via the <u>SVG plugin via Inkscape</u>.

Subtitles

PP: You can transcribe the voices automatically and turn them into subtitles, which create a specific upper track. You can edit the style of the text.

CinGG: placement of subtitles directly on a track can not be done; i.e. loading video with embedded subtitles does not load subtitl track. There is a separate subtitl track for this work which has some advantages. But you can not change options/font. See <u>subtitles</u>.

Motion Graphics

PP: has some elementary motion graphics functions but relies prevalantly on After Effects. **CinGG:** there are some basic motion graphics capabilities. You can use the Sketcher plugin to create elements such as ellipses, rectangles and shapes, do translations, rotations, and resizes, and finally, animated with keyframes, for simple motion graphics. See <u>Sketcher plugin</u>.

RENDERING

PP: can take advantage of CUDA and OpenCL to accelerate via hardware the encoding of some codecs (presets). It does not use a render farm directly but can send the project to Media Encoder. **CinGG:** some codecs have presets that take advantage of vaapi, vdpau and CUDA/nvenc to accelerate via hardware rendering. See <u>GPU Acceleration</u>. Or you can use the Render Farm to distribute encoding across multiple networked systems or on a single PC having a multicore CPU, making all available threads work in parallel. See <u>Render Farm</u>.

Disclaimer

The official Adobe documentation was mainly used. Reference year 2023. Care has been taken in the creation of this document, nevertheless, errors cannot be completely excluded. The author is grateful for suggestions for improvement and information on errors. The <u>CinGG Youtube</u> channel has many tutorials clarifying these points. Other workarounds can be found in the manual.