Mask Window Changes

Improved

Cinelerra: Mask ×

— Masks on Track
Track: Video 1 ↓ ⇕ ◇ Solo

— Masks
Mask: 0 ↓ ⬭ Delete ↺

Select: ✔ ◇ ◇ ◇ ◇ ◇ ◇ ◇ ⇕
0   1   2   3   4   5   6   7

Enable: ✔ ✔ ✔ ✔ ✔ ✔ ✔ ✔ 👁

— Preset Shapes
□ ○ △ ⬭ 🖻 🖼 🗑

— Position & Scale
⤡ ▣ ↔ ↕ ⊠

— Fade & Feather
Fade: 100.00 ⇕ ————————◇ 🖉
Feather: 0.00 ⇕ ————◇———— 🖉

— Mask Points
Point: 0 ⇕ Λ Ͳ ⬭ Delete 🖉
X: 0.000 ⇕ △ ⬭ ✔ Markers
Y: 0.000 ⇕ ⬭ ⬭ ✔ Boundary

— Pivot Point
X: 640.000 ⇕ ◇ Focus 🖉
Y: 360.000 ⇕

◇ Apply mask before plugins
◇ Disable OpenGL masking ✔ Help

Shift+LMB: move an end point
Ctrl+LMB: move a control point
Alt+LMB: to drag translate the mask
Shift+Key Delete: to delete the point
Shift+MMB: Set Pivot Point at pointer
Wheel: rotate around Pivot Point
Shift+Wheel: scale around Pivot Point
Ctrl+Wheel: rotate/scale around pointer

Original

Cinelerra: Mask ×

Mode: Subtract alpha ▼
Value: ————————◇

Delete Point: 0 ⇕
Mask number: 5 ⇕
Feather: 0 ⇕
X: 0.0000 ⇕ Y: 0.0000 ⇕

Press Shift to move an end point
Press Ctrl to move a control point
Shift+click Delete to delete the mask
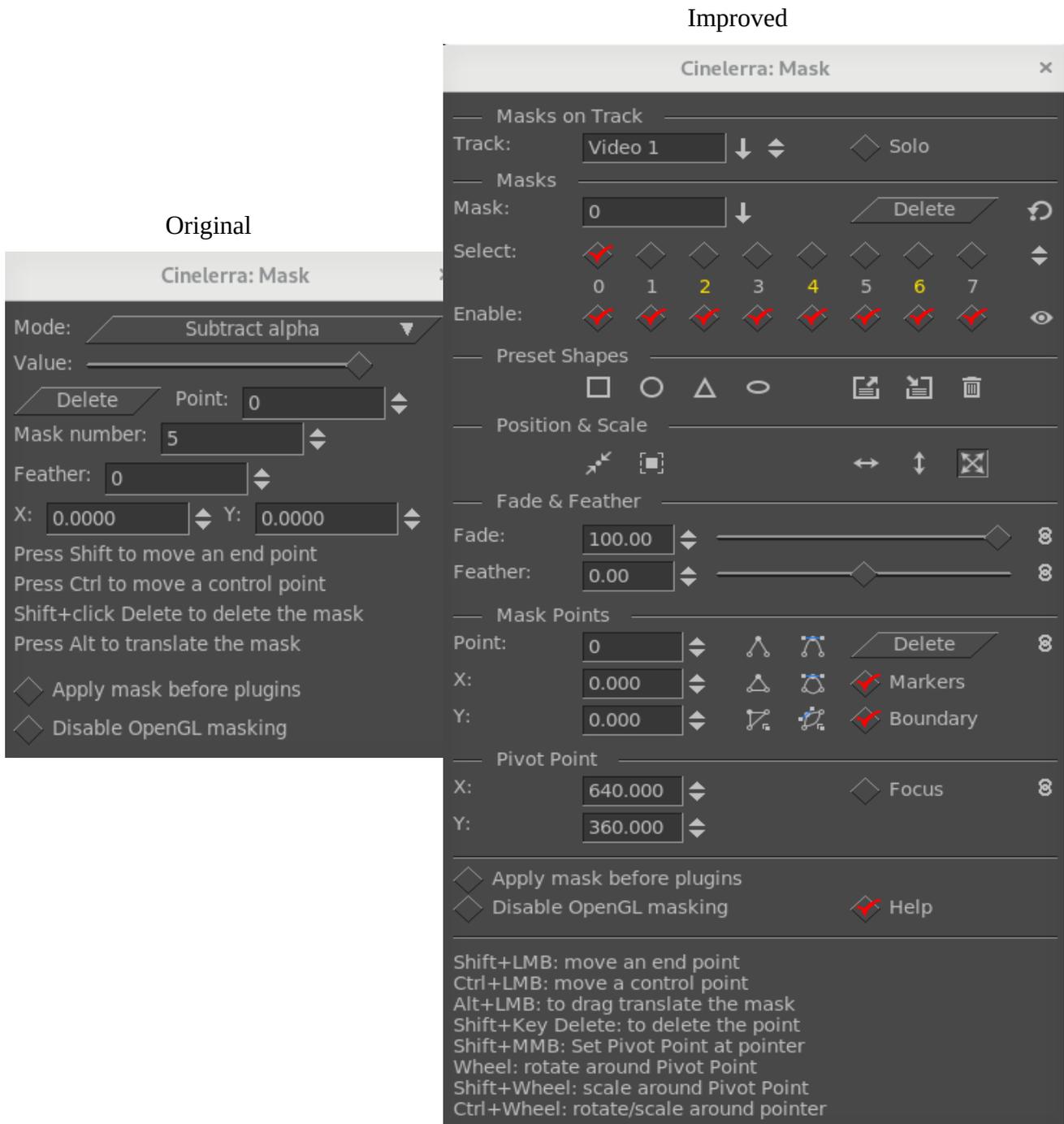Press Alt to translate the mask

◇ Apply mask before plugins
◇ Disable OpenGL masking

Masking has been improved substantially in the past few weeks with new capabilities and revised layout. However, you can still mostly operate it the same way as before by basically just clicking on a point in the Compositor using the left mouse button. Detailed description is provided here. Note that the Mask window is separated into various sections to make it easier to locate the area of interest.

Masks on Track section
The *Track:* textbox displays the different video tracks for your session which will be initially set to the first armed video track or will be left blank if there are no armed tracks. A pulldown to the right of the box brings up the names of all of the video tracks allowing you to change to which track the masking applies. You can also just use the tumbler to easily mouse up/down to get to the desired track. In the pulldown list, any track that has red colored text is disarmed so that you can not change it. A track that contains masks has yellow colored text for easy identification. Only when there are no masks on the track, do you have the default text color. This textbox is display only and you can not type into it.

The *Solo* button in the Masks on Track section of the Mask window is very handy when working with masks on different tracks. It displays only that track so that you only see the track you choose, as well as the tracks behind it to show the mask part. The Solo button is just a convenience to prevent having to mouse over to the patchbay.

Masks section
The *Mask:* textbox will show you the mask numbers of 0-7 or the 8 ascii character name that you have used to designate each mask number. There is a pulldown on the right side to easily switch to another mask.

The *Delete* button is used to delete the mask number/name that is selected. The symbol to the right with tooltip of *Delete all masks* can be used to delete all of the current video track masks.

The *Select:* row of checkboxes is used to indicate which mask is currently displayed for that video track in the Compositor. Numbers that are colored yellow are active masks for that track. A tumbler to the right allows for quickly changing the mask number displayed.

The *Enable* row of masks makes it so you can enable all or none of the masks, making it possible to look at no masks or at one mask without interference from the other masks. The symbol that looks like an *eye* can be used to easily check all or none as the tooltip Show/Hide mask states.

Preset Shapes section
There are 4 shapes that are automatically available for usage as masks – square, circle, triangle, and oval. In addition, the next 3 symbols in this section are for the purpose of loading, saving, and deleting your own customized shapes. The first symbol, *Load preset*, will bring up a list of your previously saved presets. Clicking on *Save preset* brings up a popup window allowing you to provide a name used to identify the preset you want to save, along with a pulldown to see the names of your other saved presets. Clicking on *Delete preset* also brings up a textbox with a pulldown to choose which one to delete. There is a file, called mask_rc, in $HOME/.bcast5 that records your custom masks.

When you click *Load preset*, keep in mind that it will write the mask number that you have selected so if you already have a mask at that location, it will write over it – just UNDO to revert to the previous if you made this mistake.

Position & Scale section
Center mask button allows for quickly centering a mask on the video track.
Normalize mask button makes it easy to normalize the size of the mask based on the scale of the video. The next 3 symbols concern the direction to "drag translate" a mask using the Alt+Left Mouse Button thus making it easy to preserve the current X or Y value when desirable.

xlate/scale x   - drag translate constrained in the X direction
xlate/scale y   - drag translate constrained in the Y direction
xlate/scale x/y   - drag translate in both directions; this is the default and after using the other 2
                                options, you should reset to this to avoid future confusion while dragging.

Fade & Feather section

The *Fade:* textbox is used to type in a fade value; the tumbler to the right of the textbox allows you to increase or decrease that number; and the slider bar makes it quick to adjust the fade value. The fader goes from -100 on the left to +100 on the right for negative to positive. Default value is +100. The fade slider includes a sticky point at 0 so that it is easy to get to 0 without going too far or not quite far enough - that way you don't have to keep jiggling to get there.

In addition there is a *Gang fader* symbol to allow for having all of the masks fade in unison. The symbol is surrounded by a gold colored background when it is in effect. If you have multiple masks with different modes, a decision had to be made on what value to use – it uses the maximum transparency value of the background to determine the operations results. To understand how this works, here is a summary:

- The area outside the mask is referred to as the background.
- The operational result is based on the maximum transparency value of that background.

Case 1, Positive Fade:
  When the fade for all of the masks is positive, affecting the area inside of the mask, all of the
  background colors are at a transparency value of zero. So the largest transparency value is 0,
  and all masks are drawn with opaque backgrounds, depicted as one would expect.
Case 2, Negative Fade:
  When the program computes the background color for any number of masks that includes negative
  mask(s), it uses the largest transparency number as the determining factor for the background.
  Only 1 of the masks can be largest, and wins for the background transparency result.

Feather: works in a similar manner to a gradient Fade aligned on the mask boundary but is a logical function instead of a mathematical function so will be faster. The *Gang feather* symbol also works in a similar fashion and is surrounded by a gold colored background when it is in effect.

Mask Points section

This section is used to change to a different mask number and manipulate the masks you have created.

The *Point:* textbox provides the ability to change which point number for the current mask that you want to work on. It has a tumbler to allow for quickly switching the point number. The *X:* and *Y:* boxes below reflect the current values and allow for modifying the X/Y coordinates and these too have tumblers. The *Delete* button will allow for deleting the selected point number.

The next 6 symbols in 2 columns represent *Smooth* and *Linear* buttons. *Smooth* buttons use an algorithm based on the previous point and the next point to create a curved line. The smoothing operation takes three points, A, B, C, and arranges the slope at B to be AC as it moves to the next point for that mask.

  smooth point   - smooth a single point
  smooth curve   - smooth all points on a mask edge curve.

smooth all   - smooth all active masks.

Linear buttons of linear point, linear curve, and linear all, perform the inverse of the smooth functions. The control point vectors on the bezier endpoints are set to zero magnitude.

In addition there is a *Markers* and a *Boundar*y checkbox which come in handy to turn off the display of the points and the outline of the mask. Turning off Markers is very useful when you have a lot of control points that clutter the display and make it more difficult to see the actual mask. A helpful feature is available by disabling Markers and enabling Boundary which results in all masks being displayed in the viewer; for example you can then see mask 0, mask 1 … at the same time.

A *gang symbol* on the right hand side of this section, tooltip of "*Gang points*", is another useful feature that makes it easy to drag a mask to an exact coordinate using the X or Y textbox for numerical input or the associated tumblers. This works like the Alt+LMB drag translate but provides the ability to be precise.

Pivot Point section
The *X:* and *Y:* coordinates mark the value of the current Pivot Point used for rotation, scaling, and translation. You can either directly key in numerical values or use the tumblers to change the values as long as the Focus checkbox is checked.

The *Focus* checkbox is used in case you want to set a different point in the Compositor for pivoting instead. And the *Gang* symbol for rotate/scale/translate means that these operations will be performed on all points of the enabled masks. The gang symbol is surrounded by a gold colored background when it is in effect. When performing a rotate operation on a mask with the mouse wheel, acceleration is in effect – this means the faster you wheel, the more space is covered so that you do not have to wheel dozens of time to make a full rotation. Then when you wheel around slower, you can fine tune the result.

Finally there are the *Apply masks before plugins* and *Disable OpenGL* masking self-explanatory checkboxes. NOTE: Not all OpenGL software can support the current masking methods. If your opengl implementation does not support Shader Version 4.3 or has trouble with this (it is relatively new to opengl at the time this was implemented), then this checkbox will allow you to use the software masking to avoid any potential issues. Normally, a OpenGL is probed for the shader version and will automatically use the software implementation if required.

The *Help* checkbox can be enabled in order to see a list of the keys used to perform various operations. If you use Masking infrequently, these are a valuable reminder to which key combinations to use. Currently they are as follows:

   Shift+LMB: move an end point
   Ctrl+LMB: move a control point
   Alt+LMB: to drag translate the mask
   Shift+MMB: Set Pivot Point at pointer
   Wheel: rotate around Pivot Point
   Ctrl+Shift+Wheel: scale around Pivot Point
   Ctrl+Wheel: rotate/scale around pointer

For some desktop window managers, certain keys may already be in use by the operating system, so you will either have to redefine them in your desktop or use different key combinations. For example, at least some desktops used with UbuntuStudio 16.04 and Arch field the Alt key, thus requiring alternative key combinations to be needed. Below are some of these alternatives.

LMB: move/create an end point (to move the end point the pointer must be above the point)
Shift+LMB: move an end point (the pointer may be near the point, not above it)
Ctrl+LMB: move/create a control point
Alt+Ctrl+LMB: to drag translate the mask
Shift+Key Delete: to delete the mask
Shift+MMB: Set Pivot Point at pointer
Alt+Wheel= zoom in/out the screen (also available in Ubuntu16 but does not exist in all distros)

Focus checkbox = unchecked
  Wheel: rotate around Pivot Point
  Shift+Wheel: scale around Pivot Point
  Ctrl+Wheel: rotate around pointer
  Ctrl+Shift+Wheel: scale around pointer

Focus checkbox = checked
  Wheel: rotate around Pivot Point ("Custom focus point")
  Shift+Wheel: scale around Pivot Point ("Custom focus point")
  NOTE: in order to be able to rotate/scale around pointer, the Focus checkbox must be unchecked.