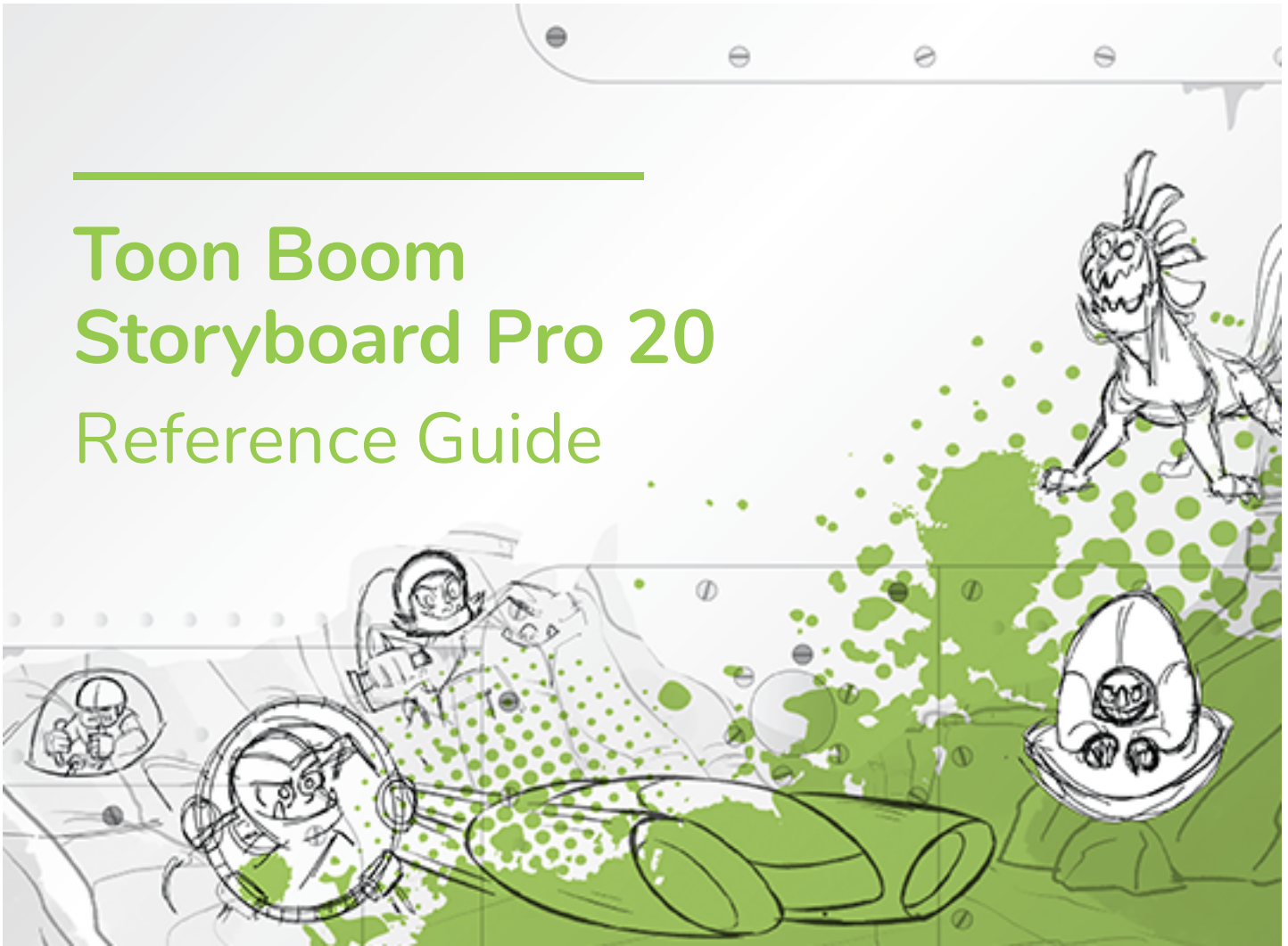


# Storyboard PRO 20

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## Toon Boom Storyboard Pro 20 Reference Guide



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## Chapter 1: Introduction

The Storyboard Pro Reference Guide lists every menu, button and option available in the user interface along with a description of their functionality. Its purpose is to be looked up when you need to understand a specific option or functionality in the user interface, or if you want to learn about all the capabilities of a specific feature.

**NOTE**

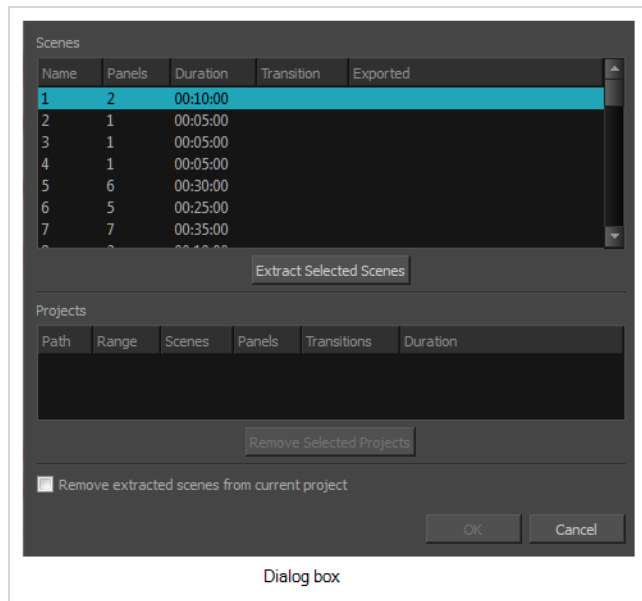
For step by step instructions on how to use Storyboard Pro features, refer to the User Guide. If you need information about a preference in the Preferences dialog box, refer to the Preferences Guide.



## Chapter 2: Dialog Boxes

While you work in Storyboard Pro, you will encounter dialog boxes from which you set parameters, options and many other settings, depending on the task you are performing.

Windows allow you to set parameters and continue working with the window open, so you can further tweak the settings. Here are examples of a dialog box and a window.



Here are the dialogs documented in this section:

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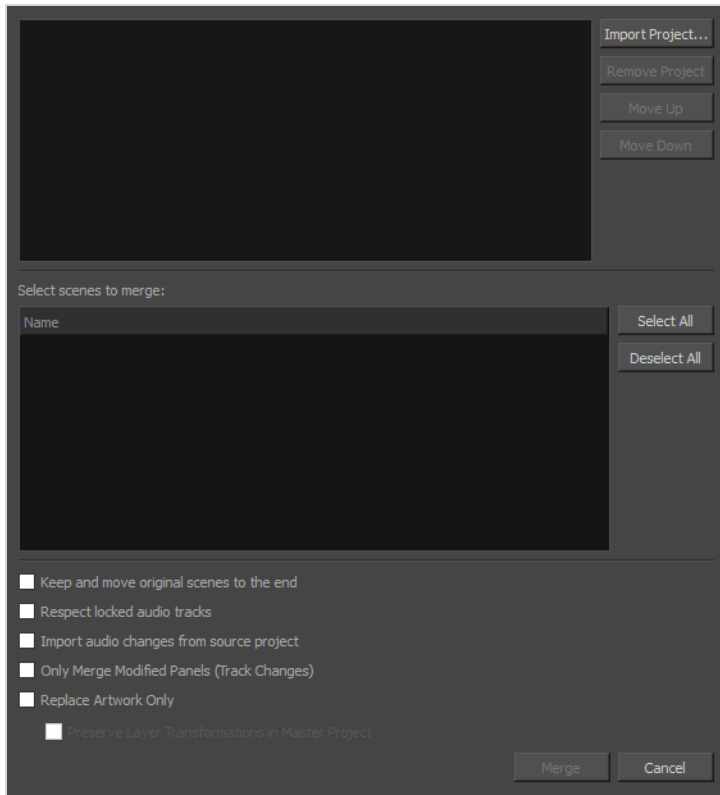
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## Advanced Merge Storyboard Dialog Box

The Merge and Replace dialog is useful if you have extracted or split your project into different project to allow different project collaborators to work on it, but have kept a copy of the original project (or *master project*). With this dialog, you can replace the original scenes in the master project with the updated scenes in the extracted project.

Optionally, you can keep a copy of the original scenes so that you can compare them. You can also customize which scenes from the extracted projects should be imported into the master project.




### NOTE

When merging projects, the video and sound clips in the master project will remain synchronized with the cue time of their respective panels. Clips that extend beyond the boundaries of a panel will be synchronized with the panel in which they are cued, not the panel in which they end.


### How to access the Advanced Merge Storyboard window


1. Open your master project.

2. Do one of the following:

- In the top menu, select **File > Project Management > Merge and Replace**.
- In the Project Management view, click on  Menu and select **Merge and Replace**—see [Project Management View](#).

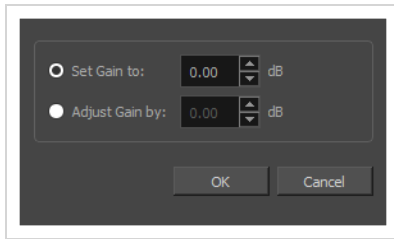
The Advanced Merge Storyboard dialog box appears.

Parameter	Description
List of Storyboard Pro projects	<p>Displays the list of Storyboard Pro project files selected for merging with your current file.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <b>NOTE</b>            A checkbox appears to the left of every project in the list. Checking that checkbox will select every scene in that project for merging into the current project.         </div>
Import Project	Lets you select the Storyboard Pro project files to merge/replace with your current file.
Remove Project	Lets you select any unwanted Storyboard Pro project files and delete them from the list.
Move Up/Move Down	Lets you organize the files into the order in which you wanted them to be imported in relation to your current file.
Select scenes to merge	<p>The list of scenes in the project that is currently selected in the projects list at the top. A checkbox appears left of each scene in the list. Checking this checkbox will make it so the scene is merged from the selected project into the current project.</p> <p>If the project being imported contains sequences, the sequences will also be in the list, and scenes will be listed under their respective sequence. You can check the checkbox next to a sequence to simultaneously select all scenes in the sequence.</p>
Select All	Checks every scene in the selected project for merging into the current project.
Deselect All	Unchecks every scene in the selected project.

Keep and move original scenes to the end	Creates a backup of each scene in the master project that gets replaced by a scene in the imported projects. The backup scene will be placed at the end of the project, and its scene name will have the <b>_orig</b> prefix added to it.
Respect locked audio tracks	Ensures that the sound clips in locked audio tracks do not get moved to remain synchronized with their respective panels.
Import audio changes from source project	Imports the changes done to the audio tracks and sound clips of the imported projects into the current project.
Only Merge Modified Panels (Track Changes)	Only merges the panels that were tracked as changed in the projects being merged. If this option is enabled, changes made to panels that were not tracked for changes in the imported projects will not be applied to the master project.
Replace Artwork Only	<p>Replaces the artwork in the master project with the artwork in the imported projects, but does not adjust the timing of panels and scenes in the animatic.</p> <div data-bbox="565 865 1430 1104" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b></p> <p>Layer transformations and animations in the master project will still be replaced by layer transformations and animations in the imported projects unless the <b>Preserve Layer Transformations in Master Project</b> option is enabled.</p> </div>
Preserve Layer Transformations in Master Project	With the <b>Replace Artwork Only</b> option enabled, layer transformations in the master project are still replaced by the layer transformations and animations in the imported projects by default. With this option enabled, drawings in the master project will be replaced, but not the transformations and animations on their layers.

## Audio Gain Dialog Box

The Audio Gain dialog box allows you to set or adjust the gain effect on one or several sound clips.



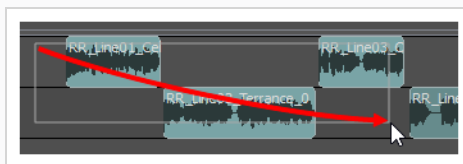
Gain is similar to volume in that it affects how quiet or how loud a sound clip plays. It is different from volume in the following ways:

- Gain is applied to sound before volume.
- Gain can be used to amplify, and even saturate, a sound clip.
- Gain is an effect. It can be adjusted and removed. It cannot however be interpolated over time like volume.
- Gain can be set or adjusted simultaneously for several sound clips.

### How to access the Audio Gain dialog box

1. In the Timeline view, select the clips for which you want to adjust the audio gain by doing one of the following:

- To select a single sound clip, click on it.
- To select a series of sound clips, draw a rectangle around them by clicking just outside of the clips you want to select, then dragging the mouse cursor all the way to the last clip you want to select:




- To select a series of sound clips, you can also click on the first clip you want to select, then, while holding the Shift key, click on the last clip you want to select. This will select all clips between the two clips you clicked on, inclusively.
- To select several sound clips, press and hold Ctrl (Windows/Linux) or ⌘ (macOS), then click on each clip you want to select.

2. Do one of the following:

- Right-click on the selection and select **Audio Gain**.

- In the top menu, select **Clips > Audio Gain**.

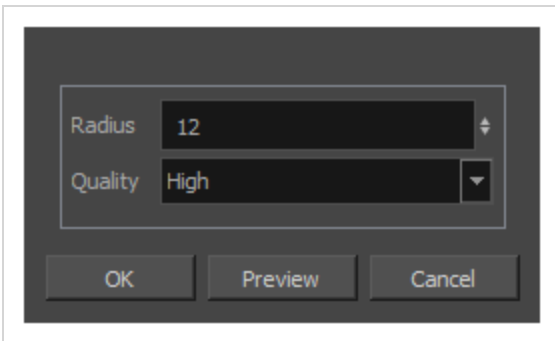
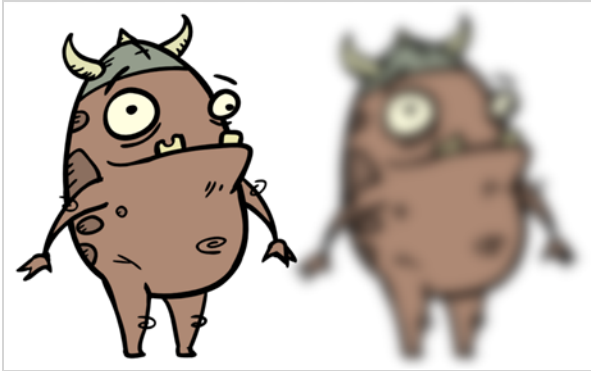
The Audio Gain dialog box appears.

Name	Description
Set Gain to:	<p>Select this option is you want to set the audio gain for the selected sound clips to a specific value, regardless of their current gain value.</p> <div data-bbox="358 554 1430 690" style="border: 1px solid #add8e6; padding: 5px;"> <b>TIP</b> Setting the audio gain of a sound clip to 0 will remove its gain effect.</div>
Adjust Gain by:	<p>Select this option if you want to increase or decrease the audio gain of the selected sound clips relative to their current gain value.</p>
OK	<p>Apply the audio gain to the selected sound clips and close the dialog.</p>
Cancel	<p>Close the dialog without affecting the audio gain of the selected sound clips.</p>

## Blur Dialog Box

T-SBADV-007-003

The Blur effect softens, fogs or obscures the image evenly in all directions. This effect is useful when you want to make images cloudy and not detailed. For example, you can make a drawing object that is farther back or in the background of your scene appear blurry due to the laws of atmospheric perspective. Other uses include the general softening of objects such as snow, stars and shadows that do not naturally have a hard outline.



### How to access the Blur dialog box

- From the top menu, select **Layer > Apply Effect > Blur**.
- In the Camera or Stage view, right-click on the layer you want to apply the effect to and select **Apply Effect > Blur**.

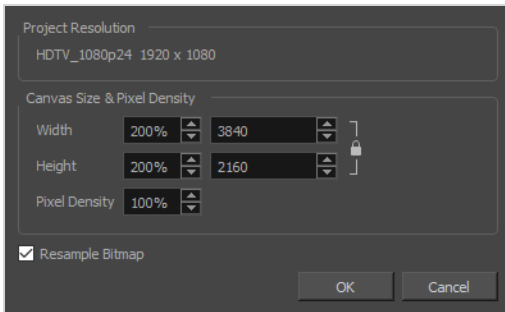
Parameter	Description
Radius	Size of the blur. The larger the value, the greater the strength or reach of the blur.
Quality	Select High for a slow and accurate operation or Low for a faster operation with a more raw look.

Preview	Generates a preview of the effect on the actual artwork using the current values. This can be done as many times as needed.
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## Change Bitmap Layer Resolution Dialog Box

The Change Bitmap Layer Resolution dialog box lets you change the resolution of a bitmap layer to better suit the needs of your scene.



### How to access the Change Bitmap Layer Resolution dialog box

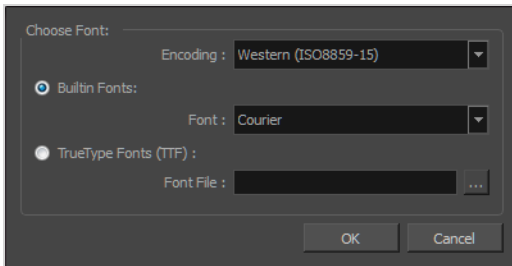
1. From the Layers panel or the Layers view, select the bitmap layer for which you want to change the resolution.
2. Do one of the following:
  - Right-click the layer and select **Change Bitmap Layer**.
  - From the top menu, select **Layer > Change Bitmap Layer Resolution**.

Parameter	Description
Project Resolution	The project resolution of the project, displayed for reference.
Canvas Size & Pixel Density	
Pixel Density	Determines the amount of pixels to store for each pixel that displays on the screen when the drawing is not zoomed in or scaled up. For example, at 100%, zooming in or scaling up a bitmap drawing will make it lose picture quality. If set to 200%, bitmap drawings can be zoomed in or scaled up until they're twice their original size without losing picture quality.
Width	The default width of the canvas when creating a bitmap drawing layer. The percentage is relative to the width of the project. Its default value, 200%, makes the width of the canvas twice the width of the stage.
Height	The default height of the canvas when creating a bitmap drawing layer. The percentage is relative to the height of the project. Its default value, 200%, makes the height of the canvas twice the height of the stage.

Resample Bitmap	When enabled, the artwork is resampled based on the new Pixel Density to preserve its current proportions in the stage. Otherwise, increasing the pixel density will scale down the artwork, and decreasing it will scale it up.
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## Choose Encoding and Font Dialog Box

The Choose Encoding and Font dialog box lets you select the language encoding and embedded PDF font when exporting Unicode character to a PDF document. These will be used to display the text in a PDF.



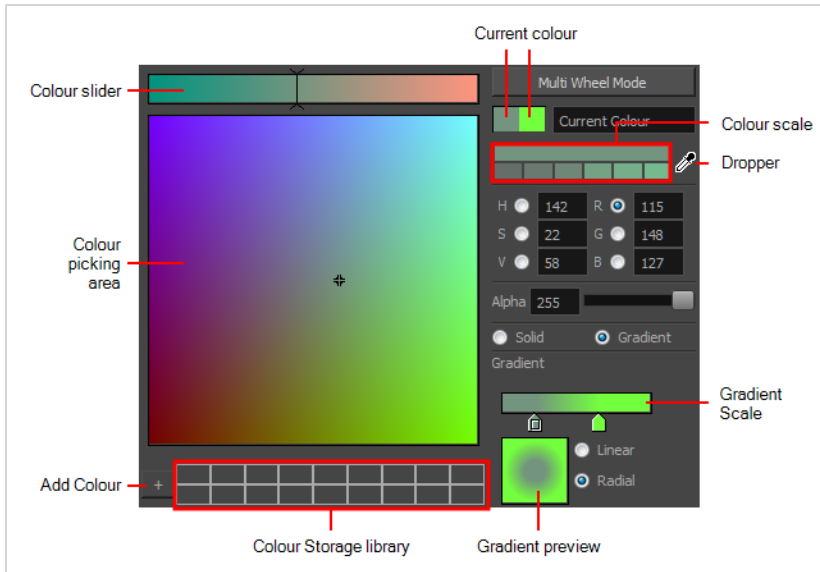
### How to access the Choose Encoding and Font dialog box

1. In the Export to PDF window, click **New Profile**.  
The PDF Profile dialog box opens.
2. Select the **General** tab.
3. In the Font field, click the browse [...] button.

Parameter	Description
Choose Font	
Encoding	Lets you select the type of Unicode encoding for the PDF.
Built-in Fonts	Lets you select any font installed on your system to use for all text in the PDF document.
Font	
TrueType Fonts (TTF)	Lets you select a TrueType font for the PDF.
Font File	

## Colour Picker Window

The Colour Picker window lets you select and customize colours, create solid or gradient colours, store colours in the colour storage library and open the Multiwheel Colour window.



### How to access the Colour Picker window

1. In the Colour view, make sure the Colour area is expanded by clicking the **Collapse/Expand** arrow.
2. Double-click on the current colour swatch.

The Colour Picker window opens.

Parameter	Description
Colour slider	Displays the colour gradation of the colour selected in the colour picking area.
Colour picking area	Displays a colour range with a cursor which you can drag to select a colour. This display changes when you select one of the these options: H, S, V, R, B, or B.
Add Colour	Adds the selected colour to the colour storage library.
Colour Storage Library	Lets you save colours you have defined.
Multiwheel Mode	Opens the Multiwheel Colour window—see <a href="#">Multiwheel Colour Window</a> on page 152.

Current Colour	Displays the current colour on the left side. On the right side is the currently you are modifying.
Colour Scale	Displays the hue selected in the colour picking and colour slider areas, and its different values.
Dropper	Lets you select a colour from any place on your screen. Hold down the Dropper and drag to the desired colour and release to select the colour.
H, S, V	Displays the hue, saturation or value of a selected colour in the colour picking area.
RGB	Displays the red, green or blue colour wheel.
Alpha	Lets you change the transparency level by typing in a value or dragging the slider.
Solid	Creates an even, uniform colour.
Gradient	Lets you create a linear or radial gradient.
Gradient Scale	Displays a colour range and arrows. Move the arrows to define the gradient colours.
Gradient Preview	Displays a preview of the gradient as you move the arrows on the gradient scale.
Linear	Creates a linear gradient.
Radial	Creates a radial (circular) gradient.

## Customize Captions Dialog Box

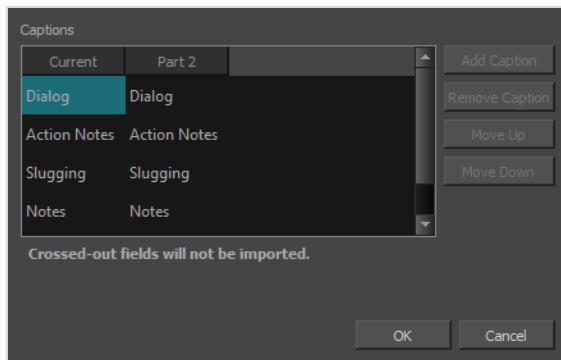
The Customize Captions dialog box allows you to configure how the caption fields in a project you're inserting are matched with the caption fields in your current project. You can associate caption fields from the project being inserted with caption fields in the current project, and decide whether the unmatched caption fields are added to your project or discarded.

### How to access the Customize Captions dialog box

1. In your current project, in the Timeline view, move the timeline playhead over the scene after which you want the project to be inserted.
2. From the top menu, select **File > Project Management > Insert**.

The Open Storyboard Project window appears.

3. Browse to and select the **\*.sboard** or **\*.sbpz** file of the project you want to select and click on **Open**.
4. In the dialog prompting you to confirm how to manage the caption fields of the project being inserted, click on **Customize**.



Parameter	Description
Captions list	<p>The list of captions being merged. The left column is for the caption fields in the current project, and the right column is for the caption fields in the project being inserted.</p> <p>Captions that are aligned horizontally will be matched, and the value of these captions in the inserted project will be added to that caption field in the current project. By default, captions that have the same name will already be aligned together. Should you need to customize the way the caption fields in both projects are matched, keep in mind the following behaviors:</p> <ul style="list-style-type: none"> <li>• If a caption field of one of the project being merged is aligned with one of the caption fields in the current project, the values for that merged project's field will be added to the current project's field it is aligned with, for all the scenes that are imported from that merged project, even if these</li> </ul>

Parameter	Description
	<p>fields don't have the same name.</p> <p>For example, if the current project has a caption field named Action and the project being merged has a caption field named Action Notes, and they are both aligned horizontally, once the projects are merged, the value of the Action Notes caption field for the scenes being imported will be stored in the Action field.</p> <ul style="list-style-type: none"> <li>• If a caption field for the project getting merged is below all the fields in the current project, it will be added as a new field to the current project.</li> <li>• If a caption field for the project getting merged is below all the fields in the current project and is crossed out, it will be ignored.</li> <li>• If a caption field for the project getting merged is aligned with one of the fields of the current project and is crossed out, this field will be empty for all the scenes that are imported from that project.</li> <li>• If a caption field is added to the project but has the same name as an existing caption field, it will have a suffix number.</li> </ul>
Add Caption	If you have removed a caption from one of the project getting inserted, you can select the removed caption and click on this button to add it back.
Remove Caption	Ignores the currently selected caption field for the inserted project. The values for that caption field will not be imported in the current project.
Move Up	Moves the selected caption field up in the list of captions, changing which caption field in the original project it is matched with.
Move Down	Moves the selected caption down in the list of captions, changing which caption field in the original project it is matched with.

## Default Caption Format Dialog Box

The Default Caption Format dialog box lets you set the default font face and font size of all new captions added to your project.

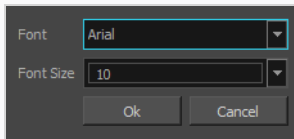
The Default Caption Format is automatically applied when typing captions into a caption field that was previously empty, but does not affect the format of existing captions or of new text typed into existing captions.

The Default Caption Format is saved in your local preferences and affects all projects.

### How to access the Default Caption Format dialog box

1. From the top menu, select **Captions > Captions Default Format**.

The Default Caption Format dialog box opens.



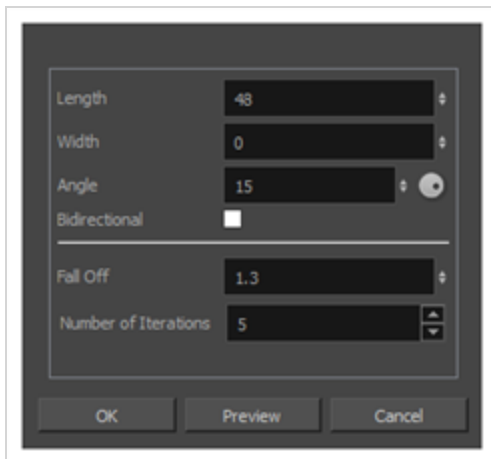
Parameter	Description
Font	Sets the default font face for new captions.
Font Size	Sets the default font size for new captions.



## Directional Blur Dialog Box

T-SBADV-007-005



The Directional Blur effect creates a motion blur that pulls and smears the image from one contour edge to a different direction or angle. This effect is useful in creating the impression of speed, such as the streaks of colour that follow a car travelling at high speed. The look of the blur is similar to the look achieved using Gaussian blur when applied with multiple iterations.



### How to access the Directional Blur dialog box

- From the top menu, select **Layer > Apply Effect > Directional Blur**.
- In the Camera or Stage view, right-click on the layer you want to apply the effect to and select **Apply Effect > Directional Blur**.

Parameter	Description
-----------	-------------

Length	Length of the blur.
Width	Thickness of the blur.
Angle	<p>The direction in which the blur is applied, in degrees. At 0°, the blur is applied towards the right.</p> <div data-bbox="565 468 1430 642" style="border: 1px solid green; padding: 10px;"><p> <b>NOTE</b></p><p>You can click and drag on the dial  at the right of the field to visually set this angle.</p></div>
Bidirectional	Applies the blur on both sides of the pixel.
Fall Off	The distance where the blur fades from the edge of the image. Select a value between 0 and 1. A fall-off rate of 0 causes the blur to fade out slowly, distributing the blur evenly from the edge of the character to the farthest edge of the blur. A fall-off rate of 1 causes the blur to fade out quickly, so the blur is heaviest closer to the edge of the image.
Number of Iterations	The number of times the blur is applied to the image. A higher number of iterations creates smoother transitions between colours and increases the blur, but also increases render time.
Preview	Generates a preview of the effect on the actual artwork using the current values. This can be done as many times as needed.

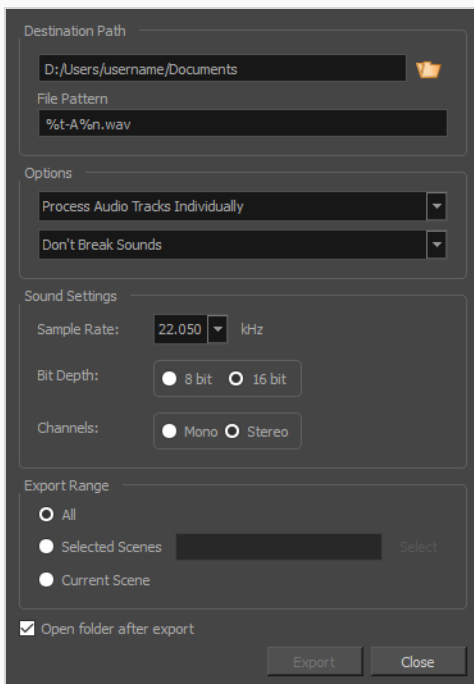
## Export Audio Dialog Box


The Export Audio dialog allows you to export your project's audio tracks into sound files. You can choose to export a single file for all your project's audio tracks, or to export each audio track individually. You can also choose to export a single track for your whole project, or to separate it by scene, sequence or act.


### How to access the Export Audio window


1. Select **File > Export > Audio**.

The Export Audio dialog opens.



Parameter	Description
Destination Path	Allows you to specify the directory in which to save the exported files. You can click on the Browse  button right of the field to browse your file system and select the destination folder.
File Pattern	Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables: <ul style="list-style-type: none"> <li>• <b>%t</b> - Project title</li> <li>• <b>%a</b> - Act number</li> <li>• <b>%q</b> - Sequence number</li> </ul>

	<ul style="list-style-type: none"> <li>• %s - Scene number</li> <li>• %n - Audio track number</li> </ul> <div style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;">  <b>TIP</b>                  Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.             </div>
Options	
Process Audio Tracks Individually	Exports each audio track in your project into separate sound files.
Merge All Audio Tracks	Mixes down all the audio tracks in your project into a single soundtrack before exporting it.
Process Audio Tracks Individually and Merged	Exports each audio track into separate sound files, then exports another file with all the audio tracks mixed together.
Don't Break Sound	Exports audio tracks spanning for the entire length of your project. If you chose to merge audio tracks, you will have one sound file for the entire project. If you chose to export audio tracks separately, you will have one sound file for each audio track in your project.
Break Sound Per Scene	Breaks down each exported audio track into scenes. If you chose to merge the audio tracks, you will have one sound file for each scene in your project. If you chose to export audio tracks separately, you will have one sound file per scene per audio track.
Break Sound Per Sequence	Breaks down each exported audio track into sequences. If you chose to merge the audio tracks, you will have one sound file for each sequence in your project. If you chose to export audio tracks separately, you will have one sound file per sequence per audio track. This option is only available if your project contains sequences.
Break Sound Per Act	Breaks down each exported audio track into acts. If you chose to merge the audio tracks, you will have one sound file for each act in your project. If you chose to export audio tracks separately, you will have one sound file per actper audio track. This option is only available if your project contains acts.

Sound Settings	
Sample Rate	Sets the frequency rate of the exported audio files. It is recommended to export sound files at the rate at which they were originally created. For reference, the standard sample rate is <b>48.0 kHz</b> for broadcasting and DVD.
Bit Depth	<p>Sets the precision level of each wavelength in the sound file. The standard bit depth is <b>16 bit</b>. Setting this to <b>8 bit</b> will cut the size of audio files in half, but will significantly impact sound quality.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <b>NOTE</b>  On Windows, audio can only be exported in 16 bit unless QuickTime Player is installed. </div>
Channels	Allows you to select whether to export sound in <b>Mono</b> or <b>Stereo</b> . Stereo sound uses a separate track for the left and right speakers, which allows to simulate a realistic sound environment. Mono uses a single track for both speakers, which saves disk space.
Export Range	
All	Exports the entire storyboard's audio.
Selected Scenes	Select this option and click Select to open the Scenes Picker dialog box in which you can select specific scenes to export. You can also select your scenes per sequence if your project contains sequences.
Current Scene	Exports only the currently selected scene's audio.
Open folder after export	Storyboard Pro automatically opens the folder that contains the exported audio files.

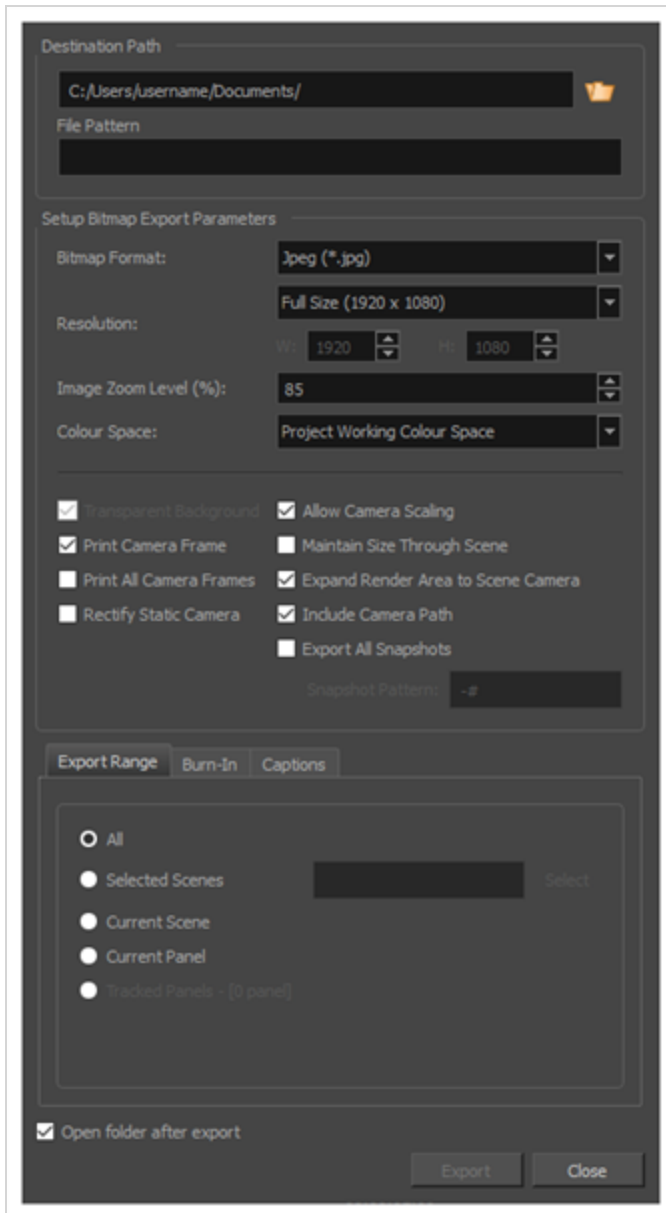
## Export Bitmap Dialog Box

The Export Bitmap window lets you export a storyboard project to bitmap files in .jpg, .tga, .psd or .png format. The exported data includes a separate bitmap file for each panel in the storyboard.





### NOTE

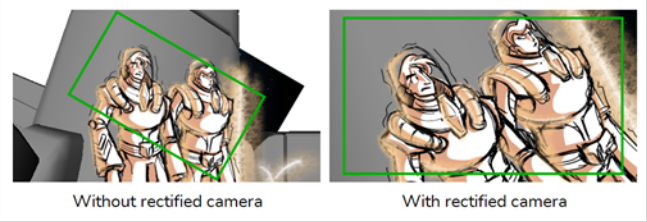
For .psd files, the transform and transition animations are not exported. However, camera moves are rendered into an independent layer.



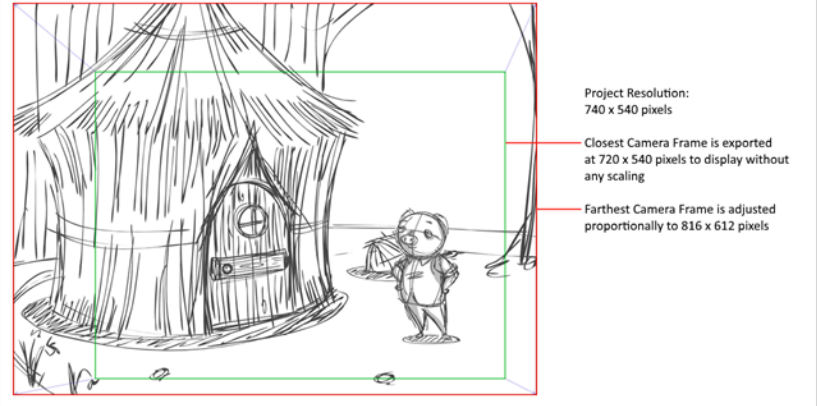
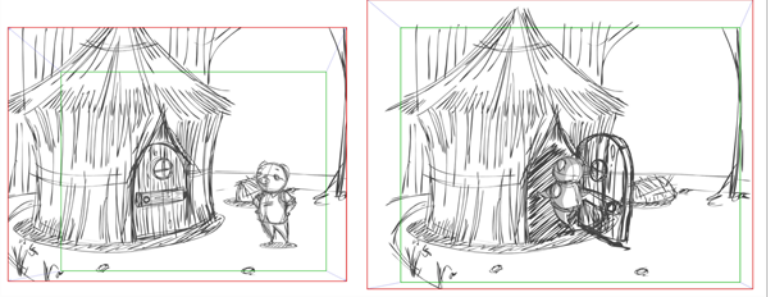

## How to access the Export Bitmap window

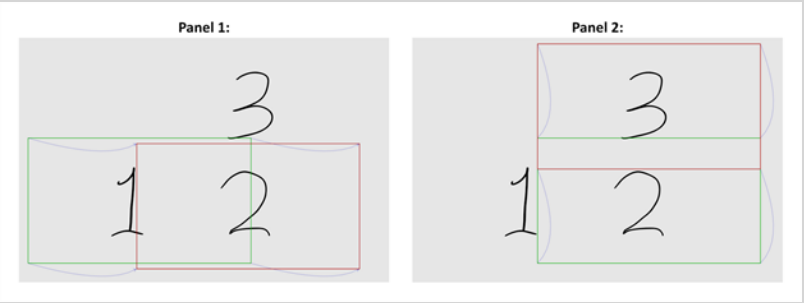
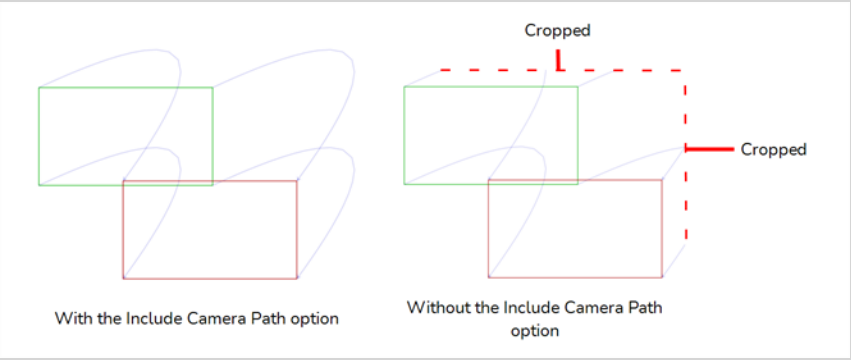

- Select **File > Export Bitmap**.

Parameter	Description
Destination Path	
Path	Allows you to specify the directory in which to save the exported files. You can click on the Browse  button right of the field to browse your file system and select the destination folder.
File Pattern	<p>Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables:</p> <ul style="list-style-type: none"> <li>• <b>%t</b> - Project title</li> <li>• <b>%a</b> - Act number</li> <li>• <b>%q</b> - Sequence number</li> <li>• <b>%s</b> - Scene number</li> <li>• <b>%p</b> - Panel number</li> </ul> <div style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;"> <p> <b>TIP</b> Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.</p> </div>
Setup Bitmap Export Parameters	
Bitmap Format	<p>Allows you to select an image format in which to save the exported bitmaps:</p> <ul style="list-style-type: none"> <li>• <b>Jpeg (*.jpg)</b>: An image format with lossy compression optimized for the Web. Only use this format if export speed is more important than quality.</li> <li>• <b>Targa (*.tga)</b>: An image format with basic lossless compression.</li> <li>• <b>Photoshop (*.psd)</b>: The format used for Adobe Photoshop projects. It is uncompressed.</li> <li>• <b>Portable Network Graphics (*.png)</b>: An image format with a more effective lossless compression than Targa (.tga). Exporting in this format is slower, but saves a lot of disk space. PNG files are supported by web</li> </ul>


	browsers, most operating systems and image editing software.
Resolution	Sets the resolution to be a quarter size, half size, full size or double size of the current storyboard resolution. A custom size option also exists. Selecting the Custom option enables the Width and Height fields below. These fields are proportionally linked.
Image Zoom Level (%)	Sets the magnification of the image. Enter a value between 0 and 400. The default value is 85%.
Colour Space	Sets the colour space for the image export. If you plan to create an export for use in a different software, you may want to match colour spaces to keep all your colours consistent. The default setting is the current Storyboard Pro project colour space, which was selected on creation of the project.
Transparent Background	This option is only available when Targa (.tga), Photoshop (.psd) or Portable Network Graphic (.png) file formats are selected. By default, this option is enabled and will export files with a transparent background instead of an opaque white background.
Print All Camera Frames	Prints a camera frame for each camera keyframe in the panel.
Rectify Static Camera	<p>If the camera is at an angle in a panel, and there is no camera movement in that panel, enabling this option will render the panel as if the camera was at a straight angle.</p> 
Allow Camera Scaling	<p>This option is enabled by default. This ensures that when a camera close-up is included in a scene, the exported image is larger so that the closest camera frame is at least the size of the chosen resolution. This way, the image will not appear pixelated when zooming in on the closest camera frame. If disabled, the exported images will be the size of the chosen resolution.</p> <p>In the following example, the camera zooms out, but the image is exported big enough that the closest (smallest) camera frame is exactly the size of the export resolution. That way, if the image is zoomed in to the closest camera frame, it does not look scaled:</p>



	 <p>Project Resolution: 740 x 540 pixels</p> <p>Closest Camera Frame is exported at 720 x 540 pixels to display without any scaling</p> <p>Farthest Camera Frame is adjusted proportionally to 816 x 612 pixels</p>
<p>Maintain Size Through Scene</p>	<p>Ensures that the elements from the exported panels retain their size across the different panels of the same scene. For example, when exporting a scene where the camera zooms in on a character through two different panels, this option will make it so the character is the same size in both exported images. In the same situation with this option unchecked, both bitmaps will be just big enough so that their closest camera frame is as big as the chosen export resolution.</p> <p>In the following example, the camera zooms out on the scene throughout two panels. In the exported images, the scene elements are the same size, but the image canvas increases in size as the camera zooms out:</p> <div data-bbox="565 1035 1328 1371"> <p>Panel 1:                      Panel 2:</p>  </div> <div data-bbox="565 1409 1430 1612" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b></p> <p>By default, exported bitmaps cannot be larger than 4096 x 4096 pixels, which might cause this option not to work as expected when exporting scenes with camera zooms.</p> </div>
<p>Expand Render Area to Scene Camera</p>	<p>By default, exported panels only cover the area covered by the camera movements in the panel. With this option enabled, exported panels will cover the area covered by the camera movements in all the panels in their scene combined. That way, if all the exported panels in a scene are combined, the elements of the scene will all be in their proper position relative to each other.</p> <p>In the following example, the camera goes from 1 to 2 in the first panel, then</p>

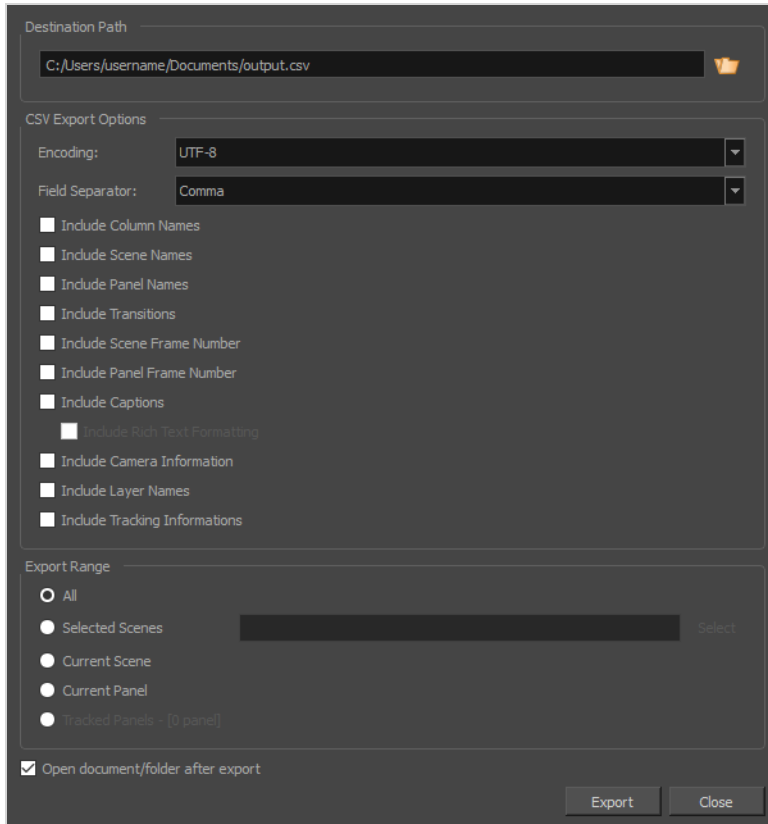
	<p>from 2 to 3 in the second panel, but both panels are exported to cover the whole camera movement, from 1 to 2 to 3:</p> 
<p>Include Camera Path</p>	<p>Ensures the exported images include all the areas covered by the camera movements. If this option is disabled, the exported images will cover the camera keyframes and everything in-between, but may not include parts of the panels that are covered by curvilinear camera movements.</p> 
<p>Export All Snapshots</p>	<p>If your project has a panel that contains several snapshots, by default, only the main snapshot in that panel will be exported. If this option is enabled, panels that contain several snapshots will be exported as several image files, one for each snapshot.</p>
<p>Snapshot Pattern</p>	<p>When exporting all the snapshots in a panel that contains several snapshots, this field allows you to customize how the number of the snapshot is appended to the file name. The # symbol represents the number of the snapshot. Its default value is -#, which means that a dash followed by the snapshot number is appended to the file name. For example, if exporting panel 4 of scene 16, and that panel contains three snapshots, the exported bitmaps for that panel would be named <b>MyProject-16-4-1.jpg</b>, <b>MyProject-16-4-2.jpg</b> and <b>MyProject-16-4-3.jpg</b>.</p> <div style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b> Only images for panels that contain several snapshots will have a snapshot number appended to their file name.</p> </div>

Export Range Tab	
All	Exports the entire storyboard.
Selected Scenes	<p>Select this option to export a specific selection of scenes. Then, click on the <b>Select</b> button to open the Scenes Picker dialog box, in which you can:</p> <ul style="list-style-type: none"> <li>• Type the number of a sequence or of a scene in the <b>Sequence</b> or <b>Scene</b> fields in the <b>Filter</b> section, to only show matching sequences or matching scenes in the list.</li> <li>• Click and drag to select a range of scenes.</li> <li>• Hold the Ctrl key and click on each scene you want to add to your selection.</li> <li>• Hold the Shift key, then click on the first scene and the last scene you want to add to your selection, to select every scene between those two scenes inclusively.</li> <li>• If your project has sequences, click on a sequence to select every scene in that sequence.</li> </ul>
Current Scene	Exports only the currently selected scene.
Current Panel	Exports only the currently selected panel.
Tracked Panels - [0 panel]	Exports panels on which tracking changes is enabled.
Burn-In Tab	
Print Scene Names and Panel Numbers	Prints the scene names and panel numbers as an overlay on your video.
Captions Tab	
Print Captions	Choose whether to not print captions (None) or select one of your project's captions to print into the exported movies. By default, a Storyboard Pro project has Action Notes, Dialog, Slugging and Notes captions, but you can also choose to print custom captions if your project has any.
Font	Select which font the captions will be printed in. By default, they will be printed in Arial.

Height %	Sets the size of caption lines relative to the height of the exported movies. For example, if exporting a movie at 1080p with 3% Height captions, each caption line will be 32 pixels in height.
Position	Prints the captions at either the Top Left, Top Centre, Top Right, Bottom Left, Bottom Centre or Bottom Right of the panels. By default, captions are printed to the Bottom Centre.
Max Lines	<p>Sets the maximum amount of caption lines to print on each panel. If a caption being printed requires more than the maximum amount of lines, it will be cut off with an ellipsis (...) at the end.</p> <div style="border: 1px solid green; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b></p> <p>Even if captions are printed at the bottom, they will be aligned to the top of the space reserved for them, which is calculated by the amount of Max Lines x the Height %. Therefore, if this setting is too high and captions are printed at the bottom, they may appear closer to the middle of the picture than to the bottom.</p> </div>
Text Colour	Select the font colour in which to print the captions.
Bg Colour	Select the background colour on which to print the captions. If the checkbox is unchecked, the captions will be printed directly into the rendered picture. Otherwise, they will be printed in rectangular boxes of the chosen colour.
Open folder after export	Lets you view the location and contents of the exported folder when it is ready.

## Export CSV Dialog

The Export CSV dialog allows you to export your project's metadata, such as its scene and panel names, its transitions, the captions for each of your project's panels, the names of each layers in your panels, and other such information into a Comma Separated Value (.csv) spreadsheet.



CSV is a text-based spreadsheet format that is commonly supported by spreadsheet editors, and which is easy to process in scripts and other software as it is merely a text file containing the value of each cell, typically separated by a comma. However, it does not support advanced spreadsheet features such as text formatting and formulas.

Exporting a CSV file can be useful if you wish to view the metadata for your project in a spreadsheet editor, such as Microsoft Excel, LibreOffice Calc or Google Sheets, for analysis, or if you wish to make a script that will use the metadata for your project in any specific way.

You can also use this dialog to export your project's captions into a spreadsheet, edit them in a spreadsheet editor, then import the edited spreadsheet back into your project to update its captions. To import an edited CSV file into your project, see [Import CSV Dialog on page 112](#).

**IMPORTANT**

If your captions contain non-latin character (ie: Japanese, Chinese, Korean, etc.), you should avoid editing a CSV containing your project's captions in Microsoft Excel, as it will display those non-latin characters, but it will not save them in your CSV file. LibreOffice Calc and Google Sheets support saving CSV files with non-latin characters.


A CSV file exported by Storyboard Pro will contain one row for each exported panel. It will also have at least one column, the **Object Id** column, which stores a special identifier composed of 16 hexadecimal characters for each panel in your storyboard, making sure that Storyboard Pro can identify which row belongs to which panel in your project. Besides the identifier, you can select which type of data gets exported for each panel.

### How to access the Export CSV window

1. Select **File > Export CSV**.

Parameter	Description
Destination Path	Lets you specify the location and name of the folder for the storyboard project data.
CSV Export Options	
Encoding	Allows you select the text encoding for the CSV file. By default, this option is set to <b>UTF-8</b> .
Field Separator	Allows you select the character used to separate each cell in the CSV file, among the following options: <b>Comma</b> , <b>Semicolon</b> , <b>Tab</b> or <b>Vertical bar (pipe)</b> . By default, this option is set to <b>Comma</b> , and it is the most commonly used field separator among all software that support CSV files.
Include Column Names	Adds an extra header row at the top which indicates the purpose of each column in the table.
Include Sequence Names	Adds a Sequence column which indicates the number of the sequence for each panel.
Include Scene Names	Adds a Scene column which indicates the number or name of each scene for each panel.

Include Panel Names	Adds a Panel column which indicates the number or name of each panel.
Include Transitions	Adds a column for each transition in the project, between the rows corresponding to the two panels that are joined by the transition.
Include Scene Frame Number	Adds a column that indicates the length of the scene in frames.
Include Panel Frame Number	Adds a column that indicates the length of the panel in frames.
Include Captions	Adds a column for each caption type in your project, and which will indicate the content of each caption type for each panel.
Include Rich Text Formatting	If your captions have any formatting, check this option to export the content of your captions in HTML, which will preserve the formatting of your captions. If this option is unchecked, your captions will be exported in plain text. They will be easier to read and edit, but if you re-import the .csv file into your project, the formatting of the captions will be lost.
Include Camera Information	Indicates whether the camera is static or dynamic (animated) for each panel.
Include Layer Names	This will add as many columns as the amount of layers in the panel that has the most layers. For each panel, the name of each layer in the panel will be indicated. Layers at the bottom are listed in the leftmost layer column, and layers at the top are listed in the rightmost layer column.
Include Tracking Information	Indicates whether or not the panel is tracked, the date at which the panel started getting tracked, and the tracking notes added to that panel, if any.
Export Range	
All	Exports the entire storyboard.
Selected Scenes	<p>Select this option to export a specific selection of scenes. Then, click on the <b>Select</b> button to open the Scenes Picker dialog box, in which you can:</p> <ul style="list-style-type: none"> <li>• Type the number of a sequence or of a scene in the <b>Sequence</b> or <b>Scene</b> fields in the <b>Filter</b> section, to only show matching sequences or matching scenes in the list.</li> <li>• Click and drag to select a range of scenes.</li> </ul>

	<ul style="list-style-type: none"> <li>• Hold the Ctrl key and click on each scene you want to add to your selection.</li> <li>• Hold the Shift key, then click on the first scene and the last scene you want to add to your selection, to select every scene between those two scenes inclusively.</li> <li>• If your project has sequences, click on a sequence to select every scene in that sequence.</li> </ul>
Current Scene	Exports only the currently selected scene.
Current Panel	Exports only the currently selected panel.
Tracked Panels - [0 panel]	Exports panels on which tracking changes is enabled.
Open document/folder after export	<p>Open the exported CSV file in your operating system's default CSV editor immediately after creating it.</p> <div style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b> Typically, if you installed a spreadsheet editor such as Microsoft Excel or LibreOffice Calc, this will be your operating system's default CSV editor.</p> </div>



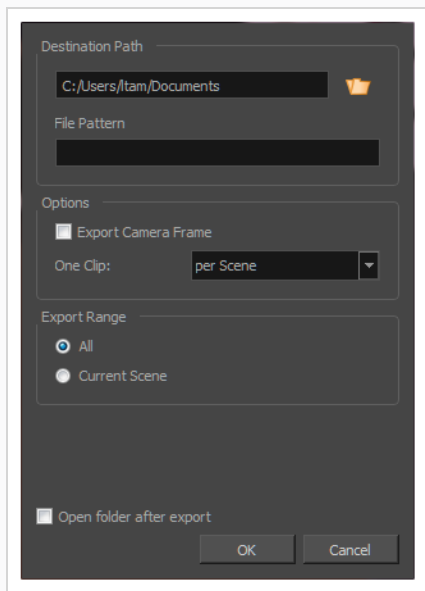
## Export to FBX Dialog Box

The Export FBX dialog box allows you export scenes, sequences or your entire animatic into animated Filmbox (.fbx) files. This can be useful if your project has 3D elements. The exported Filmbox (.fbx) file will contain all the 2D and 3D elements in your animatic as well as their animation. You can then import it in a third-party software and use it as a template to create the 3D animations for your production.


### How to access the Export to FBX dialog box

1. Select **File > Export > FBX**.

The Export to FBX dialog box opens.



Parameter	Description
Destination Path	
Path	Allows you to specify the directory in which to save the exported files. You can click on the Browse 📁 button right of the field to browse your file system and select the destination folder.
File Pattern	Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables: <ul style="list-style-type: none"> <li>• %t - Project title</li> <li>• %a - Act number</li> </ul>

	<ul style="list-style-type: none"> <li>• %q - Sequence number</li> <li>• %s - Scene number</li> </ul> <div style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;">  <p><b>TIP</b> Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.</p> </div>
Options	
Export Camera Frame	Includes the camera frame's black border in the scene.
One Clip	<p><b>Per Scene:</b> Exports one clip per scene.</p> <hr/> <p><b>Per Project:</b> Exports one clip for the entire project.</p> <hr/> <p><b>Per Sequence:</b> Exports one clip per sequence. This option is available only if your project contains sequences.</p>
Export Range	
All	Includes all the scenes in your project.
Current Scene	Includes only the scene you selected when you opened this dialog box.
Current Sequence	Includes only the scenes from the sequence you selected when you opened this dialog box. This option will only be visible if your project contains sequences.
Open folder after export	Opens the folder in which files were exported in a file browser once the export is done.

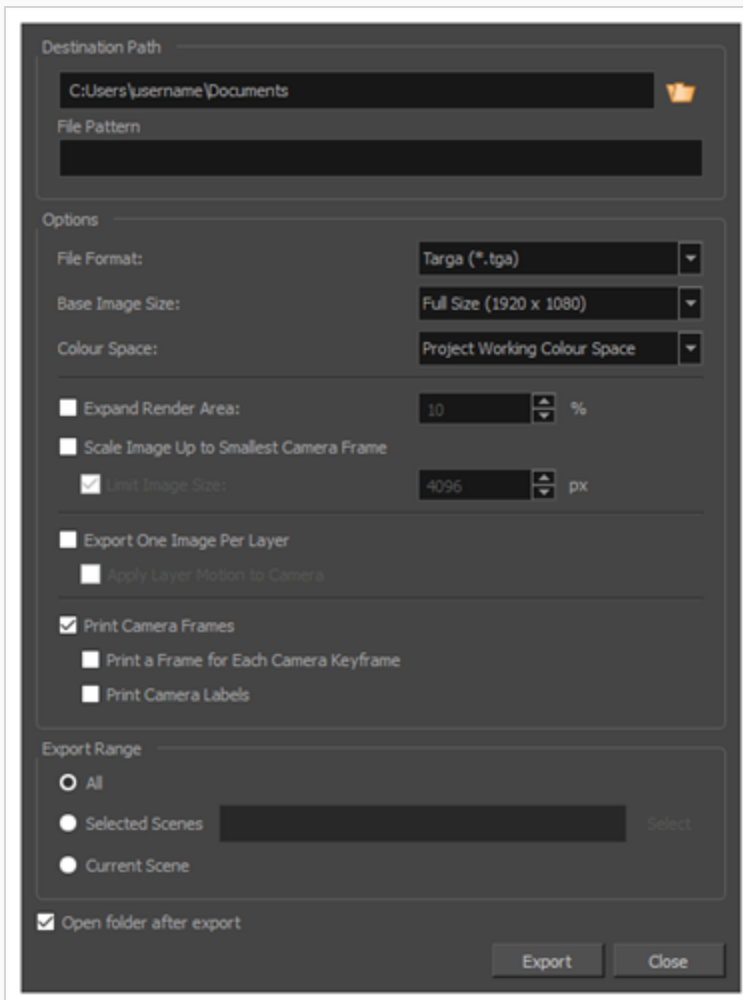
## Export Layout Dialog Box




The Export Layout window lets you export some or all the scenes of your project into layout images, which can be used to properly position scene elements when working on different aspects of the scene throughout the production. For example, a layout can be imported in Harmony to accelerate its set up and properly position the elements and camera keyframes of the scene. Also, a layout exported into .psd format can serve as the base to create the background art for the scene so that it's properly adapted to the scene's layout, action and camera movements.

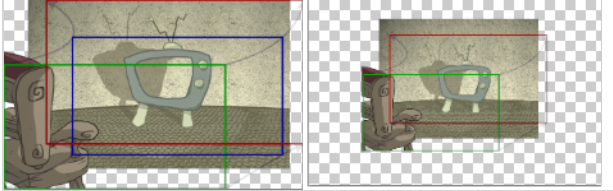
Layout images can be rendered with all layers combined or with one image per layer, and can optionally include camera keyframes and movements. Layouts can be exported in .psd (with separate layers), .tga, .jpg or .png format.

### How to access the Export Layout window

- Select **File > Export > Layout**.



Parameter	Description
Destination Path	
Path	<p>Allows you to specify the directory in which to save the exported files. You can click on the Browse  button right of the field to browse your file system and select the destination folder.</p>
File Pattern	<p>Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables:</p> <ul style="list-style-type: none"> <li>• <b>%t</b> - Project title</li> <li>• <b>%a</b> - Act number</li> <li>• <b>%q</b> - Sequence number</li> <li>• <b>%s</b> - Scene number</li> </ul> <div data-bbox="565 884 1430 1115" style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;"> <p> <b>TIP</b></p> <p>Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.</p> </div>
Options	
File Format	<p>Allows you to select an image format in which to save the layout images:</p> <ul style="list-style-type: none"> <li>• <b>Jpeg (*.jpg):</b> An image format with lossy compression optimized for the Web. Only use this format if export speed is more important than quality.</li> <li>• <b>Targa (*.tga):</b> An image format with basic lossless compression.</li> <li>• <b>Photoshop (*.psd):</b> The format used for Adobe Photoshop projects. It is uncompressed.</li> </ul> <div data-bbox="643 1560 1430 1791" style="border: 1px solid #90ee90; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>When you export layouts in this format, each layer in the first panel of the scene is exported as a separate layer in the PDF file. If you choose to export camera frames, they will also be on a separate layer over other layers.</p> </div> <ul style="list-style-type: none"> <li>• <b>Portable Network Graphics (*.png):</b> An image format with a more effective lossless compression than Targa (.tga). Exporting in this format</li> </ul>

	<p>is slower, but saves a lot of disk space. PNG files are supported by web browsers, most operating systems and image editing software.</p>
Transparent Background	<p>This option only appears if the file format selected is Photoshop (*.psd). When exporting in Photoshop (*.psd) format, by default, a white background layer is added behind every other layer. Enable this option to have no background layer.</p>
Base Image Size	<p>Allows you to select whether you export at the same size as your project's resolution, at half its dimensions or at a quarter of its dimensions.</p>
Colour Space	<p>Sets the colour space for the export.</p> <p>If you plan to create an export for use in a different software, you may want to match colour spaces to keep all your colours consistent. The default setting is the current Storyboard Pro project colour space, which was selected on creation of the project.</p>
Expand Render Area	<p>Expands the area to render into the layouts. By default, only the area of the scene that is covered by the camera is rendered, and exported layout images are cropped at the edges of the camera frames. If enabled, this option adds space around the render area and captures extra details outside the camera frames. By default, the render area is expanded by 10%. You can use the input field to the right of the option to change this ratio.</p> 
Scale Image Up to Smallest Camera Frame	<p>Ensures that when a camera close-up is included in a scene, the exported image is larger so that the closest camera frame is at least the size of the chosen image size. This way, the layout does not appear pixelated when zooming in on the closest camera frame. If disabled, the size of the exported images will be based off the chosen Base Image Size and Expand Render Area options.</p>
Limit Image Size	<p>If the Scale Image Up to Smallest Camera Frame option is enabled, this ensures images do not get scaled up too much. If enabled, images will be limited to 4096 pixels in width and height by default.</p>
Export One Image Per Layer	<p>Exports each layer as a separate image file. If Print Camera Frames option is enabled, the camera frames and camera movements will be printed on each layer.</p>
Apply Layer Motion	<p>When exporting one image per layer and with camera frames, if your layers are</p>

<p>to Camera</p>	<p>animated, this option allows you to combine the layer's animation with the camera movement that is printed on it. By following the resulting camera movement, the layer will appear to be animated just like it is in your animatic.</p> <p>For example, in a scene where a drawing layer moves towards the right, and the camera moves up, the camera movement that will be printed on the layer's layout image will be combined with that layer's animation, and the resulting camera movement will go up and towards the left, so that the layer itself appears to move towards the right.</p> <div data-bbox="561 512 1430 905"> <p>The diagram consists of two side-by-side panels. The left panel, labeled 'A scene with a camera movement and a layer motion.', shows a black letter 'A' on a white background. A blue square bounding box surrounds the 'A', with a blue dot in the center and orange arrows pointing right, indicating layer motion. A red camera icon with a yellow dot and orange arrows pointing up and left indicates camera movement. The right panel, labeled 'The layout image with the camera movement and the layer motion combined.', shows the same 'A' on a white background. A green bounding box surrounds the 'A', and a red camera icon with a yellow dot and orange arrows pointing up and left indicates the combined camera movement. The word 'OUT' is written in red in the top-left corner of the frame, and 'IN' is written in green in the top-left corner of the layer's bounding box.</p> </div>
<p>Print Camera Frames</p>	<p>Prints the first and last camera frame of each scene into the exported layout images. If exporting in .psd format, the camera frames will be printed on a separate layer.</p>
<p>Print a Frame for Each Camera Keyframe</p>	<p>If a scene contains a camera movement with more than two keyframes, this prints each camera keyframe into the layout.</p> <div data-bbox="561 1226 1180 1417"> <p>The image shows two side-by-side camera frames of a scene with a television set and a chair. The left frame shows the television set and chair with a red bounding box around them. The right frame shows the same scene with a blue bounding box around the television set and a red bounding box around the chair, indicating different camera positions.</p> </div>
<p>Print Camera Labels</p>	<p>Adds the camera position label in the top-left corner of each camera frame. Camera frames are labeled with a letter of the alphabet indicating their respective order.</p> <div data-bbox="561 1610 891 1829"> <p>The image shows a camera frame of a scene with a television set and a chair. A red circle highlights the letter 'B' in the top-left corner of the frame, indicating the camera position label.</p> </div>

Export Range	
All	Exports the entire storyboard.
Selected Scenes	<p>Select this option to export a specific selection of scenes. Then, click on the <b>Select</b> button to open the Scenes Picker dialog box, in which you can:</p> <ul style="list-style-type: none"><li>• Type the number of a sequence or of a scene in the <b>Sequence</b> or <b>Scene</b> fields in the <b>Filter</b> section, to only show matching sequences or matching scenes in the list.</li><li>• Click and drag to select a range of scenes.</li><li>• Hold the Ctrl key and click on each scene you want to add to your selection.</li><li>• Hold the Shift key, then click on the first scene and the last scene you want to add to your selection, to select every scene between those two scenes inclusively.</li><li>• If your project has sequences, click on a sequence to select every scene in that sequence.</li></ul>
Current Scene	Exports only the currently selected scene.
Open folder after export	Opens the folder in which files were exported in a file browser once the export is done.

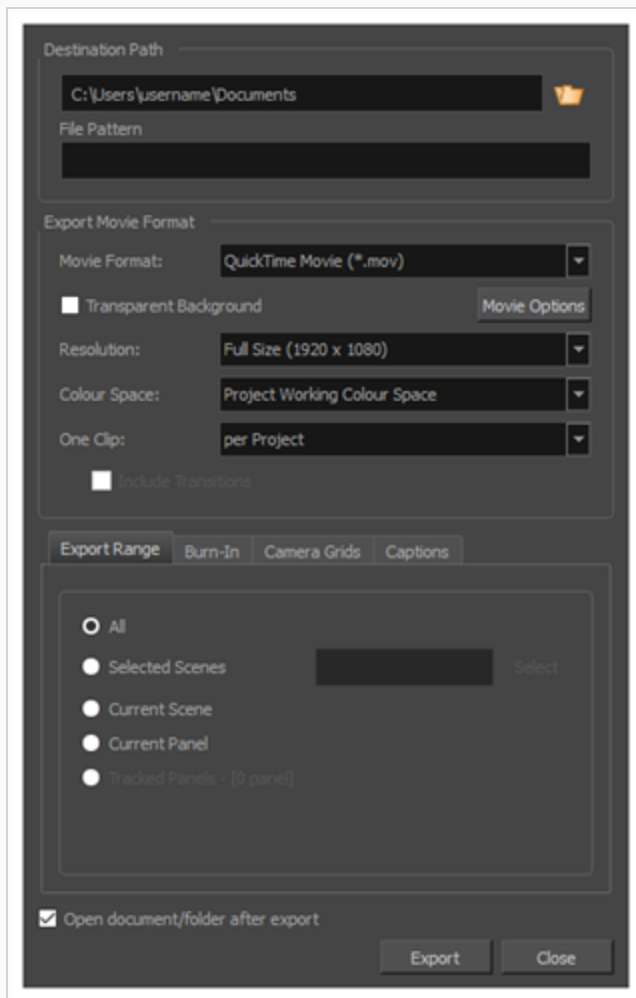
## Export to Movie Dialog Box

The Export Movie window lets you export your storyboard and animatic as a movie file which you can share and play back. You can export your movie file in different formats (QuickTime, SWF movie (Flash), jpeg, targa) and as image sequences.

### How to access the Export to Movie window




1. Select **File > Export > Movie**.

The Export to Movie window opens.



Parameter	Description
Destination Path	
Path	Allows you to specify the directory in which to save the exported files. You can



	<p>click on the Browse  button right of the field to browse your file system and select the destination folder.</p>
File Pattern	<p>Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables:</p> <ul style="list-style-type: none"> <li>• %t - Project title</li> <li>• %a - Act number</li> <li>• %q - Sequence number</li> <li>• %s - Scene number</li> </ul> <div data-bbox="561 667 1430 905" style="border: 1px solid #add8e6; padding: 10px;"> <p> <b>TIP</b></p> <p>Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.</p> </div>
Export Movie Format	
Movie Format	<p>Allows you to specify the format in which to export the movie. You can choose between the following formats:</p> <ul style="list-style-type: none"> <li>• <b>QuickTime Movie (*.mov):</b> The Apple QuickTime format. This is the default export format and is recommended for its portability, and also because it allows you to choose among several video codecs.</li> </ul> <div data-bbox="641 1272 1430 1829" style="border: 1px solid #90ee90; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• On Windows, <a href="#">Apple QuickTime</a> must be installed to allow Storyboard Pro to export QuickTime movies. You can configure the export of QuickTime movies to use any codec that is compatible with QuickTime, including H.264, MPEG-4 and Animation.</li> <li>• On macOS, Storyboard Pro uses Apple AVFoundation to export QuickTime movies, which allows you to export using codecs such as H.264, Apple ProRes 422 and Apple ProRes 4444, among others.</li> <li>• If you are looking to export a QuickTime movie with transparency, be sure to choose a codec that supports encoding with an alpha channel.</li> </ul> </div> <ul style="list-style-type: none"> <li>• <b>H.264/MPEG-4 (*.mov) :</b> A simple movie format that uses the H.264</li> </ul>

codec, which is supported by most web browsers.



#### NOTES

- Using this format does not require additional software. However, if this is the first time you export a movie in H.264/MPEG-4 format, you will be prompted to download the OpenH264 library from Cisco. Simply click **Yes** when prompted, and Storyboard Pro will automatically download the library, then export the movie.
- There are no encoding options for this format.
- This format supports resolutions of up to 4096×2304. Each dimension must be a multiple of 16 pixels.
- Audio exported in this format is encoded in PCM 16-bit stereo, 22.05 kHz.



- **Windows Media Video (\*.wmv):** The native format for Windows Media Player.



#### NOTES


- Windows Media Video (.wmv) files can only be exported on Windows.
- Video players and editors on non-Windows systems can generally not open Windows Media Video (.wmv) files.

- **Flash (.swf)**
- Image sequence in **Jpeg (.jpg)**, **Targa (.tga)** or **Portable Network Graphics (.png)** format.
- **Flash (.swf):** The vector-based movie format exported by Adobe Animate. It uses vector graphics and interpolations instead of bitmap images.
- **Jpeg (\*.jpg):** An image format with lossy compression optimized for the Web. Only use this format if export speed is more important than quality.
- **Targa (\*.tga):** An image format with basic lossless compression.
- **Portable Network Graphics (\*.png):** An image format with a more effective lossless compression than Targa (.tga). Exporting in this format is slower, but saves a lot of disk space. PNG files are supported by web browsers, most operating systems and image editing software.

	<div style="border: 1px solid green; padding: 10px;">  <p><b>NOTE</b></p> <p>The option to export to Windows Media Video is only available on Windows, and the option to export to QuickTime Movie is only available on machines with QuickTime Player installed.</p> </div>
Transparent Background	This option exports movies or image sequences with a transparent background. If this option is NOT checked, frames without a background will be exported with a white background. This option is only available for QuickTime Movie (.mov), Targa (.tga) and Portable Network Graphic (.png) formats.
Movie Options	<p>When exporting in Windows Media Video (.wmv), QuickTime Movie (.mov) or Flash (.swf) format, this opens a dialog in which you can select video and audio compression settings for the movie files.</p> <div style="border: 1px solid green; padding: 10px;">  <p><b>NOTE</b></p> <p>For more information, see <a href="#">QuickTime Movie Settings Dialog Box (Windows)</a>, <a href="#">Movie Options Dialog Box (macOS)</a> on page 143, <a href="#">Windows Media Video Settings Dialog Box (Windows)</a> on page 245 and <a href="#">Flash Export Settings Dialog Box</a>.</p> </div>
Resolution	Sets the resolution to be a quarter size, half size, or full size of the current storyboard resolution.
Colour Space	<p>Sets the colour space for the export.</p> <p>If you plan to create an export for use in a different software, you may want to match colour spaces to keep all your colours consistent. The default setting is the current Storyboard Pro project colour space, which was selected on creation of the project.</p>
One Clip	<p>Allows you to select how to separate the exported movie files:</p> <ul style="list-style-type: none"> <li>• <b>Per Scene:</b> Create one movie file for each scene in your project.</li> <li>• <b>Per Sequence:</b> Create one movie file for each sequence in your project, if any.</li> <li>• <b>Per Project:</b> Export your whole animatic into a single video file.</li> </ul>
Include Transitions	Includes transitions in your export movie files.
Export Range Tab	

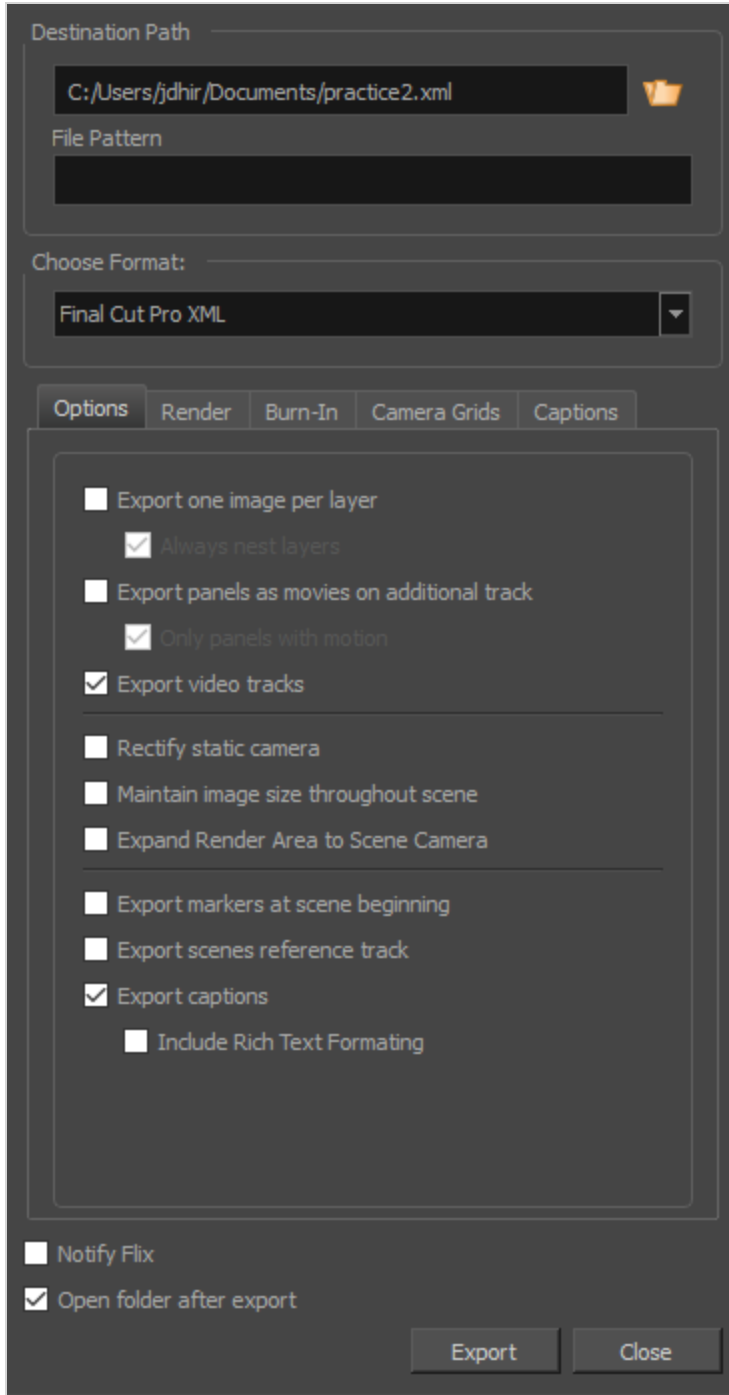
All	Exports the entire storyboard.
Selected Scenes	<p>Select this option to export a specific selection of scenes. Then, click on the <b>Select</b> button to open the Scenes Picker dialog box, in which you can:</p> <ul style="list-style-type: none"> <li>• Type the number of a sequence or of a scene in the <b>Sequence</b> or <b>Scene</b> fields in the <b>Filter</b> section, to only show matching sequences or matching scenes in the list.</li> <li>• Click and drag to select a range of scenes.</li> <li>• Hold the Ctrl key and click on each scene you want to add to your selection.</li> <li>• Hold the Shift key, then click on the first scene and the last scene you want to add to your selection, to select every scene between those two scenes inclusively.</li> <li>• If your project has sequences, click on a sequence to select every scene in that sequence.</li> </ul>
Current Scene	Exports only the currently selected scene.
Current Panel	Exports only the currently selected panel.
Tracked Panels - [0 panel]	Exports panels on which tracking changes is enabled.
Burn-In Tab	
Print Time Code	Prints the project timecode on the video as an overlay on your video.
Print Scene Names and Panel Numbers	Prints the scene names and panel numbers as an overlay on your video.
Print Additional Duration	Prints another time code counting the time for the current panel, scene or sequence, depending on what is selected in the <b>Repeat</b> drop-down.
Units	Displays additional duration information using Time Code or Frames units.
Repeat	Displays additional duration information per panel, scene or sequence.
Camera Grid Tab	

Title Safe Area	<b>Title Safe Area:</b> Prints the Title Safe Area over the picture. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be placed within this area. The size of this area can be changed in the Camera tab of the Preferences dialog.
Action Safe Area	<b>Action Safe Area:</b> Prints the Action Safe Area over the picture. By default, this area is 10% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Characters and action should be placed within this area. The size of this area can be changed in the Camera tab of the Preferences dialog.
4:3 Safety	Prints the title safe area and the action safe area for the 4:3 camera frame over the exported image. They can be used to position elements in projects that are meant to be displayed in both widescreen and 4:3 proportions.
4:3 Reference	Prints the 4:3 camera frame over the exported image. This frame corresponds to the camera frame if the aspect ratio of the picture was 4:3. It can be used to position elements in projects that are meant to be displayed in both widescreen and 4:3 proportions.
Captions Tab	
Print Captions	Choose whether to not print captions (None) or select one of your project's captions to print into the exported movies. By default, a Storyboard Pro project has Action Notes, Dialog, Slugging and Notes captions, but you can also choose to print custom captions if your project has any.
Font	Select which font the captions will be printed in. By default, they will be printed in Arial.
Height %	Sets the size of caption lines relative to the height of the exported movies. For example, if exporting a movie at 1080p with 3% Height captions, each caption line will be 32 pixels in height.
Position	Prints the captions at either the Top Left, Top Centre, Top Right, Bottom Left, Bottom Centre or Bottom Right of the panels. By default, captions are printed to the Bottom Centre.
Max Lines	Sets the maximum amount of caption lines to print on each panel. If a caption being printed requires more than the maximum amount of lines, it will be cut off with an ellipsis (...) at the end.

	<div style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>Even if captions are printed at the bottom, they will be aligned to the top of the space reserved for them, which is calculated by the amount of Max Lines x the Height %. Therefore, if this setting is too high and captions are printed at the bottom, they may appear closer to the middle of the picture than to the bottom.</p> </div>
Text Colour	Select the font colour in which to print the captions.
Bg Colour	Select the background colour on which to print the captions. If the checkbox is unchecked, the captions will be printed directly into the rendered picture. Otherwise, they will be printed in rectangular boxes of the chosen colour.
Open document/folder after export	Opens the folder in which files were exported in a file browser once the export is done.



## Export Project / Selected Scenes / Tracked Scenes Dialog Box (Confirmation)

The Export Project dialog box lets you export your storyboard to a third-party software using XML or AAF format. You can then edit your project, and import the changes back into Storyboard Pro.

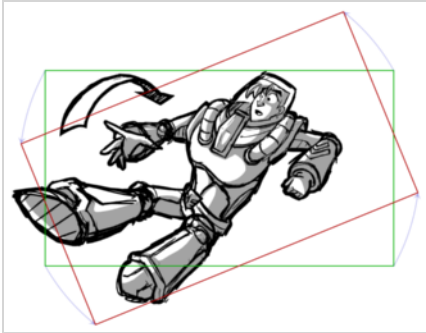
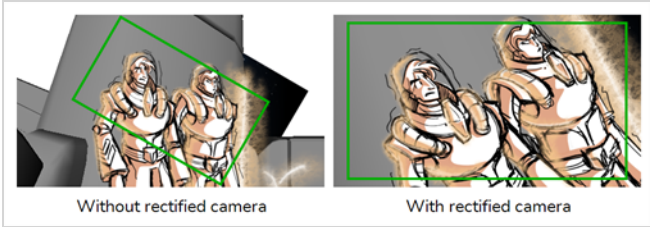


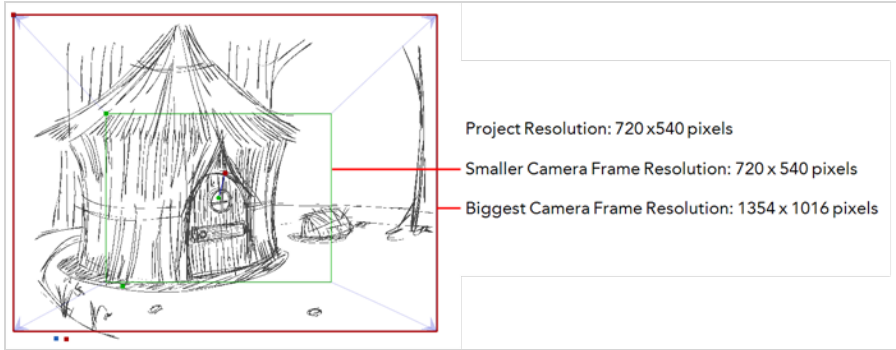

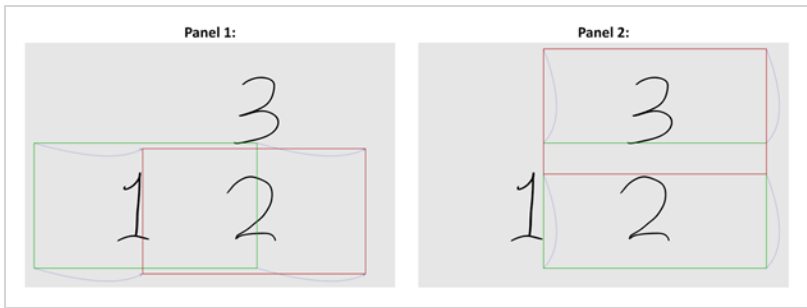
## How to access the Export Project dialog box


- Select **File > Conformation > Export Project**.



Parameter	Description
Destination Path	
Path	Allows you to specify the directory in which to save the exported files. You can click on the Browse  button right of the field to browse your file system and select the destination folder.
File Pattern	<p>Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables:</p> <ul style="list-style-type: none"> <li>• %t - Project title</li> <li>• %a - Act number</li> <li>• %q - Sequence number</li> <li>• %s - Scene number</li> <li>• %p - Panel number</li> </ul> <div style="border: 1px solid #0070C0; padding: 10px; margin-top: 10px;"> <p> <b>TIP</b> Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.</p> </div>
Render Images On Export	When enabled, this exports the images associated with the video clips. This is enabled by default. You can disable it if you are re-exporting your sequence and don't need to export the images again, to save time. Otherwise, disabling this option will cause the exported sequence to be missing the image files linked to the clips.
Choose Format	
Format	Lets you select export format, Final Cut Pro XML or Media Composer AAF.
Options	




Export One Image Per Layer	Exports the drawing layers in your panels as separate video clips instead of flattening them together to make one clip per panel. This option is only available when exporting in Final Cut Pro XML format.
Always Nest Layers	When exporting one image per layer, this will store all the layers for a single panel into a nested clip. By default, different layers are spread on different video tracks, except when a panel contains both camera movements and layer animations.
Export Panels as movies on additional track	Exports the panels as movies in an XML or AAF file.
Only Panels with Motion	Checking this option renders only panels that have camera or layer motion.
Export Video Tracks	Exports an XML or AAF file that will include the content of the video tracks. Rendering of the first frame of the panel is used as source image. Linked video files are not exported.
Print Camera Frame	<p>Prints the camera frames on the exported images. The first camera frame will be printed in <b>green</b>, and the last camera frame will be printed in <b>red</b>.</p> 
Rectify Static Camera	<p>If the camera is at an angle in a panel, and there is no camera movement in that panel, enabling this option will render the panel as if the camera was at a straight angle.</p> 

<p>Maintain image size throughout scene</p>	<p>By default, the resolution of each image that is exported so that, at the end of a camera zoom-in, or at the beginning of a camera zoom-out, there is no pixelation. This means that the smallest camera frame in each panel must be at least the same resolution of the project. Hence, panels with small camera frames will have to be exported at a bigger resolution than other panels. For example, the following panel must be exported in a bigger resolution than the project's resolution, so that the smallest camera frame has the same resolution as the project:</p>  <p>This can also mean that, within a same scene, a panel that has a camera zoom-in or zoom-out will have to be exported in a bigger resolution than the other panels in the scene. With this option enabled, all the panels in any given scene are exported in the same resolution.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b> The panels will appear as expected in your video editing software regardless of whether or not this option is enabled.</p> </div>
<p>Expand Render Area to Scene Camera</p>	<p>By default, exported panels only cover the area covered by the camera movements in the panel. With this option enabled, exported panels will cover the area covered by the camera movements in all the panels in their scene combined. That way, if all the exported panels in a scene are combined, the elements of the scene will all be in their proper position respective to each other.</p> <p>In the following example, the camera goes from 1 to 2 in the first panel, then from 2 to 3 in the second panel, but both panels are exported to cover the whole camera movement, from 1 to 2 to 3:</p> 

Bitmap Format	<p>Allows you to select the image format in which to save the exported panels:</p> <ul style="list-style-type: none"> <li>• <b>Jpeg (*.jpg):</b> An image format with lossy compression optimized for the Web. Only use this format if export speed is more important than quality.</li> <li>• <b>Targa (*.tga):</b> An image format with basic lossless compression.</li> <li>• <b>Portable Network Graphics (*.png):</b> An image format with a more effective lossless compression than Targa (.tga). Exporting in this format is slower, but saves a lot of disk space. PNG files are supported by web browsers, most operating systems and image editing software.</li> </ul> <div data-bbox="534 554 1430 823" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b></p> <p>Since the images exported for conformation are generally not imported into the Storyboard Pro project when you re-import your sequence, the quality of exported images is not critical. Hence, the default image format for conformation is <b>Jpeg (*.jpg)</b>. Although Jpeg images do not preserve picture quality, they are quicker to export and do not use a lot of disk space.</p> </div>
Export Markers at scene beginning	Places a chapter marker at the beginning of each scene. These markers are used to find the in-point of each scene when conforming from Final Cut Pro to Storyboard Pro. The markers are named "Scene:" followed by the name of their respective scene, and they have a unique scene ID and chapter marker as their comment.
Export scenes references track	Adds an extra video track to the sequence in which images indicating the number of the current scene are displayed.
Export captions	Includes the captions of each panel as metadata in the exported sequence. The captions can be edited in the sequence, and importing modified captions will update the captions in the Storyboard Pro project.
Include Rich Text Formatting	If you're exporting the project's captions and your captions have special text formatting, this will export the captions in HTML instead of plain text, to preserve their formatting. If you export your captions in plain text, then re-import them, they will lose their formatting. However, plain text captions are easier to read and edit in third party software.
Burn-In	
Print Scene Names and Panel Numbers	Prints the scene names and panel numbers as an overlay on your video.

Camera Grids	
Title Safe Area	<p>Prints the Title Safe Area over the picture. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be placed within this area.</p> <div style="border: 1px solid green; padding: 5px;">  <b>NOTE</b>            The size of this area can be changed in the Camera tab of the Preferences dialog.         </div>
Action Safe Area	<p>Prints the Action Safe Area over the picture. By default, this area is 10% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Characters and action should be placed within this area.</p> <div style="border: 1px solid green; padding: 5px;">  <b>NOTE</b>            The size of this area can be changed in the Camera tab of the Preferences dialog.         </div>
4:3 Safety	<p>Prints the title safe area and the action safe area for the 4:3 camera frame over the exported image. They can be used to position elements in projects that are meant to be displayed in both widescreen and 4:3 proportions.</p>
4:3 Reference	<p>Prints the 4:3 camera frame over the exported image. This frame corresponds to the camera frame if the aspect ratio of the picture was 4:3. It can be used to position elements in projects that are meant to be displayed in both widescreen and 4:3 proportions.</p>
Captions	
Print Captions	<p>Choose not to print captions (None) or select one of your project's captions to print into the exported bitmaps. By default, a Storyboard Pro project has Action Notes, Dialog, Slugging and Notes captions, but you can also choose to print custom captions if your project has any.</p>
Font	<p>Select which font the captions will be printed in. By default, they will be printed in Arial.</p>
Height %	<p>Sets the size of caption lines relative to the height of the exported bitmaps. For example, if exporting bitmaps at 1080p with 3% Height captions, each caption line will be 32 pixels in height.</p>

Position	Prints the captions at either the Top Left, Top Centre, Top Right, Bottom Left, Bottom Centre or Bottom Right of the bitmap. By default, captions are printed to the Bottom Centre.
Max Line	<p>Sets the maximum amount of caption lines to print on each panel. If a caption being printed requires more than the maximum amount of lines, it will be cut off with an ellipsis (...) at the end.</p> <div style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b></p> <p>Even if captions are printed at the bottom, they will be aligned to the top of the space reserved for them, which is calculated by the amount of Max Lines x the Height %. Therefore, if this setting is too high and captions are printed at the bottom, they may appear closer to the middle of the picture than to the bottom.</p> </div>
Text Colour	Select the font colour in which to print the captions.
Bg Colour	Select the background colour on which to print the captions. If the checkbox is unchecked, the captions will be printed directly into the rendered picture. Otherwise, they will be printed in rectangular boxes of the chosen colour.
Notify Flix	When new XML data is exported, a message is sent to Flix so it will automatically update its asset database. Note that Flix must be installed on your computer.
Open folder after export	Opens the folder in which files were exported in a file browser once the export is done.

## Export to EDL/AAF/XML Dialog Box

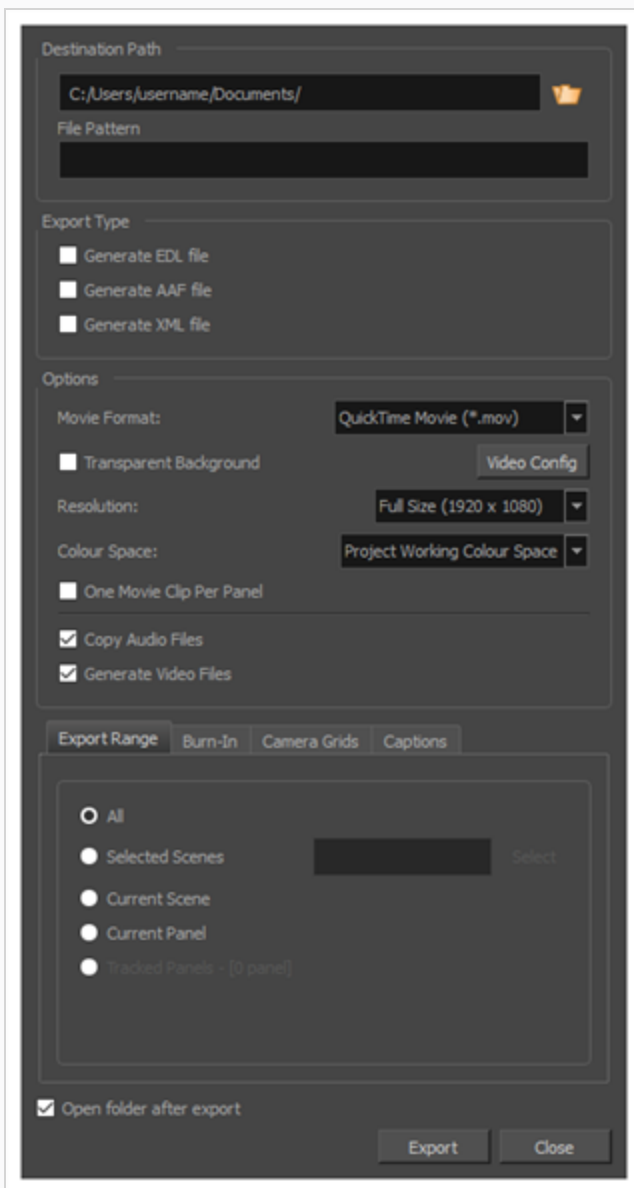
The Export to EDL/AAF/XML window allows you to export your animatic into a video editing sequence which you can import in Non-Linear Editing (NLE) software such as Apple Final Cut Pro, Adobe Premiere, Avid Xpress, Avid Media Composer or Sony Vegas.




The timing, motions, and sound clips in your project are preserved.




### How to access the Export to EDL/AAF/XML window

1. Select **File > Export > EDL/AAF/XML**.



The Export to EDL/AAF/XML window opens.





Parameter	Description
Destination Path	
Path	<p>Allows you to specify the directory in which to save the exported files. You can click on the Browse  button right of the field to browse your file system and select the destination folder.</p>
File Pattern	<p>Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables:</p> <ul style="list-style-type: none"> <li>• %t - Project title</li> <li>• %a - Act number</li> <li>• %q - Sequence number</li> <li>• %s - Scene number</li> <li>• %p - Panel number</li> </ul> <div data-bbox="565 936 1430 1171" style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;"> <p> <b>TIP</b></p> <p>Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.</p> </div>
Export Type	
	<p>Lets you elect the format in which to store the timing information (timecode for panels and audio tracks). The format will be chosen depending on the destination application:</p> <ul style="list-style-type: none"> <li>• <b>Generate EDL file:</b> Can be imported in Final Cut Pro, Avid Media Composer and Adobe Premiere.</li> </ul> <div data-bbox="721 1541 1268 1839" style="border: 1px solid #90ee90; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>Due to limitations with the EDL format, only the first four audio tracks in your project can be exported, and sound clips that are used multiple times in the project will only appear one time in the exported sequence.</p> </div> <ul style="list-style-type: none"> <li>• <b>Generate AAF file:</b> Can be imported in Avid Media</li> </ul>


	<p>Composer, Avid Xpress, Sony Vegas and Adobe Premiere.</p> <div data-bbox="721 247 1269 611" style="border: 1px solid #90EE90; padding: 10px;">  <p><b>NOTE</b></p> <p>Due to limitation with the AAF format, Slide-in and Slide-out transitions will be converted to Dissolve transitions, Clock Wipe transitions will always be exported as 12 o'clock (0 degree) clockwise transitions, and Edge Wipe transitions will be exported as either Horizontal, Vertical or Corner Wipe transitions.</p> </div> <ul style="list-style-type: none"> <li>• <b>Generate XML file:</b> Can be imported in Final Cut Pro and Adobe Premiere.</li> </ul> <div data-bbox="643 732 1349 900" style="border: 1px solid #90EE90; padding: 10px;">  <p><b>NOTE</b></p> <p>If your editing system is not mentioned above, check its specifications to verify which format can be imported.</p> </div>
<p>Generate EDL, AAF, XML File</p>	<p>Generates an EDL, AAF, or XML file.</p>
<p>Options</p>	
<p>Movie Format</p>	<p>Allows you to select the movie format in which each clip is exported:</p> <ul style="list-style-type: none"> <li>• <b>QuickTime Movie (*.mov):</b> The Apple QuickTime format. This is the default export format and is recommended for its portability, and also because it allows you to choose among several video codecs.</li> </ul> <div data-bbox="643 1362 1430 1919" style="border: 1px solid #90EE90; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• On Windows, <a href="#">Apple QuickTime</a> must be installed to allow Storyboard Pro to export QuickTime movies. You can configure the export of QuickTime movies to use any codec that is compatible with QuickTime, including H.264, MPEG-4 and Animation.</li> <li>• On macOS, Storyboard Pro uses Apple AVFoundation to export QuickTime movies, which allows you to export using codecs such as H.264, Apple ProRes 422 and Apple ProRes 4444, among others.</li> <li>• If you are looking to export a QuickTime movie with transparency, be sure to choose a codec that supports encoding with an alpha channel.</li> </ul> </div>




	<ul style="list-style-type: none"> <li>• <b>H.264/MPEG-4 (*.mov)</b> : A simple movie format that uses the H.264 codec, which is supported by most web browsers.</li> </ul> <div data-bbox="643 285 1430 850" style="border: 1px solid #c8e6c9; padding: 10px; margin: 10px 0;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• Using this format does not require additional software. However, if this is the first time you export a movie in H.264/MPEG-4 format, you will be prompted to download the OpenH264 library from Cisco. Simply click <b>Yes</b> when prompted, and Storyboard Pro will automatically download the library, then export the movie.</li> <li>• There are no encoding options for this format.</li> <li>• This format supports resolutions of up to 4096×2304. Each dimension must be a multiple of 16 pixels.</li> <li>• Audio exported in this format is encoded in PCM 16-bit stereo, 22.05 kHz.</li> </ul> </div> <ul style="list-style-type: none"> <li>• <b>Windows Media Video (*.wmv)</b>: The native format for Windows Media Player.</li> </ul> <div data-bbox="643 972 1430 1230" style="border: 1px solid #c8e6c9; padding: 10px; margin: 10px 0;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• Windows Media Video (. <b>wmv</b>) files can only be exported on Windows.</li> <li>• Video players and editors on non-Windows systems can generally not open Windows Media Video (. <b>wmv</b>) files.</li> </ul> </div> <ul style="list-style-type: none"> <li>• <b>Flash (.swf)</b></li> <li>• Image sequence in <b>Jpeg (.jpg)</b>, <b>Targa (.tga)</b> or <b>Portable Network Graphics (.png)</b> format.</li> </ul>
Transparent Background	<p>This option exports movies or image sequences with a transparent background. If this option is NOT checked, frames without a background will be exported with a white background. This option is only available for QuickTime Movie (.mov), Targa (.tga) and Portable Network Graphic (.png) formats.</p>
Video Config	<p>Click this button to configure the video settings. When exporting in QuickTime, this allows to set the video codec, framerate and quality. When exporting in WindowsMedia Video allows to set the video bit rate and variable bit rate quality. The resolution drop-down right of the Video Config button can be used to define the output resolution, since you might not always need to export the storyboard at full resolution. You can select Full, Half or Quarter of a project's resolution.</p>

Resolution	Sets the resolution to be a quarter size, half size, or full size of the current storyboard resolution.
Colour Space	<p>Sets the colour space for the export.</p> <p>If you plan to create an export for use in a different software, you may want to match colour spaces to keep all your colours consistent. The default setting is the current Storyboard Pro project colour space, which was selected on creation of the project.</p>
One Movie Clip Per Panel	Exports more than one QuickTime movie clip per scene (which might contain more than one panel) e.g. to obtain better granularity during editing since the storyboard will have smaller movie clips.
Generate Video Files	If you only need the EDL, AAF or XML files to be generated, deselect this option so no video files are rendered.
Copy Audio Files	<p>When enabled, the project's sound files are copied to the same directory as the EDL/XML/AAF files and the video files when exporting. Sound clips that are used several times in the project will only be copied once and linked to several times in the EDL/XML/AAF sequence. Disabling this option can be useful if you are overwriting a previous EDL/XML/AAF export of your project and have not made changes to the sound clips in your project, as it will make the export faster.</p> <div style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>When this option is unchecked, the project's audio tracks and their editing data will still be exported into the EDL/XML/AAF sequence. Only the actual sound files will be missing.</p> </div>
Export Range Tab	
All	Exports the entire storyboard.
Selected Scenes	<p>Select this option to export a specific selection of scenes. Then, click on the <b>Select</b> button to open the Scenes Picker dialog box, in which you can:</p> <ul style="list-style-type: none"> <li>• Type the number of a sequence or of a scene in the <b>Sequence</b> or <b>Scene</b> fields in the <b>Filter</b> section, to only show matching sequences or matching scenes in the list.</li> <li>• Click and drag to select a range of scenes.</li> <li>• Hold the Ctrl key and click on each scene you want to add to your selection.</li> </ul>

	<ul style="list-style-type: none"> <li>• Hold the Shift key, then click on the first scene and the last scene you want to add to your selection, to select every scene between those two scenes inclusively.</li> <li>• If your project has sequences, click on a sequence to select every scene in that sequence.</li> </ul>
Current Scene	Exports only the currently selected scene.
Current Panel	Exports only the currently selected panel.
Tracked Panels - [0 panel]	Exports panels on which tracking changes is enabled.
Burn In Tab	
Print Time Code	Prints the project timecode on the video as an overlay on your video.
Print Scene Names and Panel Numbers	Prints the scene names and panel numbers as an overlay on your video.
Print Additional Duration	Prints another time code counting the time for the current panel, scene or sequence, depending on what is selected in the <b>Repeat</b> drop-down.
Units	Displays additional duration information using Time Code or Frames units.
Repeat	Displays additional duration information per panel, scene or sequence.
Camera Grid Tab	
Title Safe Area	<p>Prints the Title Safe Area over the picture. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be placed within this area.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <b>NOTE</b>  The size of this area can be changed in the Camera tab of the Preferences dialog. </div>
Action Safe Area	Prints the Action Safe Area over the picture. By default, this area is 10% smaller

	<p>than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Characters and action should be placed within this area.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
4:3 Safety	Prints the title safe area and the action safe area for the 4:3 camera frame over the exported image. They can be used to position elements in projects that are meant to be displayed in both widescreen and 4:3 proportions.
4:3 Reference	Prints the 4:3 camera frame over the exported image. This frame corresponds to the camera frame if the aspect ratio of the picture was 4:3. It can be used to position elements in projects that are meant to be displayed in both widescreen and 4:3 proportions.
<b>Captions Tab</b>	
Print Captions	Choose whether to not print captions (None) or select one of your project's captions to print into the exported movies. By default, a Storyboard Pro project has Action Notes, Dialog, Slugging and Notes captions, but you can also choose to print custom captions if your project has any.
Font	Select which font the captions will be printed in. By default, they will be printed in Arial.
Height %	Sets the size of caption lines relative to the height of the exported movies. For example, if exporting a movie at 1080p with 3% Height captions, each caption line will be 32 pixels in height.
Position	Prints the captions at either the Top Left, Top Centre, Top Right, Bottom Left, Bottom Centre or Bottom Right of the panels. By default, captions are printed to the Bottom Centre.
Max Lines	Sets the maximum amount of caption lines to print on each panel. If a caption being printed requires more than the maximum amount of lines, it will be cut off with an ellipsis (...) at the end.

	<div data-bbox="587 212 651 279"></div> <p><b>NOTE</b></p> <p>Even if captions are printed at the bottom, they will be aligned to the top of the space reserved for them, which is calculated by the amount of Max Lines x the Height %. Therefore, if this setting is too high and captions are printed at the bottom, they may appear closer to the middle of the picture than to the bottom.</p>
Text Colour	Select the font colour in which to print the captions.
Bg Colour	Select the background colour on which to print the captions. If the checkbox is unchecked, the captions will be printed directly into the rendered picture. Otherwise, they will be printed in rectangular boxes of the chosen colour.
Open folder after export	Opens the folder in which files were exported in a file browser once the export is done.

## Export to Harmony Dialog Box

The Export to Harmony dialog allows you to export your animatic into a set of Harmony scenes. After the export, you can open the scenes Toon Boom Harmony right away and kickstart the production of your animation project. If you are working with Harmony Server, you can export a package of scenes that can be imported into your database using Control Center. The resulting Harmony scenes will be the same length as the scenes in your Storyboard Pro project, they will contain each of their panels so that you may animate over them, and they will contain their respective part of the animatic's soundtrack.

You can choose to export your animatic in rendered frames, which will not be editable in Harmony and can only be used as reference, or to export the drawings, 3D objects, images, videos and camera movements of each scene in your project directly into the Harmony scenes, allowing you to reuse its elements in Harmony. If you are rendering your animatic, you can choose whether you want to export one scene for the whole project, for each sequence or for each act, whereas if you want to export original scenes, you can only export one Harmony scene for each scene in your animatic.



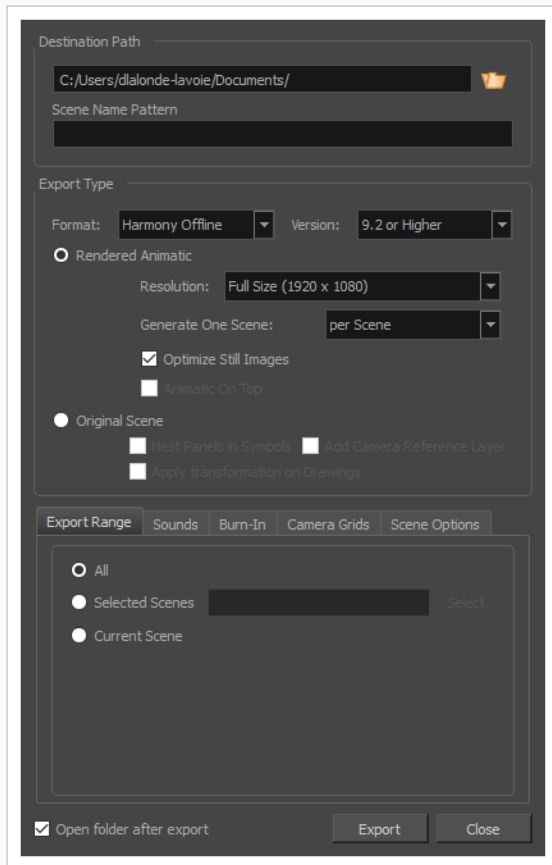
### TIP


If you want to exclude some elements from getting exported to Storyboard Pro, you can select layers in the Layers view and uncheck the **Export To: Toon Boom** option for these layers.


### How to access the Export to Harmony dialog

1. In the top menu, select **File > Export > Export to Harmony**.

The Export to Harmony dialog box opens.






Parameter	Description
Destination Path	
Path	Allows you to specify the directory in which to save the exported files. You can click on the Browse  button right of the field to browse your file system and select the destination folder.
File Pattern	Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables: <ul style="list-style-type: none"> <li>• <b>%t</b> - Project title</li> <li>• <b>%a</b> - Act number</li> <li>• <b>%q</b> - Sequence number</li> <li>• <b>%s</b> - Scene number</li> </ul>

	<div style="border: 1px solid #add8e6; padding: 10px;">  <p><b>TIP</b> Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.</p> </div>
<p>Export Type</p>	
<p>Format</p>	<p>Lets you select whether to export your animatic into Harmony Offline scenes, Harmony Database scenes or Animate/Animate Pro scenes.</p>
<p>Version</p>	<p>When exporting Harmony Offline or Harmony Database scenes, lets you select whether to export scenes that are compatible with Harmony version 7.8 or with Harmony version 9.2 or Higher.</p>
<p>Export Style</p>	
<p>Rendered Animatic</p>	<p>Renders the animatic into a sequence of bitmap images that are assembled into the exported Harmony scenes. This ensures that the content of your animatic is accurately rendered in Harmony, especially if you intend to use an older version.</p>
	<p><b>Resolution:</b> Allows you to select the resolution of rendered frames relative to the project resolution between the following options: <b>Full Size</b>, <b>Half Size</b> or <b>Quarter Size</b>.</p>
	<p><b>Generate One Scene:</b> Allows you to select how to separate the project into Harmony scenes:</p> <ul style="list-style-type: none"> <li>• <b>Per Scene:</b> Generates one scene for each scene in your project.</li> <li>• <b>Per Sequence:</b> Generates one scene for each sequence in your project.</li> <li>• <b>Per Act:</b> Generates one scene for each act in your project.</li> </ul>
	<p><b>Optimize Still Images:</b> When there is no animation or camera movement for a certain time span, a single drawing is rendered and its exposure is rendered until there is movement. If this option is disabled, one frame is rendered for every frame in your animatic, regardless of if there is movement or not.</p>
	<p><b>Animatic on Top:</b> If you generate scenes based on sequences or acts, this option becomes available. When enabled, the animatic is rendered and placed</p>



	as the top layer and column in Harmony or Animate.
Original Scene	Exports the animatic directly into Harmony scenes without rendering it. This preserves the layers, drawings, 3D objects, images, videos and camera movements so that they can be used in Harmony.
	<b>Nest Panels in Symbols:</b> Upon export to Harmony or Animate, the panel's content will be nested inside symbols. Instead of having several layers in your root timeline, you will have a single one. You will need to enter the symbol to edit its content.
	<b>Add Camera Reference Layer:</b> Adds a layer containing the different camera frames on top of the other layers to use as a reference in Harmony and Animate.
	<b>Apply Transformation on Drawings:</b> Applies transformation on the first and last position of each panel. The in-between animation will be lost.
Export Range Tab	
All	Exports the entire storyboard.
Selected Scenes	<p>Select this option to export a specific selection of scenes. Then, click on the <b>Select</b> button to open the Scenes Picker dialog box, in which you can:</p> <ul style="list-style-type: none"> <li>• Type the number of a sequence or of a scene in the <b>Sequence</b> or <b>Scene</b> fields in the <b>Filter</b> section, to only show matching sequences or matching scenes in the list.</li> <li>• Click and drag to select a range of scenes.</li> <li>• Hold the Ctrl key and click on each scene you want to add to your selection.</li> <li>• Hold the Shift key, then click on the first scene and the last scene you want to add to your selection, to select every scene between those two scenes inclusively.</li> <li>• If your project has sequences, click on a sequence to select every scene in that sequence.</li> </ul>
Current Scene	Exports only the currently selected scene.
Sounds Tab	

<p>Processing</p>	<ul style="list-style-type: none"> <li>• <b>Keep Original Files:</b> Copies the sound clips from your project into the exported scenes, without mixing them.</li> <li>• <b>Process Audio Tracks Individually:</b> Creates a mixed sound file for each audio track and stores each sound file into its own sound layer in the exported scene.</li> <li>• <b>Merge All Audio Tracks:</b> Creates a single sound file with all the audio tracks merged and stores it into a single sound layer in the exported scene.</li> <li>• <b>Process Audio Tracks Individually and Merged:</b> Creates a single sound file for each audio track and stores each sound file into its own sound layer, then adds an extra sound layer with all the audio tracks merged together.</li> </ul>
<p>File Pattern</p>	<p>Allows you to enter the prefix or the pattern for the names of the exported files. You can leave this field blank to use the default file naming pattern, type in a file name to use it as a prefix, or type a full pattern using the following variables:</p> <ul style="list-style-type: none"> <li>• %t - Project title</li> <li>• %a - Act number</li> <li>• %q - Sequence number</li> <li>• %s - Scene number</li> <li>• %n - Sound track number</li> </ul> <div style="border: 1px solid #00a0e3; padding: 10px; margin-top: 10px;">  <p><b>TIP</b> Numbers used in file naming patterns are automatically padded by zeros as needed. You can type a number between the % sign and the variable letter to determine the amount of characters you want the variable to use. For example, with the variable %4s, scene 1 would appear as scene 0001.</p> </div>
<p>Sample Rate</p>	<p>Sets the frequency rate of the exported audio files. It is recommended to export sound files at the rate at which they were originally created. For reference, the standard sample rate is <b>48.0 kHz</b> for broadcasting and DVD.</p>
<p>Bit Depth</p>	<p>Sets the precision level of each wavelength in the sound file. The standard bit depth is <b>16 bit</b>. Setting this to <b>8 bit</b> will cut the size of audio files in half, but will significantly impact sound quality.</p>

	 <b>NOTE</b> On Windows, audio can only be exported in 16 bit unless QuickTime Player is installed.
Channels	Allows you to select whether to export sound in <b>Mono</b> or <b>Stereo</b> . Stereo sound uses a separate track for the left and right speakers, which allows to simulate a realistic sound environment. Mono uses a single track for both speakers, which saves disk space.
Burn-In Tab	
Print Time Code	Prints the project timecode on the video as an overlay on your video.
Print Scene Names and Panel Numbers	Prints the scene names and panel numbers as an overlay on your video.
Print Additional Duration	Prints another time code counting the time for the current panel, scene or sequence, depending on what is selected in the <b>Repeat</b> drop-down.
Units	Displays additional duration information using Time Code or Frames units.
Repeat	Displays additional duration information per panel, scene or sequence.
Camera Grid Tab	
Title Safe Area	Prints the Title Safe Area over the picture. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be placed within this area.   <b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.
Action Safe Area	Prints the Action Safe Area over the picture. By default, this area is 10% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Characters and action should be placed within this area.






	<div style="border: 1px solid green; padding: 10px; background-color: #e0f2f1;">  <p><b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
4:3 Safety	Prints the title safe area and the action safe area for the 4:3 camera frame over the exported image. They can be used to position elements in projects that are meant to be displayed in both widescreen and 4:3 proportions.
4:3 Reference	Prints the 4:3 camera frame over the exported image. This frame corresponds to the camera frame if the aspect ratio of the picture was 4:3. It can be used to position elements in projects that are meant to be displayed in both widescreen and 4:3 proportions.
Scene Options Tab	
Custom Write Node Parameters	<p>When enabled, you can use the options below to set the parameters of the Write node for the exported Harmony scenes, so that you won't have to configure the Write node for each exported scene individually in Harmony.</p> <p>If this option is disabled, the Write node in the exported Storyboard Pro scenes will have the following default options:</p> <ul style="list-style-type: none"> <li>• <b>Drawing Folder:</b> frames</li> <li>• <b>Drawing Filename:</b> final-</li> <li>• <b>Drawing Type:</b> TGA</li> </ul>
Image Render Path	<p>The path to the folder in which to save the rendered frames. This path can be absolute or relative to the scene's folder. For example, the default path for rendered frames is <b>frames</b>, which means the images are saved in the <b>frames</b> subfolder of the scene folder. If you want to select an absolute path, you can click on the Browse 📁 button at the right of the text field and select the folder in which your scenes should export their frames.</p> <p>You can type a simple path, so that every exported scene has the same image render path, or you can define a different image render path for each scene by typing in a pattern using the following variables:</p> <ul style="list-style-type: none"> <li>• <b>%t</b> - Project title</li> <li>• <b>%a</b> - Act number</li> <li>• <b>%q</b> - Sequence number</li> <li>• <b>%s</b> - Scene number</li> </ul>

Image Filename	<p>The prefix for the file name of each exported frame. Frames will be named with this value, followed by the frame number and their image type extension. It is recommended to leave the hyphen (-) at the end of the prefix to separate the prefix from the frame number.</p> <p>You can type a simple prefix, so that it is the same for all the exported scenes, or you can define a different prefix for each scene by typing in a pattern using the following variables:</p> <ul style="list-style-type: none"> <li>• %t - Project title</li> <li>• %a - Act number</li> <li>• %q - Sequence number</li> <li>• %s - Scene number</li> </ul>																					
Image Format	<p>The image format in which the exported frames will be saved. Storyboard Pro can export in the following formats:</p> <table border="1" data-bbox="592 819 1429 1900"> <thead> <tr> <th>Format</th> <th>Specification</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>TGA</td> <td>Full colour</td> <td rowspan="4"> <b>Truevision TGA/TARGA (*.tga)</b>            A standard image format with lossless compression and support for transparency. TGA files use more disk space than PNG files, but rendering in TGA is faster.         </td> </tr> <tr> <td>TGA1</td> <td>Greyscale</td> </tr> <tr> <td>TGA3</td> <td>Full colour</td> </tr> <tr> <td>TGA4</td> <td>Full colour with transparency</td> </tr> <tr> <td>SGI</td> <td>Full colour / 8 bits per channel</td> <td rowspan="4"> <b>Silicon Graphics Image (*.sgi)</b>            A highly capable format with lossless compression as well as support for double precision and transparency.         </td> </tr> <tr> <td>SGI1</td> <td>Greyscale / 8 bits per channel</td> </tr> <tr> <td>SGI3</td> <td>Full colour / 8 bits per channel</td> </tr> <tr> <td>SGI4</td> <td>Full colour with</td> </tr> </tbody> </table>	Format	Specification	Description	TGA	Full colour	<b>Truevision TGA/TARGA (*.tga)</b> A standard image format with lossless compression and support for transparency. TGA files use more disk space than PNG files, but rendering in TGA is faster.	TGA1	Greyscale	TGA3	Full colour	TGA4	Full colour with transparency	SGI	Full colour / 8 bits per channel	<b>Silicon Graphics Image (*.sgi)</b> A highly capable format with lossless compression as well as support for double precision and transparency.	SGI1	Greyscale / 8 bits per channel	SGI3	Full colour / 8 bits per channel	SGI4	Full colour with
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Format	Specification	Description
	transparency / 8 bits per channel	
SGIDP	Full colour / 16 bits per channel	
SGIDP3	Full colour / 16 bits per channel	
SGIDP4	Full colour with transparency / 16 bits per channel	
PSD	Full colour / 8 bits per channel	<p data-bbox="980 1161 1305 1188"><b>Photoshop Document (*.psd)</b></p> <p data-bbox="980 1213 1378 1270">An Adobe Photoshop proprietary format used for image editing.</p> <p data-bbox="980 1295 1386 1381">PSD files exported by Harmony contain a single background layer with the rasterized image.</p> <div data-bbox="980 1411 1395 1707" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;"> <p data-bbox="1008 1438 1068 1503"></p> <p data-bbox="1089 1444 1162 1472"><b>NOTE</b></p> <p data-bbox="1089 1493 1357 1675">PSD files exported from Storyboard Pro are tagged with their colour space information in their metadata, except for PSD files exported in greyscale.</p> </div>
PSD1	Greyscale / 8 bits per channel	
PSD3	Full colour / 8 bits per channel	
PSD4	Full colour with transparency / 8 bits per channel	
PSDDP	Full colour / 16 bits per channel	
PSDDP1	Greyscale / 16 bits per channel	


Format	Specification	Description
PSDDP3	Full colour / 16 bits per channel	
PSDDP4	Full colour with transparency / 16 bits per channel	
YUV		<p><b>Y'UV frame (*.yuv)</b></p> <p>A legacy format optimized for NTSC television. The image information is encoded in the Y'UV color space, which means Luma (Y') and Chrominance (UV).</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> YUV images must be exported in NTSC resolution (720 x 540), or they will not be legible.</p> </div>
PAL		<p><b>PAL frame (*.pal)</b></p> <p>A legacy format optimized for PAL television.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> PAL images must be exported in PAL resolution (768 x 576), or they will not be legible.</p> </div>
SCAN		<p><b>Toon Boom Scan Files (*.scan)</b></p> <p>A Toon Boom proprietary format used by Scan to store scanned image information along with its registration (peg), resolution and field chart metadata. SCAN files are in gresyscale.</p>




Format	Specification	Description
PNG	Full colour / 8 bits per channel	<p><b>Portable Network Graphics (*.png)</b></p> <p>A highly portable image format with high lossless compression as well as support for transparency and double-precision. PNG is typically used for Web applications, graphical user interfaces and image sharing.</p> <p>Rendering in PNG takes more time than rendering in TGA or in uncompressed image formats, but saves a lot of disk space.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> PNG files exported from Storyboard Pro are tagged with their colour space information in their metadata.</p> </div>
PNG4	Full colour with transparency / 8 bits per channel	
PNGDP	Full colour / 16 bits per channel	
PNGDP3	Full colour / 16 bits per channel	
PNGDP4	Full colour with transparency / 16 bits per channel	
JPG		
BMP	Full colour	<p><b>Bitmap (*.bmp)</b></p> <p>A standard uncompressed image format commonly used on Microsoft operating systems.</p>
BMP4	Full colour with transparency	



Format	Specification	Description
OPT	Full colour	<b>Toon Boom Optimized image (*.opt)</b> A legacy Toon Boom proprietary format that stores bitmap image data with lossless compression. It supports transparency.
OPT1	Greyscale	
OPT3	Full colour	
OPT4	Full colour with transparency	
VAR		<b>Toon Boom Variable Header image (*.var)</b> A legacy Toon Boom proprietary format that stores greyscale bitmap image data with lossless compression.
TIF		<b>Tagged Image File Format (*.tiff)</b> An image format with many compression and encoding settings. It is often used for image exchange in visual arts and publishing. TIFF images exported by Harmony are uncompressed, encoded on a per-pixel (interleaved) basis in PC byte order.
DPX	8 bits per channel / Full color / RGB channel order	<b>Digital Picture Exchange (*.dpx)</b> A professional photo format that supports various different approaches to storing colour information, which can be used for storing, exchanging and editing raw information recorded by cameras. It is commonly used in film production.
DPX3_8	8 bits per channel / Full color / RGB channel order	
DPX3_10	10 bits per channel / Full color / RGB channel	

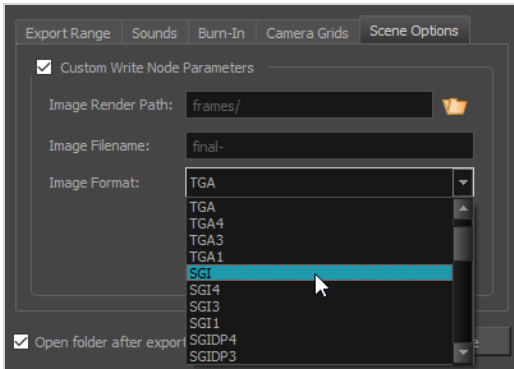
Format	Specification	Description
	order	
DPX3_12	12 bits per channel / Full color / RGB channel order	
DPX3_16	16 bits per channel / Full color / RGB channel order	
DPX3_10_ INVERTED_ CHANNELS	10 bits per channel / Full color / BGR channel order	
DPX3_12_ INVERTED_ CHANNELS	12 bits per channel / Full color / BGR channel order	
DPX3_16_ INVERTED_ CHANNELS	16 bits per channel / Full color / BGR channel order	
EXR	16 lines Zip compression	<p><b>OpenEXR (*.exr)</b></p> <p>A highly capable deep image format. Each pixel in an EXR file is exported with its Z-depth information. Additionally, if a pixel is semi-transparent, the color and depth information of pixels further back is stored along with it. If your scene has multiplane or 3D elements, this format can be used for compositing your animation with other graphical elements in 3D animation software.</p>

Format	Specification	Description
		<div style="border: 1px solid green; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• OpenEXR files exported from Storyboard Pro are tagged with the white point and primaries coordinates for their colour space.</li> <li>• OpenEXR files are always exported by Storyboard Pro always have 1 line Zip compression if they contain a 3D image.</li> </ul> </div>
EXR_ZIP_1LINE	1 line Zip compression	
PDF		<p><b>Portable Document File (*.pdf)</b></p> <p>Typically, PDF files are used to store, archive, share and print documents. However, Harmony uses the PDF format for its capability to store bitmap images and vector graphics.</p> <p>If the write node is connected to a vector drawing layer or to a vector composite, the exported PDF files will contain the image as a vector graphic. It will ignore bitmap layers, effects and deformations. Otherwise, the PDF files will contain the rendered image as a bitmap.</p>
DTEX		<p><b>Deep Texture (*.dtx)</b></p> <p>A commonly used deep image format. Each pixel in an DTEX file is exported with its Z-depth information. Additionally, if a pixel is semi-transparent, the color and depth information of pixels further back is stored along with it. If your scene has multiplane or 3D elements, this format can be used for compositing your animation with other graphical elements in 3D animation software.</p>

	<table border="1"> <thead> <tr> <th data-bbox="594 191 768 279">Format</th> <th data-bbox="768 191 953 279">Specification</th> <th data-bbox="953 191 1429 279">Description</th> </tr> </thead> <tbody> <tr> <td data-bbox="594 279 768 846"></td> <td data-bbox="768 279 953 846"></td> <td data-bbox="953 279 1429 846"> <div data-bbox="984 310 1398 814" style="border: 1px solid green; padding: 10px;">  <p><b>NOTE</b> Exporting in Deep Texture requires RenderMan to be installed on the machine and the path to RenderMan properly configured in Harmony. For more information, see the <i>Setting 3D Renderer Paths</i> topic of the User Guide. For more information, see the <i>Setting 3D Renderer Paths</i> topic of the Harmony User Guide.</p> </div> </td> </tr> </tbody> </table>	Format	Specification	Description			<div data-bbox="984 310 1398 814" style="border: 1px solid green; padding: 10px;">  <p><b>NOTE</b> Exporting in Deep Texture requires RenderMan to be installed on the machine and the path to RenderMan properly configured in Harmony. For more information, see the <i>Setting 3D Renderer Paths</i> topic of the User Guide. For more information, see the <i>Setting 3D Renderer Paths</i> topic of the Harmony User Guide.</p> </div>
Format	Specification	Description					
		<div data-bbox="984 310 1398 814" style="border: 1px solid green; padding: 10px;">  <p><b>NOTE</b> Exporting in Deep Texture requires RenderMan to be installed on the machine and the path to RenderMan properly configured in Harmony. For more information, see the <i>Setting 3D Renderer Paths</i> topic of the User Guide. For more information, see the <i>Setting 3D Renderer Paths</i> topic of the Harmony User Guide.</p> </div>					
<p>Open folder after export</p>	<p>Opens the folder in which files were exported in a file browser once the export is done.</p>						

## Write Node Image Formats for Harmony

When exporting Harmony scenes from your Storyboard Pro project, you can choose to customize the parameters of the Write node which will create the rendered frames of your scenes. One of the most complex parameters for a scene's Write node is the Image Format, as it has a very extensive set of options.



Most available formats are named after their file extension, but some also contain suffixes indicating how they're encoded. For example, while PNG is exported with three colour channels—red, green and blue—and encoded at 8 bits per channel by default, PNG4DP is a variant of PNG with *four* channels—red, green, blue and *alpha* (transparency)—as well as *double precision*, which means each colour channel is encoded in 16 bits instead of 8 bits.



Here is a list of all the image formats supported for rendering with Write nodes in Harmony


Format	Specification	Description
TGA	Full colour	<b>Truevision TGA/TARGA (*.tga)</b> A standard image format with lossless compression and support for transparency. TGA files use more disk space than PNG files, but rendering in TGA is faster.
TGA1	Greyscale	
TGA3	Full colour	
TGA4	Full colour with transparency	
SGI	Full colour / 8 bits per channel	<b>Silicon Graphics Image (*.sgi)</b> A highly capable format with lossless compression as well as support for double precision and transparency.
SGI1	Greyscale / 8 bits per channel	

Format	Specification	Description
SGI3	Full colour / 8 bits per channel	
SGI4	Full colour with transparency / 8 bits per channel	
SGIDP	Full colour / 16 bits per channel	
SGIDP3	Full colour / 16 bits per channel	
SGIDP4	Full colour with transparency / 16 bits per channel	
PSD	Full colour / 8 bits per channel	
PSD1	Greyscale / 8 bits per channel	<p><b>Photoshop Document (*.psd)</b></p> <p>An Adobe Photoshop proprietary format used for image editing.</p> <p>PSD files exported by Harmony contain a single background layer with the rasterized image.</p>
PSD3	Full colour / 8 bits per channel	
PSD4	Full colour with transparency / 8 bits per channel	

**NOTE**

PSD files exported from Storyboard Pro are tagged with their colour space information in their metadata, except for PSD files exported in greyscale.



Format	Specification	Description
PSDDP	Full colour / 16 bits per channel	
PSDDP1	Greyscale / 16 bits per channel	
PSDDP3	Full colour / 16 bits per channel	
PSDDP4	Full colour with transparency / 16 bits per channel	
YUV		<p><b>Y'UV frame (*.yuv)</b></p> <p>A legacy format optimized for NTSC television. The image information is encoded in the Y'UV color space, which means Luma (Y') and Chrominance (UV).</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> YUV images must be exported in NTSC resolution (720 x 540), or they will not be legible.</p> </div>
PAL		<p><b>PAL frame (*.pal)</b></p> <p>A legacy format optimized for PAL television.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> PAL images must be exported in PAL resolution (768 x 576), or they will not be legible.</p> </div>
SCAN		<p><b>Toon Boom Scan Files (*.scan)</b></p> <p>A Toon Boom proprietary format used by Scan to store scanned image information along with its registration (peg), resolution and field chart metadata. SCAN files are in greyscale.</p>

Format	Specification	Description
PNG	Full colour / 8 bits per channel	<p><b>Portable Network Graphics (*.png)</b></p> <p>A highly portable image format with high lossless compression as well as support for transparency and double-precision. PNG is typically used for Web applications, graphical user interfaces and image sharing.</p> <p>Rendering in PNG takes more time than rendering in TGA or in uncompressed image formats, but saves a lot of disk space.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> PNG files exported from Storyboard Pro are tagged with their colour space information in their metadata.</p> </div>
PNG4	Full colour with transparency / 8 bits per channel	
PNGDP	Full colour / 16 bits per channel	
PNGDP3	Full colour / 16 bits per channel	
PNGDP4	Full colour with transparency / 16 bits per channel	
JPG		
BMP	Full colour	<p><b>Bitmap (*.bmp)</b></p> <p>A standard uncompressed image format commonly used on Microsoft operating systems.</p>
BMP4	Full colour with transparency	



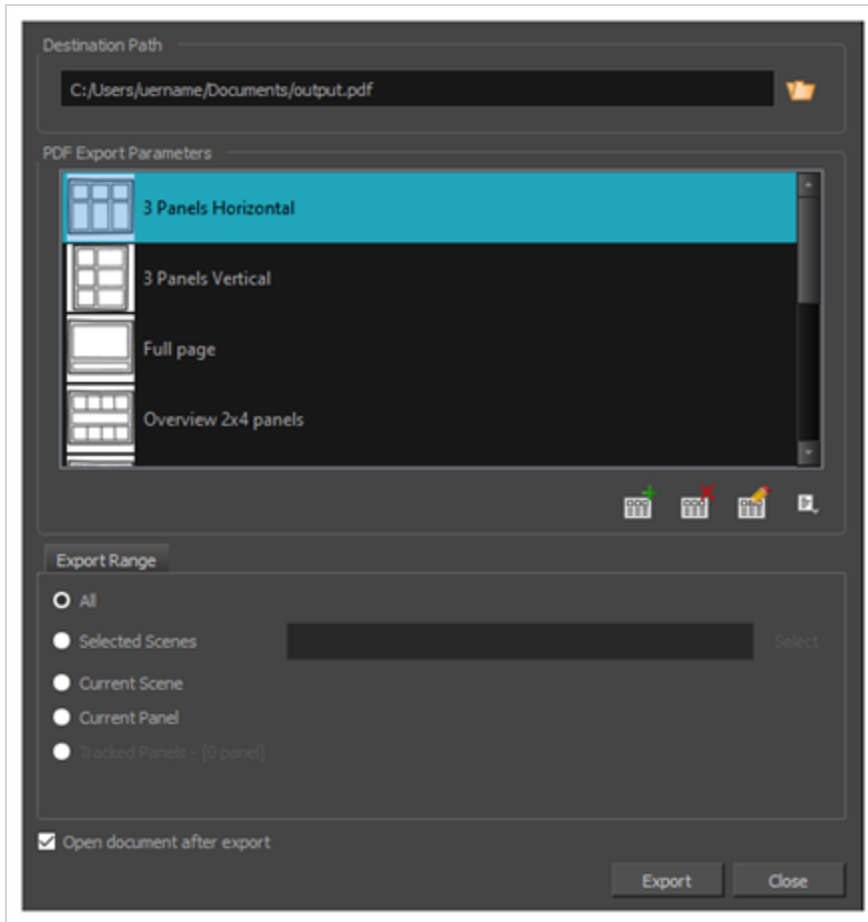
Format	Specification	Description
OPT	Full colour	<p><b>Toon Boom Optimized image (*.opt)</b></p> <p>A legacy Toon Boom proprietary format that stores bitmap image data with lossless compression. It supports transparency.</p>
OPT1	Greyscale	
OPT3	Full colour	
OPT4	Full colour with transparency	
VAR		<p><b>Toon Boom Variable Header image (*.var)</b></p> <p>A legacy Toon Boom proprietary format that stores greyscale bitmap image data with lossless compression.</p>
TIF		<p><b>Tagged Image File Format (*.tiff)</b></p> <p>An image format with many compression and encoding settings. It is often used for image exchange in visual arts and publishing.</p> <p>TIFF images exported by Harmony are uncompressed, encoded on a per-pixel (interleaved) basis in PC byte order.</p>
DPX	8 bits per channel / Full color / RGB channel order	<p><b>Digital Picture Exchange (*.dpx)</b></p> <p>A professional photo format that supports various different approaches to storing colour information, which can be used for storing, exchanging and editing raw information recorded by cameras. It is commonly used in film production.</p>
DPX3_8	8 bits per channel / Full color / RGB channel order	
DPX3_10	10 bits per channel / Full color / RGB channel order	
DPX3_12	12 bits per	

Format	Specification	Description
	channel / Full color / RGB channel order	
DPX3_16	16 bits per channel / Full color / RGB channel order	
DPX3_10_ INVERTED_ CHANNELS	10 bits per channel / Full color / BGR channel order	
DPX3_12_ INVERTED_ CHANNELS	12 bits per channel / Full color / BGR channel order	
DPX3_16_ INVERTED_ CHANNELS	16 bits per channel / Full color / BGR channel order	
EXR	16 lines Zip compression	<p><b>OpenEXR (*.exr)</b></p> <p>A highly capable deep image format. Each pixel in an EXR file is exported with its Z-depth information. Additionally, if a pixel is semi-transparent, the color and depth information of pixels further back is stored along with it. If your scene has multiplane or 3D elements, this format can be used for compositing your animation with other graphical elements in 3D animation software.</p>

Format	Specification	Description
		<div data-bbox="581 285 1430 579" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• OpenEXR files exported from Storyboard Pro are tagged with the white point and primaries coordinates for their colour space.</li> <li>• OpenEXR files are always exported by Storyboard Pro always have 1 line Zip compression if they contain a 3D image.</li> </ul> </div>
EXR_ZIP_1LINE	1 line Zip compression	
PDF	<p><b>Portable Document File (*.pdf)</b></p> <p>Typically, PDF files are used to store, archive, share and print documents. However, Harmony uses the PDF format for its capability to store bitmap images and vector graphics.</p> <p>If the write node is connected to a vector drawing layer or to a vector composite, the exported PDF files will contain the image as a vector graphic. It will ignore bitmap layers, effects and deformations. Otherwise, the PDF files will contain the rendered image as a bitmap.</p>	
DTEX	<p><b>Deep Texture (*.dtex)</b></p> <p>A commonly used deep image format. Each pixel in an DTEX file is exported with its Z-depth information. Additionally, if a pixel is semi-transparent, the color and depth information of pixels further back is stored along with it. If your scene has multiplane or 3D elements, this format can be used for compositing your animation with other graphical elements in 3D animation software.</p> <div data-bbox="581 1272 1430 1545" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>Exporting in Deep Texture requires RenderMan to be installed on the machine and the path to RenderMan properly configured in Harmony. For more information, see the <i>Setting 3D Renderer Paths</i> topic of the User Guide. For more information, see the <i>Setting 3D Renderer Paths</i> topic of the Harmony User Guide.</p> </div>	

## Export to PDF Window

The Export to PDF window lets you export a storyboard project as a PDF file or share electronically.



### How to access the Export to PDF window

1. Select **Export > PDF**.

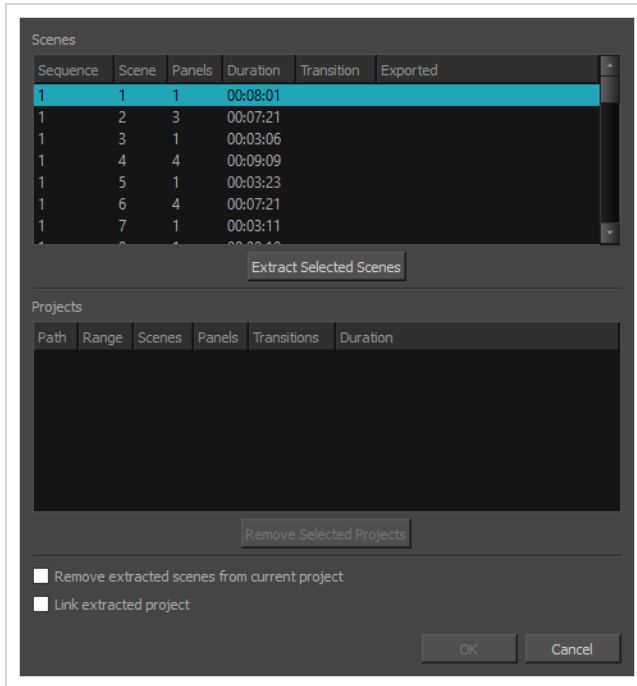
Parameter	Description
Destination Path	Lets you specify the name and location of the PDF file you are creating.
PDF Export Parameters	
3 Panels Horizontal	This is a classic layout of a printed storyboard. It consists of three panels per page, including captions, in an horizontal arrangement.
3 Panels Vertical	This is a classic layout of a printed storyboard. It consists of three panels per

	page, including captions, in a vertical arrangement.
Full Page	This layout consists of one large panel per page, including captions.
Overview 2x4 Panels	This layout consists of a total of eight panels per page, organized on two rows of four, with captions in the middle.
Overview 4x3 Panels	This layout consists of a total of 12 panels per page, organized in three rows of four. No caption is included.
Overview 8x10	This layout consists of a total of 80 panels per page, organized in ten rows of four. No caption is included.
Vertical Japanese Format	This layout consists of a total of 5 panels per page, aligned on the left side of the page. Captions are organized on the right side of each panel. This export also includes a cut and a duration column, and displays the duration of each scene at the beginning of every new one.
Legacy Japanese Format	This layout consists of a total of five panels by page, aligned on the left side of the page. Captions and duration are aligned in two consecutive rows on the right side. Note that your PDF reader and system may require an additional font package in order to display the PDF file properly.
Alternate Vertical Layout	This layout consists of a total of 5 panels per page, aligned on the left side of the page. This export includes vertical columns for the dialog, action, slugline, notes, and time (duration) column which is displayed near the end of each scene (optionally). The scene name appears near the top of the first panel of a scene. The caption titles appear at the top and do not repeat at each panel. The total duration appears at the bottom of the page.
New Profile	Creates a completely new layout.
Delete Profile	Deletes the selected layout from the list.
Edit Profile	Lets you edit the selected layout from the list.
Profile Options	<p>This menu contains the following profile options: create (New), Delete, Edit, Duplicate, Export and Import. The Delete, Edit and Duplicate options affect the currently selected profile in the PDF Export Parameters list.</p> <p>Selecting Export Profile opens a dialog box that allows you to select which profiles from the PDF Export Parameters list that you wish to export.</p>

	Selecting Import Profile opens a browser window that allows you to search for and select the profile you wish to import.
Export Range	
All	Exports the entire storyboard.
Selected Scenes	<p>Select this option to export a specific selection of scenes. Then, click on the <b>Select</b> button to open the Scenes Picker dialog box, in which you can:</p> <ul style="list-style-type: none"> <li>• Type the number of a sequence or of a scene in the <b>Sequence</b> or <b>Scene</b> fields in the <b>Filter</b> section, to only show matching sequences or matching scenes in the list.</li> <li>• Click and drag to select a range of scenes.</li> <li>• Hold the Ctrl key and click on each scene you want to add to your selection.</li> <li>• Hold the Shift key, then click on the first scene and the last scene you want to add to your selection, to select every scene between those two scenes inclusively.</li> <li>• If your project has sequences, click on a sequence to select every scene in that sequence.</li> </ul>
Current Scene	Exports only the currently selected scene.
Current Panel	Exports only the currently selected panel.
Tracked Panels - [0 panel]	Exports panels on which tracking changes is enabled.
Open document after export	Opens the PDF file after export.

## Extract Storyboard Dialog Box


The Extract Storyboard Dialog Box lets you divide a storyboard into several parts. Each export portion of the storyboard will be saved as a different file. You can choose to save an intact copy of the entire storyboard or divide the project into separate files.



### IMPORTANT


If you want to keep the extracted scenes in the original project, and later import the changes made to the extracted projects back into the original project using the Merge and Replace dialog, it is highly recommended to lock your project's scene and panel numbers before splitting your project. To do this, in the top menu, select **Storyboard > Lock Scene and Panel Names**.

### How to access the Extract Storyboard dialog box

- Do one of the following:
  - In the top menu, select **File > Project Management > Extract**.
  - In the Project Management view, click on  Menu and select **Extract**—see [Project Management View](#).

The Extract Storyboard dialog box appears.

Parameter	Description
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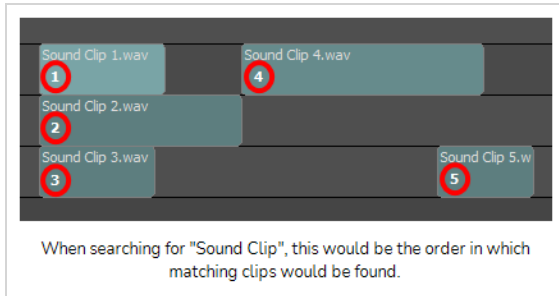
Scenes	The list of scenes in your project. You can select one or several scenes in this list, and decide to save the selected scenes into their own project.
Extract Selected Scenes	<p>Prompts you to select the location and project name in which to save the scenes that are selected in the Scenes list. Once you are done, a new item containing the range of scenes that you selected will be added to the Projects list below.</p> <div data-bbox="422 449 1429 623" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> This adds a project to extract to the list of projects, but the projects are not actually extracted until you click the <b>OK</b> button.</p> </div>
Projects	Displays the list of projects which you have chosen to extract. This list will contain a new item every time you select scenes in the Scenes list, then choose a location and name for them with the Extract Selected Scenes button.
Remove Selected Projects	Removes the project that is currently selected in the Projects list from the list. Use this button if you made a mistake in the scenes and projects you want to extract and need to try again.
Remove extracted scenes from current project	Removes the extracted scenes from the project. If you want to keep the entire storyboard project intact as a master project, uncheck this option.
Link extracted project	Adds each extracted project to the project list in the Project Management view, so that you can easily track and merge changes to the extracted projects back into the current project—see <a href="#">Project Management View on page 541</a> .



## Find Sound Clips Dialog Box

The Find Sound Clips dialog box allows you to search through your project's audio tracks for its sound clips. You can search using the full name or part of the name of a sound clip, including its extension. You can iterate through the sound clips that match your search string, or simultaneously select all matching sound clips.

When iterating through matching sound clips, it cycles through audio tracks vertically, from top to bottom, then from left to right. For example, if three matching sound clips are cued at the same time and a fourth one is cued much later, it will go through the matching sound clips that are cued at the same time first, from the top one to the bottom one, then to the clip cued later.

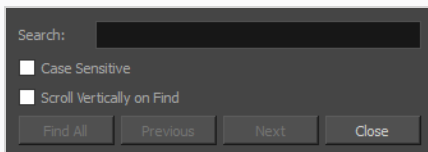


### How to access the Find Sound Clips dialog box



1. Do one of the following:

- In the top menu, select **Clips > Find Sound Clips**.
- Right-click anywhere in one of your project's audio tracks, then select **Find Sound Clips**.

The Find Sound Clips dialog box appears.

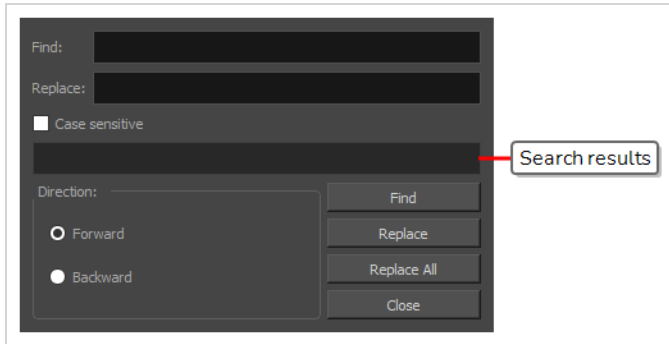


Parameter	Description
Search	The search string to use for finding sound clips. Clips will match if part or all of their clip name matches the search string.
Case Sensitive	If checked, sound clips will only match the search string if their name is in the same case as the search string. For example, the search strings "sound clip" or "SOUND CLIP" would only match a clip named "Sound Clip.wav" if the Case Sensitive option is unchecked. If it is checked, only the search string "Sound Clip" would match with that clip name.


Parameter	Description
Scroll Vertically on Find	<p>By default, when clicking on the Previous or Next button, the Timeline view will only scroll horizontally to the position of the sound clip it finds. If this option is selected, the Timeline view will also scroll vertically to display the matching sound clip.</p> <p>If your project has a lot of audio tracks and the Timeline view in your workspace hasn't been expanded to display them all at the same time, you might need to scroll up or down to find a matching sound clip, since the matching sound clip might be in an audio track that is not currently visible.</p>
Find All	Simultaneously select all the sound clips that match the search criteria, without moving the timeline playhead or scrolling the Timeline view.
Previous	<p>Search for a matching sound clip before the starting search position. If a sound clip is found, the Timeline view will scroll to the sound clip, it will become selected, and the timeline playhead will be moved to the beginning of the sound clip.</p> <div data-bbox="358 865 1430 1035" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b> If no sound clip is selected, it will start searching from the position of the timeline playhead. If a sound clip is selected, it will start searching from the position of that sound clip.</p> </div>
Next	<p>Search for a matching sound clip after the starting search position. If a sound clip is found, the Timeline view will scroll to the sound clip, it will become selected, and the timeline playhead will be moved to the beginning of the sound clip.</p> <div data-bbox="358 1226 1430 1396" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b> If no sound clip is selected, it will start searching from the position of the timeline playhead. If a sound clip is selected, it will start searching from the position of that sound clip.</p> </div>
Close	Close the dialog box.

## Find Text in Captions Dialog

The Find Text in Captions dialog allows you to search for a specific string of text in all of the captions in your project. This includes the Script field in the Storyboard view and the caption fields in the Panel view, for all the panels in your storyboard. You can also use it to replace instances of a string of text with a different string.



### How to access the Find Text in Captions dialog

1. In the Panel or Storyboard view, select the caption field where you want to start searching.
2. Do one of the following:
  - Right above the selected caption field, click on the  Menu button and select **Find Text in Captions**.
  - In the top menu, select **Caption > Find Text in Captions**.
  - Press **Ctrl + Shift + F** (Windows) or **⌘ + Shift + F** (macOS).

The Find Text in Captions dialog box appears.

Parameter	Description
Find	The string of text to search.
Replace	To string of text to replace the original string with. You do not need to type anything in this field if you only want to search for text without replacing it.
Case sensitive	<p>If enabled, the Find Text in Captions dialog will only find instances of the string in the Find field that match both its text content and its case.</p> <p>For example, if the <b>Case sensitive</b> option is not checked, the search string "My Storyboard" will match against "my storyboard", "MY STORYBOARD" and "My Storyboard". If it is checked, the search string "My Storyboard" will only match against "My Storyboard", where every letter being in the same case.</p>

Search results	Displays information about the results of the last search performed.
Direction	Allows you to decide in which direction to search for the text string: <ul style="list-style-type: none"><li>• <b>Forward:</b> Searches from the current position of the text cursor to the end of the selected caption field, then searches in the next caption fields in the current panel, and then in the ensuing panels.</li><li>• <b>Backward:</b> Searches from the current position of the text cursor to the beginning of the caption field, and then searches in the previous caption fields in the current panel, and then in previous panels.</li></ul>
Find	Locates the next instance of the word or phrase in the <b>Find</b> field in your project, starting from the current position of the text cursor.  The panel in which the word is found will be selected. The caption field containing the word will scroll down to the location of the word, and the word itself will be highlighted.
Replace	If an instance of the string in the <b>Find</b> field is highlighted, this replaces this instance with the string in the <b>Replace</b> field, then finds the next instance of the string in the <b>Find</b> field and highlights it.  If no instance of the word in the <b>Find</b> field is highlighted, this button simply locates the next instance of the string in the <b>Find</b> field and highlights it, without replacing it, so that you can decide whether or not you want the next instance replaced. To replace the instance it finds, click <b>Replace</b> again.
Replace All	Replaces all instances of the string in the <b>Find</b> field with the string in the <b>Replace</b> field, in all the caption fields for your entire project.

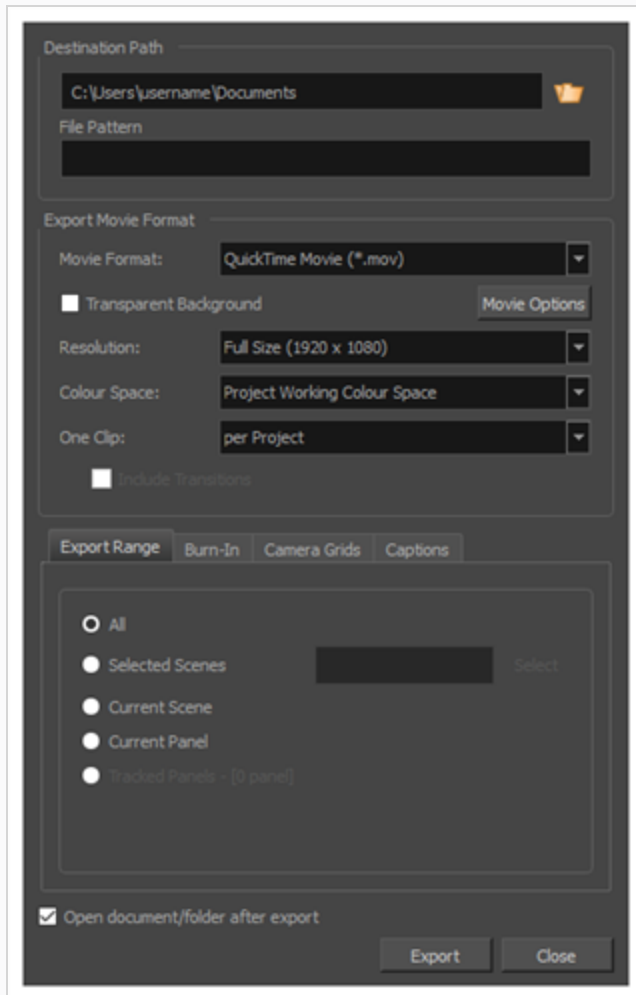
## Flash Export Settings Dialog Box

The Flash Export Settings dialog box lets you compress and set the video quality of the movie you are exporting.

### How to access the Flash Export Settings dialog box

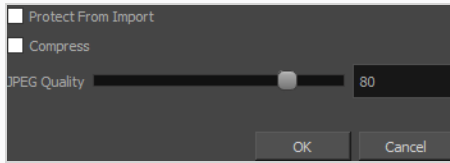
1. Select **File > Export > Movie**.

The Export to Movie window opens.



2. In the Movie Format drop-down, select **Flash (\*.swf)**.
3. Click **Options**.

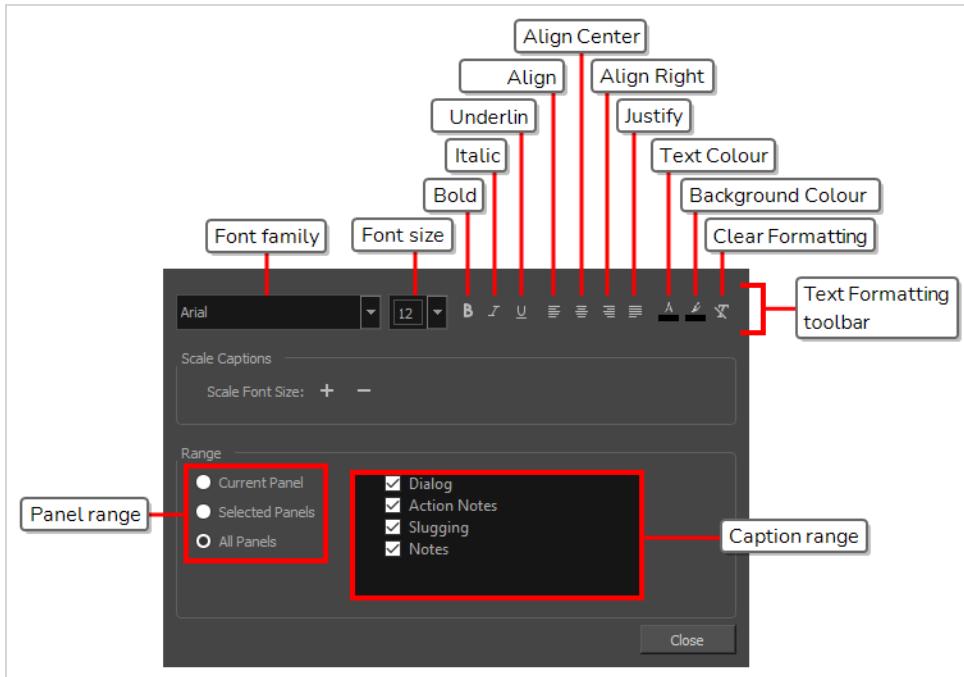
The Flash Export Settings dialog box opens.



Parameter	Description
Protect from Import	Protects the movie from being imported into another application and have its assets extracted.
Compress	Applies standard lossless compression to the exported Flash file, to make it use less disk space.
JPEG Quality	Allows you to set the JPEG compression quality of bitmap images in the exported Flash file. All bitmap images in a Flash movie are encoded in JPEG format to save space. Increasing this setting will increase the quality of bitmap images in the exported movie, and decreasing this setting will make it use less disk space.

## Format Captions Dialog Box

The Format Captions dialog box allows you to make changes to the formatting of all the captions in your project. Optionally, you can use it to change the formatting of all the captions in one, or several specific panels.



The Format Captions dialog is comprised of:

- A Text Formatting toolbar that is very similar to the one used for making changes to the local formatting of captions, except that this toolbar instantly changes the formatting of all the captions in your project or in the specified range, except of to the selected text.



### NOTE

For the regular Text Formatting toolbar that only changes the formatting of the selected text, see [Text Formatting Toolbar on page 334](#).

- A Scale Captions section, for increasing or decreasing the size of the text in the specified range proportionally to their current size.
- A Range section, for selecting which range of panels and which caption fields to make changes to.



### IMPORTANT

Any changes made to the format of captions in your project using this dialog will take effect immediately on all the captions in all of the panels specified in the **Range** section of this dialog, and will override any local formatting.

**NOTE**










The Format Captions dialog only changes the formatting of panel captions in the Panel view. It does not change the formatting of the text in the Script field of the Storyboard view.

## How to access the Format Captions dialog

1. In the top menu, select Captions > Format Captions.

Icon	Parameter	Description
--	Text Formatting Toolbar	Entering anything in the fields or clicking on any of the buttons in this toolbar will instantly change the formatting of all the captions in the range specified in the <b>Range</b> section, and will override their local formatting.
--	Font Family	Allows you to change the font for all the text in the captions in the specified range.
--	Font Size	Allows you to change the font size for all the text in the captions in the specified range.
	Bold	Instantly makes all the text in the captions in the specified range <b>bold</b> . If all the text in the specified range is already bold, this will make the text not bold instead.
	Italic	Instantly makes all the text in the captions in the specified range <i>italic</i> . If all the text in the specified range is already bold, this will make the text not italic instead.
	Underline	Instantly makes all the text in the captions in the specified range <u>underlined</u> . If all the text in the specified rang is already underlined, this will remove the underline instead.
	Align Left	Instantly makes all the text in the captions in the specified range aligned to the left.
	Align Center	Instantly makes all the text in the captions in the specified range aligned to the centre.
	Align Right	Instantly makes all the text in the captions in the specified range aligned to the right.

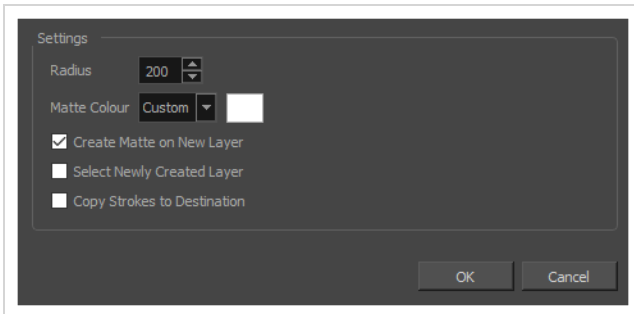


Icon	Parameter	Description
	Justify	Instantly makes all the text in the captions in the specified range justified. This makes the spacing between words automatically adjust to make each line of text occupy all the available horizontal space, except for the last line of each paragraph.
	Text Colour	Opens the Select Colour dialog box, from which you can select a new colour for the text in the specified range.
	Background Colour	Opens the Select Colour dialog box, from which you can select a background colour for the text in the specified range. <div data-bbox="483 667 1429 840" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;">  <b>NOTE</b>  The background colour is applied around the text, <b>like this</b>, and does not cover the entire caption field. </div>
	Clear Formatting	Removes all font, font size, bold, italic, underline, text colour and background colour formatting from the text in the specified range. <div data-bbox="483 993 1429 1144" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;">  <b>NOTE</b>  The  Clear Formatting button does not affect text alignment. </div>
--	Scale Captions	This section allows you to increase or decrease the size of the text in the project's captions proportionally to their current size. Hence, you can adjust the size of the text without overriding the local font size formatting across your project's captions.
	Scale up point size	Proportionally increases the font size of all the text in the captions in the specified range.
	Scale down point size	Proportionally decreases the font size of all the text in the captions in the specified range.
--	Range	This section allows you to specify the range of captions fields to reformat.
--	Panel range	Allows you to select the range of panels for which captions should be reformatted: <ul style="list-style-type: none"> <li>• <b>Current Panel:</b> Only change the formatting of the captions in the current panel.</li> <li>• <b>Selected Panels:</b> Only change the formatting of the captions in the panels that are currently selected in the Thumbnails or Timeline view.</li> </ul>

Icon	Parameter	Description
		<ul style="list-style-type: none"> <li>• <b>All Panels:</b> Change the formatting of the captions in all the panels in the project. By default, All Panels is checked. If you want to preserve the formatting in certain panels in your project, select the appropriate panel range before making any change to the formatting in your captions.</li> </ul>
--	Caption range	<p>Allows you to select which caption fields to reformat. The text in the captions corresponding to all the checked caption fields will be reformatted, provided that they're in a panel in the specified panel range.</p> <p>By default, this list contains the following items.</p> <ul style="list-style-type: none"> <li>• Dialog</li> <li>• Action Notes</li> <li>• Scrubbing</li> <li>• Notes</li> </ul> <p>The items in this list correspond to the caption fields in your project, which can be customized. By default, all the items in this list are checked. If you want to preserve the formatting in a specific type of caption, simply uncheck it before making any change to the formatting in your captions.</p>
--	Close	Closes the dialog.

## Generate Auto-Matte Dialog Box


The Generate Auto-Matte dialog box enables you to quickly fill in sketch objects, hiding anything that is behind the object.



### How to access the Generate Auto-Matte dialog box

1. Do one of the following:

- In the top menu, select **Layer > Generate Auto-Matte**.
- In the layer panel, right-click on a layer and select **Generate Auto-Matte**.

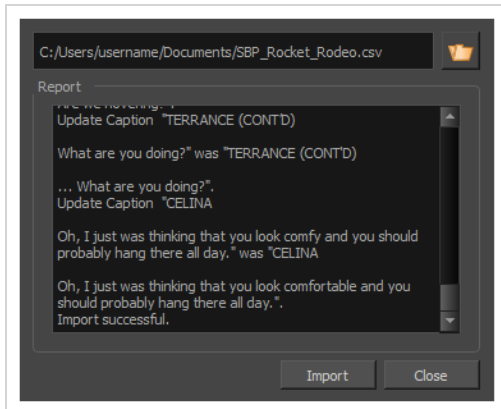
Parameter	Description
Radius	The radius used to analyze the drawing to generate its matte. The default value is 200 and its value can range between 1 and 9999. A lower setting will create a more precise matte but may make the generation slow and the resulting matte too detailed for its purpose. A higher setting will make a more approximate matte.
Matte Colour	The colour to fill the matte with. By default, this is set to Current, which is the currently selected colour in the Colour view. You can select Custom in the drop-down, then click on the colour swatch to select a different colour.
Create Matte on New Layer	<p>If checked, a new layer will be created under the source layer and the matte will be stored in that layer. The new layer will have the name of the source layer followed by <b>_Matte</b>. If unchecked, the matte will simply be added to the source drawing in its source layer, behind the existing artwork.</p> <div style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>When creating a matte on a new layer, all of the source layer's properties (ie: alignment, export options, opacity) as well as its transformations and animations are copied onto the new layer.</p> </div>

Select Newly Created Layer	If checked, the newly created layer will be selected. This option is grayed out if "Create Matte on New Layer" is not enabled.
Copy Strokes to Destination	If checked, the contours of the source drawing will be copied onto the matte, as invisible strokes. This separates the matte into different sections that you can fill with different colours, based on the outlines of the drawing.

## Import CSV Dialog

The Import CSV allows you to import a Comma Separated Values (.csv) file that has been exported by Storyboard Pro. It will take the content of the caption fields for each of your panels from the CSV file and transfer it to their respective caption fields in your project.

This allows you to export your project's captions into a CSV file, edit your captions in a spreadsheet editor, then import the updated captions into your project.



### IMPORTANT

In order to be able to import a CSV file using this dialog, the CSV file must have been exported by Storyboard Pro using the Export CSV dialog box, and must include the following items:

- Column Names
- Sequence Names (if your project contains sequences)
- Scene Names
- Panel Names
- Captions

Additionally, if the captions were not exported with the **Include Rich Text Formatting** option, their text formatting will be discarded when you import the CSV file.


For more information, see [Export CSV Dialog on page 40](#).

### How to access the Import CSV window

1. In the top menu, select **File > Update Captions from CSV**.

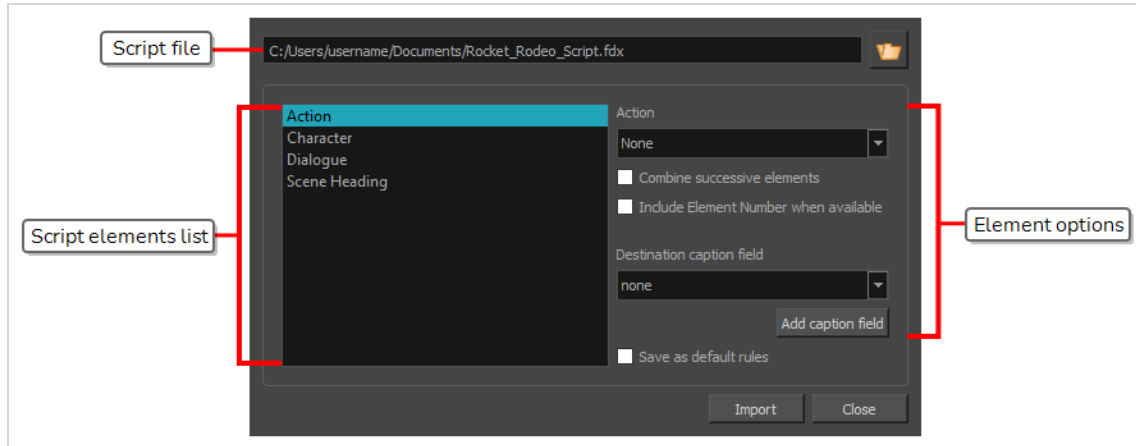
The Import CSV dialog appears.

Parameter	Description

File	<p>The path to the CSV file to import.</p> <p>You can click on the  Browse button to open the Select CSV File dialog, which allows you to navigate your file system and locate the CSV file.</p>
Report	<p>When you click <b>Import</b>, this will display information about each caption in your project that was updated.</p>
Import	<p>Imports the selected CSV file, and checks the content of each caption in the CSV file with their corresponding caption in your project. If any caption in the CSV file is different, its content is copied to the corresponding caption in your project.</p>
Close	<p>Closes the dialog.</p>

## Import from Final Draft Dialog Box

The Import from Final Draft dialog box allows you to import a Final Draft script and generate a new Storyboard Pro project with it, with empty scenes and panels automatically generated based on your script's structures, and the script's action notes and dialogues automatically copied to their respective panel's caption fields.



For example, you can import a Final Draft script and, among other things:

- Create a new scene in your project for each Scene Heading element in your script.
- Create a new panel in your project for each Action element in your script, and copy the action into that panel's Action Notes caption.
- Create a new panel in your project for each combination of Character and Dialogue elements or for each combination of Character and Parenthetical elements in your script, and copy the character's name and their dialogue or parenthetical into the panel's Dialog caption.
- Create a new transition in your project for each Transition element in your script.
- Create a new act in your project for each New Act element in your script.

How each type of element in your script translates into a structuring element or caption in your Storyboard Pro project is entirely configurable.



### NOTE

For more information on how to create a new project with a Final Draft script, refer to the User Guide.



### How to access the Import from Final Draft dialog box

1. In the top menu, select **File > New from Final Draft Script**.


The Import from Final Draft dialog box appears.



**NOTE**

You cannot access this dialog box from the Welcome screen. Therefore, you must either open an existing project or create a new project before you can access this dialog box from the top menu.

Parameter	Description
Script file	<p>The path to the Final Draft script you are importing.</p> <p>You can click on the  Browse button on the right to open a dialog box that will allow you to browse for and select your script.</p>
Script elements list	<p>The list of all element types included in your Final Draft script. These may include Action, Character, Dialogue, Scene Heading, Shot, Transition, End of Act, New Act, General, and any other type of element, including custom elements.</p> <p>You can select an element in this list, then configure what Storyboard Pro will do with each instance of this type of element it finds in your script in the Element Options section of this dialog.</p>
<b>Element Options</b>	
Action	<p>What to do each time an element of the selected type is found in your script.</p> <p>When you import a Final Draft script as a new Storyboard Pro project, Storyboard Pro goes through your script from top to bottom and, for every element in your script, it performs the action you selected for that element type, so as to create the structure of your project.</p> <p>For example, you can select <b>Scene Heading</b> in the Elements list, then select <b>New Scene</b> in the action drop-down, so that Storyboard Pro generates a new scene in your Storyboard Pro project for each Scene Heading element it finds in your script.</p> <ul style="list-style-type: none"> <li>• <b>None:</b> Does not create anything in your project for this type of element.</li> </ul> <div data-bbox="453 1478 1429 1682" style="border: 1px solid green; padding: 10px; margin: 10px 0;"> <p> <b>NOTE</b></p> <p>Even if an element is not configured to perform any action, its text can still be stored in captions. If you select a caption in the <b>Destination caption field</b> drop-down, its text will be stored in that caption field, but for the last panel that was generated.</p> </div> <ul style="list-style-type: none"> <li>• <b>New Act:</b> Creates a new act in your project whenever an instance of this element is encountered in your script. The act is named after the text content of this element.</li> </ul> <p>Typically, this action should be selected for New Act elements.</p> <ul style="list-style-type: none"> <li>• <b>New Sequence:</b> Creates a new sequence in your project whenever an instance of this</li> </ul>



Parameter	Description
	<p>element is encountered in your script.</p> <ul style="list-style-type: none"> <li>• <b>New Scene:</b> Creates a new scene in your project whenever an instance of this element is encountered in your script. Typically, you should select this action for Scene Heading elements.</li> <li>• <b>New Panel:</b> Creates a new panel in your project, whenever an instance of this element is encountered in your script. Typically, this action should be selected for Action elements, as well as Character elements, as they are usually used to signify that a character is about to speak.</li> <li>• <b>New Transition:</b> Creates a new transition in your project whenever an instance of this element is encountered in your script. Typically, this action should be selected to Transition elements.</li> </ul> <div data-bbox="451 808 1429 945" style="border: 1px solid green; padding: 5px; margin: 10px 0;">  <p><b>NOTE</b> A transition is always followed by a new scene in Storyboard Pro.</p> </div> <ul style="list-style-type: none"> <li>• <b>New Scene Prefix:</b> Sets the prefix to add to the name of every ensuing scene. The name of every scene created after this element will start with the text in this element, followed by its scene number</li> </ul>
Combine successive elements	<p>If this option is enabled for the selected element type, when Storyboard Pro finds several consecutive elements of this type in your script, it will only perform the selected action in the <b>Action</b> drop-down for the first of these consecutive elements.</p> <p>For example, if you configure Action elements to generate new panels, by default, a new panel will be generated for every Action element in your script. However, if you also enable this option for Action elements, then consecutive Action elements will only generate a single panel, and their text content will be added to the same caption field, separated by paragraph breaks.</p>
Include Element Number when available	<p>In Final Draft, it is possible to number scenes, or any type of element for that matter. If this option is enabled for an element type that is numbered in your Final Draft script, Storyboard Pro will add that element's number before the element's text when importing it into a caption field.</p> <p>For example, if your Character elements are numbered in your script, you set each Character element to be imported into your project's Dialogue caption fields, and you enable this option for Character elements, each character name that is added to a panel's Dialogue caption field will be preceded by its character number.</p>
Destination caption field	<p>The caption field in which to import the element's text.</p> <p>For example, it is typical to import Character, Dialogue and Parenthetical elements into the Dialog captions, and the Action elements into the Action Notes captions.</p>

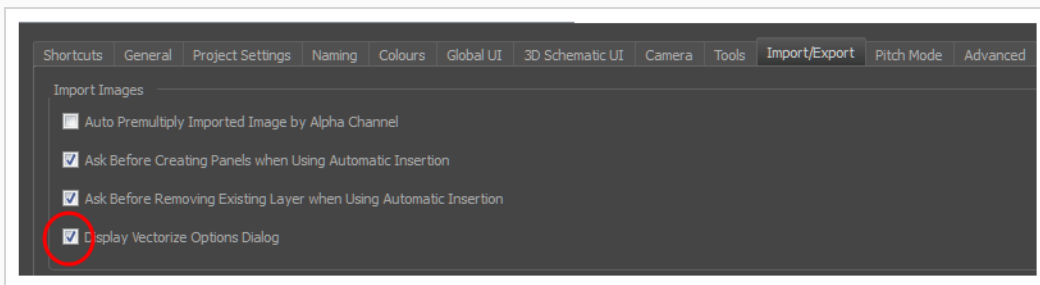
Parameter	Description
	<div data-bbox="375 285 1430 684" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• If the selected element is configured to create a new panel, then its text will be stored in the captions for that new panel. Likewise, if the selected element is configured to create a new scene, sequence or act, its text will be stored in the captions for the first panel in the scene, sequence or act. Otherwise, it will be stored in the captions for the last generated panel.</li> <li>• If several consecutive elements are set to be imported into the same caption field, their text will be added to that same caption field in the order in which they appear in the script, separated by paragraph breaks.</li> </ul> </div>
Add caption field	<p>Allows you to instantly create a caption field for your project, so that you can import specific script elements into caption fields that are not created by default.</p> <p>For example, Storyboard Pro has four default caption fields: Dialog, Action Notes, Slugging and Notes. You could choose to store Scene Heading elements into the Notes caption of their respective panel, or you may want to store Scene Heading elements into a caption field of their own, which you could name "Scene Heading" or "Setting". This button allows you to create such custom caption fields for your project on the fly.</p> <p>To create a new caption field, simply click on this button and, in the dialog that appears, type the name of the new caption and click <b>OK</b>.</p> <div data-bbox="375 1125 1430 1293" style="border: 1px solid #bbdefb; padding: 10px;">  <p><b>TIP</b></p> <p>If you accidentally created a caption field that you don't want to use, you can leave it in for now and delete it from your project later.</p> </div>
Save as default rules	<p>If this option is checked, when you click on Import, the current configuration will be saved, and will be reloaded next time you attempt to create a project from a Final Draft script.</p>
Import	<p>Imports the Final Draft script, then opens the New Project dialog. In this dialog, you can set the name, location and resolution of your new project. Once you confirm the information for the new project, Storyboard Pro will generate a new project using your Final Draft script. It will create scenes, panels and, depending on the settings you chose, sequences and acts based on the structure of your script, and will copy snippets of your script into each panel's captions, as you configured it to do.</p>
Close	<p>Dismisses the dialog and returns to the currently open project.</p>

## Import Images Dialog Box

The Import Images dialog box lets you import an image into your project as layers or scenes. The imported image will be vectorized in colour and fit the camera frame.

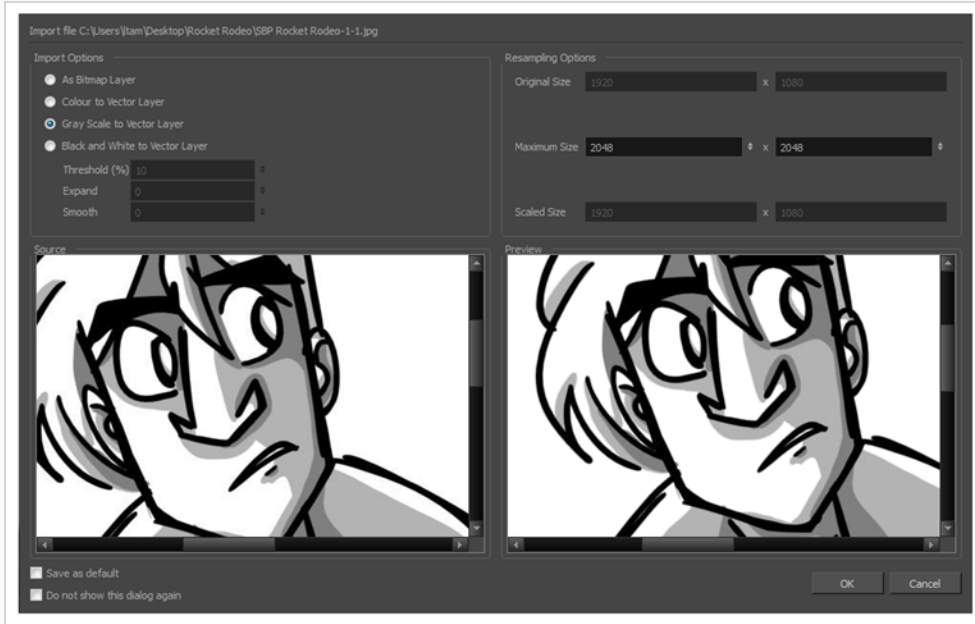
### How to access the Import Images dialog box

1. Do one of the following to open the Preferences dialog:
  - **Windows:**
    - In the top menu, select **Edit > Preferences**.
    - Press **Ctrl + U**.
  - **macOS:**
    - In the top menu, select **Storyboard Pro 20 > Preferences**.
    - Press **⌘ + U**.
2. In the User Preferences dialog box, select the **Import/Export** tab.
3. Select the **Display Vectorize Options Dialog** option.



4. Select **File > Import > Images as Layers**.
5. In the browser that opens, select an image to import.

The Import Images dialog box opens.



The preview area displays the original image on the left and the resulting image on the right. The preview of the resulting image automatically updates each time you modify a parameter.

Parameter	Description
Import Options	
As Bitmap Layer	Preserves the exact look of the imported images and imports it in a bitmap layer.
Colour to Vector Layer	Preserves the exact look of the imported images and imports it in a vector layer.
Gray Scale to Vector Layer	Imports the selected images as a gray scale in a vector layer.

Black and White to Vector Layer	Imports the images as black line art.
	<b>Threshold (%):</b> Filters out noise in your images. Noise can be dirt or faint smudges on your scanned images. For example, if your value is set to 70%, all colour values below 70% are converted to white and ignored in the final image. If your value is set to 100%, only completely black lines will be kept.
	<b>Expand:</b> Enter a value between 1 and 100 to thicken lines or the outer edges of the bitmap. Use this option if your line art is too fine or pale so that their visibility is increased in the software.
	<b>Smooth:</b> Enter a value between 1 and 5 to set the smoothness level. Greater smoothness equals less jaggedness and imperfections, but at a greater loss to detail.
Resampling Options	
Original Size	The original dimensions of the imported image.
Maximum Size	Enter a specific maximum size for your imported image to be scaled down to. The original ratio of the image will be preserved during the operation. You can see the final values resulting from the scaling process in the Scale Size fields. Note that you can not use these fields to scale up an image.
Scaled Size	Displays the final size the image will be scaled after it is imported in your project.
Source	Displays the source image you imported.
Preview	Displays a preview of the image when adjusting its parameters.
Save as default	Saves the current settings. Every time you open this dialog box, the new default parameters will automatically be set. The import images commands will still use this new default even if you deselect the Display Vectorize Options Dialog preferences.
Do not show this dialog again	Deselects the Display Vectorize Options dialog option in the Preferences dialog box directly from here.

## Conformation Import Project Dialog Box

The Import Project dialog allows you to import a sequence which you exported for conformation, edited in a third party video editing software and re-exported for import in Storyboard Pro. You can import a sequence in Final Cut Pro XML Interchange Format (.xml), or in Advanced Autoring Format (.aaf).

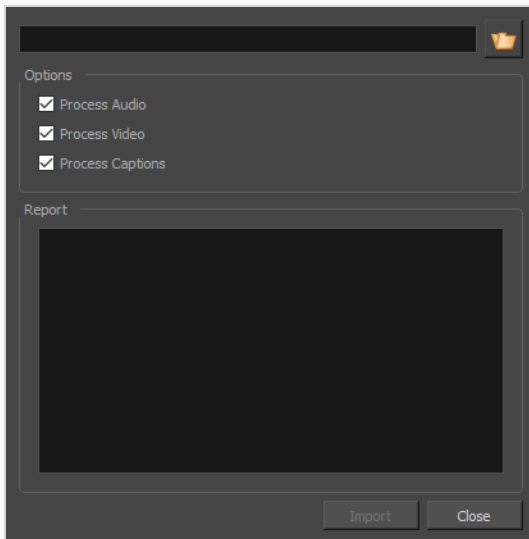


### NOTES



- Refer to your video editing software's documentation to learn how to export the animatic project in XML or AAF format.
- It is recommended to only import a sequence which was originally exported from the same project via Storyboard Pro. If you import a video editing sequence that was not originally exported from your project, the panels in your sequence will be imported as bitmap images.

### How to access the Import Project window

1. In your original storyboard project, select **File > Conformation > Import Animatic Project**.



Parameter	Description
Sequence	You can click on the Browse 📁 button next to the Sequence field to browse for and select the AAF or XML sequence which you exported from your video editing software.
Options	
Process Audio	Changes to audio tracks, new audio tracks, deleted audio tracks, as well as

Parameter	Description
	<p>changes to sound clips, their in and out points, their volume envelope, deleted sound clips and new sound clips in the imported sequence will be conformed into your Storyboard Pro project. Uncheck this option if you do not wish to make any changes to your project's audio tracks and sound clips.</p>
Process Video	<p>Changes to panels such as their cue time, their length, their order, deleted panels, new panels, transitions, camera movements and, in the case of XML sequences, layers and layer animations in the imported sequence will be conformed into your Storyboard Pro project. Uncheck this option if you do not wish to make any changes to your project's storyboard and animatic, but only to the audio tracks or captions.</p> <div data-bbox="565 720 1429 919" style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;">  <b>TIP</b>            You can import audio tracks composed from scratch in a video editing software by exporting them into an XML or AAF sequence, then importing the sequence via this dialog, with the Process Video option unchecked.         </div>
Process Captions	<p>Changes to the panel captions in the imported sequence will be conformed into your Storyboard Pro project.</p> <div data-bbox="565 1077 1429 1276" style="border: 1px solid #90ee90; padding: 10px; margin-top: 10px;">  <b>NOTE</b>            If you exported your captions without Rich Text Formatting, and made changes to them, they will lose their formatting when the changed captions are imported into your project.         </div>
Report	<p>When you click on the <b>Import</b> button, this will display information about each step of the conformation process, as well as any error it encounters in the process, if any.</p>
Import	<p>Once you have selected the XML or AAF sequence and the options you want, click on the Import button to import the sequence and apply to changes that were made to it to your Storyboard Pro project.</p>
Close	<p>Dismiss this dialog box.</p>

## Import Sound Clips Dialog Box

The Import Sound Clips dialog box lets you import sound clips.

You can import sound clips (.wav, .aif, .aiff, or .mp3) into an audio track at the first frame or at the current frame. If the sound clip does not already exist in your project, Storyboard Pro copies the file from its present location to the audio folder in your storyboard project folder. You must work in the Timeline view.



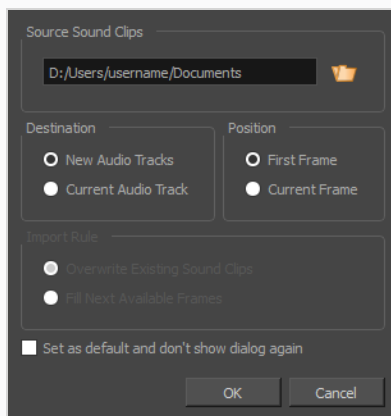
### IMPORTANT

It is not recommended to work .mp3 files as it is a compressed format. Long .mp3 files may not properly sync with the action in your project.

### How to access the Import Sound Clips dialog box



1. In the Timeline view, select the audio track in which you want to import sound clips.
2. Do one of the following:
  - In the top menu, select **File > Import > Sound Clip**.
  - Right-click on the audio track in which you want to import sound clips, then select **Import Sound Clips**.
  - Right-click on the empty space below the tracks in the Timeline view, then select **Import Sound Clips**.

The Import Sound Clips dialog box opens.



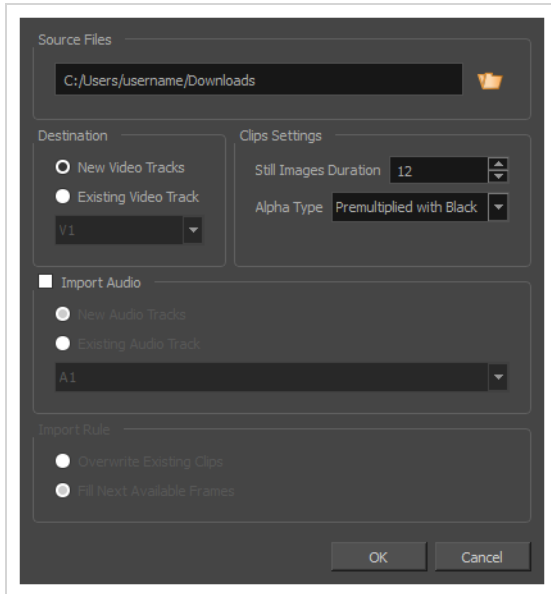
Parameter	Description
Source Sound Clips	Allows you to browse for and select the sound files to import as sound clips.



Destination	Determines in which audio track the sound clips are added.
New Audio Tracks	Adds the imported sound clips onto their own new audio tracks.
Current Audio Track	<p>Adds the imported sound clips to the currently selected audio track.</p> <div style="border: 1px solid green; padding: 5px;">  <b>NOTE</b>  This option is unavailable if no audio track is selected. </div>
Position	Determines at which frame in the timeline the new clips are added.
First Frame	Adds the imported sound clips at the first frame of the project.
Current Frame	Adds the imported sound clips just after the timeline cursor.
Import Rule	<p>When importing in an existing audio track, this decides what happens if the clips are imported where sound clips are already present.</p> <div style="border: 1px solid green; padding: 5px;">  <b>NOTE</b>  These options are unavailable if no audio track is selected. </div>
Overwrite Existing Sound Clip	If there are existing sound clips where the imported clips are supposed to be added, the existing clips will be overwritten.
Fill Next Available Frames	If there are existing sound clips where the new clips are supposed to be added, the clips will be trimmed just before the existing clips.
Set as default and don't show dialog again	If this option is enabled, the next time you want to import sound clips, Storyboard Pro will prompt you to browse for the sound files to import, and use the currently selected options without displaying this dialog.

## Import Videos/Images as Clips Dialog Box

The Import Videos/Images as Clips dialog allows you to import still images or movie files into video tracks in your projects. Video tracks are independent from your animatic. They can be put above the storyboard track to display video and image clips over the elements in the storyboard, or underneath the storyboard track to display its clips behind the storyboard.



Movie files can be imported as video clips to be played in your projects. Still images can be imported as static video clip which can be made to last any amount of time.


You can import any image file supported by Storyboard Pro as a video clip. You can also import movie files in QuickTime Movie (.mov) or MPEG-4 (.mp4, .m4v) format which are encoded with the H.264. On Windows only, you can also import Windows Media Video (\*.wmv) files, and on macOS only, you can also import QuickTime Movie (.mov) files encoded in Apple ProRes.



### How to access the Import Sound Clips dialog box



1. Do one of the following:

- In the top menu, select **File > Import > Videos/Images as Clips**.
- Right-click on the video track in which you want to import clips, then select **Import Videos/Images as Clips**.
- Right-click on the empty space above or below the tracks in the Timeline view, then select **Import Videos/Images as Clips**.

The Import Video Clips dialog box opens.

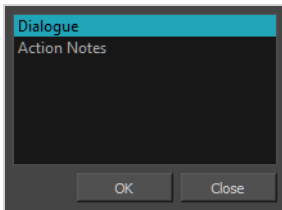
Parameter	Description
Source Files	Allows you to browse for and select the image or movie files to import as clips.
Destination	Allows you to select the video track in which to import the clips.
New Video Tracks	<p>Creates a new video track and imports the clip in this new track.</p> <p>If you are importing several clips, a video track will be created for each clip. Each clip will be placed into its own video track and cued at the same time.</p> <div data-bbox="565 615 1429 850" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b></p> <p>If you choose to import your movie's audio streams into the same audio track, the audio clips will have to be cued one after the other. Hence, the video clips will also be cued one after the other despite being imported into different video tracks.</p> </div>
Existing Video Track	<p>Allows you to select, using the drop-down below, a video track in which to import the clips.</p> <p>If you are importing several clips, the imported clips will be added to the same video track, one after the other.</p>
Clip Settings	
Still Images Duration	<p>If you are importing still images, clips will be created from these images by displaying the static image for a certain amount of frames. This allows you to set the length, in frames, of the image clips that will be imported in your project.</p> <p>For example, if you want to import image clips that last 1 second each, and the frame rate of your project is 24 frames per second, set this option to <b>24</b>.</p> <p>This option is ignored when importing movie files, as they have their own length.</p>
Alpha Type	<p>If you are movie files with transparency, this allows you to select the transparency mode of your clips, so that they are rendered properly.</p> <p>The transparency mode is how the colour values in semi-transparent pixels have been encoded relative to their alpha value. Selecting the right alpha type for your video clip will ensure that it is properly blended with the other visual elements in your animatic.</p> <ul style="list-style-type: none"> <li>• <b>Ignore Alpha:</b> Display every pixel in the video clip as opaque, without demultiplying their colour values or blending them with other visual elements in your animatic.</li> </ul>

Parameter	Description
	<ul style="list-style-type: none"> <li>• <b>Premultiplied with Black:</b> The colour values of semi-transparent pixels in the video have been encoded so that the more transparent they are, the closer to black they are. When a video that is premultiplied with black is loaded in a software that does not support transparency, it appears blended with a black background. Select this to make Storyboard Pro reverse this premultiplication so that the video clip blends properly with other visual elements in your animatic.</li> <li>• <b>Premultiplied with White:</b> The colour values of semi-transparent pixels in the video have been encoded so that the more transparent they are, the closer to white they are. When a video that is premultiplied with white is loaded in a software that does not support transparency, it appears blended with a white background. Select this to make Storyboard Pro reverse this premultiplication so that the video clip blends properly with other visual elements in your animatic.</li> <li>• <b>Straight:</b> The colour of semi-transparent pixels in the image is encoded independently from their transparency. When a video clip that is not premultiplied is loaded in a software that does not support transparency, semi-transparent pixels simply appear fully opaque, making its edges appear pixelated.</li> </ul> <div data-bbox="565 1024 1429 1407" style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;"> <p> <b>TIP</b></p> <p>If you are not sure about the alpha type of your movie file, select <b>Straight</b>. Then, once your clips are imported, view them in the Stage view. If the semi-transparent pixels in your movie appear too dark, change the clip's Alpha Type to <b>Premultiplied with Black</b>. If the transparent pixels in your movie appear too light, change the Alpha Type of the clip to <b>Premultiplied with White</b>.</p> <p>You can change the Alpha Type of a video clip by right-clicking on the clip in the Timeline view, then selecting <b>Alpha Type</b> in the context menu.</p> </div> <div data-bbox="565 1438 1429 1606" style="border: 1px solid #90ee90; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>If you are importing image files, this option will be ignored. Image clips are imported using straight alpha.</p> </div>
Import Audio	If checked, Storyboard Pro will import the audio stream of the selected video file as a sound clip and insert it in an audio track in your project.
New Audio Tracks	<p>Creates a new audio track and imports the movie file's audio stream in this new track.</p> <p>If you are importing several movie files, an audio track will be created for each</p>

Parameter	Description
	<p>movie file that contains an audio stream. Each audio stream will be imported as a sound clip into its own audio track and cued at the same time.</p> <div data-bbox="565 380 1430 611" style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>            If you choose to import your video clips into the same video track, the video clips will have to be cued one after the other. Hence, the audio clips for these movie files will also be cued one after the other despite being imported into different audio tracks.         </div>
Existing Audio Track	<p>Allows you to select, using the drop-down below, an audio track in which to import the movie file's audio stream.</p> <p>If you are importing several movie files, the sound clips imported from these movie files will be added to the same audio track, each cued at the same time as the video clip imported from the same movie file.</p>
Import Rule	<p>When importing in an existing video track, this decides what happens if the clips are imported where videos clips are already present.</p> <ul style="list-style-type: none"> <li>• <b>Overwrite Existing Sound Clip:</b> If there are existing video clips where the imported clips are inserted, the existing clips will be overwritten.</li> <li>• <b>Fill Next Available Frames:</b> If there are existing video clips where the new clips are inserted, the clips will be trimmed just before the existing clips.</li> </ul> <div data-bbox="565 1234 1430 1371" style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>            These options are unavailable if no video track is selected.         </div>

## List Picker Dialog Box

The List Picker dialog box lets you select specific captions for export to a PDF document.




### How to access the List Picker dialog box

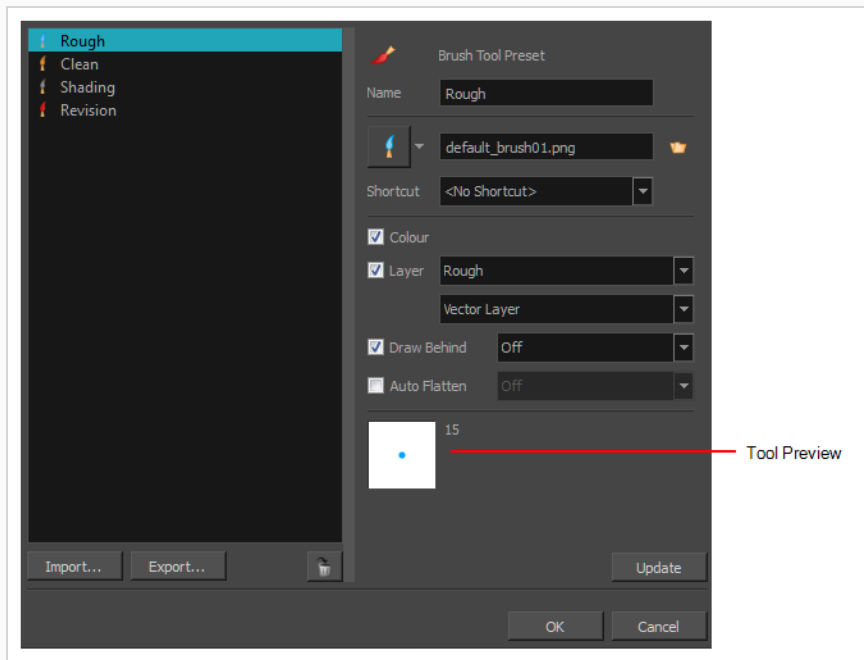
1. In the Panel PDF Options dialog box, make sure the Export All Captions option must be deselected, then click the Browse button in the Caption List field.


## Manage Tool Presets Dialog Box

The Manage Tool Presets dialog box lets you import, export, delete, and update existing tool presets. Any changes you make to the tool presets are reflected in the Tool Presets toolbar.

### How to access the Manage Tool Presets dialog box

1. In the Tool Presets toolbar, click the Manage Tool Presets  button.



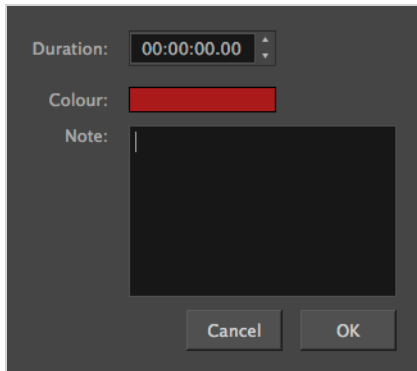
Parameter	Description
List of tool presets	Name of the currently selected tool preset.
Import	Lets you import tool presets that other Storyboard Pro artists created.
Export	Lets you export tool presets to share with other Storyboard Pro artists.
	Deletes the selected tool presets.
Name	Name of the currently selected tool preset.
Icon	Lets you select an icon to associate with the selected tool preset or upload your own.

Shortcut	Lets you set a keyboard shortcut to quickly access your preset. By default, the shortcuts are unassigned. To assign a keyboard shortcut, select <b>Edit &gt; Preferences &gt; Shortcuts &gt; Tool Presets (Windows)</b> or <b>Storyboard Pro 20 &gt; Preferences &gt; Shortcuts &gt; Tool Presets (macOS)</b> .
Colour	Includes the current colour in the new tool preset.
Layer	Lets you select a drawing layer to be used on the current panel when the tool preset is clicked. When selecting the preset, if the assigned layer exists, it will be selected, if not, it will be created. When changing panels, depending on your global navigation setting, it will look for the layer. If it does not exist, the first layer will be selected. Select the <b>Layer</b> option, assign a layer to the tool preset, and decide whether the layer is vector or bitmap.
Draw Behind	When this option is selected, saves the specified Draw Behind option to the tool preset. When deselected, the current Draw Behind status is unchanged when the tool preset is clicked
Auto Flatten	When this option is selected, saves the specified Auto-Flatten state to the tool preset. When deselected, the current Auto-Flatten state is unchanged when the tool preset is clicked
Tool Preview	Displays the size and colour of the tool preset.



## Marker Dialog Box

The Marker dialog box enables you to change the previously-set or default parameters of a marker.



### How to access the Marker dialog box

- Select **Storyboard > Markers > Edit Marker**.

Parameter	Description
Duration	Express the duration of the marker in time code. The default value is 00:00:00.00. This parameter will not appear in the marker's tooltip until the default value is changed.
Colour	Sets the colour of the marker. The default value is red. Once this parameter is changed, every marker added afterwards will have this colour until a new colour is set.
Note	Gives a name to the marker. The note can represent an action, noise, object and so on, that happens at the time marked by the marker. This parameter will not appear in the marker's tooltip unless something is entered in the text field.

## Merge Layers Dialog Box

The Merge Layers dialog box lets you combine selected layers. Using the Merge Layers dialog box gives you more control over the way you are merging layers than the Merge Down and Merge Selected Layers commands. Among other things, you can pick a name for the resulting layer, specify whether it is a vector or bitmap layer, select the source layers, and more.



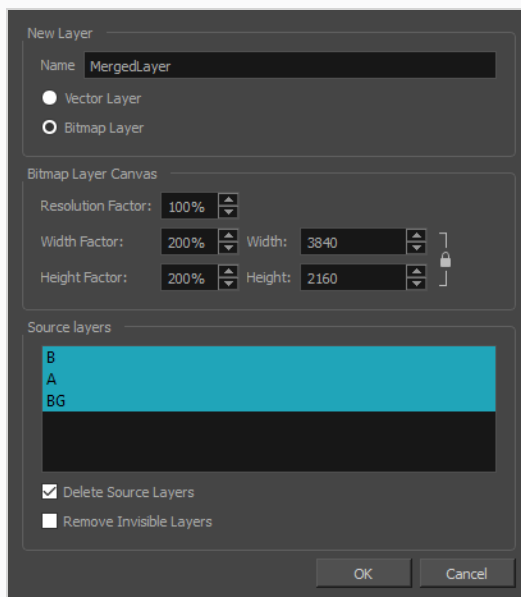
### NOTE

- When merging layers, the animation on all layers being merged is discarded.
- If you quickly merge a bitmap layer with a vector layer, the resulting layer will be a bitmap layer.
- Layers containing a 3D object cannot be merged.
- The artwork in hidden layers is not added to the merged artwork.

### How to access the Merge Layers dialog box

1. Select the layers to merge.
2. Do one of the following:
  - Right-click and select **Merge Layers**.
  - Select **Layer > Merge Layers**.

The Merge Layers dialog box opens.

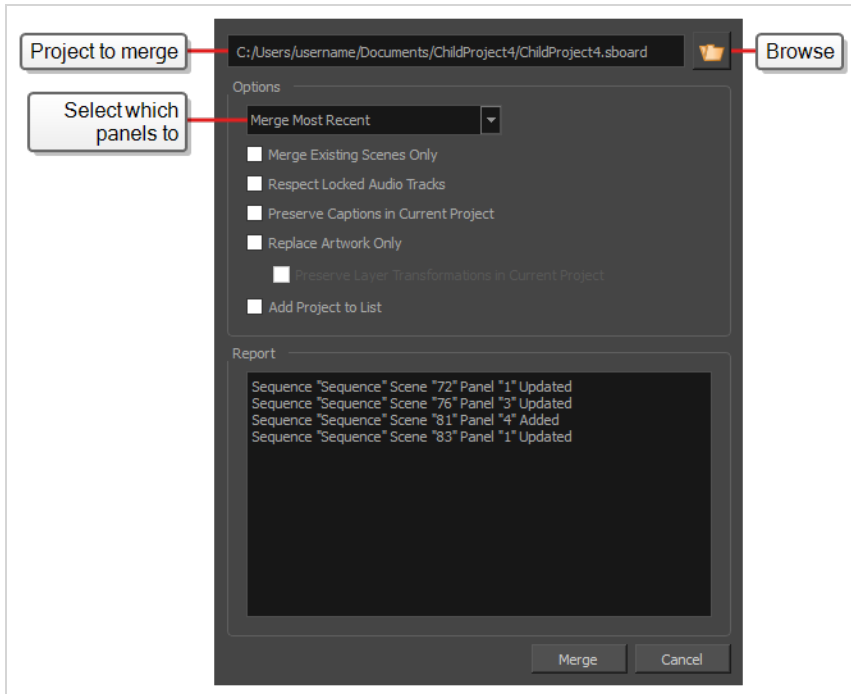


Parameter	Description
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New Layer	
Name	Name of the new layer.
Vector Layer	Makes the merged layer a vector layer. If there are bitmap layers in your selection, they will be converted to vector rectangles with a bitmap texture inside them.
Bitmap Layer	Makes the merged layer a bitmap layer. If there were vector layers in your selection, they will be converted to bitmap.
Bitmap Canvas Size	If your merged layer is bitmap, set the Bitmap Canvas Size parameters.
Resolution Factor	Determines the amount of pixels to store for each pixel that displays on the screen when the drawing is not zoomed in or scaled up. For example, at 100%, zooming in or scaling up a bitmap drawing will make it lose picture quality. If set to 200%, bitmap drawings can be zoomed in or scaled up until they're twice their original size without losing picture quality.
Width Factor and Width	The default width of the canvas when creating a bitmap drawing layer. The percentage is relative to the width of the project. Its default value, 200%, makes the width of the canvas twice the width of the stage.
Height Factor and Height	The default height of the canvas when creating a bitmap drawing layer. The percentage is relative to the height of the project. Its default value, 200%, makes the height of the canvas twice the height of the stage.
Source Layers	
Delete Source Layers	Deletes the source layers.
Remove Invisible Layers	Removes invisible or hidden layers. This option is available only if the Delete Source Layers option is selected. Whether you decide to delete them or not, hidden layers will not be merged, even if selected from the list.

## Merge Modified Panels Dialog Box


The Merge Modified Panels dialog box allows you to instantly merge the changes from a project that was extracted from your current project into that current project.




### How to access the Merge Modified Panels dialog box

- Do one of the following:
  - In the top menu, select **File > Project Management > Merge Modified Panels**.
  - In the Project Management view, click on  Menu and select **Merge Modified Panels**—see [Project Management View](#).

The Merge Modified Panels dialog box appears.


Name	Description
Project to merge	The full path to the project you want to merge into the current project. You can click on the  Browse button right of this field to browse for and select the project in your workstation's file system.
Options	

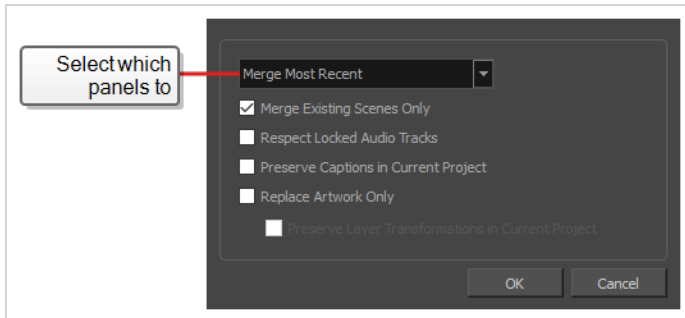
Name	Description
Select which panels to merge	<p>There are two ways to select which panels from the selected project should be merged to the current project:</p> <ul style="list-style-type: none"> <li>• <b>Merge Most Recent:</b> Merges every panel in the selected project that has been modified later than its corresponding panel in the current project. To do this, it checks the date and time of the last modification made on each panel in the selected project. If this date and time is later than that of the last modification date on the corresponding panel in the current project, the panel will be merged.</li> <li>• <b>Merge Tracked Panels:</b> If you have tracked your changes in the selected project, you can select this option to merge every panel in the selected project that is marked as changed.</li> </ul>
Merge Existing Scenes Only	<p>By default, if any scene in the selected project does not exist in the current project, those scenes are added at the end of the current project. You can check this option to prevent this, and only merge new panels in existing scenes as well as changes to existing panels.</p> <p>This option can be useful if you want to merge the changes from a source project into a smaller project that was extracted from it.</p>
Respect Locked Audio Tracks	<p>Ensures that the sound clips in locked audio tracks do not get moved to remain synchronized with their respective panels.</p>
Preserve Captions in Current Project	<p>Do not replace the captions in the current project with captions in the selected project.</p>
Replace Artwork Only	<p>Replaces the artwork in the master project with the artwork in the imported projects, but does not adjust the timing of panels and scenes in the animatic.</p> <div data-bbox="423 1388 1430 1598" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b> Layer transformations and animations in the master project will still be replaced by layer transformations and animations in the imported projects unless the <b>Preserve Layer Transformations in Master Project</b> option is enabled.</p> </div>
Preserve Layer Transformations in Current Project	<p>With the <b>Replace Artwork Only</b> option enabled, layer transformations in the master project are still replaced by the layer transformations and animations in the imported projects by default. With this option enabled, drawings in the master project will be replaced, but not the transformations and animations on their layers.</p>
Add Project to	

Name	Description
List	
Report	
Merge	
Cancel	



## Merge Settings Dialog Box

The Merge Settings dialog box allows you to select the settings that are used to merge modified panels from a linked project into your current project in the Project Management view.

These settings will be automatically used when you select a project in the Project Management view, then click on the  Merge Modified Panels from Selected Project button just above the project list.






### How to access the Merge Settings dialog box

1. Add the Project Management view to your workspace by doing one of the following:
  - In the top-right corner of a view, click on  Add View and select **Project Management**.
  - In the top menu, select **Windows > Project Management**.
2. In the Project Management view, click  Merge Settings.




#### NOTE

If you never opened the Merge Settings dialog before, it will appear the first time you click on the  Merge Modified Panels from Selected Project button.

Once you've confirmed your merge settings, they will be automatically applied the next time you click on  Merge Modified Panels from Selected Project, and the dialog will only appear if you click on  Merge Settings from that point on.

Name	Description
Select which panels to merge	<p>There are two ways to select which panels from the selected project should be merged to the current project:</p> <ul style="list-style-type: none"> <li>• <b>Merge Most Recent:</b> Merges every panel in the selected project that has been modified later than its corresponding panel in the current project.</li> </ul> <p>To do this, it checks the date and time of the last modification made on each panel in the selected project. If this date and time is later than that of the last modification date</p>

Name	Description
	<p>on the corresponding panel in the current project, the panel will be merged.</p> <ul style="list-style-type: none"> <li>• <b>Merge Tracked Panels:</b> If you have tracked your changes in the selected project, you can select this option to merge every panel in the selected project that is marked as changed.</li> </ul>
Merge Existing Scenes Only	<p>By default, if any scene in the selected project does not exist in the current project, those scenes are added at the end of the current project. You can check this option to prevent this, and only merge new panels in existing scenes as well as changes to existing panels.</p> <p>This option can be useful if you want to merge the changes from a source project into a smaller project that was extracted from it.</p>
Respect Locked Audio Tracks	Ensures that the sound clips in locked audio tracks do not get moved to remain synchronized with their respective panels.
Preserve Captions in Current Project	Do not replace the captions in the current project with captions in the selected project.
Replace Artwork Only	<p>Replaces the artwork in the master project with the artwork in the imported projects, but does not adjust the timing of panels and scenes in the animatic.</p> <div data-bbox="425 1138 1430 1346" style="border: 1px solid #c8e6c9; padding: 10px; margin: 10px 0;">  <p><b>NOTE</b></p> <p>Layer transformations and animations in the master project will still be replaced by layer transformations and animations in the imported projects unless the <b>Preserve Layer Transformations in Master Project</b> option is enabled.</p> </div>
Preserve Layer Transformations in Current Project	With the <b>Replace Artwork Only</b> option enabled, layer transformations in the master project are still replaced by the layer transformations and animations in the imported projects by default. With this option enabled, drawings in the master project will be replaced, but not the transformations and animations on their layers.
OK	Confirm the merge settings and close the dialog box.
Cancel	Undo changes to the merge settings and close the dialog box.




## Merge Storyboard Dialog Box

The Merge Storyboard dialog box lets you reassemble a storyboard project that was split or extracted into several files. By merging several projects into one, you can have one final Storyboard Pro project.

### How to access the Merge Storyboard dialog box

1. Do one of the following:

- In the top menu, select **File > Project Management > Merge**.
- In the Project Management view, click on  Menu and select **Merge**—see [Project Management View](#).

The Merge Storyboard window opens.

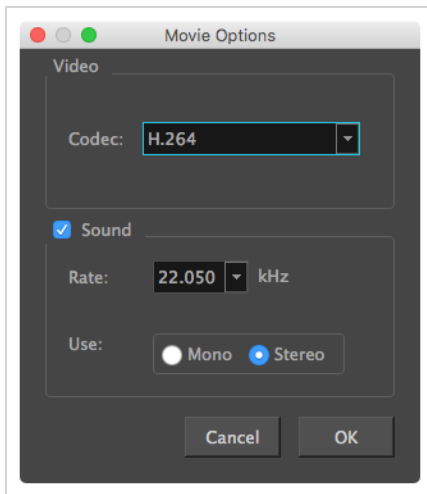
Parameter	Description
List of Storyboard Pro projects	Displays the list of Storyboard Pro projects selected for merging into your current project.
Import Project	Allows you to browse for and select a Storyboard Pro project to add to the list of projects to merge.
Remove Project	Removes the selected project from the list of projects to merge.
Move Up	Moves the selected project up in the list of projects to merge.
Move Down	Moves the selected project down in the list of projects to merge.
Captions list	<p>Allows you to make sure the caption fields in the projects being merged are properly matched with the caption fields in your project. The left column is for the caption fields of your current project. They cannot be modified from this dialog. The other columns are for the caption fields of the projects getting merged.</p> <p>In most cases, the caption fields for the projects being merged will match and Storyboard Pro will automatically align caption fields that have the same name together. In the case of exceptions, you can reorganize the caption fields of the projects being merged, minding that the following behaviours will take place:</p> <ul style="list-style-type: none"> <li>• If a caption field of one of the project being merged is aligned with one of the caption fields in the current project, the values for that merged project's field will be added to the current project's field it is aligned with, for all the scenes that are imported from that merged project, even if these</li> </ul>

	<p>fields don't have the same name.</p> <p>For example, if the current project has a caption field named Action and the project being merged has a caption field named Action Notes, and they are both aligned horizontally, once the projects are merged, the value of the Action Notes caption field for the scenes being imported will be stored in the Action field.</p> <ul style="list-style-type: none"> <li>• If a caption field for the project getting merged is below all the fields in the current project, it will be added as a new field to the current project.</li> <li>• If a caption field for the project getting merged is below all the fields in the current project and is crossed out, it will be ignored.</li> <li>• If a caption field for the project getting merged is aligned with one of the fields of the current project and is crossed out, this field will be empty for all the scenes that are imported from that project.</li> <li>• If a caption field is added to the project but has the same name as an existing caption field, it will have a suffix number.</li> </ul>
Add Caption	If you have removed a caption from one of the projects getting imported, you can select the removed caption and click on this button to add it back.
Remove Caption	Ignores the currently selected caption field for the project it is under. The values for that caption field and project will not be imported in the current project.
Move Up	Moves the selected caption field up in the list of captions, changing which caption field in the original project it is matched with.
Move Down	Moves the selected caption down in the list of captions, changing which caption field in the original project it is matched with.
Force scene numbering	By default, if any scene being merged to the current project has the same name as a scene that is already in the project, it will have a suffix letter added to it. With this option enabled, all scenes in the project will be re-numbered sequentially.
Start scene base name	If the Force scene numbering option is selected, enter a number in this field. The number you enter will be assigned to the first scene in the resulting project.
Use project name as scene's prefix	Scenes that are added to the current project from other projects will have their project name as a suffix, so you can easily identify which projects they came from and to avoid naming conflicts.
Create new audio tracks	Imports the audio tracks from the other projects by adding them as new audio tracks to the current project. If this option is unchecked, the sound clips of other

	<p>projects will be inserted in the current project's existing audio tracks and new audio tracks will only be created if the merged projects have more audio tracks than the current project.</p>
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## Movie Options Dialog Box (macOS)

The Movie Options dialog box allows you to configure the video and audio settings when exporting a movie in QuickTime Movie (.mov) format on macOS.



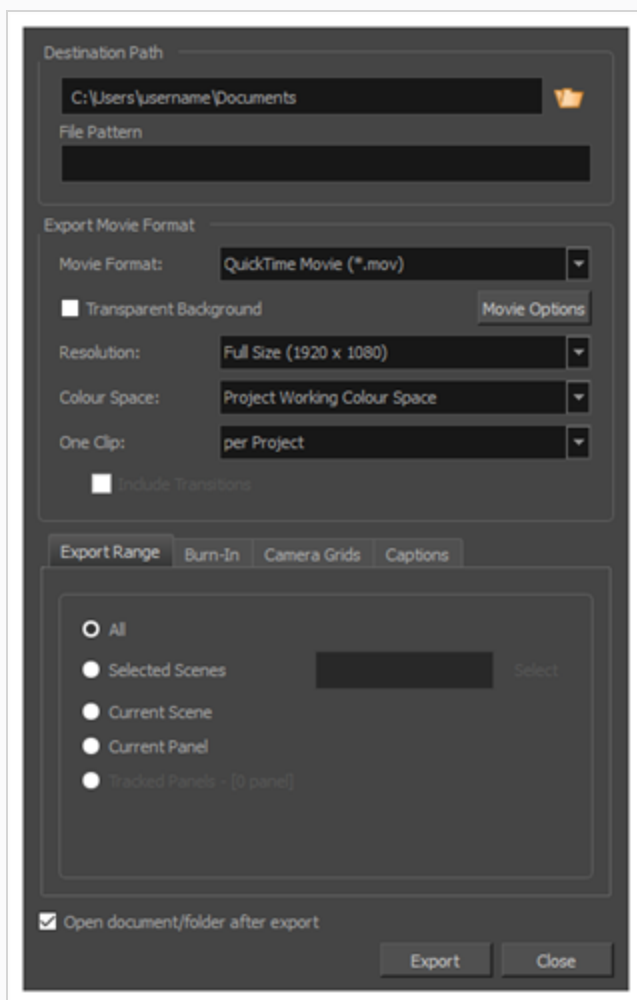
### NOTES

- For tasks related to this dialog box, refer to the User Guide.
- This dialog can only be accessed on macOS.

### How to access the Movie Settings dialog box from the Export Movie dialog

1. From the top menu, select **File > Export > Movie**.

The Export Movie dialog box opens.

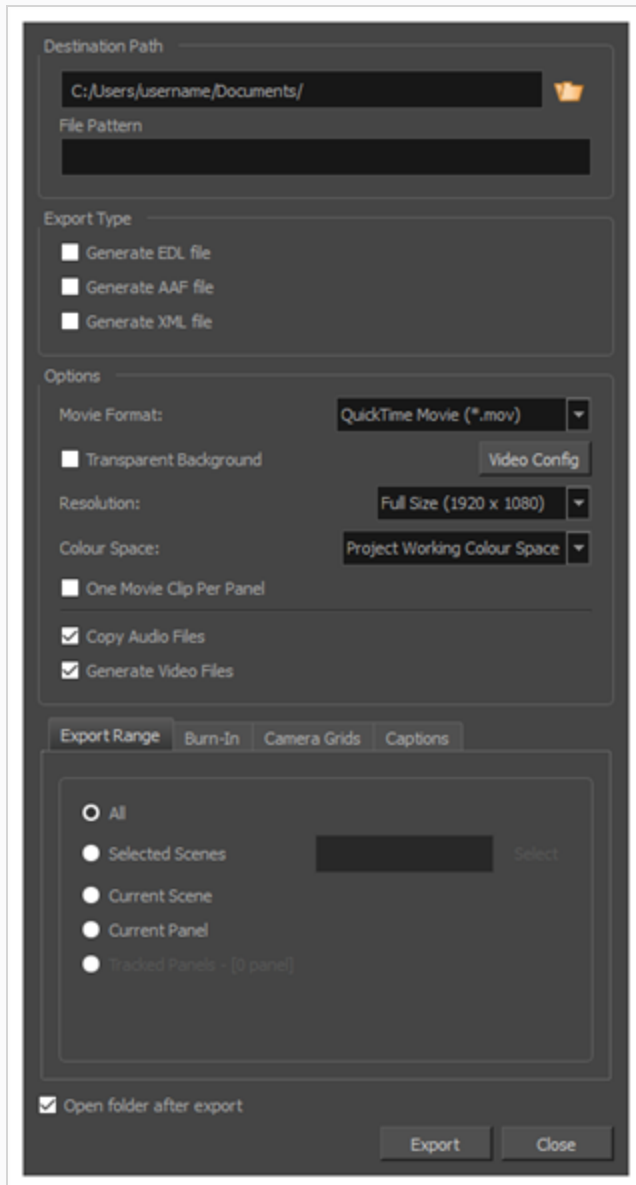


2. In the **Movie Format** drop-down, select **QuickTime Movie (\*.mov)**.
3. Click on the **Movie Options** button.

### How to access the Movie Settings dialog box from the Export to EDL/AAF/XML dialog



1. From the top menu, select **File > Export > EDL/AAF/XML**.



The Export to EDL/AAF/XML dialog box opens.



2. In the **Movie Format** drop-down, select **QuickTime Movie (\*.mov)**.
3. Click on the **Movie Options** button.

Parameter	Description
Video	
Codec	<p>Allows you to select which algorithm to use to compress the video data. The following video codecs are supported:</p> <ul style="list-style-type: none"> <li>• <b>H.264:</b> A very effective lossy compression algorithm that is commonly supported by web browsers and media players.</li> </ul>

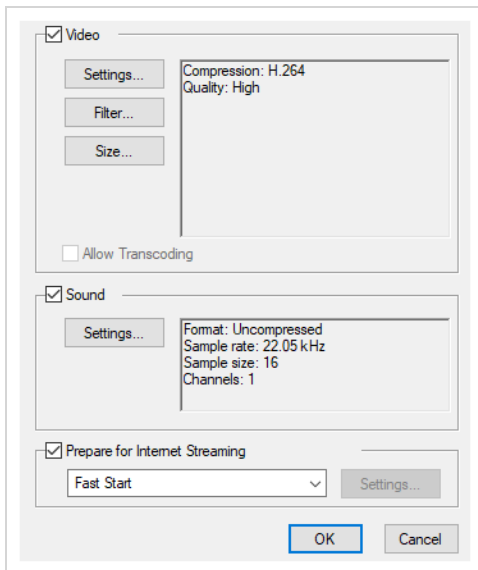
Parameter	Description
	<ul style="list-style-type: none"> <li>• <b>H.265:</b> Same compression quality as H.264, but with a smaller compression size. This is useful for videos intended for the web and mobile devices. Not supported on all major browsers or operating systems.</li> <li>• <b>Apple ProRes 422:</b> A nearly lossless compression algorithm commonly used for video editing on Apple systems. This codec is optimized for preserving video quality, but not for publishing or streaming.</li> <li>• <b>Apple ProRes 422 HQ:</b> Preserves visual quality at the same high level as Apple ProRes 4444 but for 4:2:2 image sources (cleaner footage for things like green screening). Heavier than Apple ProRes 422 for real-time editing performance.</li> <li>• <b>Apple ProRes 422 LT:</b> A more highly compressed codec than Apple ProRes 422, with roughly 70 percent of the data rate and 30 percent smaller file sizes. This codec is perfect for environments with limited storage capacity and data rates.</li> <li>• <b>Apple ProRes 422 Proxy:</b> An even more highly compressed codec than Apple ProRes 422 LT, intended for use in offline workflows that require low data rates but full-resolution video.</li> <li>• <b>Apple ProRes 4444:</b> A nearly lossless compression algorithm commonly used for video editing on Apple systems. Compared to Apple ProRes 422, this codec preserves more colour detail and supports transparency. However, it results in heavier file sizes.</li> </ul>
Alpha	<p>Check this option if you want to export a video with transparency.</p> <div data-bbox="399 1129 1429 1304" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> This option is only available when exporting with the <b>Apple ProRes 4444</b> codec. Other codecs do not support transparency.</p> </div>
Sound	<p>Uncheck this checkbox if you want to export a movie without an audio track.</p> <div data-bbox="399 1423 1429 1623" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> The Sound section of this dialog is not available if you are exporting an EDL/AAF/XML sequence, as this type of export creates video files with no audio track and export sound clips in separate sound files.</p> </div>
Rate	<p>Allows you to select the sample rate, or frequency, in which to export the audio track for the movie.</p>

Parameter	Description
	<div data-bbox="402 283 1429 483" style="border: 1px solid #c8e6c9; padding: 10px;"> <b>NOTE</b> Storyboard Pro cannot export audio at a higher sample rate than 22.050 kHz. If you select a higher sample rate, your project's audio will be upsampled, which means it will take more disc space without increasing in quality.</div>
Use	<p data-bbox="397 541 1356 609">Allows you to select whether to export the movie's audio track using the <b>Mono</b> or <b>Stereo</b> channel mode.</p> <div data-bbox="402 640 1429 808" style="border: 1px solid #c8e6c9; padding: 10px;"> <b>NOTE</b> Stereo sound has a separate track for the left and right speakers, whereas mono sound only has a single audio track for all speakers.</div>



## QuickTime Movie Settings Dialog Box (Windows)

The Movie Settings dialog box allows you to configure the video and audio compression settings when exporting a QuickTime Movie (.mov) file.



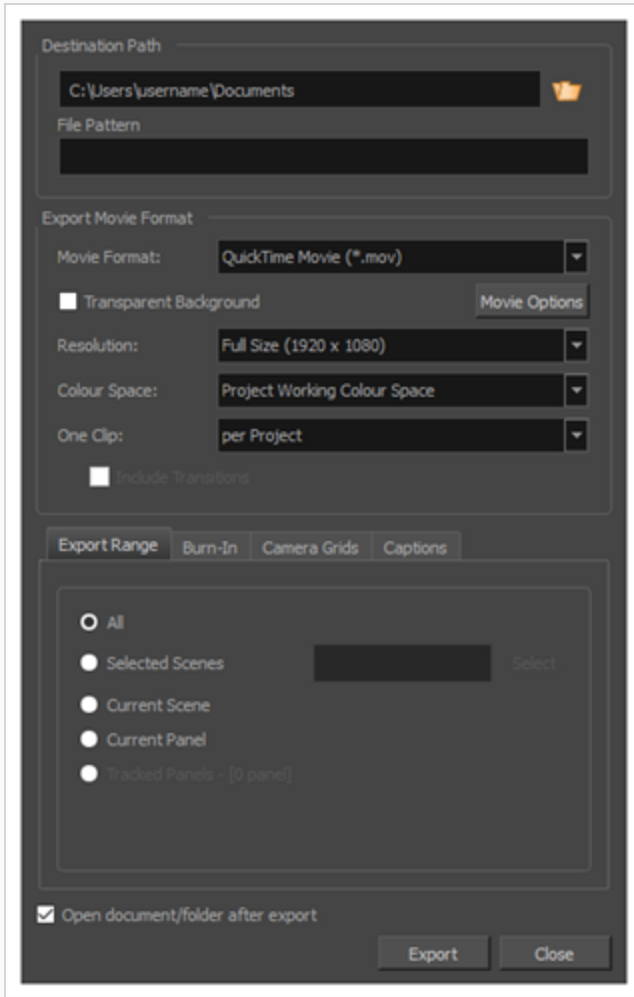
### NOTES

- For tasks related to this dialog box, refer to the User Guide.
- This dialog can only be accessed on Windows and requires [Apple QuickTime](#) to be installed.

### How to access the QuickTime Movie Settings dialog box from the Export Movie dialog

1. From the top menu, select **File > Export > Movie**.

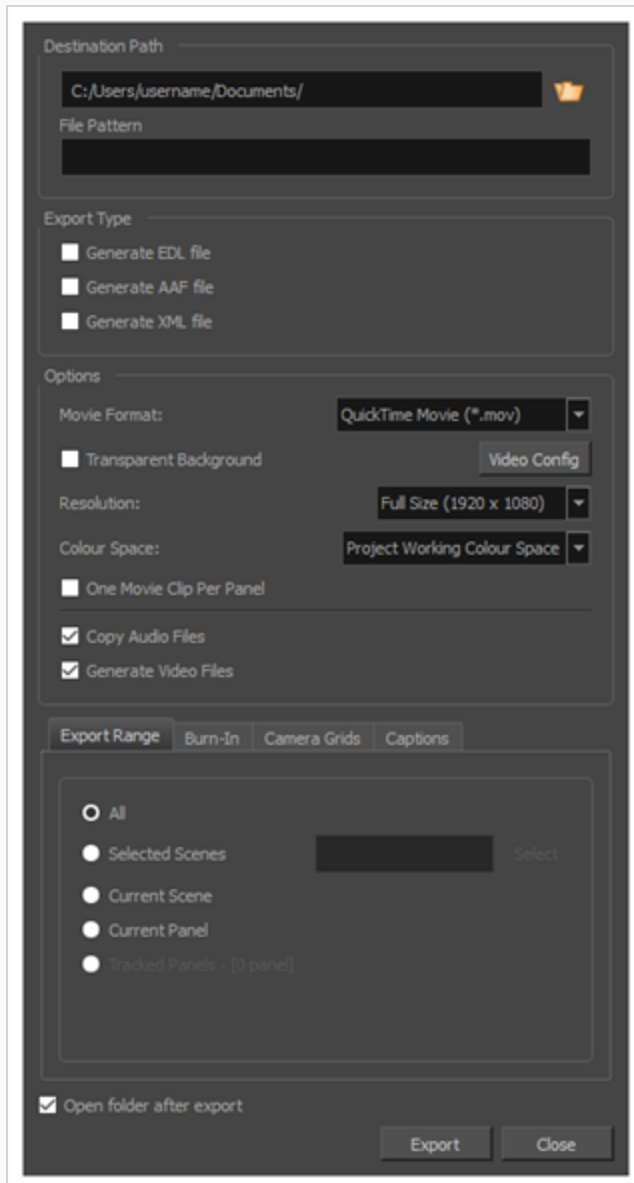
The Export Movie dialog box opens.



2. In the **Movie Format** drop-down, select **QuickTime Movie (\*.mov)**.
3. Click on the **Movie Options** button.

## How to access the QuickTime Movie Settings dialog box from the Export to EDL/AAF/XML dialog

1. From the top menu, select **File > Export > EDL/AAF/XML**.  
The Export to EDL/AAF/XML dialog box opens.



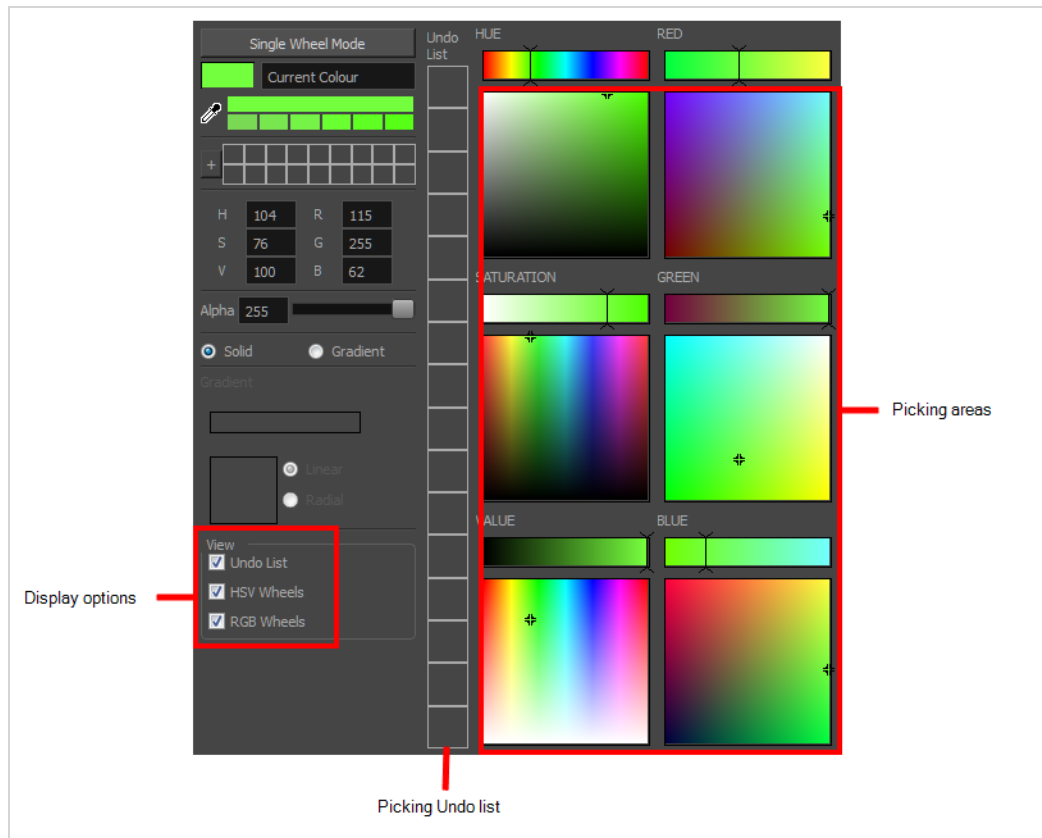
2. In the **Movie Format** drop-down, select **QuickTime Movie (\*.mov)**.
3. Click on the **Movie Options** button.

Parameter	Description
Video	
Settings	<p>Opens the Standard Video Compression Settings dialog box. This is where you can set the video compression settings for the movie you will export—see <a href="#">QuickTime Standard Video Compression Settings Dialog Box (Windows)</a> on page 234.</p>

Filter	Opens the Choose Video Filter dialog box, where you can select from a range of filters to apply to your video export.
Size	Opens the Export Size Settings dialog box. This dialog is available because of the way the Apple QuickTime interface is designed, but its settings are not taken in account by Storyboard Pro. The size of the exported video is determined by Storyboard Pro.
Sound	
Settings	Opens the Sound Settings dialog box. This is where you can you set the sound compression settings for the movie you will export—see <a href="#">QuickTime Sound Settings Dialog Box (Windows)</a> on page 224.
Prepare for Internet Streaming	<p>If this option is enabled, the video will be optimized to start playing while it is downloading, as videos do in web browsers and web-based streaming applications.</p> <ul style="list-style-type: none"><li>• <b>Fast Start:</b> The video plays as soon as enough data required to start playback has been downloaded.</li><li>• <b>Fast Start - Compressed Header:</b> Same as Fast Start, except the header is compressed for an even faster start. Requires QuickTime 3.0 or later.</li><li>• <b>Hinted Streaming:</b> Allows you to optimize the movie file for streaming through QuickTime Server Software. Click on the Settings button to configure how hints are created in your movie file.</li></ul>

## Multiwheel Colour Window

The Multiwheel Colour window lets you select and customize colours, create solid or gradient colours, store colours in the colour storage library, open the Colour Picker window and undo actions.



### How to access the Multiwheel Colour window

1. In the Colour view, make sure the Colour area is expanded by clicking the **Collapse/Expand** arrow.
2. Double-click on the current colour swatch.  
The Colour Picker window opens.
3. Click **Multiwheel**.  
The Multiwheel Colour window opens.

Parameter	Description
Single Wheel Mode	Opens the Colour Picker window—see <a href="#">Colour Picker Window</a> on page 23.
Current Colour	Displays the current colour on the left side. On the right side is the currently you are modifying.


Colour slider	Displays the colour gradation of the colour selected in the colour picking area.
Colour picking area	Displays a colour range with a cursor which you can drag to select a colour. This display changes when you select one of the these options: H, S, V, R, B, or B.
Dropper	Lets you select a colour from any place on your screen. Hold down the Dropper and drag to the desired colour and release to select the colour.
Colour Scale	Displays the hue selected in the colour picking and colour slider areas, and its different values.
Add Colour	Adds the selected colour to the colour storage library.
Colour Storage Library	Lets you save colours you have defined.
Alpha	Lets you change the transparency level by typing in a value or dragging the slider.
Solid	Creates an even, uniform colour.
Gradient	Lets you create a linear or radial gradient.
Gradient Scale	Displays a colour range and arrows. Move the arrows to define the gradient colours.
Gradient Preview	Displays a preview of the gradient as you move the arrows on the gradient scale.
Linear	Creates a linear gradient.
Radial	Creates a radial (circular) gradient.
View	
Undo List	Shows or hides the Undo list.
HSV Wheels	Shows or hides the HSV colour wheels.
RGB Wheels	Shows or hides the RGB colour wheels.

Undo List	Displays a list of actions you can undo by clicking a swatch in the list.
HSV	Displays the hue, saturation or value of a selected colour in the colour picking area.
RGB	Displays the red, green or blue colour wheel.

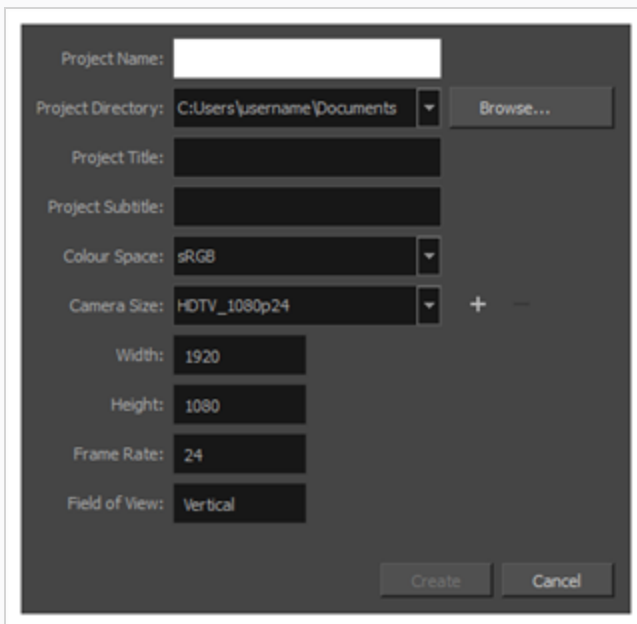
## New Project Dialog Box

The New Project dialog allows you to create a new project while a project is already open. It can be accessed from the File menu.

### How to access the New Project window

1. Do one of the following:
  - Select **File > New**.
  - In the File toolbar, click the New  button.
  - Press Ctrl + N (Windows) or ⌘ + N (macOS).

The New Project dialog box opens.



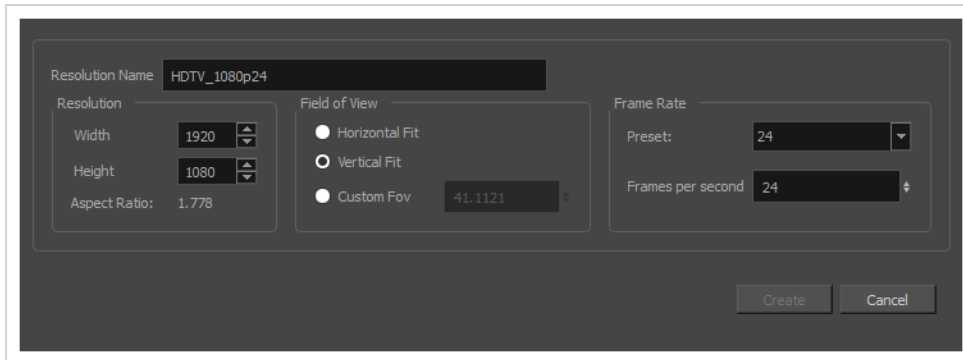
Parameter	Description
Project Name	The name of the storyboard project. This name will appear as the file name.
Project Directory	The location of your new project.
Project Title	The name of the project. It is a good idea to use the same name for the project name and project title.
Project Subtitle	The titles that will appear on the appropriate pages of PDF exports.



Colour Space	Displays a list of colour space options for your project. If you plan to import elements from a project created in a different software, or to export this project to a different software, you may want to match colour spaces to keep all your colours consistent.
Camera Size	Displays a list of resolutions for you to choose from for your project.
Width	The parameters of the resolution you chose from the Camera Size menu. Note that you cannot change these parameters.
Height	
Frame Rate	
Field of View	
Add	Opens the New Resolution window from which you can create a custom resolution.
Remove	Removes a custom resolution from the Camera Size menu.

## New Resolution Window

The New Resolution window lets you create a custom resolution. Your new resolution will appear in the Camera Size menu of both the New Project window and Welcome screen.

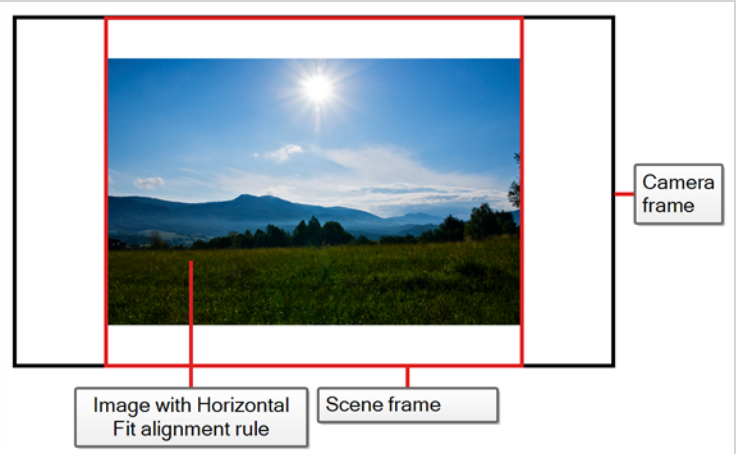
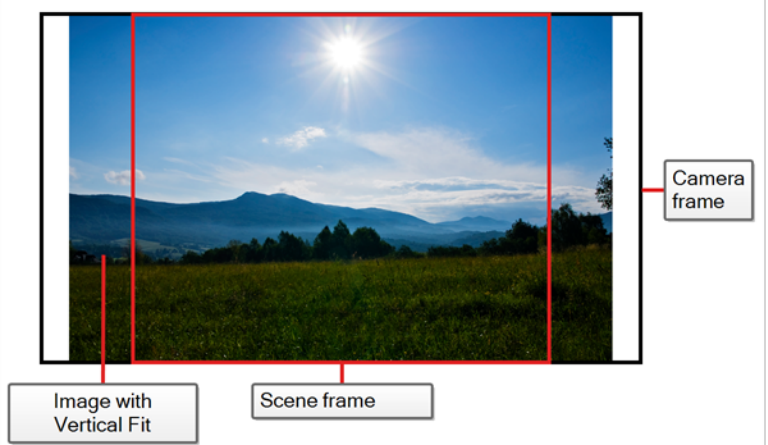



### How to access the New Resolution window

1. In the Welcome screen or New Project window, click the **+** Add button right of the **Camera Size** drop-down to add a new resolution to the list.

The New Resolution dialog box appears.

Parameter	Description
Resolution Name	This is name you give the custom resolution. Your new resolution will appear in the Camera Size menu of both the New Project window and Welcome screen.
Resolution	
Width	This is the width of the resolution that will be created.
Height	This is the height of the resolution that will be created.
Aspect Ratio	Displays the ratio between the horizontal and vertical dimensions of the scene. For example, if the scene width and height are the same value, this ratio equals 1. The standard aspect ratio for widescreen televisions is 1.777. For legacy displays, it is 1.333.
Field of View	
Horizontal Fit	Adjusts the image's size so that its width matches the scene's width, without affecting its aspect ratio.


	
Vertical Fit	<p>Adjusts the image's size so that its height matches the scene's height, without affecting its aspect ratio.</p> 
Custom Fov	<p>After selecting this option, enter a value, in degrees, of the angle that you want the camera cone to be. Increasing this value will make the camera cone wider (the angle is more obtuse). Widening the FOV will make the grid and all elements appear farther away. Decreasing the default value will create the opposite effect.</p>
Frame Rate	
Preset	<p>Allows you to select a frame rate for your scene among one of many commonly used preset frame rates.</p> <div style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>The standard framerate for film production is 24 frames per second. However, televisions in some countries play at 25 frames per second. Some productions may use 23.976 frames per second to preserve compatibility with legacy standard displays.</p> </div>

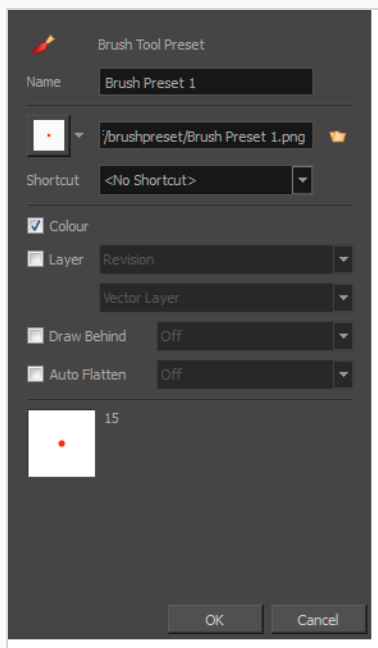
Frames per Second	Allows you to type in the frame rate for your scene.
-------------------------	--

## New Tool Preset Dialog Box

The New Tool Preset dialog box lets you create a new tool preset. You will need to select a tool, adjust the properties, and then create a tool preset for it. Once you have created a tool preset, you can make adjustments to fine-tune it, as well as create a keyboard shortcut for it. All tool presets are displayed in the Tool Presets toolbar.

### How to access the New Tool Preset dialog box

1. In the Tool Presets toolbar, click the Manage Tool Presets  button.



Parameter	Description
Name	Name of the currently selected tool preset.
Icon	Lets you select an icon to associate with the selected tool preset or upload your own.
Colour	Includes the current colour in the new tool preset.
Shortcut	Lets you set a keyboard shortcut to quickly access your preset. By default, the shortcuts are unassigned. To assign a keyboard shortcut, select <b>Edit &gt; Preferences &gt; Shortcuts &gt; Tool Presets (Windows)</b> or <b>Storyboard Pro 20 &gt; Preferences &gt; Shortcuts &gt; Tool Presets (macOS)</b> .

Layer	Lets you select a drawing layer to be used on the current panel when the tool preset is clicked. When selecting the preset, if the assigned layer exists, it will be selected, if not, it will be created. When changing panels, depending on your global navigation setting, it will look for the layer. If it does not exist, the first layer will be selected. Select the <b>Layer</b> option, assign a layer to the tool preset, and decide whether the layer is vector or bitmap.
Draw Behind	When this option is selected, saves the specified Draw Behind option to the tool preset. When deselected, the current Draw Behind status is unchanged when the tool preset is clicked
Auto Flatten	When this option is selected, saves the specified Auto-Flatten state to the tool preset. When deselected, the current Auto-Flatten state is unchanged when the tool preset is clicked
Tool Preview	Displays the size and colour of the tool preset.

## Optimize Project Dialog Box

The Optimize Project dialog box allows you to flatten all drawings in your project, remove unused files and reduce the texture size.



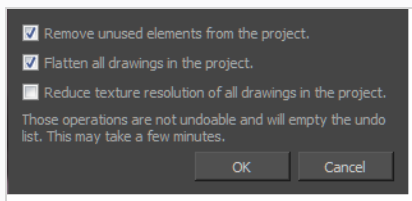
### NOTE

Strokes drawn with different colours will not be flattened together.

### How to access the Optimize Project dialog box

1. Select **File > Optimize Project**.

The Optimize project dialog box opens.



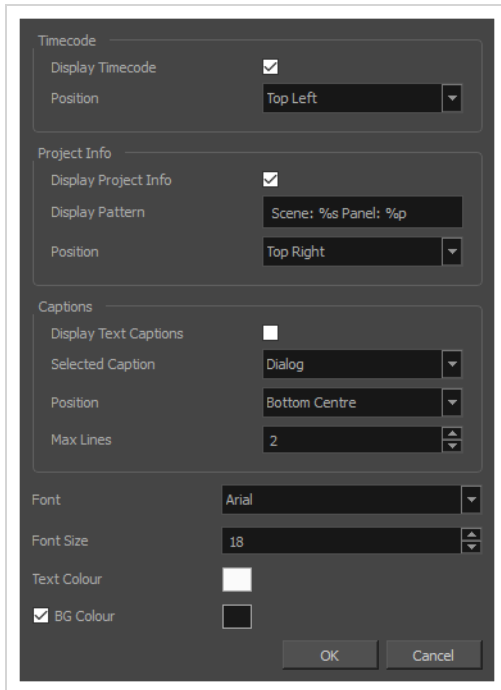
### IMPORTANT

Performing projects optimizations will clear the Undo list. The operations performed by this dialog cannot be reversed.



Parameter	Description
Remove unused elements from the project	As you create a storyboard you will delete panels or layers, update drawings, unlink sounds, and so on. Some of these files are kept for backup purposes, but they take up space and increase the size of your project on your hard drive. This option removes these unwanted elements.
Flatten drawings in the project	Flattens all the brush or pencil line strokes of all the vector drawings in your project. This means that all overlapping strokes will no longer be editable as single strokes, but only as whole, drawn objects.
Reduce texture resolution of all drawings in the project	Reduces the resolution of bitmap textures in drawings that have an unnecessarily high pixel density.

## Overlay Settings Dialog Box

The Overlay Settings dialog box allows you to configure what is displayed as overlays in the Stage View and the Camera View.



### How to access the Overlay Settings dialog box

1. At the bottom of the Stage View or the Camera View, either double-click or long-click on the  Show Overlays icon.
2. In the pop-up menu, select  **Overlay Settings**.

The Overlay Settings dialog box appears.

Name	Description
Timecode	
Display Timecode	Displays the timecode of the current frame in the Stage and Camera views. The timecode is displayed in the <b>HH:MM:SS:FF</b> format, where <b>HH</b> means hours, <b>MM</b> means minutes, <b>SS</b> means seconds and <b>FF</b> means frames.
Position	The position in which the timecode should be displayed within the Stage and Camera views.

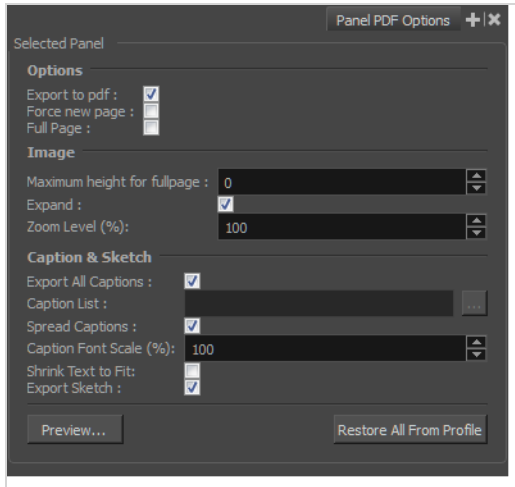


Name	Description
Project Info	
Display Project Info	Displays information about the current frame in the Stage and Camera views. Depending on what you put in the <b>Display Pattern</b> field, this can display the name of the current act, sequence, scene and panel.
Display Pattern	<p>The pattern of the information to display. This is a string of text in which you can insert, at any point, one or several of the following variables:</p> <ul style="list-style-type: none"> <li>• <b>%a</b>: The name of the current <b>act</b></li> <li>• <b>%q</b>: The name of the current <b>sequence</b>.</li> <li>• <b>%s</b>: The name of the current <b>scene</b>.</li> <li>• <b>%p</b>: The name of the current <b>panel</b>.</li> </ul> <p>For example, the default value is "Scene: %s Panel: %p", which displays "Scene:" followed by the name of the current scene, then "Panel:" followed by the name of the current panel.</p>
Position	The position in which the project information should be displayed within the Stage and Camera views.
Captions	
Display Text Captions	Displays the content of one of the current panel's captions in the Stage and Camera views.
Selected Caption	The type of caption to display.
Position	The position in which the caption should be displayed within the Stage and Camera views.
Max Lines	The maximum amount of lines the caption should occupy in the Stage and Camera view before cutting it off, to avoid cluttering the view.
Font	The font in which to display all the overlays.
Font Size	The size of the font in which to display all the overlays.
Text Colour	The colour of the text in which to display all the overlays. Click on the colour swatch to open

Name	Description
	a colour picker in which you can select the text colour.
BG Colour	The background colour to display behind all the overlays. Click on the colour swatch to open a colour picker in which you can select the background colour. Alternatively, you can uncheck the checkbox left of <b>BG Colour</b> to make the overlays display without a background.

## Panel PDF Options Window

The Panel PDF Options window lets you set the export options to apply to selected panels in your storyboard.



### How to access the Panel PDF Options window

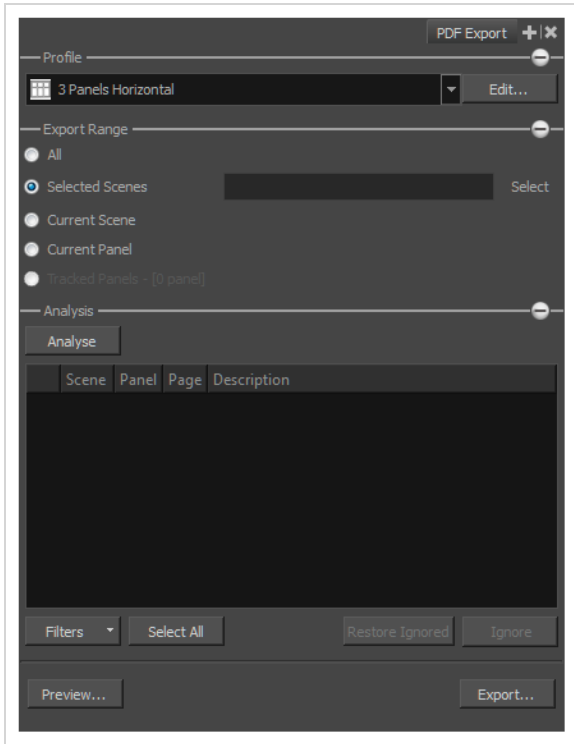
1. Select **Windows > Panel PDF Options**.

Parameter	Description
Options	
Export to PDF	Exports the selected panel. This option is enabled by default. Deselect this option if you do not want to export this particular panel.
Force New Page	Starts panel on a new page.
Full Page	Prints panel on a full page.
Image	
Maximum Height for Full Page	Lets you set the maximum image height for a full page panel. Applies to landscape orientation only. 0 = No Limit.
Expand	Displays camera motion (such as pan, tilt, or zoom) in the image across several panels.

Zoom Level (%)	Size, in percentage, that the panel will appear within its frame.
Caption & Sketch	
Export All Captions	This option is enabled by default. All captions from this panel will be exported to PDF. If you want to select specific captions to export, deselect this option and use the Caption List option to make your selections.
Caption List	This option is unavailable when the Export All Captions option is enabled. When available, click the Browse button to open the List Picker for selecting specific captions to export.
Spread Captions	Adapts the box to the text and spreads it across the next panel if necessary. When this option is deselected, caption text is cut if it is too long or big for the space available in the box.
Caption Font Scale (%)	Select the scale, in percentage, the text will appear in the captions of this panel.
Shrink Text to Fit	Shrinks captions if they do not fit in the panel.
Export Sketch	Exports the sketch caption field of this panel.
Preview	Creates a quick PDF of the page containing the selected panel(s), using the current default PDF export profile for the other panels.
Restore All from Profile	Returns the options to the current default PDF export profile.

## PDF Export View/Window

The PDF Export view/window lets you export a storyboard project as a PDF file.



### How to access the PDF Export view/window

1. Select **Windows > PDF Export**.

Parameter	Description
Profile	
Drop-down Menu	Lets you select a profile for the export.
Edit	Opens the PDF Profile dialog box from which you can edit a selected profile.
Export Range	
All	By default, the export range is set to All, which means your entire storyboard project will be exported.

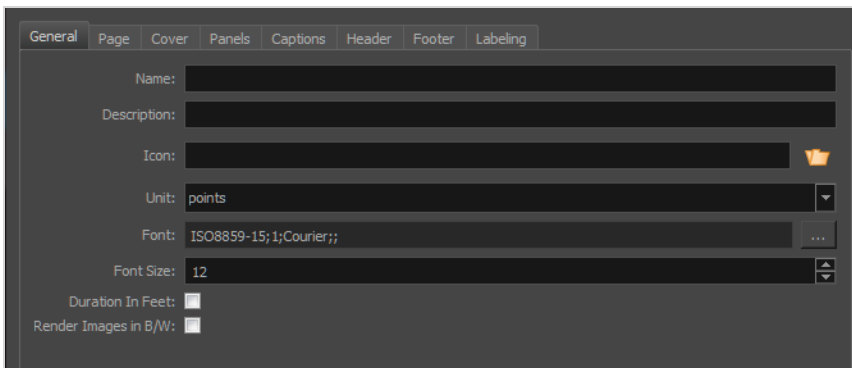
Selected Scenes	Select this option and click <b>Select</b> to open the Scenes Picker dialog box in which you can select specific scenes to export.
Current Scene	Exports only the currently selected scene to PDF.
Current Panel	Exports only the selected panels to PDF.
Tracked Panels	Exports panels that are marked as tracked. The number of tracked panels will appear beside the option.
Analysis	
Analyse	<p>Starts the analysis of your PDF options.</p> <p>If no issue is encountered, the list will remain empty and the word <b>Done!</b> will appear beside the Analyse button.</p> <p>If issues are encountered, they will appear in the list area. The scene, panel, and page numbers will be indicated, as well as a description of the problem found.</p>
Filters	A menu will lets you select the type of issues you want the analysis to display. Options include: Text Overflow, Text Overlap, and Camera Pan issues.
Select All	
Restore Ignored	Resets an ignores issue and removes the red X beside it in the list.
Ignore	Removes an issue from the list of issues encountered during the PDF analysis.
Preview	Generates a PDF preview of the selected scene(s). If you select more than one panel in a scene, the complete scene will be previewed.
Export	Exports a PDF file of your storyboard.

## PDF Profile Dialog Box



The PDF Profile dialog box allows you to create or modify a PDF profile, which is a set of options for exporting a storyboard as a PDF document.

The PDF Profile dialog contains the following tabs, each of which contains a specific type of options:

- [General Tab](#) on page 170
- [Page Tab](#) on page 172
- [Cover Tab](#) on page 174
- [Panels Tab](#) on page 175
- [Captions Tab](#) on page 180
- [Header Tab](#) on page 183
- [Footer Tab](#) on page 185

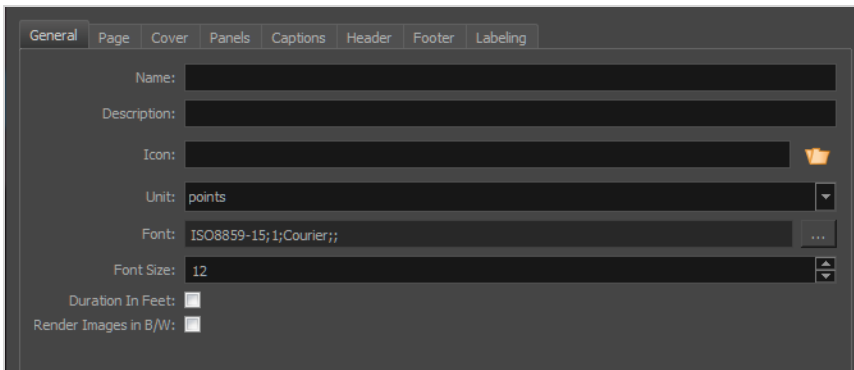


### How to access the PDF Profile dialog box

1. Do one of the following:
  - From the PDF Export view or window, click **Edit**.
  - Access Top Menu > File > Export > PDF. In the Export to PDF dialog box, click .
  - Access Top Menu > File > Export > PDF. In the Export to PDF dialog box, click  and select **Edit Profile**.

### General Tab

The General tab lets you set up a personalized layout for your PDF.



Parameter	Description
Name	Lets you enter a a name for your custom layout or edit the existing name.
Description	Lets you enter a short description of the layout. This description only appears in the PDF Profile dialog box.
Icon	Lets you Select an image file representing the custom layout you are creating; it will be displayed in the profile list. For best results, your image should be 45x45 pixels.
Unit	Lets you select the unit of measurement (points, mm, cm or inches) used in the Page, Panels, Header and Footer tab of the PDF Profile dialog box. The unit measurement is used for margin, spacing, height and width of a panel, header or footer.
Font	Lets you select any font installed on your system to use for all text in the PDF document.  To export Unicode characters to your PDF document, click the [...] button to select the language encoding and the embedded PDF font that will be used to display the text in the PDF document.
Font Size	Lets you define the size of the font.
Duration in Feet	Lets you set the duration value in feet. The foot measurement was used mostly by traditional animators. In the XSheet, a foot contains 16 frames.
Render Image in B/W	Creates a black and white PDF instead of colours.



## Page Tab

General Page Cover Panels Captions Header Footer Labeling

Page Format: Letter

Custom Width: 612.283 Custom Height: 790.866

Orientation: Landscape

Display Table Title:

Table Titles:

Rotation: 0 degree

Pages Per Sheet: 1

Reverse Page Layout:

Top Margin: 36

Bottom Margin: 36

Left Margin: 36

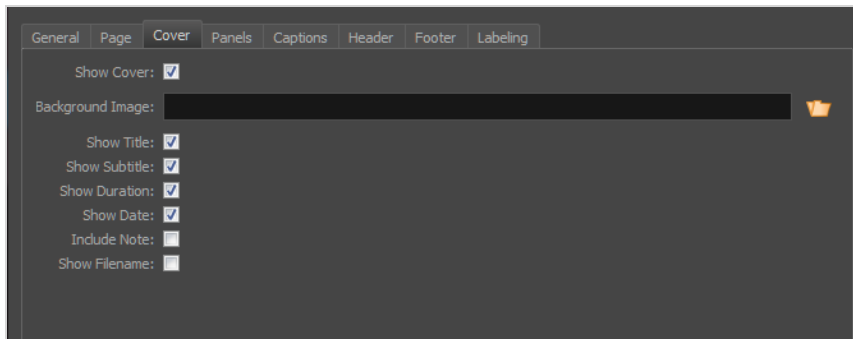
Right Margin: 36

Background Image:

Parameter	Description
Page Format	<p>Select the type of page you want to print on:</p> <ul style="list-style-type: none"> <li>• 11x17</li> <li>• A3</li> <li>• A4</li> <li>• Legal</li> <li>• Letter</li> <li>• Custom</li> </ul> <p>If you select Custom, fill in the desired width and height.</p>
Custom Width	Lets you enter the desired width of your PDF. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Custom Height	Lets you enter the desired height of your PDF. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Orientation	<p>Lets you set the PDF to portrait or landscape orientation.</p> <p>Options include:</p> <ul style="list-style-type: none"> <li>• 0 degree</li> <li>• 90 degrees</li> <li>• 180 degrees</li> </ul>

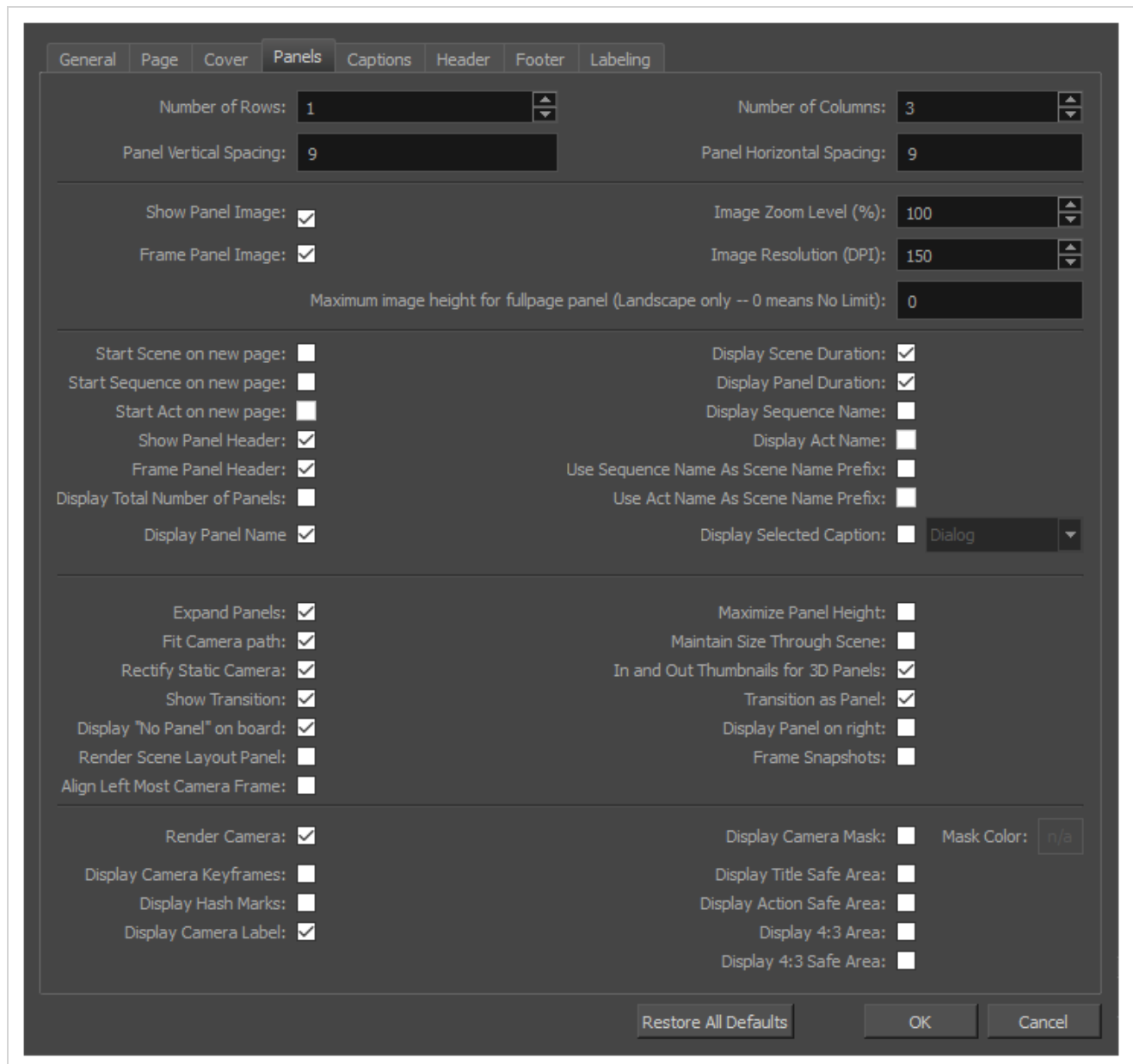
	<ul style="list-style-type: none"> <li>• 270 degrees</li> </ul>
Display Table Title	<p>Lets you set the titles used in the main table.</p> <p>Use a semicolon (;) to separate each entry. You can also specify the font size after a title. If you write more titles than the number of columns in the storyboard, the PDF will only use those written first. The font size value must be written after the title and a coma.</p> <p>If you want to make sure that each title respects the naming of the captions, you can write &lt;caption_titles&gt; as the title. This entry will affect all of the captions in the storyboard.</p> <p>For example: Cut;Picture,15;Caption,15;Time</p>
Rotation	Lets you set the degree of clockwise rotation of the storyboard on the printed page.
Pages Per Sheet	Lets you select the number of storyboard pages to print on each sheet.
Reverse Page Layout	Lets you reverse the position of the captions in relation to the panels.
Top Margin	Lets you enter the distance from the top page edge. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Bottom Margin	Lets you enter the distance from the bottom page edge. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Left Margin	Lets you enter the distance from the left page edge. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Right Margin	Lets you enter the distance from the right page edge. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Background Image	Lets you select an image to use as a watermark on all pages, except the cover.

## Cover Tab



Parameter	Description
Show Cover	Lets you insert a cover as the first page of the PDF.
Background Image	Lets you select an image (.bmp, .jpg or .png) to use as a watermark on the cover.
Show Title	Displays the project title defined in the storyboard properties.
Show Subtitle	Displays the project subtitle defined in the storyboard properties. You can find the properties in the Top Menu > Storyboard > Properties.
Show Duration	Displays the duration (as a time code or frame) of the selected storyboard panels.
Show Date	Displays the date of export.
Include Note	Lets you include a revision note on the cover page.
Show Filename	Displays the filename of the PDF on the cover.


## Panels Tab

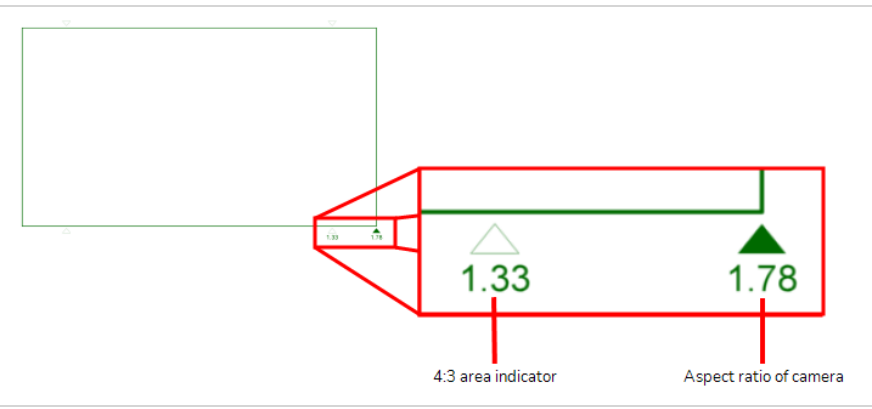
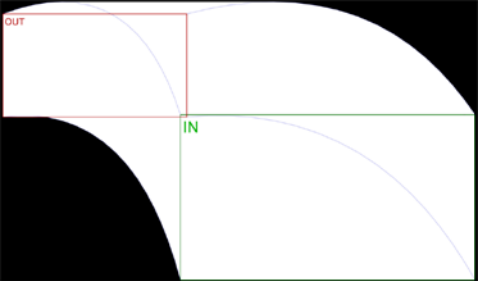



Parameter	Description
Number of Rows	Defines the number of panel rows displayed per page.
Panel Vertical Spacing	Defines the vertical spacing between panels. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Panel Horizontal Spacing	Defines the horizontal spacing between panels. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.


Number of Columns	Defines the number of panel columns displayed per page.
Show Panel Image	Displays each panel's visual content.
Frame Panel Image	Displays a rectangle around the panel's visual content on each page.
Image Zoom Level (%)	Displays the image in the panel at a percentage of the original size.
Image Resolution (DPI)	Defines the DPI value of the exported images in the PDF storyboard. The default value is 150. A higher value increases the sharpness of the images, as well as the final file size of your PDF.
Maximum image height for fullpage panel (Landscape only - 0 = No Limit)	Defines the maximum height a panel can have when it is full page.
Start Scene on New Page	Makes each new scene start on a new page.
Start Sequence on New Page	Makes each new sequence start on a new page.
Start Act on New Page	Makes each new act start on a new page.
Show Panel Header	Displays each panel's shot name, panel number, and duration as a header.
Frame Panel Header	Displays a rectangle around the panel header on each page.
Display Total Number of Panels	Displays the total number of panels in the scene in the panel header.
Display Scene Duration	Displays the duration of each scene.
Display Panel Duration	Displays the duration of each panel.
Display Sequence Name	Displays the name of the sequence.
Display Act Name	Displays the name of the act. This option is grayed out by default. To activate it, enable the option called Enable Acts in the General tab of the Preferences dialog box.

<p>Use Sequence Name as Scene Name Prefix</p>	<p>Displays the sequence name as part of the scenes' names. For example, if scene 18 appears in the second sequence, it will be written like this: 2-18.</p> <p>This option can also be set at the same time as Use Act Name As Scene Name Prefix. If so, the prefix for the act will appear before the prefix for the sequence. Thus, if scene 18 from the second sequence is in the first act, it will be written like this: 1-2-18.</p>
<p>Use Act Name as Scene Name Prefix</p>	<p>Displays the act name as part of the scenes' names. For example, if scene 18 appears in the first act, it will be written like this: 1-18.</p> <p>This option can also be set at the same time as Use Sequence Name As Scene Name Prefix. If so, the prefix for the sequence will appear after the prefix for the act. Thus, if scene 18 from the second sequence is in the first act, it will be written like this: 1-2-18.</p>
<p>Display Selected Caption</p>	<p>Displays the content of the selected caption.</p>
<p>Expand Panels</p>	<p>Displays camera motion (such as pan, tilt, or zoom) in the image across several panels.</p>
<p>Fit Camera Path</p>	<p>Ensures the camera movement is included in a single panel space.</p>
<p>Rectify Static Camera</p>	<p>If the camera in a panel is at an angle and there is no camera movement in the panel, it will be rendered as if the camera was straight, preventing it from taking extra space in the storyboard.</p>
<p>Show Transition</p>	<p>Displays transition information (Transition type and duration).</p>
<p>Display "No Panel" on Board</p>	<p>Replaces the panel's image with an X and the text "No Panel" above it. This is used when there is not enough space to display a panel on the same page. The panel with the image is normally displayed on the next page or the nearest one with enough space to show the image on.</p>
<p>Render Scene Layout Panel</p>	<p>When a scene has a camera movement, this adds an extra thumbnail for the scene's layout before the thumbnails for the scene's panels. This thumbnail contains the camera movement for the entire scene, as well as the artwork in the first panel of that scene.</p>
<p>Align Left Most Camera Frame</p>	<p>Aligns the left most camera keyframe with the panel frames in the exported PDF. The artwork and camera movement will spread over the caption columns and to the other rows depending on the range of camera movement. It works best with the Japanese PDF profiles.</p>

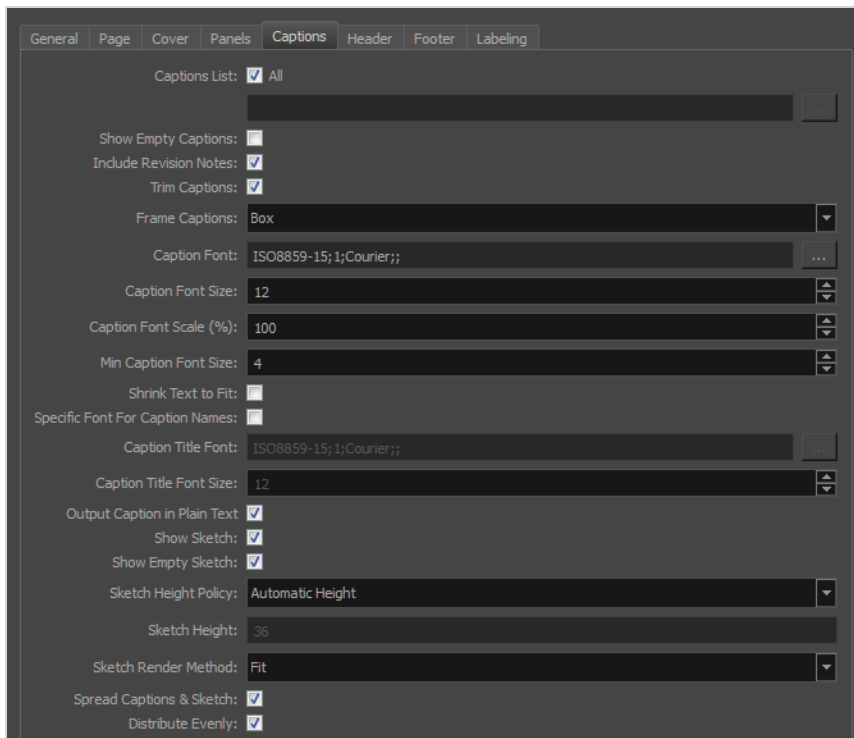
Maximize Panel Height	Displays the panel at the maximum of its height.
Maintain Size Throughout Scene	Keeps every panel of your printed storyboard the same size.
In and Out Thumbnails for 3D Panels	Renders an in thumbnail and an out thumbnail for the 3D panel, as if the user would have added a snapshot at both ends of the panel.
Transition as Panel	Displays a transition as a panel.
Display Panel on Right	When using the Vertical profile, displays images on the right side of the page instead of the left.
Frame Snapshots	When a panel contains snapshots, this renders the snapshots as framed by the camera at the time of the snapshot. This means that the thumbnail is rendered from the camera's point of view, that artwork outside the camera frame is not rendered, and that the camera movements are not rendered over the artwork.
Render Camera	<p>Displays the camera frame and camera path on the PDF export.</p> <div style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b> Enabling this option is required for the following options to have an effect:</p> <ul style="list-style-type: none"> <li>• Display Camera Keyframes</li> <li>• Display Hash Marks</li> <li>• Display Camera Label</li> <li>• Display 4:3 Area</li> <li>• Display 4:3 Safe Area</li> <li>• Display Safe Area</li> </ul> </div>
Display Camera Keyframes	Prints the different camera keyframes on the exported images. The actual camera keyframes on each panel are rendered instead of just the in and out frames. To see this change, enable the Render Camera option.
Display Hash Marks	Displays the hash marks below each camera frame, which indicate the aspect ratio of the camera and the position of the horizontal limits of the 4:3 area

	 <p>The diagram illustrates a camera's path and frame. A green rectangle represents the camera frame, and a red shape represents the camera's trajectory. Two green triangles point to numerical values: 1.33, labeled '4:3 area indicator', and 1.78, labeled 'Aspect ratio of camera'.</p>
<p>Display Camera Label</p>	<p>Prints the In and Out camera labels of your camera moves to your storyboard. But if the Display Camera Keyframes option is selected, In and Out will be replaced by letters (A, B, C, and so on), representing each camera keyframe. To see this change, enable the Render Camera option.</p>
<p>Display Camera Mask</p>	<p>Covers everything outside of the camera frames and the camera's trajectory with a solid colour.</p>  <p>The image shows a storyboard panel with a white background and a black mask. A red rectangle is labeled 'OUT' and a green rectangle is labeled 'IN'. The mask covers the area outside these rectangles.</p>
<p>Mask Color</p>	<p>The colour of the camera mask.</p>
<p>Display Title Safe Area</p>	<p>Prints the Title Safe Area over the picture. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be placed within this area.</p> <div data-bbox="565 1556 1432 1724" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
<p>Display Action Safe Area</p>	<p>Prints the Title Safe Area over the picture. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be</p>



	<p>placed within this area.</p> <div style="border: 1px solid green; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
Display 4:3 Area	Prints the 4:3 area on each panel of your storyboard which has a camera movement. To see this change, enable the Render Camera option.
Display 4:3 Safe Area	Prints the 4:3 safe area on each panel of your storyboard which has a camera movement. To see this change, enable the Render Camera option.

## Captions Tab

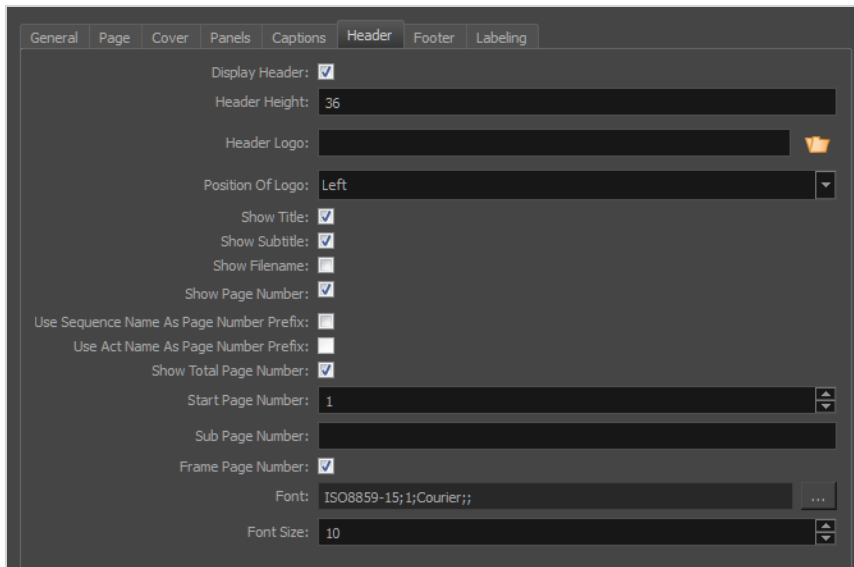


Parameter	Description
Captions List	Includes every caption in the PDF. You can deselect this option to activate the browsing button. Click the Browse button to display a list of all the captions. Select the ones to export.
Show Empty Captions	Includes the empty captions of your project in the PDF.

Include Revision Notes	Adds revision notes as a new caption. Revision notes can only exist on panels that were marked as changed.
Trim Captions	Removes empty lines after captions.
Frame Captions	Lets you decide how captions are framed. Options include: <ul style="list-style-type: none"><li>• <b>Box:</b> Displays a black rectangle around captions on each page.</li><li>• <b>Line Above:</b> Displays a line above each caption.</li><li>• <b>No Frame:</b> No frames will be displayed around captions.</li></ul>
Caption Font	Lets you select the font for the caption.
Caption Font Size	Lets you define the size of the font.
Caption Font Scale (%)	Determines the scale factor used when converting a font to a PDF font (screen resolution versus print resolution).
Min Caption Font Size	Lets you set the minimum font size to use when shrinking captions.
Shrink Text to Fit	Reduces size of captions if they do not fit in the panel.
Specific Font for Caption Names	Enables the Caption Title Font and Caption Title Font Size options.
Caption Title Font	Lets you select the font for the caption title.
Caption Title Font Size	Lets you set the size of the font for the caption title.
Output Caption in Plain Text	Ignores text formatting, such as bold, italics, that may be in the caption fields in the interface.
Show Sketch	Prints the Sketch captions to your storyboard. This option needs to be enabled to give access to: <ul style="list-style-type: none"><li>• Show Empty Sketch</li><li>• Sketch Height Policy</li><li>• Sketch Height</li><li>• Sketch Render Method</li></ul>


Show Empty Sketch	Prints the Sketch captions even if they are empty. To see this change, enable the Show Sketch option.
Sketch Height Policy	<p>Sets the height rule for the Sketch captions:</p> <ul style="list-style-type: none"> <li>• <b>Automatic Height:</b> Lets Storyboard Pro automatically define the height of each Sketch panel depending on the available space in the current layout.</li> <li>• <b>Evenly Distributed:</b> Keeps the same size of sketch boxes throughout the storyboard. Otherwise, the caption boxes are set to fit the content of each sketch independently.</li> <li>• <b>Fixed Height:</b> Keeps the same height throughout the storyboard.</li> <li>• <b>Max Height:</b> Enables the Sketch Height field in which you can define the maximum height you want your Sketch caption to follow.</li> </ul> <p>To see this change, enable the Show Sketch option.</p>
Sketch Height	<p>Defines the maximum height a Sketch caption can be. Set the Select Max Height in the Sketch Height Policy to make this option available. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.</p> <p>To see this change, enable the Show Sketch option.</p>
Sketch Render Method	<p>Sets the rule of how your sketch will appear in the Sketch caption.</p> <ul style="list-style-type: none"> <li>• <b>Crop:</b> The sketch will keep its original aspect and be cropped if it does not fit the current Sketch caption size.</li> <li>• <b>Fit:</b> The height of the sketch will fit the height of the caption, any exceeding part on the width may be cropped.</li> <li>• <b>Stretch:</b> The sketch will be resized to fit inside the caption field and will not be cropped.</li> </ul> <p>To see this change, enable the Show Sketch option.</p>
Spread Captions & Sketch	<p>Adapts the box to the text or sketch and spreads it across the next panel if necessary. When this option is deselected, the caption text or a sketch that is too long or big for the space available in the box will be cut.</p>
Distribute Evenly	<p>Keeps the same size of caption boxes throughout the storyboard. When this option is deselected, the caption boxes are set to fit the content.</p>

## Header Tab

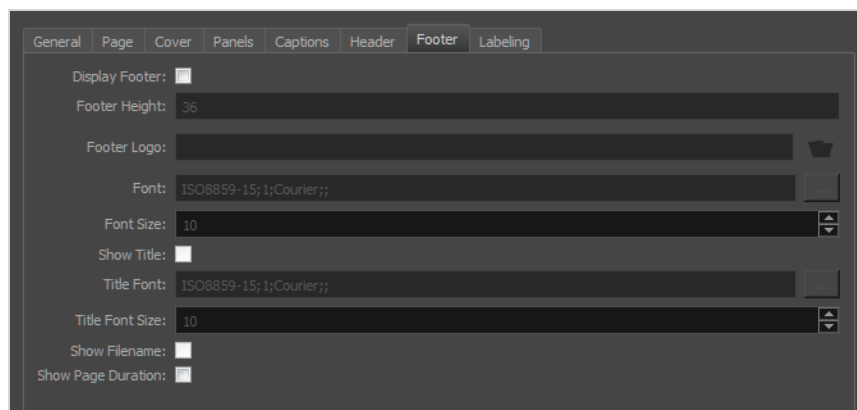


Parameter	Description
Display Header	Displays a header on each page (except the cover). The header includes the project title, project subtitle, and project episode defined in the storyboard properties.
Header Height	Lets you enter the size of the footer for each page except the cover. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Header Logo	Lets you select an image (.bmp, .jpg or .png) to display on the header. Scale the logo to match header's height.
Position of Logo	Sets the position of your logo in the header.
Show Title	Displays the project title defined in the storyboard properties. You can find the properties in the Top Menu > Storyboard > Properties.
Show Subtitle	Displays the project subtitle defined in the storyboard properties. You can find the properties in the Top Menu > Storyboard > Properties.
Show Filename	Displays the filename of the PDF on the cover.
Show Page Number	Displays a page number in the header on each page (except the cover). Affects the following options:

	<ul style="list-style-type: none"> <li>• Use Sequence Name as Page Number Prefix</li> <li>• Use Act Name as Page Number Prefix</li> <li>• Show Total Page Number</li> <li>• Start Page Number</li> <li>• Sub Page Number</li> </ul>
Use Sequence Name as Page Number Prefix	<p>Displays the sequence name as part of the page number. For example, if the panels (or at least the first panel) on page 25 are in the third sequence, the page number will appear as Page 3-25.</p> <p>This option can also be set at the same time as Use Act Name As Page Number Prefix. If so, the prefix for the act will appear before the prefix for the sequence. Thus, if the panels from page 25 are also in the first act, the page number section will display as: Page 1_3-25. In this example, the underscore is used after the act number because it is followed by the prefix of the sequence.</p>
Use Act Name as Page Number Prefix	<p>Displays the act name as part of the page number. For example, if the panels (or at least the first panel) on page 25 are in the first act, the page number will appear as Page 1-25.</p> <p>This option can also be set at the same time as Use Sequence Name As Page Number Prefix. If so, the prefix for the act will appear before the prefix for the sequence. Thus, if the panels from page 25 are also in the third sequence, the page number section will display as Page 1_3-25. In this example, the underscore is used after the act number because it is followed by the prefix of the sequence.</p>
Show Total Page Number	<p>Shows the current page number, as well as the total number of pages of the storyboard. To see this change, enable the Show Page Number option. For example, if this option is enabled, Page 3/7 will display, but if this option is disabled, Page 3 will display.</p>
Start Page Number	<p>Defines the first number to start the page numbering. To see this change, enable the Show Page Number option.</p>
Sub Page Number	<p>If you already printed your storyboard, but have recently added new panels or a new scene to your project, using this option allows you to create a PDF of the new panels or new scenes in your storyboard that can be inserted into the existing print without causing issues with the page numbers.</p> <p>This option does the following:</p> <ul style="list-style-type: none"> <li>• Makes the page number displayed in the corner of the page always display the number in the <b>Start Page Number</b> field, without incrementing.</li> </ul>

	<ul style="list-style-type: none"> <li>• Adds a "sub page number" <i>after</i> the page number, which actually increments with every page.</li> </ul> <p>For example: Let's say you have a storyboard printed out, but a new scene was added to the Storyboard Pro project, and this new scene is to be inserted at page <b>100</b> of the original printed storyboard. Instead of reprinting the whole storyboard, you can simply print out the scene. In this case, you could set the <b>Start Page Number</b> option to <b>100</b>, and then type <b>-1</b> in the <b>Sub Page Number</b> field. This would result in each page in the PDF for the new scene to be numbered like so: <b>100-1</b>, <b>100-2</b>, <b>100-3</b>, etc. With the pages numbered in this way, the printed PDF can be inserted at page 100 of your original printed storyboard, without affecting the existing page numbers.</p> <div style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;">  <p><b>TIP</b></p> <p>This option can also use letters to number sub-pages. In the previous example, setting this option to <b>a</b> would result in pages numbered like so: <b>100a</b>, <b>100b</b>, <b>100c</b>, etc.</p> </div>
Frame Page Number	Displays a rectangle around the page number in the header on each page.
Font	Lets you select any font installed on your system for the footer text in the PDF document.
Font Size	Lets you define the size of the font.

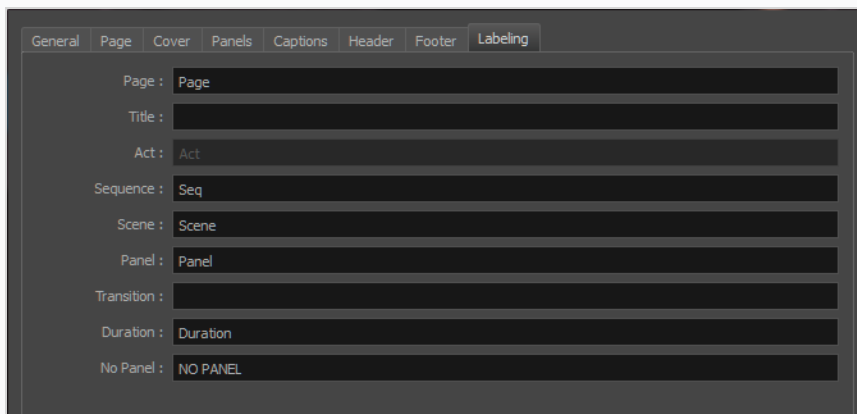
## Footer Tab



Parameter	Description
Display Footer	Displays a footer on each page (except cover). The footer includes the project copyright, defined in the storyboard properties.

Footer Height	Lets you enter the size of the footer for each page except the cover. The value will be written in a way to reflect the set unit type in the General tab of the PDF Profile dialog box.
Footer Logo	Lets you select an image file (.bmp, .jpg or .png) to use as the logo in the footer. Scale the logo to match footer's height.
Font	Lets you select any font installed on your system for the footer text in the PDF document.
Font Size	Lets you define the size of the font.
Show Title	Displays the project title defined in the storyboard properties.
Title Font	Lets you select the font for the title in the footer.
Title Font Size	Lets you set the font size for the title in the footer.
Show Filename	Displays the filename of the PDF on the cover.
Show Page Duration	Displays the duration per page. For example, (03:11).

## Labeling Tab



### NOTE

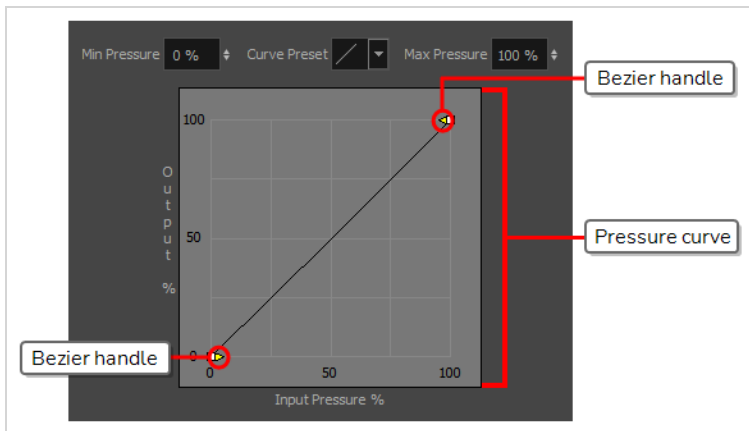
Add %1 at the end of the label to place the label and corresponding number on the same line.

Parameter	Description
Page	Lets you enter a substitute for the word <i>page</i> .
Title	Lets you enter a substitute for the word <i>title</i> .
Act	Lets you enter a substitute for the word <i>act</i> .  This option is grayed out by default. To activate it, enable the Enable Acts option in the General tab of the Preferences dialog box. Then, select the Display Act Name option in the Panels tab of the PDF Profile dialog box.
Sequence	Lets you enter a substitute for the word <i>sequence</i> .  To see this change, select the Display Sequence Name option in the Panels tab of the PDF Profile dialog box.
Scene	Lets you enter a substitute for the word <i>scene</i> .
Panel	Lets you enter a substitute for the word <i>panel</i> .
Transition	Lets you enter a substitute for the word <i>transition</i> .  To see this change, select the Transition As Panel option in the Panels tab of the PDF Profile dialog box.
Duration	Lets you enter a substitute for the word <i>duration</i> .
No Panel	Lets you enter a substitute for the words <i>no panel</i> .  To see this change, select the Display "No Panel" on board option, in the Panels tab of the PDF Profile dialog box.



## Pen Pressure Feel Dialog Box

The Pen Pressure Feel dialog box allows you to configure how Storyboard Pro processes the pressure you put on your tablet pen to apply it to the size of your drawing tool.



By default, Storyboard Pro applies the pressure you put on your pen to your tool in a linear fashion. That is, if you put 25% of the maximum pressure on your pen, your tool's size will be 25% of the way between its minimum and maximum size. If you put 75% of the maximum pressure on your pen, your tool's size will be 75% of the way between its minimum and maximum size.

However, you may find that it would feel more natural, or that it would make it easier to control the size of your drawing strokes, if Storyboard Pro interpreted the pressure you put on your pen differently. For example, you may want Storyboard Pro to make your brush strokes small unless you put a lot of pressure on your pen, or you may want Storyboard Pro to make your brush strokes big unless you put very little pressure on your pen. This is where the Pen Pressure Feel dialog box comes in handy.

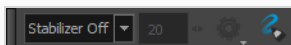



### NOTE

For information on how to use the Pen Pressure Feel dialog, refer to the User Guide.

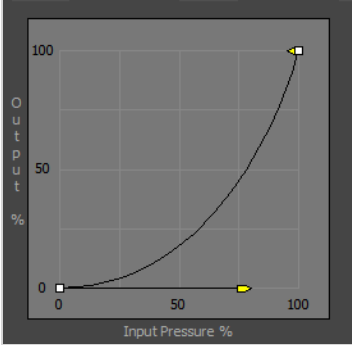
### How to access the Pen Pressure Feel dialog

1. Add the Pen Settings toolbar to your workspace by doing one of the following:
  - In the top menu, select **Windows > Toolbars > Pen Settings**.
  - Right-click on any existing toolbar and, in the context menu, select **Pen Settings**.



2. In the Pen Settings toolbar, click on the  Pen Pressure Feel button.

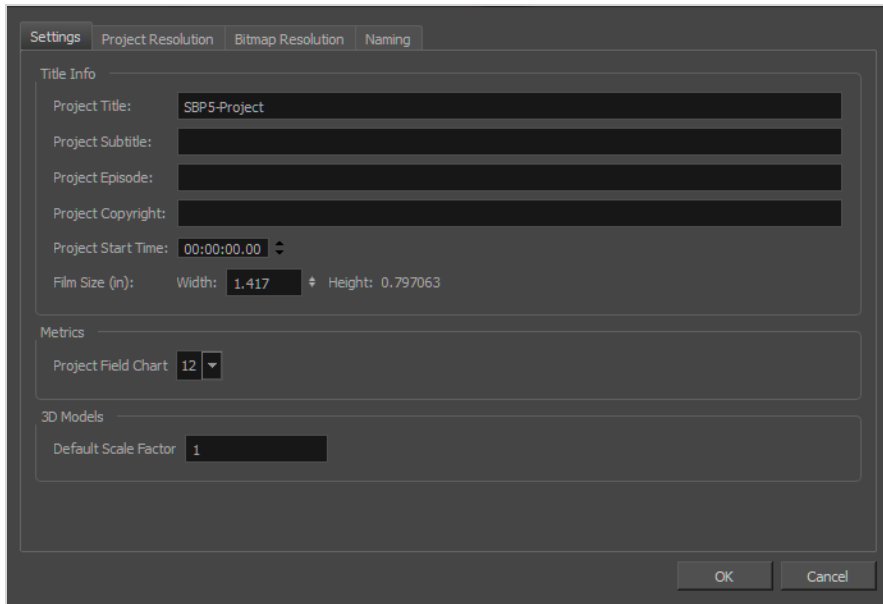
The Pen Pressure Feel dialog appears.

Parameter	Description
Min Pressure	<p>The percentage of your pen's maximum pressure you must apply before Storyboard Pro registers that you are drawing. If you increase this setting, you can lightly brush your tablet with your pen without drawing, and you must apply a certain amount of pressure on it to draw.</p> <p>For example, if you set this to 15%, you can apply up to 15% of your pen's maximum pressure without actually drawing. If you apply exactly 15% of your pen's maximum pressure, Storyboard Pro will draw a stroke in your tool's minimum size.</p> <p>By default, this is set to 0%, which means that just brushing the tablet with your pen will draw in your tool's minimum size. You can increase this setting up to 25%.</p>
Curve Preset	<p>Allows you to instantly apply a curve preset to the pressure curve below.</p>
Max Pressure	<p>The percentage of your pen's maximum pressure at which point your drawing tool should draw in its maximum size.</p> <p>For example, if you set this to 80%, your drawing tool will draw in its maximum size if you apply 80% of your tablet pen's maximum pressure.</p> <p>By default, this is set to 100%, which means you have to press your tablet pen all the way to draw in your drawing tool's maximum size. You can decrease this setting down to 75%.</p>
Pressure Curve	<p>This curve determines how to process the amount of pressure you apply to your tablet pen into your drawing tool's size.</p> <p>By default, it is linear, meaning that the amount of pressure you put on your tablet pen is directly applied to the size of your drawing tool. By moving the two Bezier handles between the extremities of the curve, you can change the curve's shape.</p> <ul style="list-style-type: none"> <li>If you make an ease-in curve like the one below, the size of your drawing strokes will tend to be closer to the minimum size of your drawing tool, unless you apply a lot of pressure on your tablet pen.</li> </ul>  <ul style="list-style-type: none"> <li>If you make an ease-out curve like the one below, the size of your drawing strokes will tend to be closer to the maximum size of your drawing tool, unless you apply very little pressure on your tablet pen.</li> </ul>

Parameter	Description
	<div data-bbox="453 285 802 627" data-label="Figure"> <p>The graph shows a coordinate system with 'Input Pressure %' on the x-axis (0 to 100) and 'Output %' on the y-axis (0 to 100). A curve starts at (0,0) and rises steeply, then levels off as it approaches (100,100). Yellow arrows point to the start and end of the curve.</p> </div> <ul data-bbox="423 659 1414 793" style="list-style-type: none"> <li>• If you make an ease-in curve like the one below, the size of your drawing strokes will tend to be closer to the minimum size of your drawing tool when applying light pressure, and to be closer to the maximum size of your drawing tool when applying more pressure, but it will rarely be the median between the minimum and the maximum size.</li> </ul> <div data-bbox="453 821 802 1163" data-label="Figure"> <p>The graph shows a coordinate system with 'Input Pressure %' on the x-axis (0 to 100) and 'Output %' on the y-axis (0 to 100). A curve starts at (0,0) and rises slowly, then rises steeply to reach (100,100). Yellow arrows point to the start and end of the curve.</p> </div> <ul data-bbox="423 1197 1414 1293" style="list-style-type: none"> <li>• If you make an ease-out curve like the one below, the size of your drawing strokes will tend to be closer to median between the minimum and maximum size of your drawing tool, unless you apply very little or a lot of pressure on your tablet pen.</li> </ul> <div data-bbox="453 1318 802 1661" data-label="Figure"> <p>The graph shows a coordinate system with 'Input Pressure %' on the x-axis (0 to 100) and 'Output %' on the y-axis (0 to 100). The curve starts at (0,0), rises to a peak of about 75% output at 10% input, then falls to a trough of about 25% output at 90% input, and finally rises to (100,100). Yellow arrows point to the peak and trough.</p> </div>

## Project Properties Dialog Box

The Project Properties dialog box lets you change the property settings in your project.

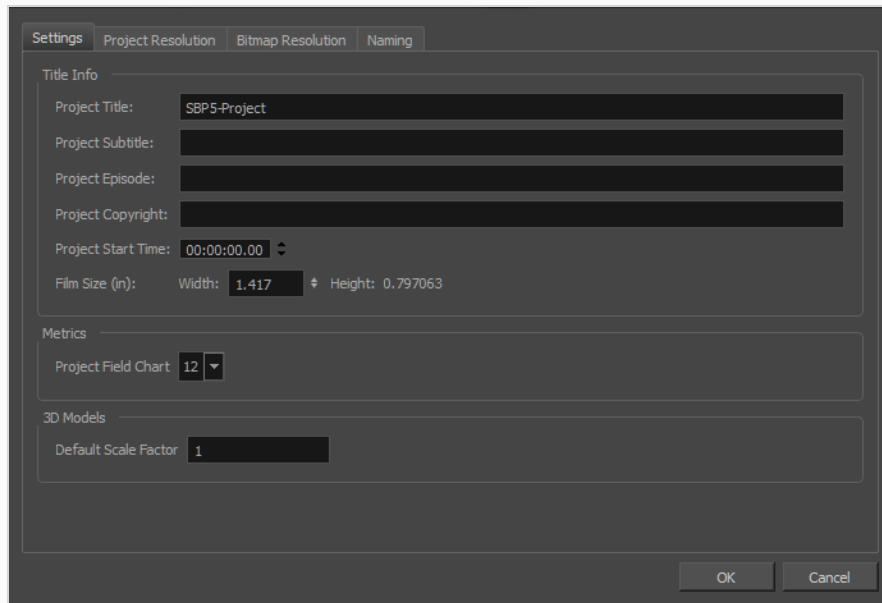



### How to access the Project Properties dialog box

1. Do one of the following:
  - ▶ Select **Storyboard > Project Properties**.
  - ▶ Press **Alt + Return**.

### Settings Tab

In the Settings tab, you can define the project naming scheme and start time for the current project.

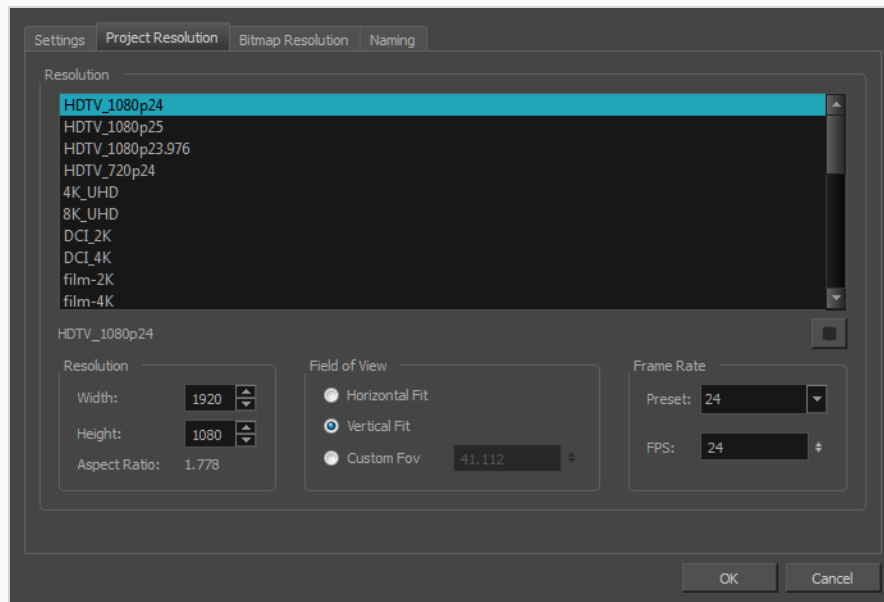




Parameter	Description
Title Info	<p><b>Project Title:</b> By default, the Project Name already appears in this field if no project title was entered during the creation of this project. The Project Name is the name of the Storyboard Pro project file. The Project Title is the title that will appear in all PDF renders. They can, and often should, be the same.</p> <div data-bbox="586 1108 1403 1310" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b> Special characters (!"/\$) cannot be used for project names because they interfere with the operating system. However, they can be used in the project title.</p> </div>
	<p><b>Project Subtitle:</b> The name of the project subtitle which appears in the proper places in all PDF renders.</p>
	<p><b>Project Episode:</b> The episode number. If you want the word “Episode” to appear next to the number, you must include it in the field as well. The information entered in this field will appear after the Project Subtitle in all PDF renders.</p>
	<p><b>Project Copyright:</b> The copyright date. This can be the month and year or just the year. This information will appear at the bottom of the page in all PDF renders.</p>

	<p><b>Project Start Time:</b> This time is important when generating an EDL (Editing Decision List) of your project. EDLs are generally used by third party editing software, such as Final Cut Pro. The EDL determines how the panels of your project are distributed in the timeline of the third party software. The numerical value you enter in this field also appears as the start time in the Timeline view.</p>
	<p><b>Film Size:</b> When working on a 3D scene, the film size determines the focal length of the camera. You should use the same value as that used in the 3D software used to create the 3D elements. A value of 1.417 is equivalent to 35mm film.</p>
Metrics	<p><b>Project Field Chart:</b> Sets the field standard for the project.</p>
3D Models	<p><b>Default Scale Factor:</b> The default scale factor to apply to a 3D model when it is imported into your project. You can enter a decimal value between 0 and 1 to make newly imported 3D models appear smaller than their original size, or a decimal value greater than 1 to make 3D models appear bigger than their original size.</p>

## Project Resolution Tab

In the Project Resolution tab, you can define the project resolution, aspect ratio, field of view and frame rate for the current project:



Parameter	Description
Resolution	<p>Lets you define the project resolution. Your project resolution should match the format of the production for which you are creating the storyboard.</p>
	<p><b>HDTV:</b> High Definition Television delivers a higher quality image than standard television because it has twice the standard number of scanning lines per frame. To take advantage of the superior quality, your output device must be compatible with HDTV technology to make this resolution setting useful.</p>
	<p><b>HDTV_Vertical:</b> The "vertical resolution" of HDTV_Vertical refers to how the drawing grid is fit into the camera frame. When working with 12 or 16 field drawing grids, the grid is a different aspect ratio from the camera frame. When you fit vertically, you fit the grid with the top and bottom of the camera frame.</p>
	<div style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> The HDTV_Vertical format is ideal when importing images into an HD project.</p> </div>
	<p><b>film-1.33:</b> Applies to a wide screen film format that conforms to the standard 4:3 pixel aspect ratio.</p>
	<p><b>film-1.66:</b> Applies to a wide screen film format that conforms to the 16:9 pixel aspect ratio in which the pixel's width is greater than its height.</p>
<p><b>film-1.66_Vertical:</b> This is essentially the same as film-1.66. Refers to how the drawing grid is fit into the camera frame. When working with 12 or 16 field drawing grids, the grid is a different aspect ratio from the camera frame. When you fit vertically, you fit the grid with the top and bottom of the camera frame.</p>	
<div style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> The film-1.66_Vertical view is ideal for importing images into film projects.</p> </div>	
<p><b>NTSC:</b> The standard analog television broadcasting system that was used in most of the Americas, Japan, South Korea, Taiwan, Burma, and some Pacific</p>	

	<p>island nations and territories. It conformed to the North American standards on how rectangular pixels were displayed for computer and television screens. This format has been replaced in most regions with HDTV.</p>
	<p><b>PAL:</b> An analog television encoding system that was used in broadcast television systems in large parts of the world, such as Western Europe, Asia, Australia, most of Africa and some North American countries. This resolution worked best with the European format for television and computer screens, as the rectangular pixels are displayed at a different orientation. This format has been replaced in most regions with HDTV.</p>
	<p><b>Low:</b> This format is ideal for videos destined for the web, where size and fast download of a video file might take precedence over quality.</p>
Resolution	<p><b>Width:</b> The width of the project, in pixels.</p>
	<p><b>Height:</b> The height of the project, in pixels.</p>
	<p><b>Aspect Ratio:</b> The aspect ratio describes the number of pixels wide the project is divided by the height. Storyboard Pro always works with square pixels. An aspect ratio of 1:1 indicates that the camera frame is square, and has the same number of pixels defining the width as it does defining the height. The aspect ratio is defined automatically when you enter values for the width and height of the camera frame.</p>
Field of View	<p>Defines how the camera frame fits with the drawing grid in your scene. When working in 3D, a different custom FOV might be more common, so this can be set here as the default FOV for the scenes in your project. The FOV can be adjusted for individual 3D scenes, in order to switch out the camera lens.</p>
	<p><b>Horizontal Fit:</b> Fits the drawing grid to the width of the camera frame.</p>
	<p><b>Vertical Fit:</b> Fits the drawing grid with the top and bottom of the camera frame.</p>
Frame Rate	<p>Lets you set the frame rate for the project. The higher the frame rate, for example 30 fps, the smoother your animation will look, but the heavier it will be. The lower the frame rate, for example 12 fps, the choppyer your animation may look, but the lighter it will be.</p>



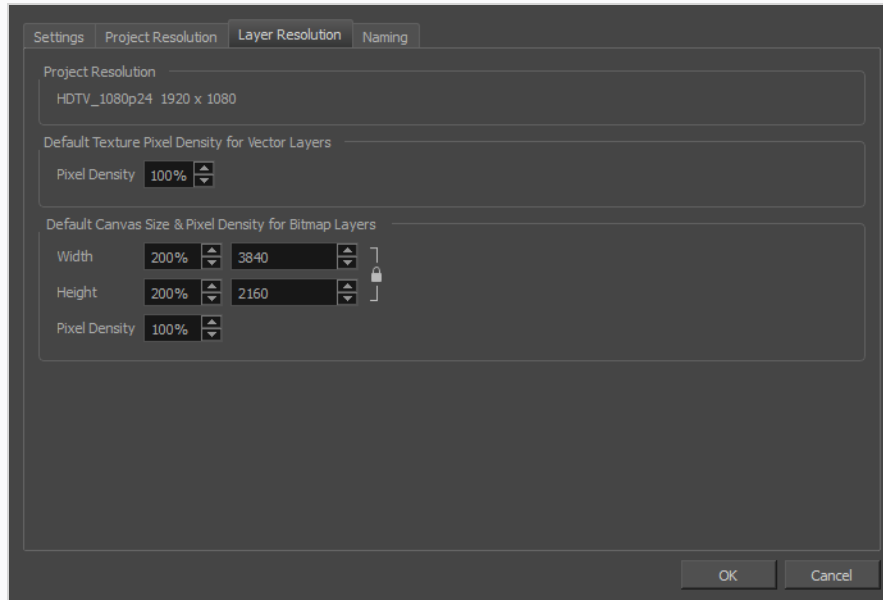
## Bitmap Resolution Tab

In the Bitmap Resolution tab, you can define the default resolution for textured brushes in vector drawing layers, as well as the default size and resolution of canvases for bitmap drawing layers.



### NOTE

This will not affect the pixel density and canvas size of existing drawings in your project.

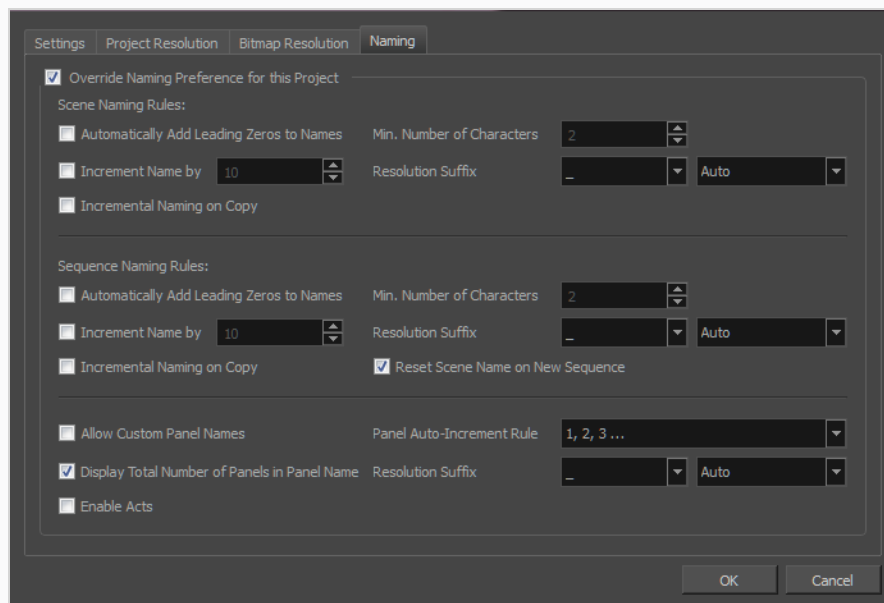


Parameter	Description
Project Resolution	The project resolution of the project, displayed for reference.
<b>Default Texture Pixel Density for Vector Layers</b>	
Pixel Density	Determines the amount of pixels to store in textured brush strokes for each pixel that displays when the drawing is not zoomed in or scaled up. For example, at 100%, zooming in or scaling up textured brush strokes will make them lose texture quality. If set to 200%, textured brush strokes can be zoomed in or scaled up until they're twice their original size without losing picture quality.
<b>Default Canvas Size &amp; Pixel Density for Bitmap Layers</b>	

Width	The default width of the canvas when creating a bitmap drawing layer. The percentage is relative to the width of the project. Its default value, 200%, makes the width of the canvas twice the width of the stage.
Height	The default height of the canvas when creating a bitmap drawing layer. The percentage is relative to the height of the project. Its default value, 200%, makes the height of the canvas twice the height of the stage.
Lock/Unlock	When enabled, changing either the Width or the Height property will update the other property to preserve their proportions.
Pixel Density	Determines the amount of pixels to store for each pixel that displays on the screen when the drawing is not zoomed in or scaled up. For example, at 100%, zooming in or scaling up a bitmap drawing will make it lose picture quality. If set to 200%, bitmap drawings can be zoomed in or scaled up until they're twice their original size without losing picture quality.

## Naming Tab

In the Naming tab, all options affect the Panel window. The changes you make in this tab override your Storyboard Pro preferences and affect the current project only. Your default preferences remain in effect for any new projects you create.



Parameter	Description
Override Naming Preference for this Project	When selected, current preferences for this project are overridden, and all the options on this tab become active.
Scene/Sequence Naming Rules	<p><b>Automatically Add Leading Zeros to Names:</b> Automatically adds a zero before the scene or sequence name.</p>
	<p><b>Increment Name By:</b></p>
	<p><b>Incremental Naming on Copy:</b></p>
	<p><b>Min. Number of Characters:</b> Determines the minimum number of characters the scene names will contain when using leading zeros.</p>
	<p><b>Resolution Suffix:</b> Lets you set the suffix pattern to use when a suffix is added to a new scene when the name is already in use. You can choose the punctuation mark preceding the suffix from the first drop-down menu:<b>None:</b> Suffix appears immediately following the name of the scene. For example: 12A._: Suffix appears after an underscore. For example: 12_A.: Suffix appears after a period. For example: 12.A.You can choose which type of suffix to use:<b>Auto:</b> Uses an upper case alphabetical suffix. Once the suffix reaches Z, it will start again at A, preceded by a number. Example: 12_A, 12_B, (...), 12_1A, 12_1B, and so on.<b>Numerical:</b> Uses a numerical suffix. For example: 12_1, 12_2, and so on.<b>Uppercase:</b> Uses an upper case alphabetical suffix. For example: 12_A, 12_B, and so on.<b>Lowercase:</b> Uses a lower case alphabetical suffix. For example: 12_a, 12_b, and so on.</p>
	<p><b>Reset Scene Name on New Sequence:</b> By default, this option is enabled. Whenever you create a new sequence, the scene naming scheme is reset. For example, the naming will be as follows: Seq 1, Scene 1, Seq 1, Scene 2, Seq 2, Scene 1. When disabled, the scene number always increments. For example, Seq 1, Scene 1, Seq 1, Scene 2, Seq 2, Scene 3.</p>
<p><b>Allow Custom Panel Names:</b> Activates the Panel field so you can enter in a custom name for all panels.</p>	
<p><b>Display Total Number of Panels in Panel Name:</b> Displays a counter at the end of the Panel field which indicates the total number of panels in the selected panel's scene.</p>	

**Enable Acts:** Displays the Act field, along with the Act number.

**Panel Auto-increment Rule:** By default, panel names are named using numbers. This preference allows you to select a different naming rule, most of which use letters instead:

- **1, 2, 3...** : Uses decimal numbers composed of Arabic numerals to name panels.
- **A ... Z, AA ... ZZ, AAA ... ZZZ, AAAA ...** : This is a positional letter-based notation, which means it works similarly to decimal numbers, except it uses letters instead of Arabic numerals, making the panel numbers use base 26 instead of base 10. For example, panels 1 through 26 are named using single letters from A to Z, after that comes AA, then AB, and so on until AZ, and after that comes BA, BB, etc.
- **A ... Z, ZA ... ZZ, ZAA ... ZZZ, ZAAA ...** : This notation uses two different logics: After the first time the panel names cycle through the whole alphabet, a single Z is added at the beginning of the panel names, and subsequent panels are named ZA to ZZ. Every letter after that first Z make up a 26-based number in positional notation, just like the previous option. Therefore, panels 1 through 26 are named using single letters from A to Z, then after that comes ZA, ZB, and so on until ZZ, and after that comes ZAA, ZAB, and so on until ZAZ, and after that comes ZBA, ZBB, etc.

In summary, the first Z is essentially an exceptional notation that means 26, while the other letters constitute a number in base 26 positional notation.

- **A ... Z, ZA ... ZZ, ZZA ... ZZZ, ZZZA ...** : Each time the panel names cycle through the alphabet, a Z is added at the beginning of the panel's name and the last letter in the name cycles from Z back to A. The Zs at the beginning of the notation accumulate, meaning that the amount of Zs at the beginning of the panel's name indicates the amount of time panel names have cycled through the whole alphabet.

In summary, the value of this notation is equal to the sum of each letter's position in the alphabet.

- **A ... Z, ZA ... ZZ, ZZA ... ZZZ, 3ZA ...** : Each time the panel names reach Z, a Z is added at the beginning of the panel's name and the last letter in the name cycles back to A. Those Zs accumulate. However, when more than one Z is present at the beginning of the panel's name, they are notated by a number followed by the letter Z, instead of by multiple Zs. Hence, the number preceding the Z at the beginning of the panel's name indicates the amount of times panel

names have cycled through the whole alphabet.

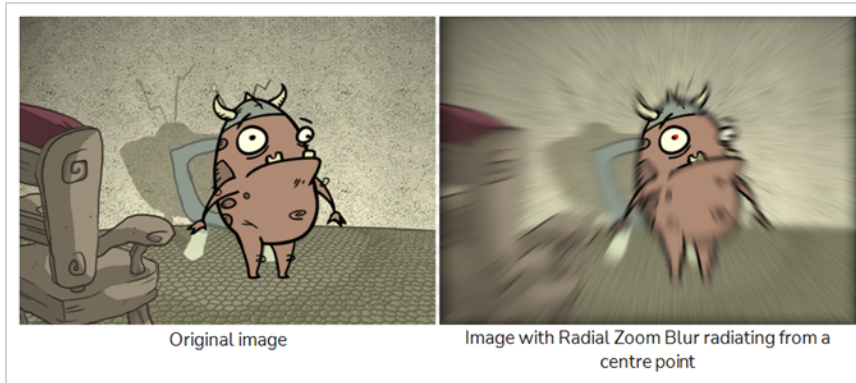
In summary, the value of this notation is equal to  $26 \times$  the number preceding the first Z added to the position of the last letter in the alphabet.

**Resolution Suffix:** Lets you set the suffix pattern to use when a suffix is added to a new scene when the name is already in use. You can choose the punctuation mark preceding the suffix from the first drop-down menu:**None:** Suffix appears immediately following the name of the scene. For example: 12A.\_: Suffix appears after an underscore. For example: 12\_A.: Suffix appears after a period. For example: 12.A.You can choose which type of suffix to use:**Auto:** Uses an upper case alphabetical suffix. Once the suffix reaches Z, it will start again at A, preceded by a number. Example: 12\_A, 12\_B, (...), 12\_1A, 12\_1B, and so on.**Numerical:** Uses a numerical suffix. For example: 12\_1, 12\_2, and so on.**Uppercase:** Uses an upper case alphabetical suffix. For example: 12\_A, 12\_B, and so on.**Lowercase:** Uses a lower case alphabetical suffix. For example: 12\_a, 12\_b, and so on.

## Radial Zoom Blur Dialog Box

T-SBADV-007-007

The Radial Zoom Blur effect creates blurs around a centre point, simulating the look of a zooming or rotating camera.



### How to access the Radial Zoom Blur dialog box

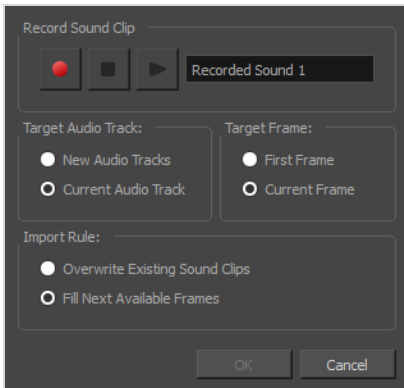
- From the top menu, select **Layer > Apply Effect > Radial Zoom Blur**.
- In the Camera or Stage view, right-click on the layer you want to apply the effect to and select **Apply Effect > Radial Zoom Blur**.

Parameter	Description
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Focus	
(x) and (y) Axis	Lets you set the x and y coordinates individually for the centre.
Blurriness	Amount of blur applied to the layer.
Direction	
Presets	Lets you select preset blur types. A set of preset radial, zoom, and spiral blurs are available to get you started. You can then adjust the type to customize the blur.
Custom	Lets you select a custom blur direction. Create your own blur by entering a value for the direction of the blur lines.
Bidirectional	Applies the blur on both sides of the pixel.
Preview	Generates a preview of the effect on the actual artwork using the current values. This can be done as many times as needed.




## Record Sound Dialog Box

The Record Sound dialog box lets you record sound directly in Storyboard Pro and insert it on the Timeline.



### How to access the Record Sound dialog box

1. In the Timeline view, add a new audio track if needed.
2. Position the play head at the frame you want your recording to begin and select the audio track you want to record your sound guide in.
3. Do one of the following:
  - In the top menu, select **File > Import > Record Sound**.
  - In the Sound toolbar, click on Record Sound .

Icon	Parameter	Description
Record Sound Clip		
	Start recording	Lets you record, play/stop and name your sound recording.
	Stop recording or playing	
	Play recording	
	Clip name	



Icon	Parameter	Description
Target Audio Track		
	New Audio Tracks	Places the recorded sound clips on a new audio track.
	Current Audio Track	Places the recorded sound clips on the current audio track.
Target Frame		
	First Frame	Places the recorded sound clips starting on the first frame.
	Current Frame	Places the recorded sound clips starting on the current frame.
Import Rule		
	Overwrite Existing Sound Clip	By default, when you recorded a sound, it will replace sounds that exist in the target frames.
	Fill Next Available Frames	Places the sound clip into the first available empty frames after any existing sound selection.

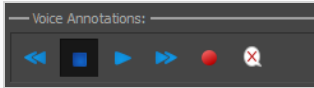
## Record Voice Annotation Dialog Box


The Record Voice Annotation dialog box lets you create vocal annotations using a microphone connected to your computer and Storyboard Pro.

### How to access the Record Voice Annotation dialog box

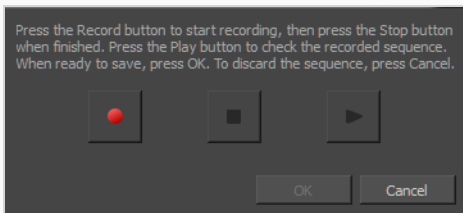
1. In the Thumbnails view, select the panel on which you want to record a voice annotation.
2. Display the Panel view.




The Voice Annotation section appears as part of the panel.



3. Click the Record Voice Annotation  button.

The Record Voice Annotation dialog box opens.



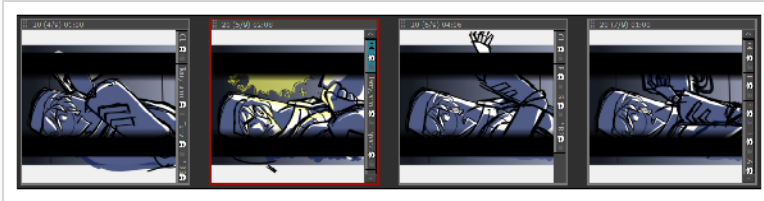
Icon	Tool Name	Description
	Record	Records your voice annotations. Be sure to verify that your microphone is functioning properly.
	Stop or Play	Stops or plays the recording.
	Play Recorded Sound	Plays the voice annotations you recorded.

## Rename Panel Dialog Box

The Rename Panel dialog box lets you renamed a selected sequence . You can also rename Panel in the Panel view.

### How to access the Rename Panel dialog box

1. In the Thumbnails view, select a panel to rename.



2. Select **Storyboard > Rename Panel**.

The Rename Panel dialog box opens.

Parameter	Description
New Name	The new name of the panel.
Renaming Rule for Subsequent Panel	
Current Panel Only	Renames only the selected panel.
Renumber Panels	Rennumbers the current panel, as well as all the panel that follow.
Renumber Selected Panel	Rennumbers the first selected panel of a multiselection, as well as all the following panel that are part of the multiselection.
Renumber Prefix Only	Rennumbers the panel's numerical prefixes beginning at the selected panel. The new name must be a numerical value.
Renumbered Panel Names	Displays the current and new names for all the panels that will be affected by the renaming process.

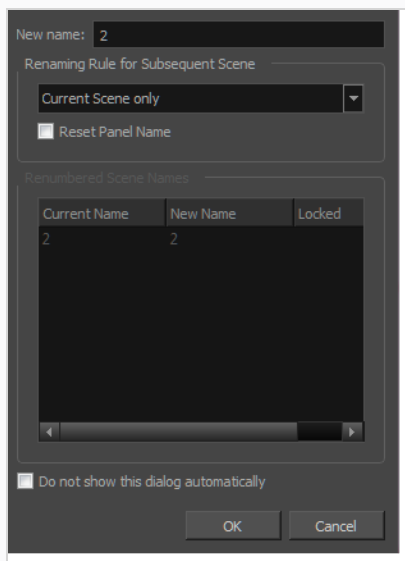
## Rename Scene Dialog Box

The Rename Scene dialog box lets you renamed a selected scene. You can also rename scenes in the Panel view.

### How to access the Rename Scene dialog box

1. In the Thumbnails view, select a scene to rename.
2. Select **Storyboard > Rename Scene**.

The Rename Scene dialog box opens.



Parameter	Description
New Name	The new name of the scene.
Renaming Rule for Subsequent Scene	
Current Scene Only	Renames only the selected scene.
Renumber Scenes	Rennumbers the current scene, as well as all the scenes that follow.
Renumber Selected Scenes	Rennumbers the first selected scene of a multiselection, as well as all the following scenes that are part of the selection.
Renumber Prefix	Rennumbers the scenes' numerical prefixes beginning at the selected scene. The

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Only	new name must be a numerical value.
Reset Panel Name	Resets all panel names according to the current panel time automatic increment rule.
Renumbered Scene Names	Displays the current and new names for all the scenes that will be affected by the renaming process.
Do not show this dialog automatically	Prevents this dialog box from automatically opening every time you move scenes around.

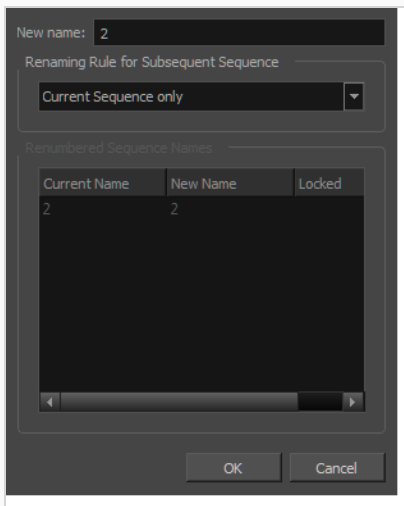
## Rename Sequence Dialog Box

The Rename Sequence dialog box lets you renamed a selected sequence . You can also rename scenes in the Panel view.

### How to access the Rename Sequence dialog box

1. In the Thumbnails view, select a sequence to rename.
2. Select **Storyboard > Rename Sequence**.

The Rename Sequence dialog box opens.

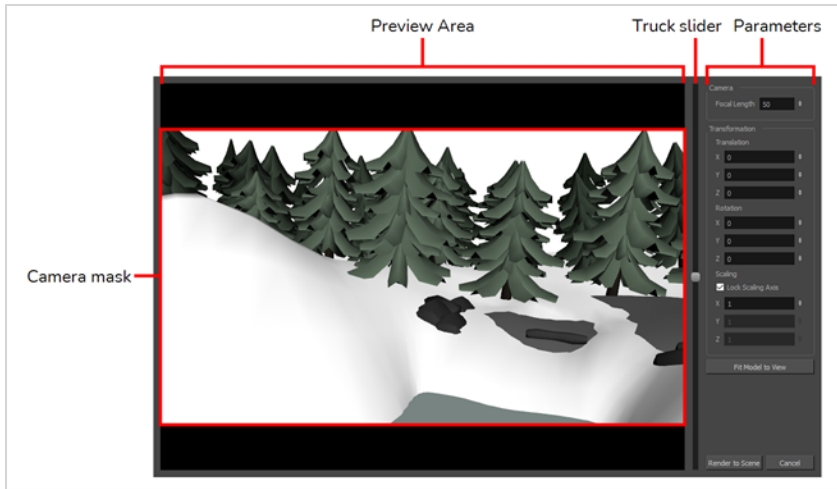


Parameter	Description
New Name	The new name of the sequence.
Renaming Rule for Subsequent Sequence	
Current Sequence Only	Renames only the selected sequence.
Renumber Sequences	Renumbers the current sequence, as well as all the sequencethat follow.
Renumber Selected Sequence	Renumbers the first selected sequence of a multiselection, as well as all the following sequence that are part of the multiselection.
Renumber Prefix Only	Renumbers the sequence's numerical prefixes beginning at the selected sequence. The new name must be a numerical value.

Renumbered Sequence Names	Displays the current and new names for all the sequence that will be affected by the renaming process.
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## Render 3D Model Dialog Box

The Render 3D Model dialog box allows you to set up how a 3D model should be positioned before rasterizing into a 2D layer, so it can be imported into a 2D scene.



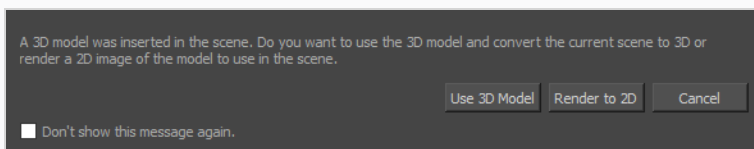
### NOTE

For information on how to use this dialog, see the User Guide.

### How to access the Render 3D Model dialog box

1. Make sure the current scene is a 2D scene.
2. In the Thumbnails or Timeline view, select the panel to which you want to add a 3D object.
3. In the Library view, select the **3D Models** library.
4. In the list of 3D models, select the model you wish to add to the current panel.
5. Drag and drop the 3D model from the Library view to the Stage or Camera view:
  - To insert it between two specific layers, drop it between those layers in the Layer panel of the Stage or Camera view.
  - If you want to insert it over all the other layers, you can drop it directly in the Stage or Camera view.

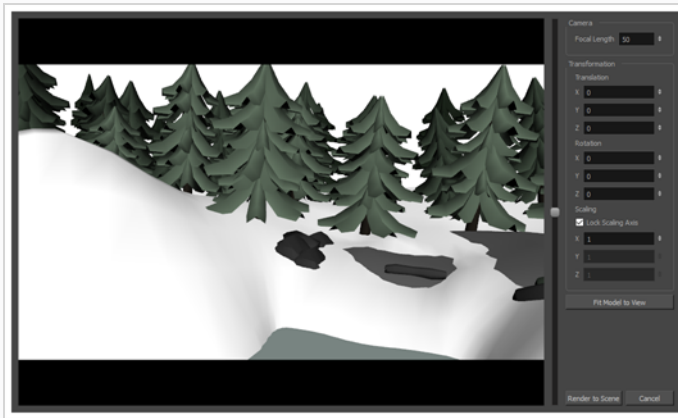
The following dialog box appears:

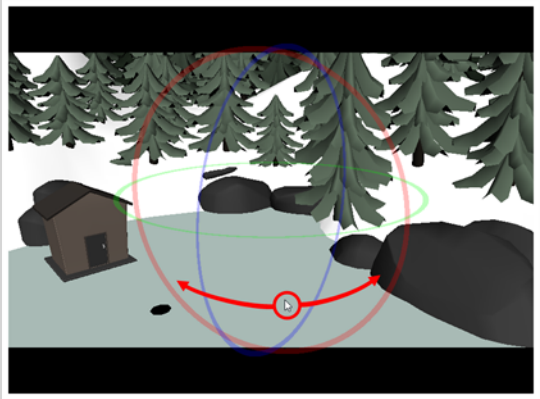


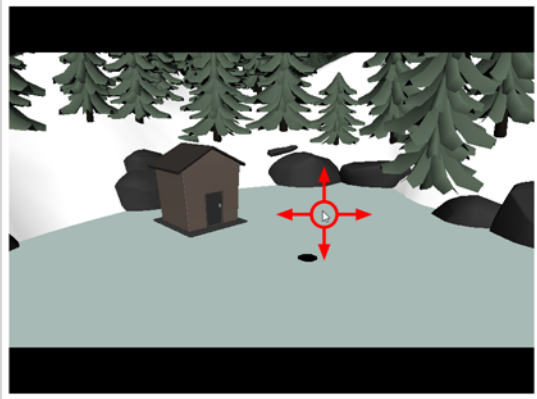



6. Click on **Render to 2D**.

The Render 3D Model dialog appears.



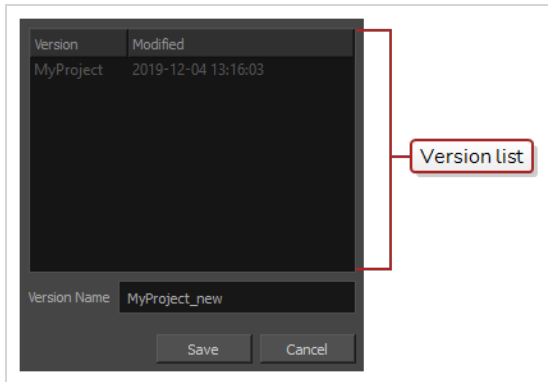
Parameter	Description
Preview Area	<p>The preview area displays the 3D model as it will be rendered in the stage. Black bars display around the area to mark parts of the areas that are outside of the camera frame.</p> <p>In this area, you can:</p> <ul style="list-style-type: none"> <li>• Either click and drag on the vertical slider to the right or scroll the mouse wheel up or down to adjust the distance between the camera and the model.</li> <li>• Hold Ctrl + Shift (Windows) or Shift + ⌘ (macOS), then click and drag on the preview area to rotate the camera.</li> </ul>  <ul style="list-style-type: none"> <li>• Hold Spacebar, then click and drag on the preview area to pan the camera laterally.</li> </ul>

Parameter	Description
	
<b>Camera</b>	
Focal Length	<p>The angle of the camera cone used to render the 3D model. A wide angle will render the model with less perspective, and a narrow angle will render it with exaggerated perspective.</p> <div data-bbox="451 974 1429 1176" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> Increasing this setting will also decrease the perceived size of the 3D model, and decreasing it will increase its perceived size. You must then adjust the camera's distance from the model or the model's scaling to compensate.</p> </div>
<b>Transformation</b>	
Translation	<p>The position of the 3D model relative to the center of the stage:</p> <ul style="list-style-type: none"> <li>• <b>X:</b> The horizontal position of the 3D model, from west to east.</li> <li>• <b>Y:</b> The vertical position of the 3D model, from south to north.</li> <li>• <b>Z:</b> The position of the 3D model relative to the camera, from near to far.</li> </ul>
Rotation	<p>The angle of the 3D model relative to its default angle:</p> <ul style="list-style-type: none"> <li>• <b>X:</b> The rotation angle of the model around the horizontal axis.</li> <li>• <b>Y:</b> The rotation angle of the model around the vertical axis.</li> <li>• <b>Z:</b> The rotation angle of the model around the z-axis.</li> </ul>
Scaling	<p>The size of the 3D model relative to its default size:</p> <ul style="list-style-type: none"> <li>• <b>Lock Scaling Axis:</b> When enabled, you can use the X scaling field to set the scaling</li> </ul>

Parameter	Description
	<p>of the 3D model on all axes, preserving its proportions.</p> <ul style="list-style-type: none"><li>• <b>X:</b> The horizontal scaling of the model.</li><li>• <b>Y:</b> The vertical scaling of the model.</li><li>• <b>Z:</b> The scaling of the model on the z-axis.</li></ul>
Fit Model to View	Click on this button to automatically adjust the model's Truck, Translation X and Translation Y parameters so that the model fits inside the camera field and is positioned in its centre.
Render to Scene	Rasterize the 3D model into a bitmap layer and add it to the current panel.
Cancel	Dismiss this dialog and do not import the 3D model.

## Save Version Dialog Box


The Save Version dialog box allows you to save multiple versions of your project, as well as to delete versions of your project that you no longer need.




### How to access the Save Version dialog box

1. In the top menu, select **File > Save as New Version**.

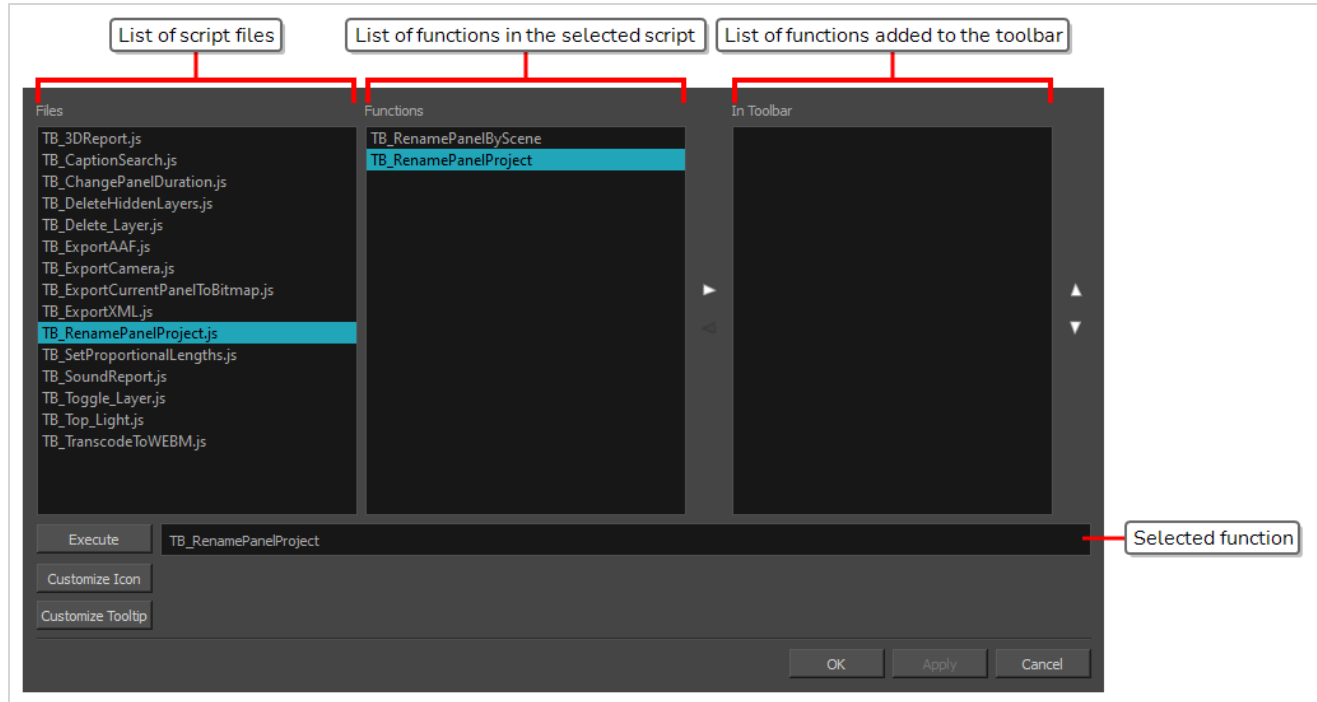
The Save Version dialog box appears.

Name	Description
Version list	<p>The list of existing project versions for this project. This list will contain one item for each <code>.sboard</code> file inside the project's directory, as well as the date of its last modification.</p> <div style="border: 1px solid #0070C0; padding: 10px; margin-top: 10px;"> <p> <b>TIPS</b></p> <ul style="list-style-type: none"> <li>• You can select one or several projects in this list, right-click on the selection and select <b>Delete Selected</b> to delete old versions of your project. You cannot delete the version of your project that is currently open.</li> <li>• You can also select one of the versions to fill the <b>Version Name</b> field with its name, allowing you to quickly overwrite an old project version if you want.</li> </ul> </div>
Version Name	Allows you to type in the name of the version you want to create.
Save	Saves the project as a version named according to what is in the Version Name field and closes the dialog.

Name	Description
	<div data-bbox="332 285 1430 541" style="border: 1px solid #c8e6c9; padding: 10px;"> <b>NOTES</b><ul style="list-style-type: none"><li>• If the name in the Version Name field is for a project version that already exists, you will be prompted to confirm whether you want to overwrite it.</li><li>• From that point on, you will be working on the project version you just created. If you want to resume working on the previous project version, you must manually reopen it.</li></ul></div>
Cancel	Closes the dialog and does not create a new project version.

## Scripts Manager Dialog Box


The Scripts Manager dialog allows you to create buttons in the Scripting toolbar. Each button you create can run a specific function in one of your scripts. You can also choose an icon and a tool tip for the button, if you want.



### NOTE


For tasks related to this dialog box, see the User Guide.

## How to access the Scripts Manager Dialog Box

1. Add the Scripting toolbar to your workspace by doing one of the following:
  - In the top menu, select **Windows > Toolbars > Scripting**.
  - Right-click on any existing toolbar and select **Scripting**.
2. In the Scripting toolbar, click on the  Manage Scripts button.

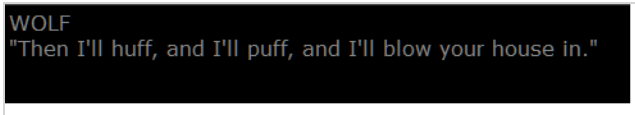
The Scripts Manager dialog box opens.

Parameter	Description
Files	A list of the available JavaScript files.

Functions	A list of the available functions for the selected script.
In Toolbar	The list of script functions already added to the Scripting toolbar.
Execute	<p>Runs the selected function.</p> <div data-bbox="565 432 1430 569" style="border: 1px solid #add8e6; padding: 5px;"> <b>TIP</b> Press Esc to interrupt the execution of the script.</div>
Customize Icon	Allows you to select an icon for the toolbar button. Clicking on this button will open an Open dialog prompting you to browse for and select a <b>.png</b> , <b>.jpg</b> , <b>.xpm</b> or <b>.svg</b> file.
Customize Tooltip	Allows you to type in a custom tooltip for the toolbar button.

## Select Font Dialog Box

In the Pitch Mode workspace or view, the Show/Hide Captions dialog box lets you format text in caption fields. By default, the selected caption field has a black background and a gray font. You can change the colours and the font.

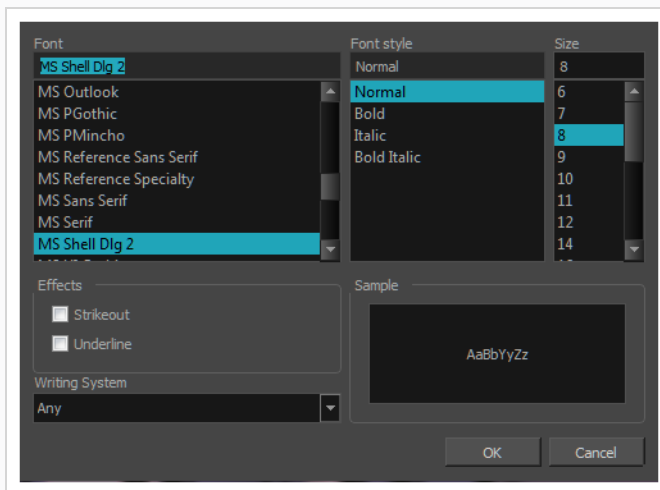


### How to access the Select Font dialog box

1. Select one of the following:

- ▶ Pitch Mode Workspace: Select **Windows > Workspace > Workspace > Pitch Mode**.
- ▶ Pitch Mode View: **Select Windows > Pitch Mode View**.

The Select Font dialog box opens.




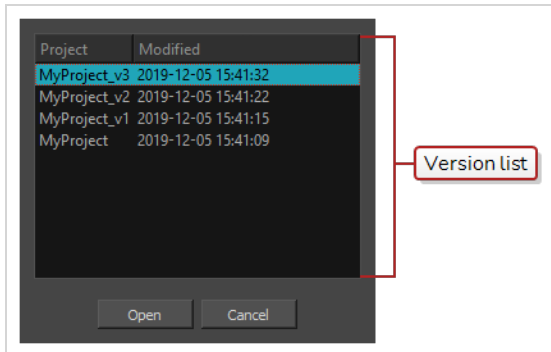
Parameter	Description
Font	Lets you select the font in which to display the text.
Font Style	Lets you set the style of selected text.
Size	Allows you to set the size of the selected text.
Effects	Lets you strike out and underline selected text.




Sample	Shows a preview of the selected font and the parameters you set.
Writing System	Changes the selected text to a different writing system.

## Select Project Dialog Box

The Select Project dialog box appears when you open a project in  Storyboard Pro Packed File (**.sbpz**) format which contains several versions of the project inside it.



If you are trying to open a project in the regular  Storyboard Pro Project (**.sboard**) format, each version of the project is its own **.sboard** file in the project directory. Since an **.sbpz** file is a single file containing a whole project and all of its versions, this dialog allows you to select which version to open after Storyboard Pro extracts the project files from the **.sbpz** file.



### NOTE

If you open an **.sbpz** file that contains a single project version, Storyboard Pro will automatically select this version and open it.

Name	Description
Version list	The list of project versions in the project. This list will contain one item for each <b>.sboard</b> file found inside the <b>.sbpz</b> file as well as the date of its last modification.
Open	Opens the selected project version.
Cancel	Closes the dialog and cancels opening the project.

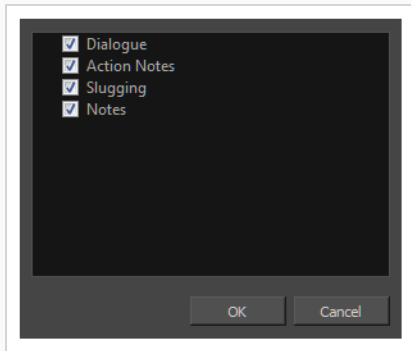
## Show/Hide Captions Dialog Box

The Show/Hide Captions dialog box lets you determine which captions to display and hide.

### How to access the Show/Hide Captions dialog box

1. Select **Caption > Show/Hide Captions**.

The Show/Hide Captions dialog box opens.




Parameter	Description
Dialogue, Action Notes, Slugging and Notes	Lets you display selected captions. Deselected captions are hidden.

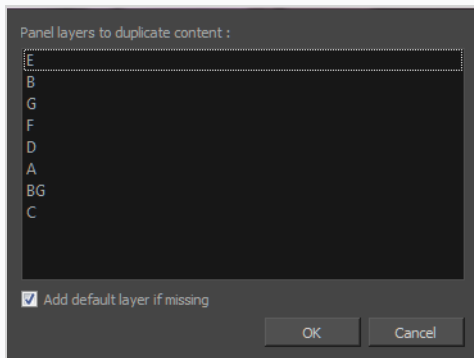
## Smart Add Panel Dialog Box

The Smart Add Panel dialog box lets you create a new, duplicated panel that contains specific elements that you select.

### How to access the Smart Add Panel dialog box

1. In the Thumbnails view, select the panel that contains the elements you want duplicate into the new panel.
2. Do one of the following:
  - Select **Storyboard > Smart Add Panel**.
  - In the Storyboard toolbar, click the Smart Add Panel  button.

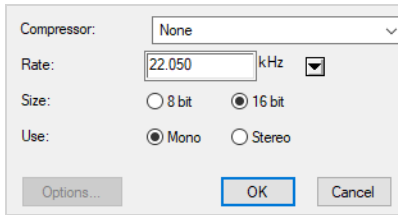
The Smart Add Panel dialog box opens.



Parameter	Description
Panel layers to duplicate	Lets you select the layers that contain elements you want to copy into the new panel.
Add default layer if missing	Creates the default layers in the new panel if they are not part of the Smart Add Panel selection list.

## QuickTime Sound Settings Dialog Box (Windows)

The Sound Settings dialog box allows you to set the audio compression settings when you want to export a QuickTime Movie (.mov) file.



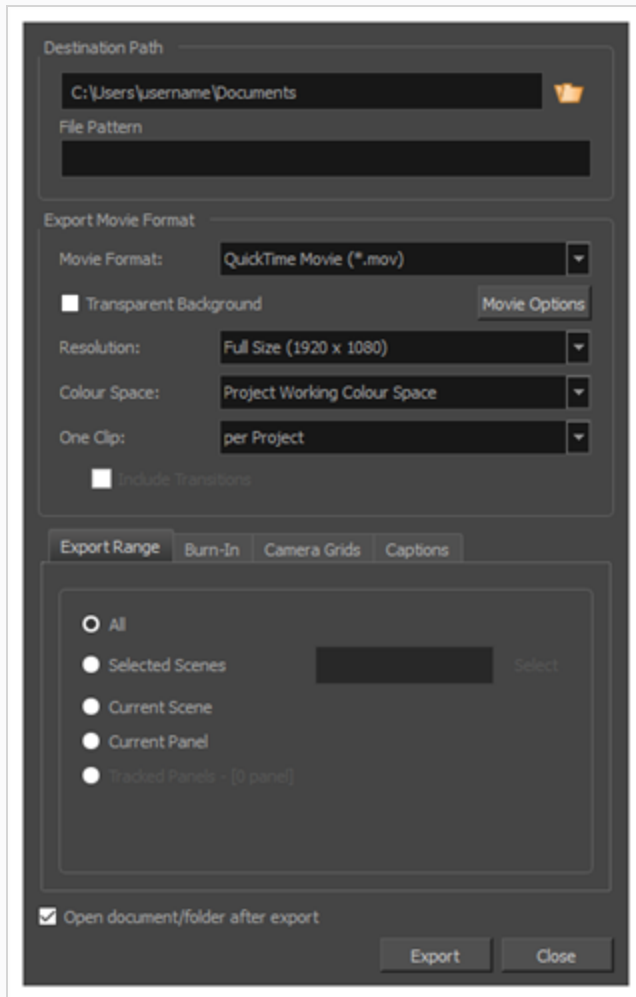
### NOTES

- For tasks related to this dialog box, refer to the User Guide.
- This dialog can only be accessed on Windows and requires [Apple QuickTime](#) to be installed.

### How to access the QuickTime Sound Settings dialog box from the Export Movie dialog

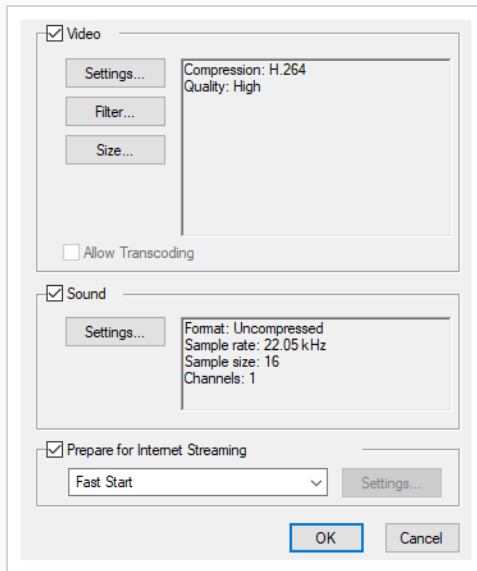
1. From the top menu, select **File > Export > Movie**.

The Export Movie dialog box opens.







2. In the **Movie Format** drop-down, select **QuickTime Movie (\*.mov)**.
3. Click on the **Movie Options** button.

The QuickTime Movie Settings dialog box appears.



4. In the **Sound** section, click **Settings**.

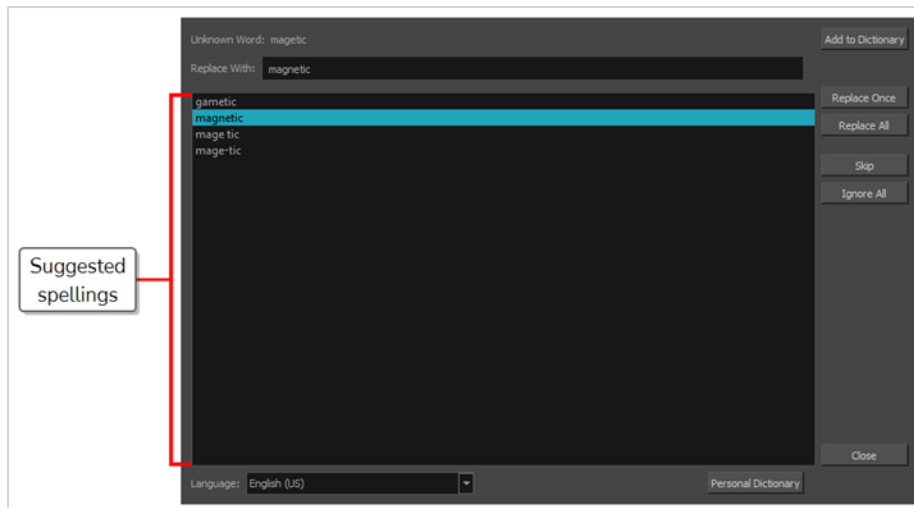
Parameter	Description
Compressor	<p>Allows you to select the compression algorithm to use to compress the movie's audio track.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>It is recommended to leave this setting to <b>None</b>, as other formats are likely to sacrifice audio quality for negligible savings in disk space.</p> </div>
Rate	<p>Allows you to select the sample rate, or frequency, in which to export the audio track for the movie.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>Storyboard Pro cannot export audio at a higher sample rate than 22.050 kHz. If you select a higher sample rate, your project's audio will be upsampled, which means it will take more disc space without increasing in quality.</p> </div>
Size	<p>Allows you to select the bit depth in which to encode the audio track. This determines the amount of precision to record each wavelength in the audio track.</p>

Parameter	Description
	<div data-bbox="565 285 1430 489" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> The standard bit depth is <b>16-bit</b>. If you choose <b>8-bit</b>, the amount of disk space the audio track of your movie file requires will be halved, but the audio quality will be significantly lower.</p> </div>
Use	<p>Allows you to select whether to export the movie's audio track using the <b>Mono</b> or <b>Stereo</b> channel mode.</p> <div data-bbox="565 646 1430 814" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> Stereo sound has a separate track for the left and right speakers, whereas mono sound only has a single audio track for all speakers.</p> </div>



## Spelling Dialog

The Spelling dialog allows you to fix spelling mistakes in your storyboard script and captions, to select the dictionary language to use for spell checking and to add or remove words from your personal dictionary.



### How to access the Spelling dialog



1. In the top menu, select **Caption > Spelling > Spell Check**.


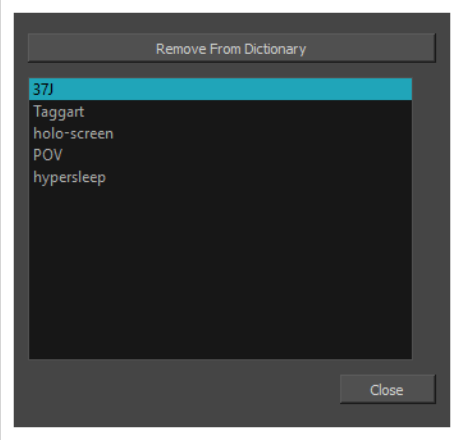


#### NOTES

- As soon as you open the Spelling dialog, it will search for the first unknown or misspelled word it can find and suggest possible spellings for this word.
- The Spelling dialog will start searching for unknown words from the position of the cursor in the currently selected captions field, whether it is the script text field in the Storyboard view or one of the caption fields for one of the panels in your project in the Panel view.

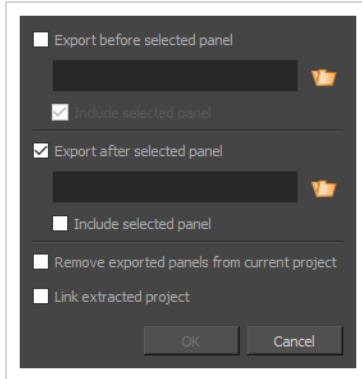
Parameter	Description
Unknown Word	<p>The currently selected unknown or misspelled word.</p> <div data-bbox="399 1671 461 1743" data-label="Image"> </div> <p><b>NOTE</b></p> <p>As soon as this dialog is opened, it will find the first unknown word in your project's storyboard script or panel captions and select it as the current unknown word. When that word's spelling is corrected, it will automatically jump to the next unknown word in your project, and so on until no more misspelled words are found in the project.</p>

Parameter	Description
Replace With	<p>The currently selected spelling suggestion for the misspelled word.</p> <p>By default, this field contains the first word in the suggested spellings list. If you select a different word in this list, the selected word will appear in this field.</p> <p>If the proper spelling for the word cannot be found in the list, you can manually type the proper spelling for the misspelled word into this field.</p>
Suggested spellings list	<p>This list displays all the dictionary words that are spelled similarly to the word in the <b>Unknown Word</b> field. You can click on one of the words in this list to select it as the replacement for the misspelled word.</p>
Add to Dictionary	<p>Adds the current misspelled word to your personal dictionary, then jumps to the next misspelled word in your project.</p> <div data-bbox="375 810 1430 951" style="border: 1px solid #c8e6c9; padding: 10px; margin: 10px 0;">  <b>NOTE</b>  Words added to your personal dictionary are not considered misspelled. </div>
Replace Once	<p>Replaces the selected instance of the unknown word with the word in the <b>Replace With</b> field.</p>
Replace All	<p>Replaces all instances of the current misspelled word that can be found in your project with the word in the <b>Replace With</b> field.</p>
Skip	<p>Skips the current unknown word, leaving it misspelled, and jumps to the next unknown word that can be found in your project.</p>
Ignore All	<p>Temporarily ignores all instances of the current unknown word in the project, and jumps to the next unknown word that can be found in your project.</p> <div data-bbox="375 1486 1430 1654" style="border: 1px solid #c8e6c9; padding: 10px; margin: 10px 0;">  <b>NOTE</b>  This adds the current unknown word to a temporary list of words to ignore. This list is not saved with your project or your preferences, and is discarded when you close Storyboard Pro. </div>
Close	<p>Closes the dialog.</p>
Language	<p>Allows you to select a dictionary to use for checking the spelling of your script and captions. The following dictionaries are supported:</p>

Parameter	Description
	<ul style="list-style-type: none"> <li>• <b>English (AU):</b> English (Australia)</li> <li>• <b>English (US):</b> English (United States)</li> <li>• <b>English (CA):</b> English (Canada)</li> <li>• <b>English (GB):</b> English (United Kingdom)</li> <li>• <b>Español (ES):</b> Spanish (Spain)</li> <li>• <b>Français (FR):</b> French (France)</li> <li>• <b>한국어 (KR):</b> Korean</li> <li>• <b>Português (BR):</b> Portuguese (Brasil)</li> <li>• <b>Português (PT):</b> Portuguese (Portugal)</li> <li>• <b>русский (RU):</b> Russian</li> <li>• <b>No Spellchecking:</b> Disables spellchecking</li> </ul> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <b>NOTE</b>  When you select a dictionary, the change takes effect in the Spelling dialog immediately. </div>
Personal Dictionary	<p>Opens the Personal Dictionary dialog, which displays a list of all the words you added to your personal dictionary using the <b>Add to Dictionary</b> button.</p>  <p>To remove a word from your personal dictionary, select it in the list, then click on <b>Remove From Dictionary</b>. The word will be considered a misspelled word again from that point on.</p> <p>Once you are done, click on <b>Close</b> to close the dialog and return to the Spelling dialog.</p>

## Split Storyboard Dialog Box

The Split Storyboard dialog box allows you to separate the current project into two different projects, which can be shared and edited independently. You can choose to export one half of the project into a different project and keep the other half in the current project, or you can choose to split the current project into two new projects and keep the current project as an original copy.



### IMPORTANT

If you intend to split your project into two new projects, then import the changes made in the two new projects into the original project using the Merge and Replace dialog, it is highly recommended to lock your project's scene and panel numbers before splitting your project. To do this, in the top menu, select **Storyboard > Lock Scene and Panel Names**.


### How to access the Split Storyboard dialog box

1. In the Timeline, move the timeline playhead to the panel where you want to split your project.




### NOTE

You can choose in which one of the two projects the current panel will go in the Split Storyboard dialog.

2. Do one of the following:
  - In the top menu, select **File > Project Management > Split**.
  - In the Project Management view, click on  Menu and select **Split**—see [Project Management View](#).

The Split Storyboard dialog box appears.

Parameter	Description
-----------	-------------


Export before selected panel	Exports all panels before the selected panel into a new project.
Path	Using the Browse  button, you can browse to the location where you want to save the first half of the project, and type in its project name.
Include selected panel	Includes the selected panel in the first half of the project.
Export after selected panel	Exports all panels after the selected panel into a new project.
Path	Using the Browse  button, you can browse to the location where you want to save the second half of the project, and type in its project name.
Include selected panel	Includes the selected panel in the second half of the project.
Remove exported panels from current project	Removes the panels you selected to export from the current project. If you do not select this option, the current project will preserve a copy of the panels getting exported into new projects.
Link extracted project	Adds each extracted project to the project list in the Project Management view, so that you can easily track and merge changes to the extracted projects back into the current project—see <a href="#">Project Management View on page 541</a> .

## Spread Layer Motion Dialog Box

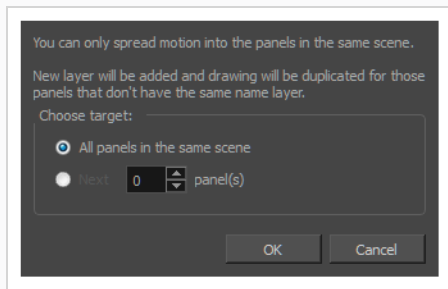
The Spread Layer Motion dialog box lets you spread the current layer motion across all panels in the same shot or a specified number of adjacent panels after the current panel in the same shot.

A new layer will be added and the drawing will be duplicated for those panels that do not have the same name in the defined range.

### How to access the Spread Layer Motion dialog box

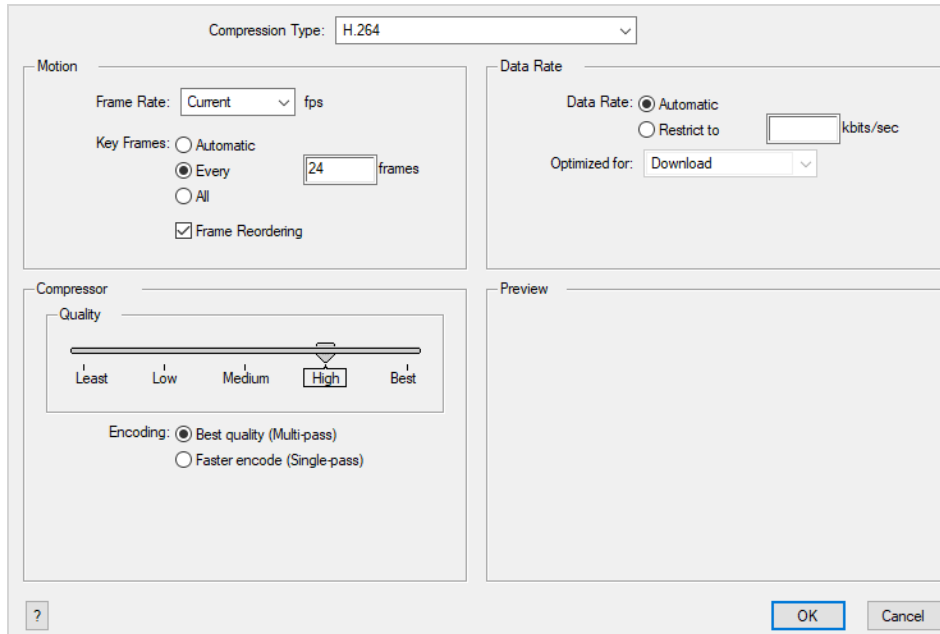
1. Select a layer
2. Do one of the following:
  - ▶ Select **Layer > Spread Layer Motion**.
  - ▶ In the Layer toolbar, click the Spread Layer Motion  button. You may have to add this button to the Layer toolbar by customizing it.

The Spread Layer Motion dialog box opens.



## QuickTime Standard Video Compression Settings Dialog Box (Windows)

The Standard Video Compression Settings dialog box allows you to configure the video compression settings when exporting a QuickTime Movie (.mov) file.



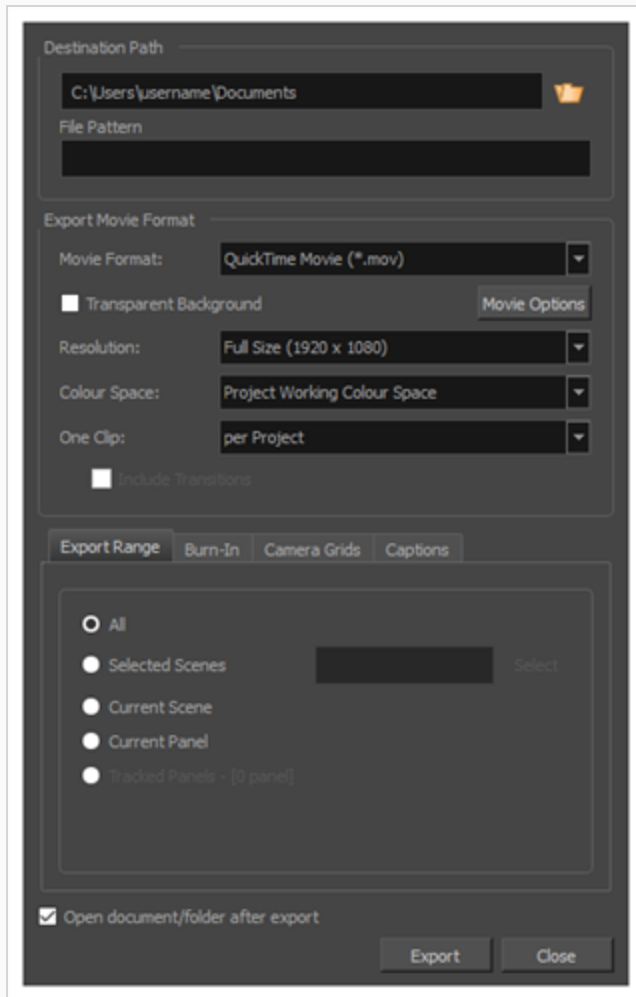
### NOTES

- For tasks related to this dialog box, refer to the User Guide.
- This dialog can only be accessed on Windows and requires [Apple QuickTime](#) to be installed.

### How to access the QuickTime Standard Video Compression Settings dialog box from the Export Movie dialog

1. From the top menu, select **File > Export > Movie**.

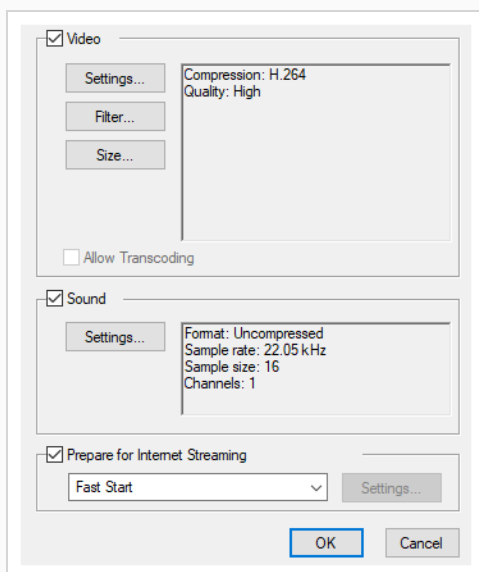
The Export Movie dialog box opens.



2. In the **Movie Format** drop-down, select **QuickTime Movie (\*.mov)**.
3. Click on the **Movie Options** button.

The QuickTime Movie Settings dialog box appears.



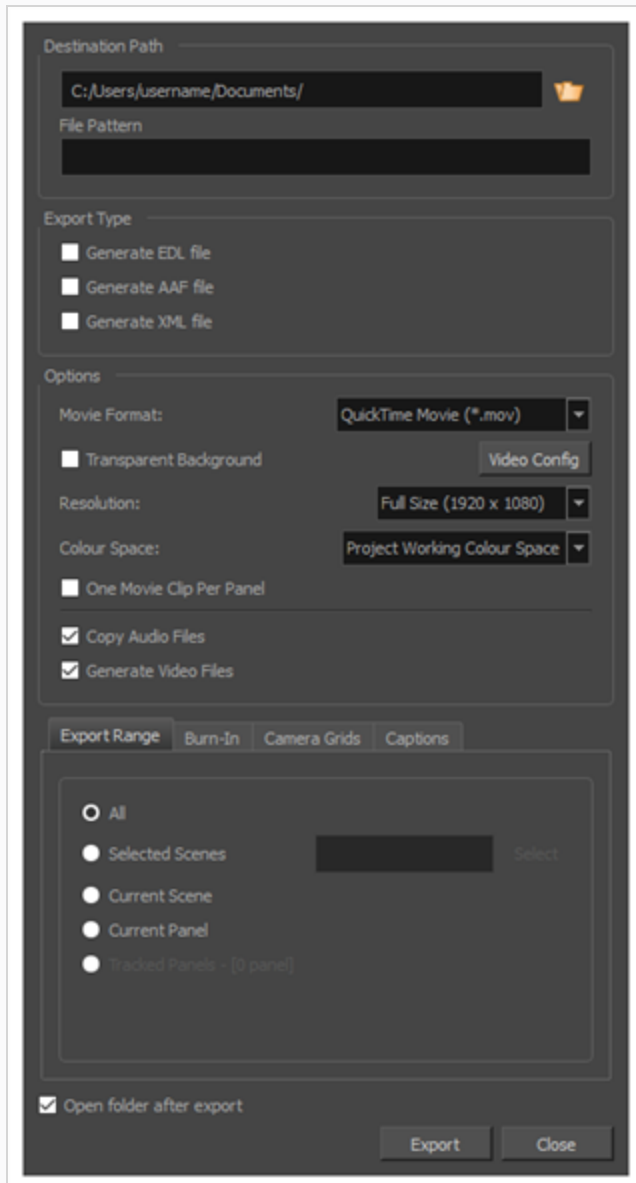


4. In the **Video** section, click **Settings**.

### How to access the QuickTime Standard Video Compression Settings dialog box from the Export to EDL/AAF/XML dialog


1. From the top menu, select **File > Export > EDL/AAF/XML**.



The Export to EDL/AAF/XML dialog box opens.




2. In the **Movie Format** drop-down, select **QuickTime Movie (\*.mov)**.
3. Click on the **Movie Options** button.

Parameter	Description
Compression Type	<p>Allows you to select the codec to use to compress the video stream of your movie. It is recommended to use one of the following codecs, depending on your usage scenario:</p> <ul style="list-style-type: none"> <li>• <b>H.264:</b> A very effective lossy compression algorithm that is commonly supported by web browsers and most media players.</li> <li>• <b>MPEG-4 Video:</b> A very effective lossy compression algorithm that is</li> </ul>

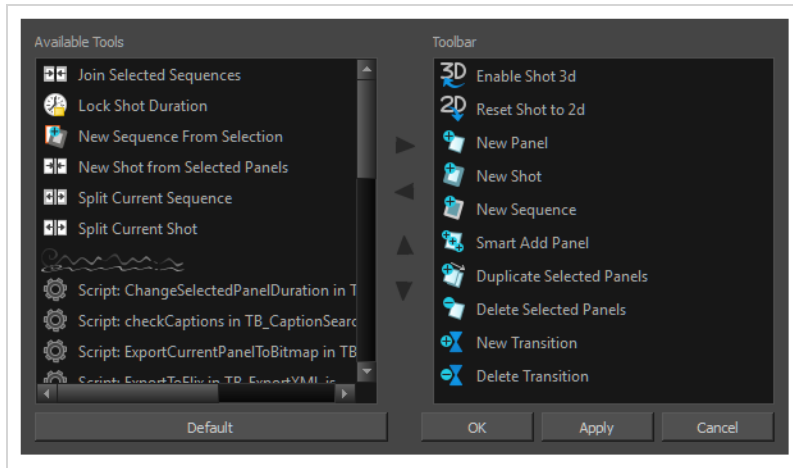
Parameter	Description
	<p>commonly supported by media players, but less so by web browsers.</p> <ul style="list-style-type: none"> <li>• <b>Animation:</b> A high quality compression algorithm that is commonly used for media interchange and video editing.</li> </ul>
Motion	
Frame Rate	<p>The amount of frames per second for the video stream. Leave this setting to <b>Current</b> to use your project's frame rate.</p>
Key Frames	<p>Some codecs compress the video by recording a limited amount of <i>keyframes</i>, which are frames in which the entire picture is encoded, pixel by pixel and, in-between, recording <i>deltas</i>, which are frames that are only defined by their difference with the previous frame. This significantly reduces the size of the movie file. However, the less keyframes a movie has, the more it is likely to encounter decoding errors, and the harder it is for players to scrub or jump to a specific time in the video. This option allows you to decide when keyframes are inserted in the video stream.</p> <p><b>Automatic:</b> Lets the encoder decide when keyframes should be inserted.</p> <p><b>Every ... frames:</b> Allows you to set the exact interval, in frames, at which keyframes should be inserted.</p> <p><b>All:</b> Encodes every frame as a keyframe. This option will significantly impact file size, but will make it easier to scrub through the video without causing any rendering error.</p> <div data-bbox="565 1262 1427 1465" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b> If you are using the H.264 codec, you must set the Key Frames option to <b>All</b>, or you will get an error message when you confirm the compression settings.</p> </div>
Frame Reordering	<p>Encodes frames in a different order than the one at which they are meant to be displayed. This allows for more efficient compression, but may not be compatible with some players.</p>
Compressor	
Depth	<p>Allows you to set the colour depth for your video. A lower colour depth will reduce the size of the video stream but will have significant impacts on picture quality.</p>

Parameter	Description
	<div style="border: 1px solid #0070C0; padding: 10px;">  <p><b>TIP</b> Set this to <b>Millions of Colors+</b> if you want to export a video with transparency.</p> </div>
Quality	<p>Lets you choose a quality setting for the video compression. A higher quality setting will increase the size of the movie file, but will look better. A lower quality setting will reduce the size of the movie file, but will cause blurriness and compression artifacts to appear in the picture.</p>
Scan Mode / Interlaced	<p>Allows you to choose between the following scan modes:</p> <ul style="list-style-type: none"> <li>• <b>Interlaced:</b> Frames are encoded starting with their odd-numbered scanlines, then their even-numbered scanlines.</li> <li>• <b>Progressive:</b> Frames are encoded whole, from the highest scanline to the lowest scanline.</li> </ul> <div style="border: 1px solid #008000; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b> Some codecs will display a drop-down allowing you to select Interlaced or Progressive, while others will simply have an Interlaced checkbox.</p> </div>
Aspect Ratio	<p>Allows you to select one of the following aspect ratios:</p> <ul style="list-style-type: none"> <li>• <b>4:3:</b> For output on standard definition displays.</li> <li>• <b>16:9:</b> For output to widescreen displays.</li> </ul>
Filter	<p>When exporting with the <b>PNG</b> compression type, this determines the algorithm with which each pixel is encoded relative to other pixels. Leaving this option to <b>Best</b> will export in the most space-efficient filter, without compromising picture quality. Picking a filter may increase rendering speed a bit, at the expense of some disk space.</p>
Data Rate	
Automatic	<p>Lets the encoder use the optimal bit rate for your compression settings.</p>
Restrict To	<p>Allows you to specify the encoding bit rate.</p>

Parameter	Description
	<div data-bbox="565 283 1429 451" style="border: 1px solid green; padding: 5px;"> <b>NOTE</b> This setting will override other compression settings, so that the specified bit rate is respected.</div>
Optimized For	<p>Optimize the encoding to be responsive depending on the intended viewing method:</p> <ul style="list-style-type: none"><li>• <b>CD/DVD-ROM:</b> Optimizes the bit rate for a video that will be played using an optical disc player.</li><li>• <b>Download:</b> Optimizes the bit rate for a file that is going to be downloaded, then viewed from the user's hard drive.</li><li>• <b>Streaming:</b> Optimized the bit rate for a video that will be streamed from the web and played as the video is being downloaded.</li></ul>

## Toolbar Manager Dialog Box

The Toolbar Manager dialog box lets you customize a selected workspace, create a new workspace, and organize and rename a workspace.



### How to access the Toolbar Manager dialog box

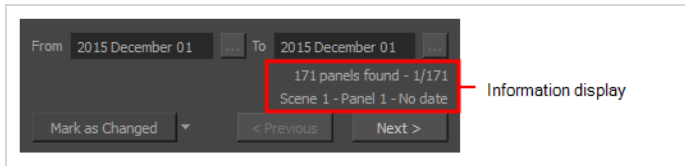
1. Right-click (Windows) or Ctrl+click (macOS) on any button in a toolbar and select **Customize**.

The Toolbar Manager dialog box opens.

Parameter	Description
Available Tools	Displays a list of the available tools you can add to the toolbar.
Default	Resets the toolbar to the default tools available for this toolbar.
Arrows	Lets you organize the list by moving a selected item up or down the list, as well as add and remove items from a toolbar.
Toolbar	Displays the tools available in the selected toolbar.

## Track Changes Window

The Track Changes window lets you track changes by date. If a storyboard becomes very large, it may be easier to track changes made on a specific date.



### How to access the Track Changes window

- Select **Storyboard > Track Changes > Track Changes by Date**.

Parameter	Description
From and To	Lets you define a particular time range in which to track changes. If you want to track changes done on one specific day, place that day's date in both the From and To fields. Click the From button and select the first date. Only the dates at which a change occurred will be available. The other dates will appear dimmed.
Information display	The first line displays the number of panels found in the storyboard that have been modified during the defined time range, and the panel that is currently selected. The second line displays information about the currently selected panel, such as which scene it is part of, the name of the panel, and the date it was last modified.
Mark as Changed	Marks the currently selected panel as being edited on the current date; this is the default option. Click the button to activate it.
Mark as Scene Changed	Marks the scene of the currently selected panel as being edited on the current date.
Mark All as Changed	Marks all the storyboard panels as being edited on the current date.
Previous and Next	Navigates from one modified panel to the next.

## Welcome Screen

When you open Storyboard Pro for the first time, two dialogs appear. The first one provides links for:

- Learning how to use Storyboard Pro.
- Details on what's new in this version of Storyboard Pro.
- Joining the Toon Boom Forum, where you can exchange with other Storyboard Pro users, ask questions, and get answers to your questions.



When you close the first Welcome screen, the second one displays, in which you can create and open projects.

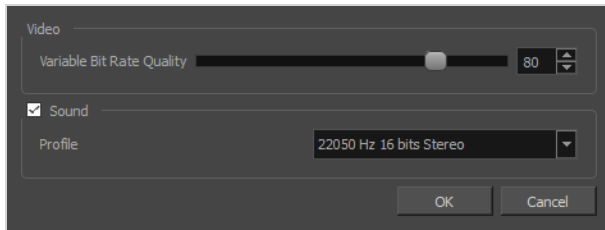


**TIP**

Once in the main application window, you can return to the Welcome Screen by selecting **Help > Show Welcome Screen** from the top menu.

## Windows Media Video Settings Dialog Box (Windows)

The WMV Settings dialog box allows you to configure the video and audio settings when exporting a movie in Windows Media Video (.wmv) format.



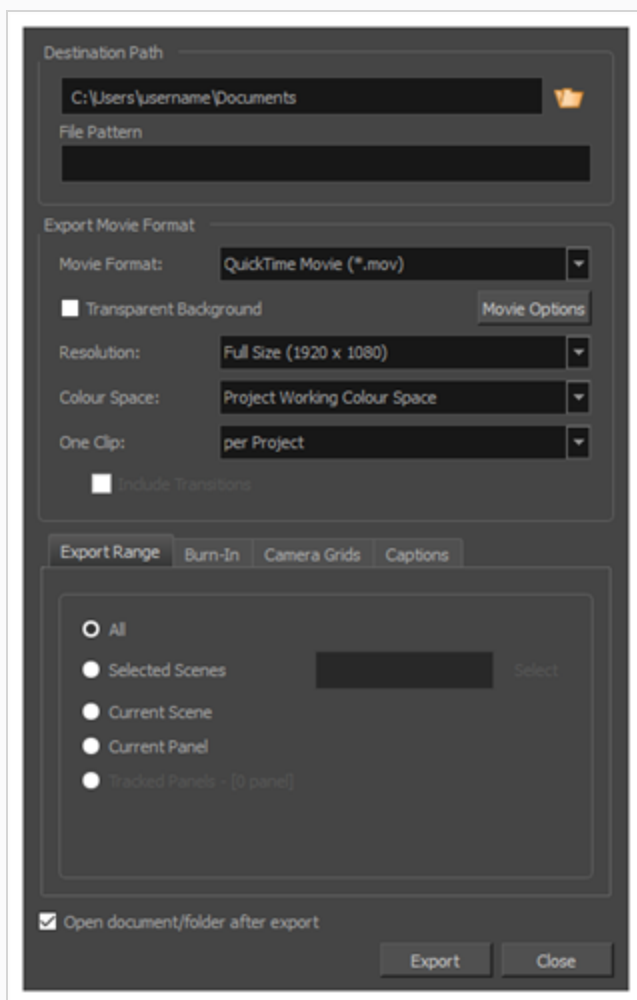
### NOTES

- For tasks related to this dialog box, refer to the User Guide.
- This dialog can only be accessed on Windows.

### How to access the WMV Options dialog box from the Export Movie dialog

1. From the top menu, select **File > Export > Movie**.

The Export Movie dialog box opens.

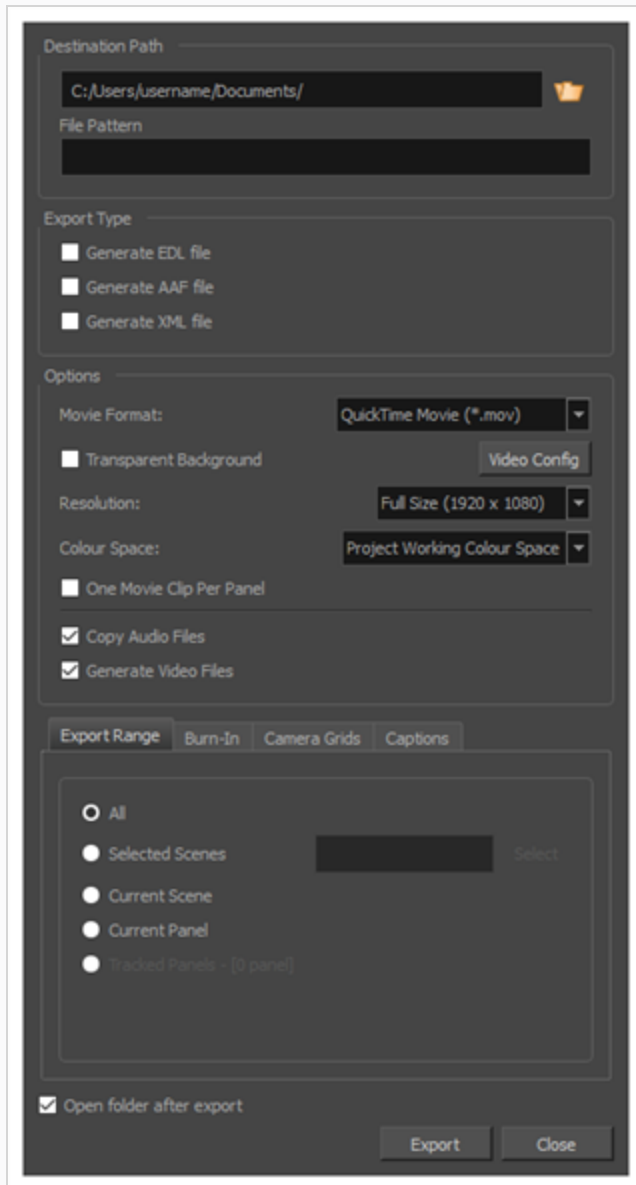


2. In the **Movie Format** drop-down, select **Windows Media Video (\*.wmv)**.
3. Click on the **Movie Options** button.

### How to access the WMV Options dialog box from the Export to EDL/AAF/XML dialog




1. From the top menu, select **File > Export > EDL/AAF/XML**.

The Export to EDL/AAF/XML dialog box opens.



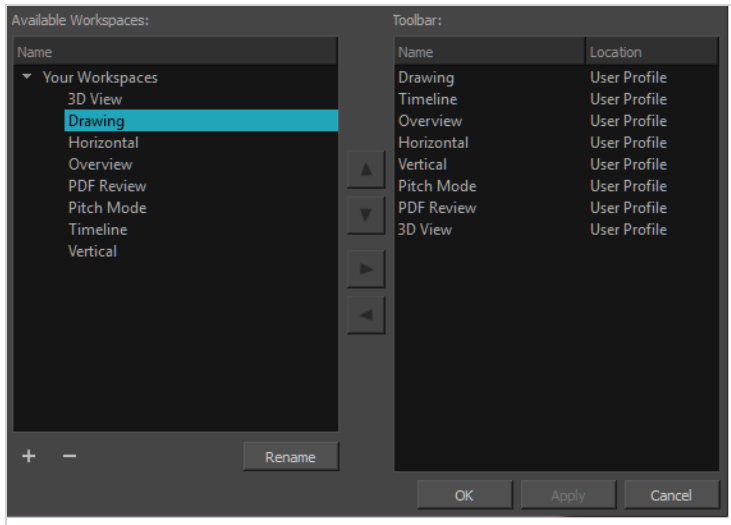
2. In the **Movie Format** drop-down, select **Windows Media Video (\*.wmv)**.
3. Click on the **Movie Options** button.

Parameter	Description
Video	
Variable Bit Rate Quality	Allows you choose a quality setting ranging from 5 to 100 for the video stream. The higher the quality of the export, the larger the resulting file.
Sound	Uncheck this checkbox if you want to export a movie without an audio track.


	<div data-bbox="565 191 1430 390" style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>  The Sound section of this dialog is not available if you are exporting an EDL/AAF/XML sequence, as this type of export creates video files with no audio track and export sound clips in separate sound files. </div>
Profile	<p>Allows you to select one of the preset combinations of audio sample rates, sample sizes and channel modes for the audio stream:</p> <ul style="list-style-type: none"> <li>• <b>Sample rate:</b> Available sample rates are 8000 Hz, 16000 Hz, 22050 Hz and 44100 Hz. The higher the sample rate, the better the audio quality.</li> </ul> <div data-bbox="643 636 1430 867" style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>  Storyboard Pro cannot export audio at a higher sample rate than 22.050 kHz. If you select a higher sample rate, your project's audio will be upsampled, which means it will take more disc space without increasing in quality. </div> <ul style="list-style-type: none"> <li>• <b>Sample size:</b> Also known as <i>bit depth</i>, this determines the amount of precision used to record each wavelength in the audio track. The standard size is <b>16-bit</b>. If you choose <b>8-bit</b>, the amount of disk space the audio track of your movie file requires is halved, but the audio quality will be significantly lower.</li> </ul> <div data-bbox="643 1098 1430 1272" style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>  Exporting in 8-bit audio requires <a href="#">Apple QuickTime</a> to be installed. </div> <ul style="list-style-type: none"> <li>• <b>Channel mode:</b> Available channel modes are <b>Stereo</b> and <b>Mono</b>. Stereo sound has a separate audio track for the left and the right speakers, whereas mono sound uses a single track for all speakers.</li> </ul>

## Workspace Manager Dialog Box

The Workspace Manager dialog box lets you customize a selected workspace, create a new workspace, and organize and rename a workspace.



### How to access the Workspace Manager dialog box

1. Do one of the following:
  - Select **Windows > Workspace > Workspace Manager**.
  - Select **Windows > Toolbars > Workspace** and in the Workspace toolbar, click the Workspace Manager  button.

Parameter	Description
Available Workspaces	Displays a list of the available workspaces.
Duplicate Selected Workspace	Copies the selected workspace.
Delete Workspace	Deletes the selected workspace.
Arrows	Lets you organize the list by moving a selected item up or down the list, as well as add and remove items from a selected workspace.
Rename	Lets you rename the selected workspace.

Toolbar	Displays the toolbars available in the selected workspace.
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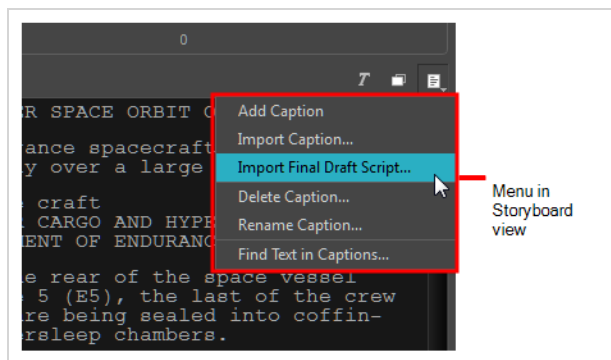


## Chapter 3: Menus

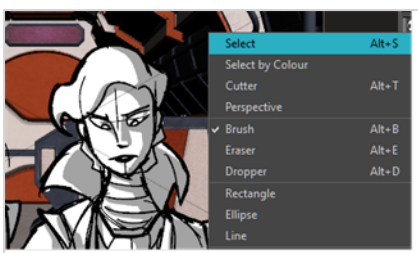
In Storyboard Pro, you can access the commands from the following three types of menus:

**Top Menu:** Located at the top of the Storyboard Pro interface, the top menu contains most of the commands. Depending on the view you are working in and the selected element, some commands are available and others not.

**View Menus:** Some views have their own menu containing commands specifically related to that view. To access a view menu, click the View Menu  button in the top-right corner of a view.



**Contextual Menus:** Each view has a contextual menu containing commands for recurring actions. To access a contextual menu, right-click (Windows) or Ctrl+click (macOS) anywhere in a view.



## Main Menus

The following is a list of the top menus that are documented in this section:

## Camera Menu

The Camera menu lets you enhance your animatics by adding camera movements to the scenes. An example of a camera movement would be if you wanted the camera to go from a wide shot and then zoom in to a close up.

### How to access the Camera menu

- ▶ At the top of the interface, select **Camera**.

Command	Description
Copy Camera from Selected Panels	Copies a selected camera keyframe from a selected panel.
Paste and Fit Camera on Selected Panels	Pastes a copied camera keyframe in a selected panel.
Align Camera Keyframe with Stage View Position	Fits the camera frame to the current space available in the Stage view while retaining its original ratio. This is very useful in 3D scenes.
Align Camera Keyframe at Beginning of Panel	
Align Camera Keyframe at Current Frame	
Align Camera Keyframe at the End of Panel	
Remove Camera Keyframes at Current Frame	Deletes the camera keyframe at the current location of the red playhead.
Remove Selected Camera Keyframes	Deletes the selected camera keyframes.
Reset Selected Camera Keyframes	
Reset Camera	Removes all the keyframes in your scene and reverts them back to the original Static Camera.
Keyframes Sync Mode	



None	Makes your keyframes remain exactly where they are when you change the panel duration. You will lose keyframes that are not within the range of the scene.
Relative to Camera	
Relative to Shot	


## Caption Menu

The Caption menu lets you add captions to panels and the Storyboard view. In addition, it enables you to delete, rename, format and search captions.

### How to access the Caption menu

1. At the top of the interface, select **Caption**.

Command	Description
Add Caption to Storyboard	Adds a caption field to the Storyboard view. By default, the Storyboard view only has one caption field, the <i>Script</i> field, to store your project's script. Caption fields in the Storyboard view are for the entire project.
Add Caption to Panels	Adds caption field to the Panel view. A panel caption field can store different text for each panel in your project.
Add Sketch to Current Panel	Adds a sketch field to the current panel, in the Panel view. A sketch field is a field in which you can draw annotations for a panel. When you add a sketch field, it is only added to the current panel.. <div data-bbox="678 1119 1427 1257" style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <b>NOTE</b> You cannot add a sketch caption to the Storyboard view.           </div>
Delete Caption	Allows you to delete a caption field. This menu will list all available caption fields for the project. Caption fields for panels, which are listed in the Panel view, will be preceded by <b>Panel:</b> , and caption fields for the project, listed in the Storyboard view, will be preceded by <b>Storyboard:</b> . <div data-bbox="678 1520 1427 1753" style="border: 1px solid red; padding: 5px; margin-top: 10px;">  <b>IMPORTANT</b> Deleting a panel caption field deletes it for every panel in the entire project, not just for the current panel. If this caption contains text in some of the panels in your project, this text will also be deleted.           </div>
Rename Caption	Allows you to rename a caption field. This menu will list all available caption fields for the project. Caption fields for panels, which are

	<p>listed in the Panel view, will be preceded by <b>Panel:</b>, and caption fields for the project, listed in the Storyboard view, will be preceded by <b>Storyboard:</b>.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> Renaming a panel caption field renames it for the entire project, not just for the current panel.</p> </div>
Format Captions	Opens the Format Captions dialog, which allows you to change the formatting of all the panel captions in your project.
Find Text in Captions	Opens Find Text in Captions dialog, which allows you to search for phrases, words or parts of a word in the captions in your project. This dialog searches through all the captions in your project, including the ones in the Storyboard view and the ones in the Panel view. It can also be used to search and replace words in your project's captions—see <a href="#">Find Text in Captions Dialog</a> .
Spelling	
Spell Check	Opens the Spelling dialog, which will go through every spelling mistake in your project's script and captions and suggest correct spelling for the word based on the selected dictionary—see <a href="#">Spelling Dialog on page 228</a> .
Check Spelling While Typing	When enabled, spelling mistakes in the Script field of the Storyboard view and in the caption fields of the Panel view are automatically underlined with a wavy red line. When disabled, Storyboard Pro will only detect spelling mistakes in your project through the Spelling dialog.
Save Captions Layout as Default	Saves the current layout of caption fields as the default caption layout. The projects you create in the future will automatically have this layout by default.
Show/Hide Captions	Allows you to select caption fields to display or hide in the Panel view. This allows you to hide caption fields without deleting them.
Captions Default Format	Lets you set the default caption font and font size for new captions that are added to the project.

## Clips Menu

The Sound menu lets you add sound to your storyboard.

### How to access the Sound menu

1. At the top of the user interface, select **Sound**.

Command	Description
Find Sound Clips	Allows you to search for sound clips in your project by their clip name. The Timeline view will automatically focus on matching sound clips.
Split Clip at Current Frame	Splits the selected video or sound clip at the current frame, separating it into two independent clips.
Show Waveform	Displays a waveform inside the audio clip, allowing you to see where the audio peaks so you can sync the action with it.
Show Volume Envelope	Displays a volume envelope throughout the sound clip. By default, this envelope is a straight line in the middle of the clip, indicating that the volume of the clip is neutral all throughout. You can add keyframes to the envelope, and move them up or down to modulate the volume of the sound clip as it plays.
Show Sound Clip Name	Displays the name of the audio file inside each sound clip.
Overwrite Clips	Enable this option to be able to move a video or sound clip over another video or sound clip. The part of the target clip that meshes with the clip being moved will be cut out.

## Edit Menu

The Edit menu lets you repeat and undo actions, cut/copy/paste selected objects, select and manipulate objects, and access the Preferences dialog box.

### How to access the Edit menu

- From the top menu, select **Edit**.

Command	Description
Undo	Removes the last change made to your project. Storyboard Pro supports multiple undo, so you can undo changes you made in the order you made them.
Redo	Redoes an operation you have undone. This command is active only after you use the Undo command.
Cut	Removes selected objects. You can then paste the object or its properties to another object.
Copy	Copies selected objects and properties.
Paste	Places an object you cut or copied into the location you select in a view.
Delete	Removes selected objects.
Select All	Selects all drawing objects in the current drawing window in the Drawing, Timeline and Camera views. This helps you manage multiple objects as one when moving them.
Select All Panels in Act	Lets you select all panels in an act.
Select All Panels in Scene	Lets you select all panels in a scene.
Select All Drawings in Scene	Lets you select all drawings in a scene.
Deselect All	Deselects all selected objects in the Drawing and Camera views.



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Group Drawing Selection	Groups selected drawing objects in the Camera or Drawing view.
Ungroup	Ungroups a selected group in the Camera view.
Preferences	Opens the Preferences dialog box where you can set your preferences for Storyboard Pro.


## File Menu

The File menu lets you open, close, save, optimize, import and export files.


### How to access the File menu


- From the top menu, select **File**.

Command	Description
New	Creates a new project while closing any scene already open. The New Project dialog box opens, asking for directory, name, and resolution information.
New from Final Draft Script	Uses your Final Draft script to create a new Storyboard Pro project. This saves you time as it handles the creation of scenes and panels, as well as inserting all the text in the proper captions automatically.
New from Harmony Scenes	<p>You can create a project from Harmony scenes. Before you do this, in Harmony, you must mark the frames you want to use as panels in your project. Frames must be marked in an annotation column called "EM". For each marked frame, a panel is created in Storyboard Pro. If you don't mark your frames, the first frame of each Harmony scene will be used.</p> <p>You must group all your different Harmony scenes in one folder. Storyboard Pro will create one scene per Harmony scene. If your Harmony scene contains several EM markers in the annotation column, Storyboard Pro will create multiple panels within the scene.</p>
Open	Displays the Open Project dialog box where you can browse for a project file. You can open a new project from the current one and the previous project will close.
Open Recent	Displays a list of the most recently opened projects.
Clear	Clears the list of recently opened projects.
Close	Closes the currently opened project, but does not close the Storyboard Pro application.
Save	Saves all changes made to the opened project, drawings, palettes, and


	palette lists. If you are working on an unpacked project, your changes are saved to the local cache.
Save As	<p>Saves the current file with a different name and at a different location.</p> <p>Saves the current state of a project as another project. The Save As window prompts you for a new name and a different location for this project before saving it. This will create a complete project directory for the new project.</p> <div style="border: 1px solid green; padding: 5px; margin: 10px 0;">  <p><b>NOTE</b></p> <p>The project name <b>cannot</b> exceed 23 characters. To use longer names, select the Disable project name length limitation option in the Preferences dialog box.</p> </div> <p>You can also save a project as a single file by saving it as an .sbpz file.</p>
Save and Pack	Saves an unpacked project and rezips it to the original zipped project file.
Project Management	
Split	Opens the Split Storyboard dialog, in which you can divide the current Storyboard Pro project into two smaller project so that two different project collaborators can work on each half simultaneously. The project will be split at the currently selected panel, so you should select the panel where you want to divide your project before opening this dialog.
Extract	Opens the Extract Storyboard dialog, in which you can extract different parts of the current project into several smaller projects, so that several project collaborators can work on different parts of your project at the same time.
Merge	Opens the Merge Storyboard dialog, which allows you to combine several small projects into the current project. You can insert each project in a specific order, before or after the scenes in your current project.
Insert	Allows you to browse for an insert another Storyboard Pro project into the current project. The selected project will be inserted after the currently selected scene.

Merge and Replace	<p>Opens the Advanced Merge Storyboard dialog. This dialog allows you to select one or several projects that were extracted from the current project, then modified by project collaborators, and scenes in the current project with their corresponding scenes in these extracted projects. You can manually select which scenes to import from the extracted projects.</p>
Merge Modified Panels	<p>Opens the Merge Modified Panels dialog. This dialog allows you to select a project that was extracted from the current project, then modified by a project collaborator, and to quickly import the changes that were made to this project into the current project. It automatically selects which panels to import, either by the time and date of their last modification, or based on whether or not they are marked as tracked.</p>
Restore and Open Backup	<p>Lets you locate a previously backed up version of a project and opens it.</p>
Backup Storyboard	<p>Creates a compressed version of your project. Backing up your work provides a safety net against corrupted files and allows you to have several versions of your project at different stages, in case you ever want to go back and work from an earlier point in the production.</p>
Optimize Project	<p>Opens the Optimize Project dialog box from which can remove unused elements, flatten all drawings and reduce the texture resolution in the project. This will reduce the file size of a project and increase the speed at which you can work on a project.</p>
Create Optimized Drawings	<p>When using any of the playback options in Storyboard Pro, the software has to calculate the positioning of all the *.tvgs (Toon Boom vector graphics), the file format that is created from all your drawing strokes. This calculation tends to slow down the rate of playback. There is, however, a way to circumvent this problem.</p> <p>There is a a second file format, the *.tvgo (Toon Boom vector graphic optimized) that has all the pixel position information precalculated. Using these drawings should significantly speed up playback.</p>
Regenerate All Thumbnails	<p>Lets you get the most up-to-date thumbnails in the Thumbnails view. As you draw, a series of small images (thumbnails) is generated. These thumbnails are automatically refreshed based on the refresh duration you set in the Preferences dialog box (Advanced tab, Delay Before Updating Thumbnails parameter).</p> <p>You can update thumbnails immediately. This removes all cached thumbnails in the Thumbnails and Timeline views, and forces new</p>

	thumbnails to be regenerated.
Import	
Images as Scenes	<p>Let you import one or several images and automatically create a new scene for each. This is useful if you have a series of bitmap images that you need to include, such as backgrounds or scanned storyboards.</p> <p>The supported image formats include: .bmp, .jpg, .omf, .opt, .pal, .png, .psd, .scan, .sgi, .tga, .tif, .tvg, and .yuv.</p>
Images as Layers	<p>As you build a scene, you may want to use bitmap images for backgrounds and overlays. You may also want to import an image as a reference for a vector drawing you want to create.</p> <p>With Storyboard Pro, you can import a variety of bitmap formats (.jpe, .jpeg, .jpg, .opt, .pal, .png, .psd, .omf, .scan, .sgi, .tga, .tvg, .yuv) which you can combine with vector-animated content to create rich and unique graphic styles.</p> <p>You can import a single image (or multiple images located in the same folder) into a new layer.</p> <div style="border: 1px solid red; padding: 5px; margin-top: 10px;">  <p><b>IMPORTANT</b></p> <p>Storyboard Pro does not support import of 8-bit CMYK or 16-bit RGB or CMYK format .psd files. You can currently import only 8-bit RGBA format .psd files.</p> </div>
Videos/Images as Clips	<p>Allows you to import images or movie files into clips in video tracks, which are independent from your animatic and can be made to appear over or underneath the elements in your storyboard.</p> <p>Movie files can be imported as video clips to be played in your projects. Still images can be imported as static video clip which can be made to last any amount of time.</p> <p>You can import any image file supported by Storyboard Pro as a video clip. You can also import movie files in QuickTime Movie (.mov) or MPEG-4 (.mp4, .m4v) format which are encoded with the H.264. On Windows only, you can also import Windows Media Video (*.wmv) files, and on macOS only, you can also import QuickTime Movie (.mov) files encoded in Apple ProRes.</p>
Sound Files	<p>Allows you to import sound files (.wav, .aif, .aiff or .mp3) as sound clips into an audio track.</p>

Record Sound	Allows you to record a sound clip using your workstation's recording device directly into an audio track in your project.
Export	
Bitmap	Lets you export a storyboard project to bitmap files in .psd (with separate layers), .tga, .jpg or .png format. A separate bitmap file is exported for each panel in the storyboard. When exporting .psd files, animations and transitions are not exported, but camera movements are rendered into an independent layer. In the case of a .psd file, transform and transition animations are not exported. However, camera moves are rendered into an independent layer.
Layout	Lets you export scenes into layout images, which can be used to set up animation scenes or to create background art based on the scene layout and camera movements. Layout images can be rendered with all layers combined or with one image per layer, and can optionally include camera frames and movements. Layouts can be exported in .psd (with separate layers), .tga, .jpg or .png format.
Current Image	<p>Lets you export the current frame into a .jpeg, .psd, .tga or .png image. Note that .psd files will contain each layer in the panel, named by their layer name.</p> <div data-bbox="678 1115 1430 1255" style="border: 1px solid green; padding: 5px;">  <p><b>NOTE</b> No caption or camera frame will be exported in the image file.</p> </div>
CSV	Lets you the data in a storyboard project in comma separated value (.csv) file format. You can view this data in any application that supports comma separated value files, such as Microsoft Excel. If you do not have Microsoft Excel installed, you can save the .csv file to your computer and open the file in another application.
EDL/AAF/XML	<p>Once a storyboard is complete, you can send it to a Non-linear Editing (NLE) system to complete the animatic in a real editing suite with a direct return on TV or use it as a pre-editing map to replace the storyboard scenes with the final materials (shot in live action or rendered from a 2D or 3D software).</p> <p>You can export your storyboard project and preserve the timing, motions, and sounds edited with Storyboard Pro, directly to Apple Final Cut Pro 7 or Adobe Premiere using the EDL or XML formats, or to Avid Xpress, Sony Vegas or Adobe Premiere using the AAF format.</p>

Movie	Lets you export your storyboard and animatic as a movie file to share and play back easily for an efficient timing reference. You can export your movie file in different movie formats (Windows Media Video, QuickTime or Flash) and as image sequences (.jpeg, .tga or .png).
PDF	Lets you export your storyboard project as a .pdf file which you can later print or share electronically. This is where you will find the way to set up your visuals to represent a classic storyboard on paper. An extensive number of options, settings and customizing is possible while exporting to PDF.
Audio	Allows you to export your project's audio into one or several sound files. You can choose to export a single file for all your project's audio tracks, or to export each audio track individually. You can also choose to export a single track for your whole project, or to separate it by scene, sequence or act.
To Harmony	Allows you to export your animatic into a set of Harmony scenes. After the export, you can open the scenes Toon Boom Harmony right away and kickstart the production of your animation project. If you are working with Harmony Server, you can export a package of scenes that can be imported into your database using Control Center. The resulting Harmony scenes will be the same length as the scenes in your Storyboard Pro project, they will contain each of their panels so that you may animate over them, and they will contain their respective part of the animatic's soundtrack.
FBX	<p>Lets you export your storyboard project in FBX format, which allows you to store any motion data (from element motion or Camera angles/zooms), as well as the 2D and 3D elements in your scene. Once exported to FBX, you can open the storyboard elements in a third-party 3D application and continue to work on them.</p> <p>These elements should only be exported to FBX when you are finished with them in Storyboard Pro. Normally, you would not bring the elements back into Storyboard Pro.</p>
Conformation	
Export Project	Allows you to export your Storyboard Pro project for conformation. You can export your project in a format compatible with Final Cut Pro 7 or Avid Media Composer. You can then make edits to your project in the intended software, and conform it back into Storyboard Pro to integrate the changes made in the video editing software.

Export Selected Panels	Lets you export the selected panels for conformation, instead of the entire project.
Export Tracked Panels	Lets you export tracked panels for conformation, instead of the entire project.
Import Animatic Project	<p>Once you have imported your project's conformation (XML or AAF) into the-third party software and finished editing it,, you will need to export it once again as an XML or AAF file to bring it back into your Storyboard Pro project. This option allows you to import the resulting XML or AAF file back into the project and apply the changes made in the editing software to your animatic.</p> <div data-bbox="678 682 1430 1014" style="border: 1px solid #90EE90; padding: 10px;"><p> <b>NOTES</b></p><ul style="list-style-type: none"><li>• Refer to your third party software's documentation to learn how to export the animatic project in an XML or AAF file format.</li><li>• You can only reimport a modified conformation XML or AAF file into the original project from which it was first exported.</li></ul></div>
Update Captions from CSV	Lets you update the captions in your project. If you generate a .csv sheet (comma separated values) from your project, you can update the file, then import it into Storyboard Pro. Doing so will update all caption fields automatically. You must first generate the CSV from your current project.
Quit	Closes the application.



## Help Menu

The Help menu lets you display the Storyboard Pro documentation, Welcome screen and end user license agreement, as well as access the Toon Boom website, and identify the product name and version number.

### How to access the Help menu

- At the top of the interface, select **Help**.

Command	Description
Online Help	Opens the Storyboard Pro Help system, complete with instructions on how to use the system. This requires an internet connection.
Getting Started	Opens the Storyboard Pro Getting Started Guide (in PDF format) in a browser window. Requires Acrobat Reader.
Storyboard Pro on the Web	Opens the Toon Boom website, which features a Support and Community > Forum section.
Customer Experience Improvement Program	<p>The Customer Experience Improvement Program allows Toon Boom to collect usage information. The data does not contain any personally identifiable information and cannot be used to identify you. The data will consist of a basic hardware description, a project summary and usage information. The information is used only for software improvement purposes, as well as for sharing with third parties for the same reason.</p> <p>This program is enabled by default but is voluntary. If you prefer not to participate, you can opt out when you first launch the software, by using a global preference, or by a command line argument.</p>
Show End User License Agreement	Displays the End User License Agreement.
Check for Updates	Checks for updates to Storyboard Pro.
Debug Mode	When enabled, information is logged in the Message Log view about the preview generated in the Camera view, each time the preview is refreshed. In OpenGL preview mode, summary information is logged about the amount of nodes to process and the time it takes to generate the preview. In Render Preview mode, detailed information about each composite and effect that is processed is logged.

About	Identifies the product name and version number.
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## Layer Menu


The Layer menu lets you manipulate layers, create new layers, change the resolution, and reset the transformation and pivot.

### How to access the Layer menu

- At the top of the interface, select **Layer**.

Command	Description
New	
Vector Layer	Adds a vector drawing layer to the current panel, in which you can draw with the whole suite of vector drawing tools available in Storyboard Pro. Most of the artwork in vector layers is made of vector shape information, which is lightweight and scalable.
Bitmap Layer	Adds a bitmap drawing layer to the current panel, in which you can draw using the bitmap drawings tools available in Storyboard Pro. Artwork in bitmap layers is saved as a grid of pixels, each of which storing their colour information. It is not scalable and is more heavyweight, but may be better suited for textured artwork.
Group Layer	Adds a group layer to the current panel. Groups can contain one or several layers, and even other groups. If you manipulate or animate a group, all of its elements will be subjected to the same transformations as the group itself.
Copy Layers	Copies the currently selected layers to the clipboard, so that you can paste the copies in the same panel or into a different panels.
Paste Layers	Pastes the layers copied with the Copy Layers command into the current panel.
Duplicate Layers	Instantly creates a copy of the selected layer and puts it in the current panel.
Rename Layers	Allows you to rename the selected layer.
Delete Layers	Deletes the selected layer.

Change Layer Opacity	Allows you to set the opacity level of the selected layer.
Change Vector Layer Brush Resolution	Allows you to set the pixel density of textured brush strokes on the selected vector layer. Since textured brush strokes have bitmap textures inside them, it may be necessary to increase their pixel density before you start drawing, if you intend to scale up to layer or to zoom in on it. Otherwise, the textures in the brush strokes is liable to appear pixelated.
Change Bitmap Layer Resolution	Allows you to set the canvas size and pixel density of the selected bitmap layer. It may be required to expand a layer's canvas if you intend to move, shrink or zoom out on the layer. It may also be necessary to increase a bitmap layer's pixel density before you draw in it if you intend to scale it up or to zoom in on it. Otherwise, the artwork is liable to appear pixelated.
Merge Down	<p>Instantly merge the selected layer with the layer just below it.</p> <div style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b> If both layers are vector layers, the merged layer will be a vector layer. If one of the layers is a bitmap layer, the merged layer will be a bitmap layer.</p> </div>
Merge Selected Layers	<p>Merges the selected layers into a single layer.</p> <div style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b> If all the selected layers are vector layers, the merged layer will be a vector layer. If at least one of the selected layer is a bitmap layer, the merged layer will be a bitmap layer.</p> </div>
Merge Layers	Opens the Merge Layers dialog box, which allows you to merge the selected layers into a single layer and gives you more options than the Merge Selected Layers command.
Group Selected Layers	Puts the selected layers inside a new group layer.
Ungroup Selected Group	Breaks the selected group layer. All its layers will be outside the group, and the group will be deleted.
Convert to Vector Layer	Convert a bitmap layer to a vector layer. If any artwork is in the bitmap layer, it will be converted to a vector object with a bitmap texture

	inside it.
Convert to Bitmap Layer	Converts a vector layer to a bitmap layer. If any artwork is in the vector layer, it will be flattened and rasterized into a single bitmap canvas.
Convert to Drawing	<p>If you have imported an animated template or a template containing multiple elements, for example, a template created in Harmony, or a template made from importing a Flash Movie (.swf) file, you might not be able to edit it with the drawing tools. This is because the template is not a simple drawing layer. This option will convert the layer containing a template to a flat drawing layer that can be edited freely. It can also be used to convert a group of layers into a single drawing.</p> <div style="border: 1px solid green; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• In Storyboard Pro, a drawing layer can only contain one drawing for the whole panel, whereas a template may be animated and contain several frames with different drawings in each frame. If you convert an animated template to a drawing, the appearance of the template at current frame will be used to generate a static drawing layer.</li> <li>• Converting a template or a group to a drawing will discard any 3D object they contain.</li> </ul> </div>
Share Drawing	Adds the selected drawing to the library of shared drawings, which can be opened, navigated and edited in the Library view. You can then import the drawing into other panels. Since the drawing is shared, making changes to that drawing in one panel will apply the same changes to that drawing in all the other panels it was added to.
Unlink from Shared Drawing	If you have a shared drawing in a panel, and you want to make changes to that drawing without affecting it in other panels where it is shared, this option will convert the shared drawing into its own independent drawing in the current panel only. The drawing will remain shared in other panels where it was added.
Apply Effect	
Blur	Applies a simple blurring effect to the selected layer.
Radial Zoom Blur	Applies a blur that follows one of several preset movement patterns to the selected layer.

Directional Blur	Applies a blur that follows a specific direction, in a straight line, to the selected layer.
Generate Auto-Matte	Opens the Auto-Matte dialog box, enabling you to fill in sketch objects, hiding anything that is behind the object. You can create new layers by generating auto-matte of selected vector layers. This menu option is grayed-out if no layers are selected, or if none of the selected layers are non-empty vector layers.
Arrange	
Bring Layer to Front	Moves the selected layer in front of all other layers in the current panel.
Bring Layer Forward	Moves the selected layer up one level in the current panel.
Send Layer Backward	Move the selected layer down one level in the current panel.
Send Layer Back	Moves the selected behind all other layers in the current panel.
Select Next Layer	Selects the next layer in the layer list.
Select Previous Layer	Selects the previous layer in the layer list.
Lock/Unlock Layers	Locks or unlocks the selected layer. When a layer is locked, it is protected from changes to its artwork and from transformations.
Show/Hide Layers	Shows or hides the selected layer. A hidden layer does not appear in the storyboard and cannot be changed or transformed.
Toggle Background Layers	Sets the selected layer as a background layer. Background layers are not taken in account when Onion Skin is enabled.
Align Layer to Camera	When working in 3D, if the camera has been rotated on the x-axis or y-axis, drawing layers will no longer be facing the camera. This instantly rotates the layer so that it faces the camera.
Copy End Layer Position to Start	Uses the position of the last frame from the current layer and pastes it over the position of the first frame.

Copy Start Layer Position to Start	Uses the position of the first frame from the current layer and paste it over the last frame.
Spread Layer Motion	<p>You can spread the current layer motion across all panels in the same shot or a specified number of adjacent panels after the current panel in the same shot.</p> <p>A new layer will be added and the drawing will be duplicated for those panels that do not have the same name in the defined range.</p>
Reset Transform	Resets the selected layer to its default position, size and angle.
Reset Selected 3D Sub-Objects	Resets the selected sub-objects of a 3D model to their default position, size and angle.
Pivot	
Reset Pivot	Places the pivot back at its default position at the centre of the camera frame.
Center Pivot on Selection	Places the pivot at the centre of a selection.
Set Layer Layout as Default	Once you set up a layer layout in a panel, you can select that panel and save this layout as the default layout to use whenever a new panel is added.

## Play Menu


The Play menu lets you preview your project as an animatic in Storyboard Pro at any time during its development process. Using the Playback toolbar, you can preview the visual content, including transformations and transitions, and have it synchronized with sounds.

### How to access the Play menu

- At the top of the interface, select **Play**.

Command	Description
Play	Plays the animatic in the Stage or Camera view.
Play Selection	Plays the selected panel in the Timeline or Thumbnails view.
Loop	If pressed, your animatic will repeat indefinitely when playing. Otherwise, it will stop when the end is reached.
Audio Playback	When enabled, the soundtrack of your project will play during playback.
Audio Scrubbing	When enabled, the part of the soundtrack that is at the current frame will play every time you move the timeline cursor, allowing you to navigate the timeline of your animatic by sound. This makes it easier to synchronize the action and the audio in your animatic.
Camera Preview	Lets you preview camera moves and transitions. When you drag the timeline playhead while Camera Preview is enabled, it will adjust the Stage view to match the point of view of the camera.
Project First Frame	Moves the timeline playhead to the first frame of the project.
Previous Sequence	Moves the timeline playhead to the previous sequence.
Previous Scene	Moves the timeline playhead to the previous scene.
Previous Panel	Moves the timeline playhead to the previous panel.




Panel First Frame	Moves the timeline playhead to the first frame of the current panel.
Previous Frame	Moves the timeline playhead to the previous frame.
Next Frame	Moves the timeline playhead to the next frame.
Panel Last Frame	Moves the timeline playhead to the last frame of the current panel.
Next Panel	Moves the timeline playhead to the next panel.
Next Scene	Moves the timeline playhead to the next scene.
Next Sequence	Moves the timeline playhead to the next sequence.
Project Last Frame	Moves the timeline playhead to the last frame of the project.
Go to Scene	Opens the Go to Scene dialog box, which allows you to select a scene in your project and instantly move the timeline playhead to that scene.
Go to Frame	<p>Opens the Go to Frame dialog in which you can enter a frame number and instantly move the timeline playhead to that specific frame.</p> <div data-bbox="678 1142 1429 1346" style="border: 1px solid green; padding: 10px;">  <p><b>NOTE</b> The frame number is based on the start time of your project. If your project starts at frame 0, entering 0 will move the timeline playhead to the first frame of your project.</p> </div>



## Storyboard Menu



The Storyboard menu lets you work with panels, scenes, sequences and transitions. You can also record annotations, track changes, and view and edit the project properties.


### How to access the Storyboard menu



- ▶ At the top of the interface, select **Storyboard**.


Command	Description
New	
New Panel	Creates a new panel after the current panel.
New Panel Before	Creates a new panel before the current panel.
New Scene	Creates a new scene after the current scene.
New Scene Before	Creates a new scene before the current scene.
New Scene from Selected Panels	Creates a new scene from the selected panels.
New Sequence	<p>Creates a new sequence with a new scene and a new panel inside it at the end of the current sequence.</p> <div data-bbox="678 1325 1430 1528" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> If your project currently does not have sequences, it will put the entire storyboard into a single sequence, and create a new sequence at the end of the storyboard.</p> </div>
New Sequence from Selection	Creates a new sequence from the currently selected scenes.

	<div style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• If your project currently does not have sequence, the scenes before the selection will be grouped together into a sequence, and all the scenes after the selection will be grouped together into another sequence.</li> <li>• Sequences must include whole scenes. If you only select some of the panels in a scene, the whole scene will be included in the sequence.</li> </ul> </div>
New Video Track	Adds a new video track to your animatic.
New Audio Track	Adds a new audio track to your animatic.
Start New Act	<p>Starts a new act at the current scene.</p> <div style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>This option is only available if acts are enabled in the General tab of the Preferences dialog.</p> </div>
Smart Add Panel	Creates a new panel that contains elements from another panel.
Duplicate Selected Panels	Lets you duplicate selected panels when you need to create an exact copy of an existing one.
Delete Panel	Deletes a selected panel. Note that it is impossible to have an empty project as there is a minimum of one panel.
Rename Panel	Lets you rename one or more panels simultaenously. By default, the rename panels option is locked. You must unlock this option in the Preferences dialog box before you can rename panels.
Rename Scene	
Rename Sequence	Lets you rename a sequence. Once you start adding sequences to your project, the Sequence field will become visible in the Panel view, allowing you to view the selected sequence's name and edit it if needed.

Lock Scene and Panel Names	Locks scene and panel names.
Unlock Scene and Panel Names	Unlocks scene and panel names.
Lock Scene Duration	Locks the duration of all scenes in your project. This ensures that the current length of every scene is preserved when adding, duplicating, or deleting panels.
Split Panel at Current Frame	Splits the current panel in two, resulting in two identical panels generated from the original. All elements, including layers, will be in both panels. Each panel's length is determined by the position of the red playhead when you perform the operation.
Move Panel In to Current Frame	Lets you adjust the duration and position of a panel by moving its in and out points to a specific frame determined by the position of the red playhead.
Move Panel Out to Current Frame	<div style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>  Note that the frame you specify must be contained within the current position of the panel you want to change the in or out point of. </div>
Add Frame to Panel	Lets you adjust the duration of a panel one frame at a time.
Remove Frame from Panel	<div style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>  By default, when changing the duration of a panel, the position of existing Camera and Layer keyframes in the panel are adjusted to the new duration of a panel. However, since the position of keyframes is always in whole frames, they might not get adjusted as expected when adjusting the duration of a panel one frame at a time. This behavior cannot be changed for Layer keyframes. </div>
Split Current Scene	Lets you split the current scene in two or break it into three parts.  When you split a scene, it is divided before the current panel by default.

	 <b>NOTE</b> You can change this in your preferences so that when you split a scene, it is broken into three parts and the selected panel is isolated.
Split Current Sequence	Separates a sequence in two.
Join Selected Sequence	Joins two selected sequences.
Join Selected Acts	Joins selected acts. Once an act has been split, it is possible to join acts at any time.
Markers	
Add Marker	Creates a new timeline marker at the current frame.
Edit Marker	Allows you to change the colour and to add a note to the currently selected timeline marker.
Delete Marker	Deletes the currently selected timeline marker.
Delete All Markers	Deletes all timeline markers in the project.
Go to Next Marker	Moves the timeline cursor to the next marker in the project.
Go to Previous Marker	Moves the timeline cursor to the previous marker in the project.
Tracks	
Rename Track	Renames the currently selected video or audio track.
Delete Current Track	Deletes the currently selected video or audio track.
Lock/Unlock All Video Tracks	If no video track is currently locked, this locks all video tracks in the project. If at least one video track is locked, this unlocks all video tracks in the project.
Lock/Unlock All Audio Tracks	If no audio track is currently locked, this locks all audio tracks in the

	<p>project. If at least one audio track is locked, this unlocks all audio tracks in the project.</p>
<p>Disable/Enable Sync All Video Tracks</p>	<p>If at least one video track is synchronized, this disables synchronization for all video tracks in the project. If all video tracks are unsynchronized, this enables synchronization for all video tracks in the project.</p> <div style="border: 1px solid #90EE90; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b></p> <p>When Sync is enabled on a video track, if a panel in which one of its video clips is offset or moved, this video clip will be moved along with it so as to remain synchronized with the action.</p> </div>
<p>Disable/Enable Sync All Audio Tracks</p>	<p>If at least one audio track is synchronized, this disables synchronization for all audio tracks in the project. If all audio tracks are unsynchronized, this enables synchronization for all audio tracks in the project.</p> <div style="border: 1px solid #90EE90; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b></p> <p>When Sync is enabled on an audio track, if a panel in which one of its sound clips is offset or moved, this sound clip will be moved along with it so as to remain synchronized with the action.</p> </div>
<p>Add Snapshot</p>	<p>Lets you add snapshot markers to specify which frames in a panel will be visible in a PDF file you export. By default, only the first frame of each panel is visible in the PDF file you export. Sometimes, you may need to display a specific frame or several frames from a panel.</p>
<p>Change Panel Duration</p>	<p>Lets you modify the duration of a selected panel.</p>
<p>Add Transition</p>	<p>Lets you add a transition between scenes. Once the transition is created, you can customize it.</p>
<p>Delete Transition</p>	<p>Removes a selected transition.</p>
<p>Delete Transition Duration</p>	<p>Lets you modify the duration of a selected transition.</p>
<p>Enable 3D for Current Scene</p>	<p>Converts a selected scene to 3D which lets you move and rotate 2D and 3D layers in 3D space. Even if you do not have 3D objects in your</p>

	<p>scene, you can still move 2D objects along the Z-axis to create a multiplane effect. A 3D scene will also allow a camera to be moved in 3D space using the Camera tool.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> Converting a scene to 3D applies only to the selected scene, not the entire project.</p> </div>
Reset Scene to 2D	<p>Storyboard Pro lets you reset a scene to 2D. When you do so, the following happens:</p> <ul style="list-style-type: none"> <li>• Imported 3D models are removed.</li> <li>• 3D camera moves are removed.</li> <li>• 2D layers that have been moved and rotated in 3D are set back to 2D, removing those transformations.</li> </ul>
Record Voice Annotation	<p>Lets you record a voice annotation. You will need a microphone correctly connected to your computer and Storyboard Pro.</p> <p>After the voice annotation has been recorded, the Voice Annotations section indicates the total number of annotations, displaying the order of the current voice annotation in the sequence and the total number of voice annotations associated with the panel. As you record voice annotations, they accumulate in sequence without being overwritten. You can select and play back any of the annotations.</p>
Track Changes	
Auto Tracking Mode	Lets you automatically detect any changes in your project, and adds a visual notification in the Thumbnails and Timeline views.
Track Change by Date	Lets you track changes by date. If a storyboard becomes very large, it may be easier to track changes made on a specific date. Opens the Search by Date dialog box which contains options to help you track changes even more efficiently.
Validate Changes	<p>When you use the Auto Tracking Mode feature, you can use the Validate Changes option to follow up on these changes.</p> <p>Lets you follow up on changes made to your project when using Auto Tracking Mode.</p>
Properties	Opens the Project Properties dialog box where you can change the

	property settings in your project.
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## Tools Menu


The Tools menu lets you access all the main tools you need to work in Storyboard Pro.



### How to access the Tools menu

- At the top of the interface, select **Tools**.

Command	Description
Select	Allows you to select and reposition, scale, rotate and skew brush strokes, pencil lines, shapes and other parts of your artwork.
Select by Colour	Lets you rapidly select all drawing parts painted or drawn with the colour you have selected in the Colour view.
Contour Editor	Allows you to edit the vector contours of brush strokes, pencil lines and shapes in your artwork. You can add, remove, tweak and move vector points, move the Bezier handles of the vector points as well as deform vector outlines.
Cutter	Allows you to cut a part of your artwork, then reposition, scale, rotate and skew it.
Perspective	Allows you to deform artwork by applying a perspective effect on it.
Brush	A pressure-sensitive tool for creating a contour shape with a thick and thin line effect, as if created with a paint brush.
Stencil Brush	Allows you to paint over existing artwork within the boundaries of that artwork or the boundaries set by selecting the artwork of different layers.
Pencil	A pressure-sensitive tool for drawing outlines. Pencil lines are made of central vector lines, making them easier to tweak and edit than brush strokes.
Eraser	A pressure-sensitive tool for erasing parts of a drawing.

Rectangle	Draws a straight line segment going from one point to the other.
Ellipse	
Line	
Text	Allows you to add text and to format it.
Paint	Allows you to fill colour zones with a colour or texture.
Paint Unpainted	Allows you to quickly fill empty zones in your artwork with a colour or texture, leaving filled zones unchanged.
Unpaint	Allows you to empty filled colour zones of their colour and texture.
Close Gap	Allows you to close open shapes so that they can be filled with the Paint tool. By drawing a stroke near a small gap in a shape, this tool will create a small invisible stroke connecting the two closest points around the gap.
Edit Gradient/Texture	Allows you to adjust the position, angle and size of gradients and textures in a colour zone.
Dropper	Allows you to select a colour by clicking on a colour in your artwork.
Hand	Allows you to pan the Stage and Camera views.
Zoom	Allows you zoom in and out of the Stage and Camera views.
Rotate View	Lets you rotate the Stage and Camera views just like with a real animation disc.
3D Navigation	
3D Flying Navigation	
Arrange	
Bring to Front	Moves the selected art to the front (on top).

Bring Forward	Moves the selected art one level forward (closer to the front).
Send Backward	Moves the selected art one level lower (behind).
Send to Back	Moves the selected art behind everything (bottom / back).
Transform	
Flip Horizontal	Flips the current selection horizontally.
Flip Vertical	Flips the current selection vertically.
Rotate 90 CW	Rotates the current selection 90 degrees clockwise.
Rotate 90 CCW	Rotates the current selection 90 degrees counter-clockwise.
Rotate 180	Rotates the current selection 180 degrees.
Convert	
Pencil Lines to Brush Strokes	Changes a centre line pencil stroke to a contour line brush stroke.
Brush Strokes to Pencil Lines	<p>Changes a centre line (pencil) stroke to a contour line (brush) stroke.</p> <p>When drawing on vector layers, you may want to change brush strokes to pencil lines to convert contour strokes into centre line pencil strokes.</p> <div data-bbox="678 1377 1430 1549" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b> Any line thickness information is lost upon conversion from brush to pencil.</p> </div>
Strokes to Pencil Lines	
Break Apart Text Layers	Text contained in a text field is treated as a single drawing object. This option separates text so that each character becomes an individual drawing object that you can select and modify independently.

	 <p><b>NOTE</b></p> <p>After your text has been broken apart twice, into a regular drawing object, you can use all the drawing tools such as the Eraser tool, on the drawing. Be aware that if you want to use the Perspective tool on the text, you should create the text on a vector layer before breaking it apart twice; then you can use the Perspective tool on it.</p>
Layer Transform	Lets you reposition, scale, rotate and even skew layers in the Camera view.
Maintain Size	Scales drawing layers when they are moved on the Z-axis to preserve their size in the camera.
Create Layer on Surface	Creates a new layer on top of the hovered surface.
Camera	Lets you add camera movements to scenes and set keyframes to animate it over time.
Reframe	<p>Lets you set the position of the content of the panels for the entire scene so it fits the camera frame you defined.</p>  <p><b>NOTE</b></p> <p>When setting the camera frame using the Reframe tool, it is not possible to reset it to its former position.</p>
Flatten	Merges Merges drawing objects and brush strokes into a single layer. If you draw new lines to fix a drawing or line with many brush strokes, it can be useful to flatten them all into a single shape. By default, lines are drawn one on top of each other. If you intend to repaint the lines or modify their shape, it will be easier if they are flattened.

## View Menu



The View menu lets you manipulate the view by zooming, panning, or rotating. You can also display the grid and change its size, use the onion skin feature to help with drawing, and set the preview resolution.


### How to access the View menu

- At the top of the interface, select **View**.



Command	Description
Toggle Full Screen	<p>Cycles through the following display modes:</p> <ul style="list-style-type: none"> <li>• <b>Normal Full-Screen:</b> The main application window becomes full screen.</li> <li>• <b>View Full-Screen:</b> The selected view becomes full screen and all other views are collapsed.</li> <li>• <b>Normal:</b> The main application window is restored to its original size and collapsed views are expanded.</li> </ul>
Zoom In	Zooms in the view.
Zoom Out	Zooms out the view.
Reset Zoom	Resets the view's zoom to its default position.
Rotate View CW	Rotates the Camera view 30 degrees clockwise, like an animation table.
Rotate View CCW	Rotates the Camera view 30 degrees counter-clockwise, like an animation table.
Reset Rotation	Resets the view's rotation to its default position.
Look at Selected	Makes the Stage view perpendicular to a selected drawing layer, allowing you to draw on it. This is useful when rotating 2D layers in 3D space and the Stage view is no longer perpendicular to a Drawing layer, making it impossible to draw on it.
Reset Pan	Resets the view's pan to its default position.







Reset View	Resets the view to its default position.
Reset Stage View To	
Default Drawing Area	Resets the Stage view to show the default drawing area, which is the space situated inside the default camera frame (before the camera is modified).
Current Panel Overview	Resets the Stage view to show the current panel in its entirety
Camera Overview	Resets the Stage view to show an overview of the Camera frames. If a Camera movement was created in the selected panel, it will show the entire space within the camera movement.
Start Camera Frame	Resets the Stage view to focus on the starting camera position of the camera movement on the current panel.
End Camera Frame	Resets the Stage view to focus on the ending camera position of the camera movement on the current panel.
Point of View Mode	Lets you determine at which level the current position of the Stage view (zoom, pan and rotation) is remembered when you are flipping through panels.
Project Level	One global point of view for the entire project.
Scene Level	One point of view per scene.
Panel Level	One point of view per panel.
Grid	
Show Grid	Displays the grid.
Grid Outline Only	Displays the outline of the grid only.
Underlay	Displays the grid under the drawing elements.
Overlay	Displays the grid over the drawing elements.

Square Grid	Displays a standard square grid.
12 Field Grid	Displays a 12-field size grid.
16 Field Grid	Displays a 16-field size grid.
World Grid	Displays a reference grid that remains the same size when you scale objects. This is useful when creating elements in your drawing and you need a reference point.
Extras	
Camera Mask	Shows or hides a black mask around the scene's frame to avoid seeing anything outside the Camera frame. This is handy when you are setting up the scene as it allows you to see the scene's composition better.
Proportion Grid	<p>Shows or hides the proportion grid, which divides the stage in equal sections horizontally and vertically so as to help you with the composition of your scene.</p> <div data-bbox="678 1045 1429 1312" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> By default, the proportion grid is divided in 3 horizontally and vertically so as to help you follow the rule of thirds in composition. The number of vertical and horizontal divisions in the proportion grid can be customized in the Camera tab of the Preferences dialog.</p> </div>
Show Title Safe Area	<p>Displays the Title Safe Area frame inside the camera frame. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be placed within this area.</p> <div data-bbox="678 1570 1429 1743" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
Show Title Safe Area Mask	Displays a semi-transparent black mask covering the area between the camera frame and the Title Safe Area frame.

Show Action Safe Area	<p>Displays the Action Safe Area frame inside the camera frame. By default, this area is 10% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Characters and action should be placed within this area.</p> <div data-bbox="678 359 1430 527" style="border: 1px solid green; padding: 5px;">  <p><b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
Show Action Safe Area Mask	Displays a semi-transparent black mask covering the area between the camera frame and the Action Safe Area.
Show 4:3 Safe Area	Shows or hides the TV safety zone and the centre of the camera frame for a regular 4:3 resolution. If you are working on a widescreen project, for example, you can easily plan in advance the conversion of your project to a TV format. This way, you can create your project to fit both resolutions.
Show 4:3 Area	Shows or hides the 4:3 resolution zone without the centre of the camera frame and TV safety zone.
Show Strokes	Displays the strokes in your drawings so that the invisible lines stand out.
Show Complete Camera Path	Displays all the related camera keyframes and paths in a scene. When this button is deactivated, the Stage view only displays keyframes that are contained in a panel.
Show Layer Path	If the current layer is animated, this displays the animation path of the layer in yellow in the Stage and Camera views, with notches along the path indicating the position of the layer on each frame of the animation.
Onion Skin	
No Previous Drawing	Removes the previous drawing's onion skin and displays only the next drawing.
Previous Drawing	Displays the previous drawing.



Previous Two Drawings	Displays the previous two drawings.
Previous Three Drawings	Displays the previous three drawings.
No Next Drawing	Do not show the onion skin for all of the next drawings.
Next Drawing	Show the onion skin for the next drawing.
Next Two Drawings	Show the onion skin for the next two drawings.
Next Three Drawings	Show the onion skin for the next three drawings.
Show Only the Selected Layers	Only displays the onion skin for layers in neighbouring panels that have the same name as the currently selected layer.
Light Table	Turns on the light table so you can see the previous and subsequent active layers in washed-out colours. It is useful for seeing the other layers when designing, animating or cleaning up your animation.
Realistic Preview	Gives you a live preview of shapes in Draw Behind mode, which is for painting behind existing art. When using this mode, strokes appear instantly under your work while drawing with the Draw Behind mode.
Alignment Guides	
Show Alignment Guides	<p>When enabled, alignment guides will be visible in the Stage View and the Camera View.</p> <p>This is enabled by default. Disabling this option will hide and disable alignment guides, meaning that animation and drawing tools will not snap to them, even if the  Snap to Alignment Guides option is enabled in the Tool Properties view.</p>
Lock Alignment Guides	It is possible to reposition alignment guides in the current panel by dragging them using the  Layer Transform tool. Enabling this option will lock the alignment guides in their current position, allowing you to manipulate layers and artwork in your panel without accidentally moving alignment guides.
Clear Alignment Guides	Removes all the alignment guides in the current panel.


<p>New Horizontal Alignment Guide</p>	<p>Adds a horizontal alignment guide to the middle of the current panel.</p> <div data-bbox="678 247 1429 424"> <b>TIP</b> You can move the alignment guide from its default position using the  Layer Transform tool or the  Select tool.</div>
<p>New Vertical Alignment Guide</p>	<p>Adds a vertical alignment guide to the middle of the current panel.</p> <div data-bbox="678 541 1429 718"> <b>TIP</b> You can move the alignment guide from its default position using the  Layer Transform tool or the  Select tool.</div>

## Windows Menu

The Windows menu lets you customize your workspace to suit your working style, save it as a new workspace, and load it from the Workspace toolbar. You can also show or hide the different toolbars and views in Storyboard Pro.

### How to access the Windows menu

- From the top menu, select **Windows**.

Command	Description
Workspace	
Workspace Manager	Opens the Workspace Manager where you can modify, create, delete, rename and reorder your workspaces.
Save Workspace	Saves the current workspace, including any changes you made to it.
Save Workspace As	Lets you save the current workspace with a new name.
Workspace	Lets you open workspaces designed specifically for working with 3D elements, drawing, overview, reviewing PDFs, pitch mode, timeline and horizontal and vertical views.
Toolbars	<p>Allows you to add or remove toolbars from your workspace.</p> <div data-bbox="678 1325 1430 1503" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> For information on the different toolbars in Storyboard Pro, see <a href="#">Toolbars</a>.</p> </div>
3D Graph	Shows or hides the 3D Graph view.
Camera View	Shows or hides the Camera view.
Colour	Shows or hides the Colour view.
Effect Stack	Shows or hides the Effect Stack view.

Function Editor	Shows or hides the Function Editor view.
Guides	Shows or hides the Guides view.
Layers	Shows or hides the Layer Properties view.
Library	Shows or hides the Library view.
Message Log	Shows or hides the Message Log view.
Model	Shows or hides the Model view.
Panel	Shows or hides the Panel view.
Panel PDF Options	Shows or hides the Panel PDF Options view.
PDF Export	Shows or hides the PDF Export view.
Pitch Mode View	Shows or hides the Pitch Mode view.
Playback	Shows or hides the Playback view.
Project Management	Shows or hides the Project Management view.
Script Editor	Shows or hides the Script Editor view.
Side View	Shows or hides the Side view.
Stage View	Shows or hides the Stage view.
Storyboard	Shows or hides the Storyboard view.
Thumbnails	Shows or hides the Thumbnails view.
Timeline	Shows or hides the Timeline view.
Tool Properties	Shows or hides the Tool Properties view.

---

Top View	Shows or hides the Top view.
Restore Default Workspace	Returns Returns modified workspaces to their original default layout if you do not like the current modifications or inadvertently closed some windows.

## View Menus

The following is a list of the view menus that are documented in this section:

## 3D Graph View Menu

The 3D Graph View menu gives you access to commands related to the 3D Graph view, such as selecting sub-objects, and disabling and enabling sub-objects.

### How to access the 3D Graph View menu

- In the upper-left corner of the 3D Graph view, click the Menu  button.

Command	Description
Edit	
Select All	Selects all the items in the 3D graph (all the parts of the 3D model).
Deselect All	Deselects all the items in the 3D graph (all the parts of the 3D model).
Select First Child Sub-Object	Jumps to the first child sub-object of a selected parent sub-object. Use the Select Next Sibling sub-object menu option to continue down the list of children.
Select Parent Sub-Object	Jumps to the parent sub-object of a selected child sub-object.
Select Next Sibling Sub-Object	Selects the next child sub-object of the same parent sub-object.
Select Previous Sibling Sub-Object	Selects the previous child sub-object of the same parent sub-object.
Sub-Objects	
Enable	Enables the selected sub-object in the 3D graph list. Enabling the sub-object displays the corresponding part of the 3D model in the Camera and Stage views. You can make a multi-selection with this command.
Disable	Disables the selected sub-object in the 3D graph list. Disabling the sub-object hides the corresponding part of the 3D model in the Camera and Stage views. It will also disable the sub-object children of this sub-object. A sub-object cannot have its shape hidden and be disabled at the same time. You can make a multi-selection with this command.

Show Shape	Shows the selected sub-object shape in the 3D graph list. Showing the sub-object shape displays the sub-object in the Camera and Stage views. You can make a multi-selection with this command.
Hide Shape	Hides the selected sub-object shape in the 3D graph list. Hiding the sub-object shape hides the sub-object in the Camera and Stage views. A sub-object cannot have its shape hidden and be disabled at the same time. You can make a multi-selection with this command.
Separate Sub-Tree	The layer containing the 3D objects is duplicated. In this new layer, the selected sub-object(s) and their children are displayed and all others have their shapes hidden. In the original layer, the selected sub-object(s) and their children have their shape hidden. The new layer is grouped with the original layer. Any transformation in the original layer is transferred to the parent group. If you selected multiple sub-objects to separate, all the sub-objects and their children are visible on the newly-created layer.
Separate	The layer containing the 3D objects is duplicated. In this new layer, the selected sub-object(s) are displayed and all others have their shape hidden. In the original layer, the selected node(s) have their shape hidden. The new layer is grouped with the original layer. Any transformation in the original layer is transferred to the parent group. If you selected multiple sub-objects to separate, all the sub-objects are visible on the newly-created layer.
Extended Mode	
	Shows the complete sub-object hierarchy. In this mode, you can see every sub-object of the 3D model, even those that cannot be selected or manipulated.



## Point of View Menu

The Point of View menu lets you determine the level at which the current position of the Stage view (zoom, pan and rotation) is remembered when you flip through the panels. The current Point of View mode will also affect the different Reset View commands' behaviour as they will reset according to the Point of View mode.

### How to access the Point of View menu

- ▶ In the status bar of the Stage view, click the Point of View menu and make a selection.




- ▶ Select **View > Point of View Mode**.


Parameter	Description
Project	Keeps the zoom, pan and rotation values of the Stage view for the panels of the project.
Scene	Keeps the zoom, pan and rotation values of the Stage view for the panels that are part of the current scene.
Panel	Allows every panel of the project to have its own zoom, pan and rotation value.



## Script Editor View Menu




The Script Editor view menu gives you access to all of the commands needed for editing and testing scripts in the Script Editor view—see [Script Editor View on page 544](#).



### How to access the Script Editor view menu

1. Add the Script Editor view to your workspace by doing one of the following:
  - In the top-right corner of an existing view, click on the **+** Add View button and select Script Editor.
  - In the top menu, select **Windows > Script Editor**.
2. In the top-left corner of the Script Editor view, click on the  Menu button.

Button	Description
File	
New Script	<p>Creates a new script. When you click on this button, you are first prompted to type in a name for the script. Then, you will be prompted to select which location to save the script in:</p> <ul style="list-style-type: none"> <li>• <b>User:</b> Saves the script to a directory in your user preferences directory. You will be able to run and edit the script from any scene as long as you are logged in as the same user.</li> <li>• <b>Scene:</b> Save the script to the project's <b>scripts</b> sub-folder. Anyone will be able to edit and run the script when working on this specific project.</li> <li>• <b>System Variable:</b> Save the script to the directory in the <b>TOONBOOM_GLOBAL_SCRIPT_LOCATION</b> environment variable. This option is only available if this environment variable is set.</li> </ul> <div data-bbox="495 1457 1430 1598" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b> For more information on script locations, see <a href="#">Script list on page 544</a>.</p> </div>
Import Script	<p>Allows you to import a script from your machine into Storyboard Pro. When you click on this button, you are prompted to browse for and select a script on your file system. Then, you are prompted to select which location to import the script in:</p> <ul style="list-style-type: none"> <li>• <b>User:</b> Saves the script to a directory in your user preferences directory. You will be able to run and edit the script from any scene as long as you are logged in as the same user.</li> </ul>

Button	Description
	<ul style="list-style-type: none"> <li>• <b>Scene:</b> Save the script to the project's <b>scripts</b> sub-folder. Anyone will be able to edit and run the script when working on this specific project.</li> <li>• <b>System Variable:</b> Save the script to the directory in the <b>TOONBOOM_GLOBAL_SCRIPT_LOCATION</b> environment variable. This option is only available if this environment variable is set.</li> </ul> <div data-bbox="495 504 1429 798" style="border: 1px solid #90EE90; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• When you import a script, any user interface (.ui) or icon (.png) file that is in the same directory and has the same filename as the script will also be imported.</li> <li>• For more information on script locations, see <a href="#">Script Editor View on page 544</a>.</li> </ul> </div>
Delete Script	<p>Deletes the selected script.</p> <div data-bbox="495 919 1429 1249" style="border: 1px solid #90EE90; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• You cannot delete a script if it is in the Application Resources location, as those are scripts that are installed with Storyboard Pro.</li> <li>• If you delete a script that was originally in Application Resources but which you copied to another location so you could make changes to it, the original version of the script in the Application Resources folder will be restored to the list.</li> </ul> </div>
Refresh Script File List	<p>Refresh the list of scripts in the Script Editor. If there are new scripts in your user preferences or your scene's scripts sub-folder, click on this button to be able to open them in the Script Editor.</p>
Editor	
Set External Editor	<p>Allows you to type in the path and name for your preferred text editing software.</p>

Button	Description
	<div data-bbox="496 285 1430 615" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• On macOS, only typing the name of your preferred text editing software is enough if that application supports the AppleScript Open Document protocol.</li> <li>• On Windows and GNU/Linux, unless your text editor is in your system's <b>PATH</b> environment variable, you will have to type in the full path to the editor.</li> </ul> </div>
External Editor	Opens the selected script in the chosen external text editing software.
Play/Debug	
Set Target	<p>Prompts you to select which script and which function to use with the <b>Run</b> and <b>Debug</b> commands.</p> <div data-bbox="496 951 1430 1281" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• You can set the entire script as the target by selecting the <b>&lt;Nothing&gt;</b> function from the functions list.</li> <li>• You cannot link an entire script to a toolbar button. Only functions within scripts can be added as toolbar buttons. Therefore, running or debugging an entire script rather than one of its functions should be done for testing purposes only.</li> </ul> </div>
Run	<p>Runs the target script and function.</p> <div data-bbox="496 1402 1430 1776" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• If you have not set a target script and function, you will be prompted to set one when you select this command.</li> <li>• You can set or change the target script and function by selecting <b>Set Target</b> from this menu.</li> <li>• If you are editing <b>&lt;&lt;&lt;Sandbox&gt;&gt;&gt;</b>, this button will simply run what you typed into the sandbox, regardless of whether another target is set.</li> </ul> </div>
Debug	Open the target script and function in the Qt Script Debugger, in which you can test and debug the function.

Button	Description
	<div data-bbox="495 283 1429 661" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• If you have not set a target script and function, you will be prompted to set one when you select this command.</li> <li>• You can set or change the target script and function by selecting <b>Set Target</b> from this menu.</li> <li>• If you are editing &lt;&lt;&lt;<b>Sandbox</b>&gt;&gt;&gt;, this button will simply debug what you typed into the sandbox, regardless of whether another target is set.</li> </ul> </div>
Stop	If a script is currently running, this interrupts its execution.
Help	
Scripting Interface Documentation	<p>Opens the reference documentation for the Storyboard Pro scripting interface in a web browser.</p> <div data-bbox="495 997 1429 1165" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>This documentation is installed with Storyboard Pro and does not require Internet access.</p> </div>











## Chapter 4: Toolbars

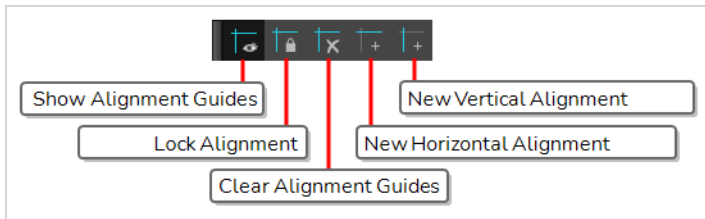
The Storyboard Pro interface contains toolbars that quickly give you access many useful tools. You can add, move and remove toolbars in your workspace.

The following toolbars are available in Storyboard Pro:


Alignment Guides Toolbar .....	307
Camera Toolbar .....	309
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Coordinate Toolbar .....	312
Edit Toolbar .....	313
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View Toolbar .....	342
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## Alignment Guides Toolbar

The Alignment Guides toolbar allows you to create, remove, hide, show, lock and unlock alignment guides. Alignment guides are horizontal or vertical rulers that you can add to your stage. You can make several tools, such as the  Layer Transform, the  Select tool and the  Contour Editor tool *snap* to alignment guides so as to help you align layers, artwork, strokes and vector drawing points with precision. You can also make many drawing tools, such as the  Brush,  Pencil,  Rectangle,  Ellipse and  Line tool *snap* to alignment guides to help you draw along them, like rulers.







### TIP










To make a tool snap to alignment guides, click on the  Snapping button in the Tool Properties view and, in the pop-up menu, select **Snap to Alignment Guides**. This will enable snapping to alignment guides for every animation and drawing tool that supports it.

## How to access the Alignment Guides toolbar

- Do one of the following:
  - In the top menu, select **Windows > Toolbars > Alignment Guides**.
  - Right-click on any toolbar in your workspace and select **Alignment Guides**.

Icon	Button	Description
	Show Alignment Guides	When enabled, alignment guides will be visible in the Stage View and the Camera View. This is enabled by default. Disabling this option will hide and disable alignment guides, meaning that animation and drawing tools will not snap to them, even if the  Snap to Alignment Guides option is enabled in the Tool Properties view.
	Lock Alignment Guides	It is possible to reposition alignment guides in the current panel by dragging them using the  Layer Transform tool. Enabling this option will lock the alignment guides in their current position, allowing you to manipulate layers and artwork in your panel without accidentally moving alignment guides.

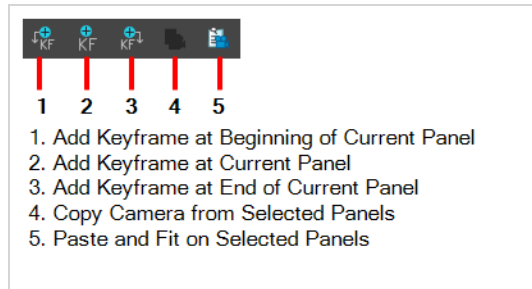


Icon	Button	Description
	Clear Alignment Guides	Removes all the alignment guides in the current panel.
	New Horizontal Alignment Guide	<p>Adds a horizontal alignment guide to the middle of the current panel.</p> <div data-bbox="467 504 1429 682" style="border: 1px solid #add8e6; padding: 10px;"> <p> <b>TIP</b>            You can move the alignment guide from its default position using the  Layer Transform tool or the  Select tool.</p> </div>
	New Vertical Alignment Guide	<p>Adds a vertical alignment guide to the middle of the current panel.</p> <div data-bbox="467 808 1429 987" style="border: 1px solid #add8e6; padding: 10px;"> <p> <b>TIP</b>            You can move the alignment guide from its default position using the  Layer Transform tool or the  Select tool.</p> </div>

## Camera Toolbar

The Camera toolbar lets you add keyframes to the beginning or end of a selected panel, and copy and paste keyframes.

This toolbar is part of the default Storyboard Pro workspace. However, you can hide the toolbar to streamline your workspace.



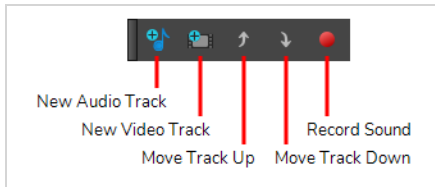
### How to show or hide the Camera toolbar

- Select **Windows > Toolbars > Camera**.

Icon	Tool Name	Description
	Add Keyframe at Beginning of Panel	Adds a keyframe to the beginning of the currently selected panel.
	Add Keyframe at Current Panel	Adds a keyframe to the current frame which is determined by the position of the red playhead on the Timeline.
	Add Keyframe at End of Current Panel	Adds a keyframe at the end of the currently selected panel.
	Copy Camera from Selected Panels	Copies a selected camera keyframe from a selected panel.
	Paste and Fit on Selected Panels	Pastes a selected camera keyframe from a selected panel.






## Clips and Tracks Toolbar

The Sound toolbar allows you to quickly add and manage video and audio tracks




### How to show or hide the Sound toolbar







- Select **Windows > Toolbars > Sound**.

Icon	Tool Name	Description
	New Audio Track	Adds a new audio track to your project.
	New Video Track	Adds a new video track to your project.
	Move Track Up	Moves the selected video or audio track up in the list of tracks.
	Move Track Down	Moves the selected video or audio track down in the list of tracks.
	Record Sound	Allows you to record a sound clip using your workstation's recording device directly into an audio track in your project.

### Optional Buttons

The following are buttons you can add to this toolbar if you want to have them in your workspace.

Icon	Tool Name	Description
	Audio Scrubbing	When enabled, the part of the soundtrack that is at the current frame will play every time you move the timeline cursor, allowing you to navigate the timeline of your animatic by sound. This makes it easier to synchronize the action and the audio in your animatic.

Icon	Tool Name	Description
	Delete Current Track	Deletes the currently selected video or audio track.
	Import Sound Clips	Allows you to import sound files (.wav, .aif, .aiff or .mp3) as sound clips into an audio track.
	Import Videos/Images as Clips	<p>Allows you to import images or movie files into clips in video tracks, which are independent from your animatic and can be made to appear over or underneath the elements in your storyboard.</p> <p>Movie files can be imported as video clips to be played in your projects. Still images can be imported as static video clip which can be made to last any amount of time.</p> <p>You can import any image file supported by Storyboard Pro as a video clip. You can also import movie files in QuickTime Movie (.mov) or MPEG-4 (.mp4, .m4v) format which are encoded with the H.264. On Windows only, you can also import Windows Media Video (*.wmv) files, and on macOS only, you can also import QuickTime Movie (.mov) files encoded in Apple ProRes.</p>
	Show Volume Envelope	Displays a volume envelope throughout the sound clip. By default, this envelope is a straight line in the middle of the clip, indicating that the volume of the clip is neutral all throughout. You can add keyframes to the envelope, and move them up or down to modulate the volume of the sound clip as it plays.
	Show Waveform	Displays a waveform inside the audio clip, allowing you to see where the audio peaks so you can sync the action with it.
	Split Clip at Current Frame	Splits the selected video or sound clip at the current frame, separating it into two independent clips.

## Coordinate Toolbar

The Coordinate toolbar displays parameters of keyframes or control points in the Camera or Timeline view. You can edit keyframes and control point parameters, such as the position, scale and rotation coordinates.



### How to access the Coordinate toolbar

1. Select **Windows > Toolbars > Coordinate**.

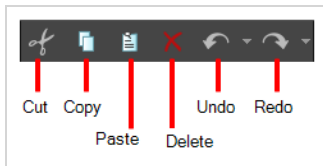
Parameter	Description
Translation	The translation fields display the X, Y and Z translation values of the selected layer. You can enter precise values to set the first frame and last frame position of a layer. By default the Z value field is disabled. It will automatically become active when the 3D option is enabled.
Scale	The scale fields display the X, Y and Z scaling values of the selected layer. You can enter precise values to set the first frame and last frame size of a layer. By default the Z value field is disabled. It will automatically become active when the 3D option is enabled.
Rotation	The rotation fields display the X, Y and Z rotation values of the selected layer. You can enter precise values to set the first frame and last frame rotation of a layer. By default the Z value field is disabled. It will automatically become active when the 3D option is enabled.
Skew	The skew field displays skew value of the selected object. You can enter a precise value to set the skew of the object.

## Edit Toolbar

The Edit toolbar lets you cut, copy, paste, and delete drawing objects.







This toolbar is part of the default Storyboard Pro workspace. However, you can hide the toolbar to streamline your workspace.

There are also Undo and Redo menus that list the most recent actions you can undo or redo. For example, if you cut a stroke, it will be listed in the Undo menu so you can restore it.



### How to access the Edit toolbar

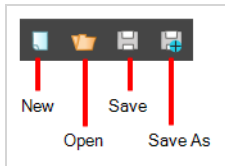
- Select **Windows > Toolbars > Edit**.

Icon	Tool Name	Description
	Cut	Removes selected objects. You can then paste the object or its properties to another object.
	Copy	Copies the selected objects and properties.
	Paste	Pastes the copied objects and properties.
	Delete	Deletes selected objects.
	Undo	Undoes an operation that you just did.
	Redo	Redoes an operation that you just did. This command becomes active only after you use the Undo command.

## File Toolbar





The File toolbar lets you create new projects, open existing projects, save the current project as well as save the current project with a different name.

This toolbar is part of the default Storyboard Pro workspace. However, you can hide the toolbar to streamline your workspace.



### How to access the File toolbar

- Select **Windows > Toolbars > File**.

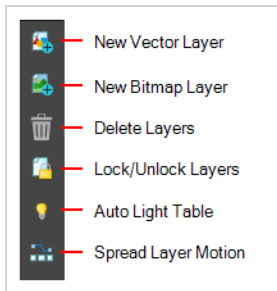
Icon	Tool Name	Description
	New	Lets you create a new project.
	Open	Lets you open an existing project. If a project is already open, you must save it first.
	Save	Saves the current project.
	Save As	Lets you save the currently open project under another name.

## Layer Toolbar

The Layer toolbar lets you add and remove vector and bitmap layers. You can also lock and unlock layers, turn on the light table, as well as spread the motion of a layer across all panels or just some of them.

In the default workspace, this toolbar located on the left-most side of the interface.







This toolbar is part of the default Storyboard Pro workspace. However, you can hide the toolbar to streamline your workspace.



You can display the Layer toolbar horizontally if you find it more efficient for your workflow. Be sure to restart Storyboard Pro in order to see the new position of the Layer toolbar.

### How to show or hide the Layer toolbar

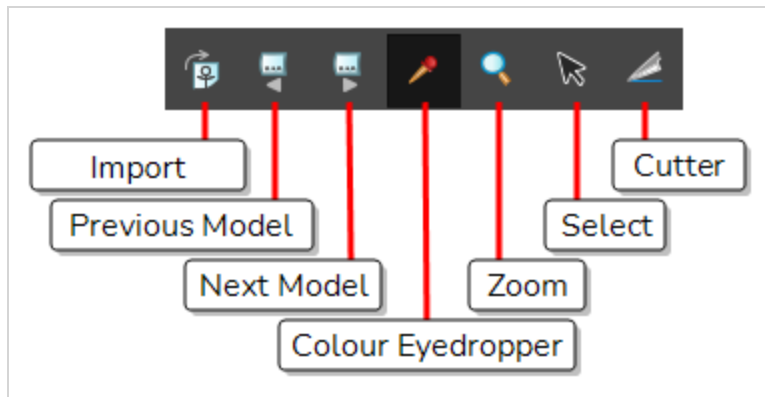
- Select **Windows > Toolbars > Layer**.

Icon	Tool Name	Description
	New Vector Layer	Adds a vector layer to the Layers list.
	New Bitmap Layer	Adds a bitmap layer to the Layers list.
	Delete Layers	Deletes the selected layers.
	Lock/Unlock Layers	Locks or unlocks selected layers.
	Auto Light Table	Turns on the light table.
	Spread Layer Motion	Within the same shot, you can spread the current layer motion across all panels or a specified number of panels after the current panel. A new layer will be added and the drawing will be duplicated for panels that do not have the same name in the defined range.








## Model View Toolbar



The Model View toolbar appears in the Model view. Use the commands and tools from this toolbar to view and sample from models (reference drawings) that you have imported into the Model view.



### How to show or hide the Model View toolbar

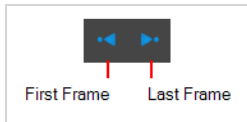
- Select **Windows > Toolbars > Model View**.

Icon	Tool/Command	Description
	Import Model	Opens a browser window to locate and select *.tvg drawing files from outside the project. Once selected, these drawing files are imported into the Model view as models.
	Previous Model	Allows you to navigate backwards from the currently displayed model, to view other models previously loaded into the Model view.
	Next Model	Allows you to navigate forwards from the currently displayed model, to view other models loaded afterwards into the Model view.
	Colour Eyedropper	Allows you to select a colour by clicking on a colour in your artwork.
	Zoom	Allows you zoom in and out of the Model view.

	Select	Allows you to select and reposition, scale, rotate and skew brush strokes, pencil lines, shapes and other parts of your artwork.
	Cutter	Allows you to cut a part of your artwork, then reposition, scale, rotate and skew it.

## Navigation Toolbar

The Navigation toolbar lets you quickly display the first and last frame of a panel. These buttons grey out when the playhead is at the start or end of a panel.



### How to access the Navigation toolbar




- Select **Windows > Toolbars > Navigation**.

Icon	Tool Name	Description
	First Frame	Moves the timeline playhead to the first frame of the current panel.
	Last Frame	Moves the timeline playhead to the last frame of the current panel.

## Optional Buttons

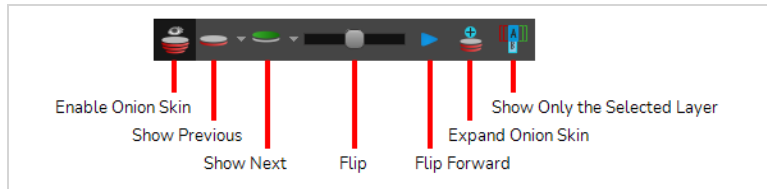
The following are buttons you can add to this toolbar if you want to have them in your workspace.

Icon	Tool Name	Description
	Project First Frame	Moves the timeline playhead to the first frame of the project.
	Previous Sequence	Moves the timeline playhead to the previous sequence.
	Previous Scene	Moves the timeline playhead to the previous scene.
	Previous Panel	Moves the timeline playhead to the previous panel.
	Next Panel	Moves the timeline playhead to the next panel.

	Next Scene	Moves the timeline playhead to the next scene.
	Next Sequence	Moves the timeline playhead to the next sequence.
	Project Last Frame	Moves the timeline playhead to the last frame of the project.

## Onion Skin Toolbar







The Onion Skin toolbar displays the next and previous drawings in the Stage view.



### How to access the Onion Skin toolbar

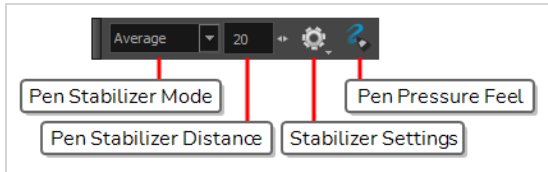
- Select **Windows > Toolbars > Onion Skin**.

Icon	Tool Name	Description
	Enable Onion Skin	Enables or disables Onion Skin.
	No Previous Panels	Does not include any previous panel in the Onion Skin.
	Previous Panel	Includes the previous panel in the Onion Skin.
	Previous Two Panels	Includes the previous two panels in the Onion Skin..
	Previous Three Panels	Includes the previous three panels in the Onion Skin.
	No Next Panels	Does not include any next panel in the Onion Skin.
	Next Drawing	Includes the next panel in the Onion Skin.
	Next Two Panels	Includes the two next panels in the Onion Skin.
	Next Three Panels	Includes the next three panels in the Onion Skin.

	<p>Flip</p>	<p>Dragging this slider allows you to flip through the panels that are included in the Onion Skin.</p>
	<p>Flip Forward</p>	<p>Click and hold this button to flip through the panels included in the Onion Skin.</p>
	<p>Expand Onion Skin</p>	<p>Displays the Expand Onion Skin dialog, which contains buttons for the 15 previous panels and the 15 next panels. While this dialog is showing, only the panels that are toggled on in this dialog will be included in the Onion Skin.</p>  <p>This allows you to set up the Onion Skin including panels very far behind and after the current panel. Also, since only selected panels are included, this allows you to include specific panels in the Onion Skin without including every panel in-between that panel and the current panel.</p> <p>For example, if you only want the third previous panel to be in the onion skin, all you have to do is toggle that panel on. But if you want every panel from the first previous panel to the third previous panel to be included, you have to toggle each of them on.</p> <div style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>The Onion Skin will return to its normal setting once you close the dialog. Therefore, you must leave it on for as long as you need the Onion Skin to use the settings in this dialog.</p> </div>
	<p>Show Only the Selected Layers</p>	<p>Only displays the onion skin for layers in neighbouring panels that have the same name as the currently selected layer.</p>

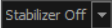
## Pen Settings Toolbar

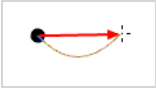





The Pen Settings toolbar provides options for enabling and configuring the Pen Stabilizer, which can help you draw smooth lines with precision and minutia. It also allows you to access the Pen Pressure Feel dialog, which allows you to configure how the pressure you apply to your tablet pen is processed by Storyboard Pro to affect the size of your drawing strokes.







### NOTE

For information on how to use the Pen Settings toolbar, refer to the User Guide.

Icon	Parameter	Description
	Pen Stabilizer Mode	<p>Allows you to select a method for Storyboard Pro to stabilize your drawing strokes.</p> <p>Stabilization is a process by which Storyboard Pro uses the general direction of your drawing strokes to create smooth, stable curves and avoid jittering and sharp corners.</p> <p>Storyboard Pro accomplishes this by letting you draw a stroke of a certain length without generating artwork right away. After your stroke has reached that length, Storyboard Pro starts generating an drawing stroke that keeps trailing behind your mouse cursor or tablet pen as you draw. Storyboard Pro uses the buffer between your mouse cursor or pen tablet and the actual drawing stroke to generate smooth curves and ignore jittering and small mistakes.</p> <p>The way Storyboard Pro does this depends on the stabilization method you choose:</p> <ul style="list-style-type: none"> <li>• <b>Stabilizer Off:</b> No stabilization is performed. When you draw a stroke, artwork for it is generated immediately.</li> <li>• <b>Average:</b> Storyboard Pro calculates the average direction of all of your mouse or pen gestures between the end of the actual drawing stroke and the current position of your mouse cursor or pen tip, and extends the stroke in this average direction, effectively evening out jitter and rounding sharp turns.           <div data-bbox="594 1600 964 1680" style="text-align: center;"> </div> </li> <li>• <b>Pulled String:</b> When you start drawing a stroke, Storyboard Pro positions the drawing tool where your stroke starts. As you move the mouse or tablet pen, the drawing tool remains in that position, but a "string" appears, linking your drawing tool to your mouse cursor or pen tip.</li> </ul>

Icon	Parameter	Description
		 <p>This string has a certain maximum length. Once that length is reached, the string pulls the drawing tool in the direction of your mouse cursor or tablet pen.</p>  <div data-bbox="594 648 1430 850" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b></p> <p>The distance between your mouse cursor or tablet pen and the stroke can be adjusted. For the purpose of demonstration, these images were done using the largest supported distance.</p> </div>
	<p>Pen Stabilizer Distance</p>	<p>This parameter determines how far your drawing strokes trail behind your mouse cursor or tablet pen as you draw.</p> <p>In the case of the Average technique Storyboard Pro lets you draw an invisible stroke of a certain length before it starts generating the artwork based on the average direction of that invisible stroke. This parameter determines the invisible stroke's length.</p> <p>In the case of the Pulling String, Storyboard Pro binds your drawing tool to your mouse cursor or tablet pen with a virtual string of a given length. This parameter sets the length of that string.</p>
	<p>Pen Stabilizer Settings</p>	<p>Allows you to enable or disable the following options:</p> <ul style="list-style-type: none"> <li>• <b>Catch Up:</b> When using stabilization, your drawing strokes trail behind your mouse cursor or tablet pen. With this option enabled, when you stop moving your pen and just leave it pressed against your tablet, the brush stroke will progressively catch up to the position of your pen.</li> </ul> <div data-bbox="594 1543 1430 1766" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• This option only works if you are drawing with a pen tablet.</li> <li>• This option only works with the Average stabilization method.</li> </ul> </div> <ul style="list-style-type: none"> <li>• <b>Show String:</b> When using the <b>Pulled String</b> method, the virtual string binding your drawing tool to your mouse cursor or tablet pen will be displayed as you draw, allowing you to visualize how the brush stroke trails</li> </ul>

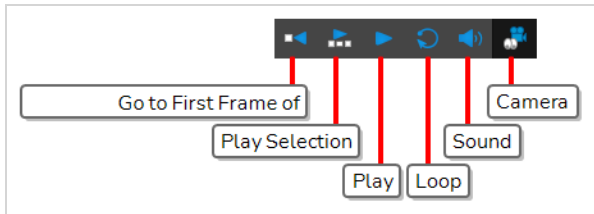


Icon	Parameter	Description
		<p>behind your mouse cursor or tablet pen.</p> <ul style="list-style-type: none"><li>• <b>Eraser:</b> If enabled, strokes with the  Eraser tool will also be stabilized. By default, the stabilizer works with the  Brush and  Pencil tools.</li></ul>
	Pen Pressure Feel	Opens the Pen Pressure Feel dialog, which allows you to configure how Storyboard Pro processes the pressure you put on your tablet pen before applying it to the thickness of your drawing strokes—see <a href="#">Pen Pressure Feel Dialog Box</a> .

## Playback Toolbar

The Playback toolbar lets you play back your storyboard. When you create an animatic with transitions and sound, you can play it back in real time in the Stage view to check the timing.

In the default workspace, this toolbar is located at the top of the interface.

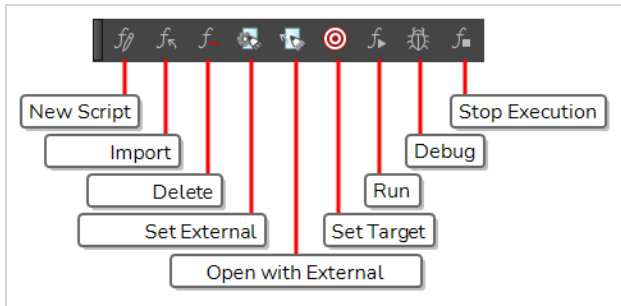


Name	Icon	Description	Access
Go to First Frame of Selection		Automatically places the playback marker at the beginning of the panel selection. This selection can be one or many panels. In the Timeline view, you can see the playhead positioning itself at the first frame of the first panel of the selection.	
Play Selection		Plays back a selection of panels.	Select <b>Play &gt; Play Selection</b> or press Shift + Enter.
Play		Starts and stops playback of the storyboard.	Select <b>Play &gt; Play</b> .
Loop		Repeats playback.	Select <b>Play &gt; Loop</b> .
Sound		Enables sound in the playback.	Select <b>Play &gt; Audio Playback</b> .
Camera		Lets you preview camera moves and transitions.	Select <b>Play &gt; Camera Preview</b> .
Auto Update Playback Cache		Only appears if the Playback view is enabled. Enables the rendering and caching	

Name	Icon	Description	Access
		<p>of the current frame and the playback sequence.</p> <p>Normally, you might preview a frame range, make a small edit and then preview it again to view the edit. In this case, it would be efficient if the new frames were rendered and cached right away, so they would be ready for real-time playback.</p> <p>It is best to disable the Auto Update Playback Cache button if you are going to heavily modify a scene before playing it back. It prevents the software from continually making render and caches of in-progress frames.</p>	



## Script Editor Toolbar






The Script Editor toolbar gives you quick access to some commonly used commands for editing and testing scripts in the Script Editor view—see [Script Editor View on page 544](#).
















### How to access the Script Editor toolbar

1. Add the Script Editor view to your workspace by doing one of the following:
  - In the top-right corner of an existing view, click on the **+** Add View button and select Script Editor.
  - In the top menu, select **Windows > Script Editor**.
2. Click on the Script Editor view to set the focus on it.
3. In the top menu, select **Windows > Toolbars > Script Editor**.

Icon	Button	Description
	New Script	<p>Creates a new script. When you click on this button, you are first prompted to type in a name for the script. Then, you will be prompted to select which location to save the script in:</p> <ul style="list-style-type: none"> <li>• <b>User:</b> Saves the script to a directory in your user preferences directory. You will be able to run and edit the script from any scene as long as you are logged in as the same user.</li> <li>• <b>Scene:</b> Save the script to the project's <b>scripts</b> sub-folder. Anyone will be able to edit and run the script when working on this specific project.</li> <li>• <b>System Variable:</b> Save the script to the directory in the <b>TOONBOOM_GLOBAL_SCRIPT_LOCATION</b> environment variable. This option is only available if this environment variable is set.</li> </ul> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b> For more information on script locations, see <a href="#">Script list on page 544</a>.</p> </div>

Icon	Button	Description
	Import Script	<p>Allows you to import a script from your machine into Storyboard Pro. When you click on this button, you are prompted to browse for and select a script on your file system. Then, you are prompted to select which location to import the script in:</p> <ul style="list-style-type: none"> <li>• <b>User:</b> Saves the script to a directory in your user preferences directory. You will be able to run and edit the script from any scene as long as you are logged in as the same user.</li> <li>• <b>Scene:</b> Save the script to the project's <b>scripts</b> sub-folder. Anyone will be able to edit and run the script when working on this specific project.</li> <li>• <b>System Variable:</b> Save the script to the directory in the <b>TOONBOOM_GLOBAL_SCRIPT_LOCATION</b> environment variable. This option is only available if this environment variable is set.</li> </ul> <div data-bbox="505 751 1430 1052" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• When you import a script, any user interface (.ui) or icon (.png) file that is in the same directory and has the same filename as the script will also be imported.</li> <li>• For more information on script locations, see <a href="#">Script Editor View on page 544</a>.</li> </ul> </div>
	Delete Script	<p>Deletes the selected script.</p> <div data-bbox="505 1171 1430 1497" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• You cannot delete a script if it is in the Application Resources location, as those are scripts that are installed with Storyboard Pro.</li> <li>• If you delete a script that was originally in Application Resources but which you copied to another location so you could make changes to it, the original version of the script in the Application Resources folder will be restored to the list.</li> </ul> </div>
	Set External Editor	<p>Allows you to type in the path and name for your preferred text editing software.</p>

Icon	Button	Description
		<div data-bbox="505 285 1430 611" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• On macOS, only typing the name of your preferred text editing software is enough if that application supports the AppleScript Open Document protocol.</li> <li>• On Windows and GNU/Linux, unless your text editor is in your system's <b>PATH</b> environment variable, you will have to type in the full path to the editor.</li> </ul> </div>
	Open with External Editor	Opens the selected script in the chosen external text editing software.
	Set Target	<p>Prompts you to select which script and which function to use with the  Run and  Debug buttons.</p> <div data-bbox="505 936 1430 1262" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• You can set the entire script as the target by selecting the <b>&lt;Nothing&gt;</b> function from the functions list.</li> <li>• You cannot link an entire script to a toolbar button. Only functions within scripts can be added as toolbar buttons. Therefore, running or debugging an entire script rather than one of its functions should be done for testing purposes only.</li> </ul> </div>
	Run	<p>Runs the target script and function.</p> <div data-bbox="505 1381 1430 1755" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>• If you have not set a target script and function, you will be prompted to set one when you click on this button.</li> <li>• You can set or change the target script and function by clicking on the  Set Target button.</li> <li>• If you are editing <b>&lt;&lt;&lt;Sandbox&gt;&gt;&gt;</b>, this button will simply run what you typed into the sandbox, regardless of whether another target is set.</li> </ul> </div>
	Debug	Open the target script and function in the Qt Script Debugger, in which you can test and debug the function.

Icon	Button	Description
		<div data-bbox="505 283 1430 659" style="border: 1px solid #c8e6c9; padding: 10px;"><p> <b>NOTES</b></p><ul style="list-style-type: none"><li>• If you have not set a target script and function, you will be prompted to set one when click on this button.</li><li>• You can set or change the target script and function by clicking on the  Set Target button.</li><li>• If you are editing &lt;&lt;&lt;Sandbox&gt;&gt;&gt;, this button will simply debug what you typed into the sandbox, regardless of whether another target is set.</li></ul></div>
	Stop Execution	If a script is currently running, this interrupts its execution.



## Scripting Toolbar

The scripting toolbar allows you to create buttons that run functions in your scripts. You can add one button for each function you want to be able to run, and clicking on the button will instantly run the script function you linked it to.



### How to add the Scripting toolbar to your workspace

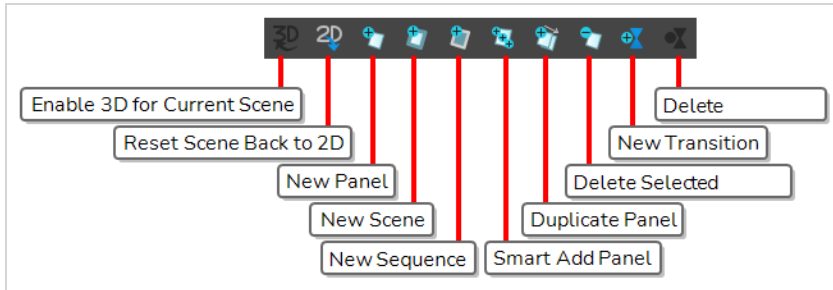
1. Do one of the following:
  - In the top menu, select **Windows > Toolbars > Scripting**.
  - Right-click on any existing toolbar and select **Scripting**.

Icon	Tool Name	Description
	Manage Scripts	Opens the Scripts Manager dialog box where you can add scripts and functions to your Scripting toolbar.
	Stop Script	Stops the execution of a script launched from the Scripting toolbar.







## Storyboard Toolbar




The Storyboard toolbar contains all of the basic commands related to adding and deleting panels, scenes, and transitions, as well as switching between the 2D and 3D workspaces. In the default workspace, this toolbar is located at the top of the interface.



### How to access the Storyboard toolbar

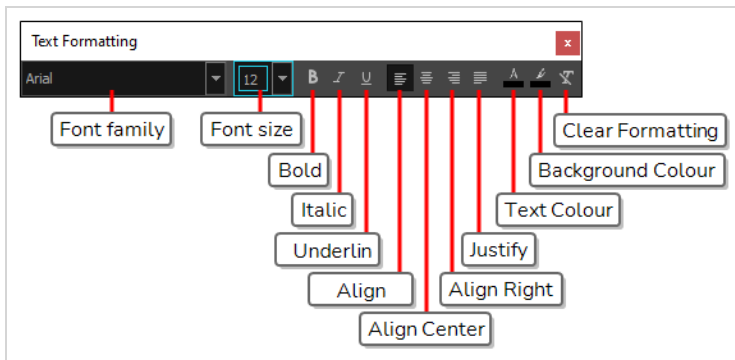
- ▶ Select **Windows > Toolbars > Storyboard**.

Name	Icon	Description	Access
Enable 3D		Converts a scene to 3D so you can move and rotate 2D objects in 3D space.	Select <b>Storyboard &gt; Enable 3D for Current Scene</b> .
Reset Scene to 2D		Reset a scene to 2D. When you do so: <ul style="list-style-type: none"> <li>• Imported 3D models are removed.</li> <li>• 3D camera moves are removed.</li> <li>• 2D layers that have been moved and rotated in 3D are be set back to 2D, removing those transformations.</li> </ul>	Select <b>Storyboard &gt; Reset Scene to 2D</b> .
New Panel		Creates a new panel after the current panel.	Select <b>Storyboard &gt; New &gt; New Panel</b> or press P.
New Scene		Creates a new scene after the currently selected scene.	Select <b>Storyboard &gt; Create Scene</b> .

New Sequence		Adds a new sequence to your project and displays the sequence markers in the Thumbnails and Timeline views.	Select <b>Storyboard New &gt; New Sequence.</b>
Smart Add Panel			Select <b>Storyboard &gt; Smart Add Panel.</b>
Duplicate Selected Panel		Creates an exact copy of an existing panel.	Select <b>Storyboard &gt; Duplicate Selected Panel.</b>
Delete Selected Panel		Deletes a selected panel. Note that it is impossible to have an empty project as there is a minimum of one panel.	
New Transition			Select <b>Storyboard &gt; New Transition.</b>
Delete Transition			Select <b>Storyboard &gt; Delete Transition.</b>

## Text Formatting Toolbar

The Text Formatting toolbar allows you format the text in your project's script and in the captions of your project's panels.










### How to access the Text Formatting toolbar

1. In the Panel or Storyboard view, click the **I** Text Formatting button above a caption field.

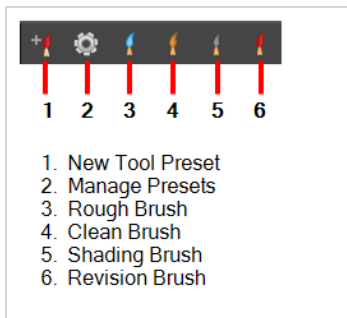
The Text Formatting toolbar appears, floating over the main application window.

Icon	Tool Name	Description
--	Font family	Allows you to select the font in which to display the selected text.
--	Font Size	Allows you to select the size, in points, in which to display the selected text.
<b>B</b>	Bold	Makes the selected text appear bold.
<i>I</i>	Italic	Makes the selected text appear italic.
<u>U</u>	Underline	Makes the selected text underlined.
≡	Align Left	Makes all the text in the selected caption aligned to the left.
≡	Align Center	Makes all the text in the selected caption aligned to the centre.
≡	Align Right	Makes all the text in the selected caption aligned to the right.

	Justify	Makes all the text in the selected caption justified. This makes the spacing between words automatically adjust to make each line of text occupy all the available horizontal space, except for the last line of each paragraph.
	Text Colour	Opens the Select Colour dialog box, from which you can select a new colour for the selected text.
	Background Colour	Opens the Select Colour dialog box, from which you can select a background colour for the selected text. <div data-bbox="656 611 1430 779" style="border: 1px solid #c8e6c9; padding: 10px;"><p> <b>NOTE</b> The background colour is applied around the selected text, like this, and does not cover the entire caption field.</p></div>
	Clear Formatting	Removes all font, font size, bold, italic, underline, text colour and background colour formatting from the selected text. <div data-bbox="656 936 1430 1079" style="border: 1px solid #c8e6c9; padding: 10px;"><p> <b>NOTE</b> The  Clear Formatting button does not affect text alignment.</p></div>

## Tool Presets Toolbar

The Tool Presets toolbar lets you create new tool presets and manage existing ones. There are also four default brush presets available.



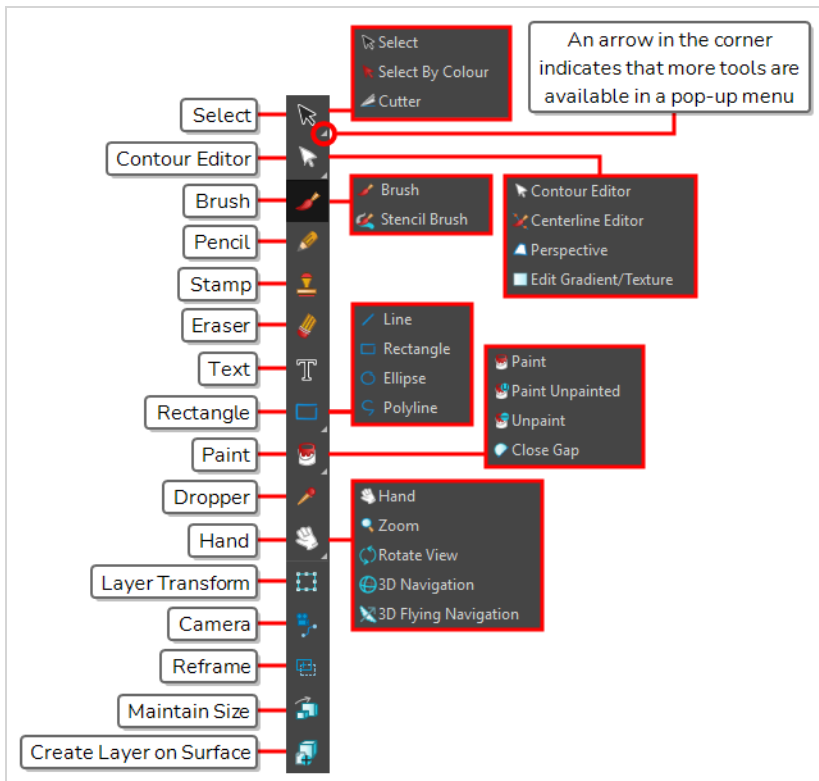
### How to access the Tool Presets toolbar




- Select **Windows > Toolbars > Tool Presets**.

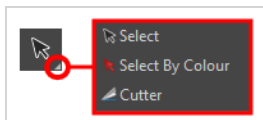
Icon	Tool Name	Description
	New Tool Preset	Opens the New Tool Preset dialog box in which you can create a custom tool preset and add it to the Tool Presets toolbar for quick access.
	Manage Presets	Opens the Manage Tool Presets dialog box in which you can update and delete existing tool presets, and import and export tool presets.
	Rough Brush	A blue brush for quickly creating rough drawings.
	Clean Brush	A black brush for creating the clean lines in a drawing.
	Shading Brush	A brush that is set for shading. Any strokes that you draw will appear behind objects.
	Revision Brush	A red brush for making revisions to a drawing. When you activate this brush, a revision layer is created for the current panel.

## Tools Toolbar

The Tools toolbar contains the main tools you need to work in Storyboard Pro. In the default workspace, this toolbar located on the left edge of the application window.



By default, the Tools toolbar hides some of its tools inside pop-up menus. For example, to select the  Cutter tool, you must double-click or long-click the  Select tool button, and select  **Cutter** in the pop-up menu.



However, it is possible to make the Tools toolbar display each tool as a separate button by enabling the **Flat Tools Toolbar** preference. This makes the selection of tools quicker.

### How to make every tool in the Tools toolbar display in buttons rather than pop-up menus







1. Do one of the following to open the Preferences dialog:














- **Windows:**

- In the top menu, select **Edit > Preferences**.
  - Press Ctrl + U.
  - **macOS:**
    - In the top menu, select **Storyboard Pro 20 > Preferences**.
    - Press ⌘ + U.
2. Select the **Global UI** tab.
  3. In the **UI Style** section, check the **Flat Tool Toolbar** option.
  4. Click **OK**.
  5. Close and relaunch Storyboard Pro.













**NOTE**


In Flat Tools Toolbar mode, some tools are hidden from the Tools toolbar by default. To customize which tools are displayed in the Tools toolbar, and the order in which they are displayed, right-click on the Tools toolbar and select **Customize**.

Tool Name	Icon	Description
Select		Allows you to select and reposition, scale, rotate and skew brush strokes, pencil lines, shapes and other parts of your artwork.
Cutter		Allows you to cut a part of your artwork, then reposition, scale, rotate and skew it.
Select by Colour		Allows you to quickly select all zones painted with the colour you click on in a single drawing layer.
Contour Editor		Allows you to edit the vector contours of brush strokes, pencil lines and shapes in your artwork. You can add, remove, tweak and move vector points, move the Bezier handles of the vector points as well as deform vector outlines.
Centerline Editor		Allows you to tweak and deform a brush stroke by manipulating the points at the centre of its line rather than its contour.
Perspective		Allows you to deform artwork by applying a perspective effect on it.

Edit Gradient/Texture		Allows you to adjust the position, angle and size of gradients and textures in a colour zone.
Brush		A pressure-sensitive tool for creating a contour shape with a thick and thin line effect, as if created with a paint brush.
Stencil Brush		Allows you to paint over existing artwork within the boundaries of that artwork or the boundaries set by selecting the artwork of different layers.
Pencil		A pressure-sensitive tool for drawing outlines. Pencil lines are made of central vector lines, making them easier to tweak and edit than brush strokes.
Text		Allows you to add text and to format it.
Eraser		A pressure-sensitive tool for erasing parts of a drawing.
Paint		Allows you to fill colour zones with a colour or texture.
Paint Unpainted		Allows you to quickly fill empty zones in your artwork with a colour or texture, leaving filled zones unchanged.
Unpaint		Allows you to empty filled colour zones of their colour and texture.
Close Gap		Allows you to close open shapes so that they can be filled with the Paint tool. By drawing a stroke near a small gap in a shape, this tool will create a small invisible stroke connecting the two closest points around the gap.
Line		Draws a straight line segment going from one point to the other.
Rectangle		Draws a rectangle.
Ellipse		Draws an ellipse.



Polyline		Allows you to draw shapes, segmented lines or complex curved lines by clicking to create each point in the sequence of line segments.
Dropper		Allows you to select a colour by clicking on a colour in your artwork.
Hand		Allows you to pan the Stage and Camera views.
Zoom		Allows you zoom in and out of the Stage and Camera views.
Rotate View		Lets you rotate the Stage and Camera views just like with a real animation disc.
Shift and Trace		Allows you to temporarily move drawings so you can trace over them in other drawings using Onion Skin.
3D Navigation		Lets you navigate through a scene in 3D using the following: <ul style="list-style-type: none"> <li>• Left mouse button for rotation.</li> <li>• Middle mouse button for panning.</li> <li>• Right mouse button for zooming in and out.</li> </ul>
3D Flying Navigation		Lets you navigate through a scene in 3D using the following: <ul style="list-style-type: none"> <li>• Use the mouse for rotation.</li> <li>• Use the mouse wheel to move forwards or backwards.</li> <li>• Use the arrow keys and PgUp/PgDn to move in all six directions.</li> </ul>
Layer Transform		Allows you to select drawing layers and position, rotate, scale and skew them.
Camera		Allows you to position and rotate the camera, as well as to animate camera movements.
Reframe		Allows you to offset the position of the content of the panels for the entire scene so that it fits in the camera frame you define.
Maintain Size		Keeps the visual scale in the Camera view as you move elements in the Z-axis in the Top or Side views.

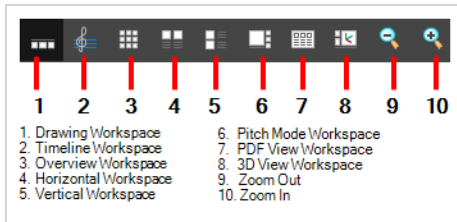
Create Layer on Surface		Creates a new layers on top of the surface over which you are hovering with the mouse cursor.
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## View Toolbar

The View toolbar lets you switch between the different workspaces, and zoom in or out on the main area in each workspace.

The first time you open Storyboard Pro, the default Drawing workspace is loaded. There are a total of eight ready-made workspaces.




Use the keyboard shortcuts 3 to 8 to open the corresponding workspaces. There is no keyboard shortcut for the PDF View. You must use the button on the View toolbar.



### How to show or hide the View toolbar

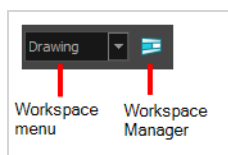
- Select **Windows > Toolbars > View**.

Workspace	Icon	Description
Drawing		This workspace is designed to enable you to draw your storyboard efficiently. The main space is the large Stage view and the Thumbnails view is at the bottom. This workspace also gives you quick and easy access to all your tools, as well as the Panel and Storyboard views.
Timeline		This workspace is designed with the process of animatic creation in mind. The main space is the large Stage view and the Timeline view is at the bottom, where you can easily edit the timing of panels, transitions and sounds. This workspace also gives you quick and easy access to all your tools, as well as the Panel and Storyboard views.
Overview		This workspace is designed to provide an organized overview of your project. The main space is the Thumbnails view where you can efficiently reorganize the order of your panels.
Horizontal		This workspace displays your project as a classic horizontal paper storyboard layout. The main space displays three panels at a time, with the panel information shown below each one.
Vertical		This workspace displays your project as a classic vertical paper storyboard layout. The main space displays two panels at a time, with the panel information shown at the side.

Workspace	Icon	Description
		of each.
Pitch Mode		<p>This workspace displays your project with a different set of views than the other workspaces. Access is only given to a certain number of features. This maximizes the viewing space to focus solely on the story being pitched.</p> <p>The Pitch Mode workspace occupies the entire display screen. There are no toolbars or top menu available.</p>
PDF View		<p>This workspace displays your project with the views required to quickly set up your PDF export.</p>
3D View		<p>This workspace displays your project with the views appropriate for working with 3D objects, including the Camera, Top, Timeline, and Layers views.</p>

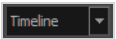

## Workspace Toolbar

The Workspace toolbar lets you switch to a different workspace and open the Workspace Manager dialog box in which you can rename and reorder workspaces, create a custom workspace and more.



### How to show or hide the Workspace toolbar

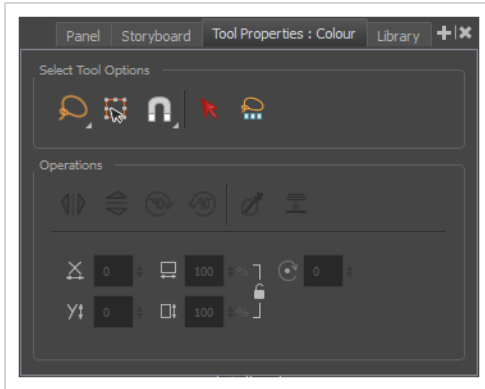
- Select **Windows > Toolbars > Workspace**.

Icon	Tool Name	Description
	Workspace menu	Lets you switch between the default workspaces.
	Workspace Manager	Opens the Workspace Manager dialog box.



## Chapter 5: Tool Properties

Each tool in the Tools toolbar has a set of properties that you can customize according to the task you are performing. Some tools, such as the Brush tool, can be customized and saved as a preset. When you select a tool from the Tools toolbar, the Tool Properties view updates to display its properties.



Here are the tool properties available in Storyboard Pro:

Brush Tool Properties .....	348
Camera Tool Properties .....	368
Centerline Editor Tool Properties .....	371
Close Gap Tool Properties .....	373
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Select Tool Properties .....	458
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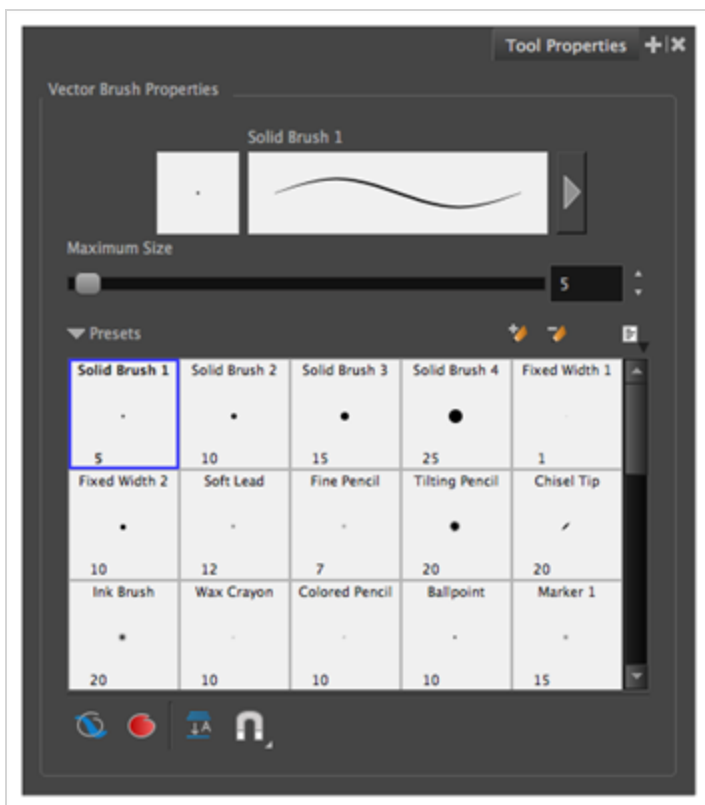
## Brush Tool Properties

The Brush tool allows you to draw by creating shapes based on your drawing strokes and filling them with colour or textures. When used with a tablet, it is pressure sensitive, just like a real life brush.

### How to access the Brush tool properties


1. In the Tools toolbar, select the Brush  tool.




The tool's properties are displayed in the Tool Properties view.



## Brush Properties

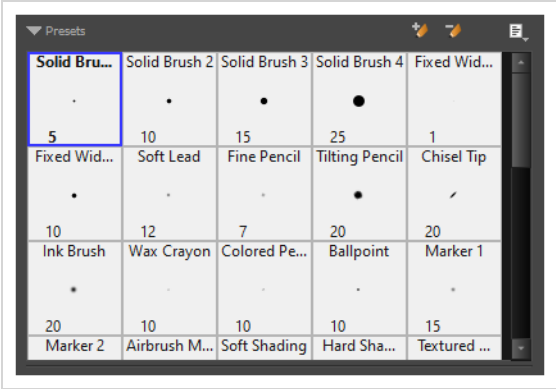



The following properties affect the brush's size, smoothing and other properties for the drawing style of your brush. Those properties can be saved into brush presets for later use.

Property	Description
Preview Area	<p>The Preview area lets you see a preview of the stroke your drawing tool will make.</p> 

Property	Description
Brush Properties Dialog	<p>The arrow button right of the preview area opens the Brush Properties dialog.</p>  <p>While the Tool Properties view only gives you access to a few of the brush properties, a list of brush presets and other drawing options, the Brush Properties dialog gives you access to all the available options for your brush's tip and texture. For more information on the Brush Properties dialog, see the <a href="#">Brush Properties Dialog</a> section below.</p>
Maximum Size	<p>Defines the maximum width of brush strokes.</p> <p>If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.</p>
Flow	<p>Allows you to set the opacity for each instance of the brush tip that gets printed into your canvas. Contrary to the Opacity parameter, the flow parameter has a cumulative effect. This means that a lower flow will make your brush strokes more transparent towards its extremities and more opaque in its center. Your stroke's flow will also accumulate if you draw over it. By default, your brush's flow varies with the amount of pressure you put on your tablet pen.</p> <div data-bbox="526 1205 1430 1373" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> This option is only displayed in the Tool Properties view when drawing on a bitmap layer.</p> </div>
Opacity	<p>The Opacity parameter are where Lets you set the opacity of your brush strokes. Contrary to the Flow parameter, the Opacity parameter is non-cumulative. Your whole brush stroke's opacity will not exceed the Opacity parameter. By default, the Opacity parameter varies depending on the amount of pressure you put on your tablet pen.</p> <div data-bbox="526 1635 1430 1803" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> This option is only displayed in the Tool Properties view when drawing on a bitmap layer.</p> </div>

## Brush Presets


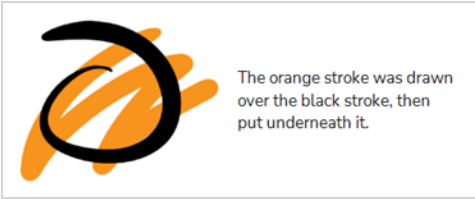


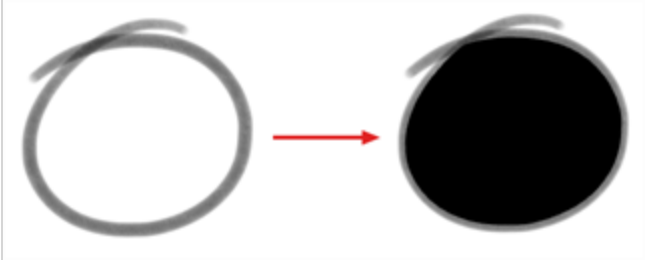


These options allow you to select, create and manage brush presets.


Icon	Property	Description
	Presets list	<p>By default, Storyboard Pro has preloaded brush presets. You can also create your own brush presets by configuring your brush, then saving its properties into a new preset. It is also possible to export and import brush presets.</p> 
	New Brush Preset	Creates a new preset based on the current tool properties.
	Delete Brush	Deletes the currently selected preset.
	Brush Presets Menu	<p>Open a menu that contains the following options:</p> <ul style="list-style-type: none"> <li>• <b>New Brush Preset:</b> Creates a new preset based on the current tool properties.</li> <li>• <b>Delete Brush:</b> Deletes the currently selected preset.</li> <li>• <b>Rename Brush:</b> Allows you to rename the currently selected preset.</li> <li>• <b>Import Brushes:</b> Allows you to import brush presets exported from Storyboard Pro.</li> <li>• <b>Export Brushes:</b> Allows you to export your brush presets into an <code>.xml</code> file.</li> <li>• <b>Small Thumbnail:</b> Displays presets in a grid of small thumbnails with a preview of their tip.</li> <li>• <b>Large Thumbnail:</b> Displays presets in a grid of big thumbnails, with their name and a preview of their tip.</li> <li>• <b>Stroke View:</b> Displays presets in a list, with their name and a</li> </ul>

		preview of a stroke done with each preset.
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## Drawing Options

These options affect the way your drawing strokes are added to your artwork.

Icon	Property	Description
	Draw Behind	<p>When enabled, your brush strokes will appear behind the existing artwork.</p>  <p>The orange stroke was drawn over the black stroke, then put underneath it.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b> Your brush stroke will temporarily appear over your artwork as you draw it, until you release the mouse cursor or tablet pen. If you want a live preview of your stroke, activate the Realistic Preview option by selecting <b>View &gt; Realistic Preview</b> from the top menu.</p> </div>
	Auto Fill	<p>When enabled, a closed shaped automatically fills with its stroke colour.</p> 
	Auto-Flatten Mode	<p>By default, when drawing on a vector layer, each new stroke is created as a separate drawing object, which can be edited independently from other parts of the artwork. When enabled, the Auto-Flatten option automatically merges strokes into existing artwork.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b> This option is only available when drawing on a vector layer. When drawing on a bitmap layer, artwork is always flattened.</p> </div>

	Snapping	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping mode:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Alignment Guides:</b> While drawing, the drawing tool will snap against nearby alignment guides.</li> </ul>
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## Brush Properties Dialog

Brushes have an extensive set of options and properties that are not displayed in the Tool Properties view, but rather, in a dialog you can access from it. To open the Brush Properties dialog, click on the arrow button right of the stroke display area.

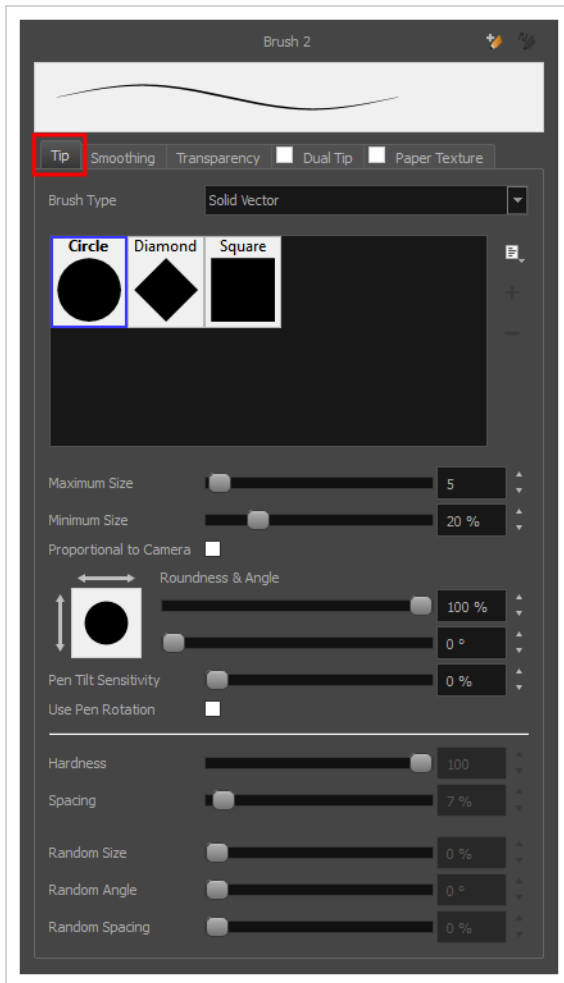



The Brush Properties dialog has five different tabs, minus the Smoothing tab if you are working on a bitmap layers. Below is detailed information about the options available in each tab:

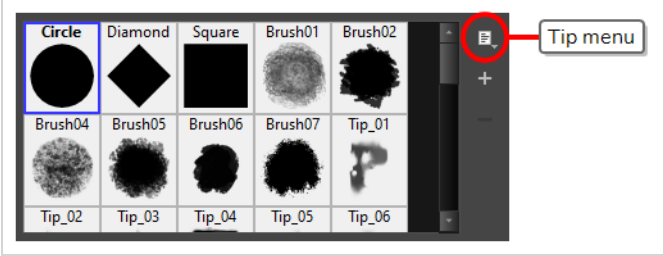

- [Tip Tab](#) on page 352
- [Smoothing Tab](#) on page 357
- [Transparency Tab](#) on page 358
- [Dual Tip Tab](#) on page 361
- [Paper Texture Tab](#) on page 365









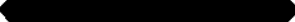
### Tip Tab

The Tip tab allows you to configure the shape, size, hardness and spacing of your brush tip.


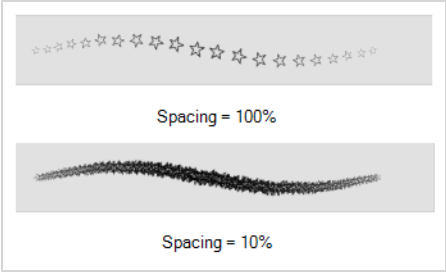




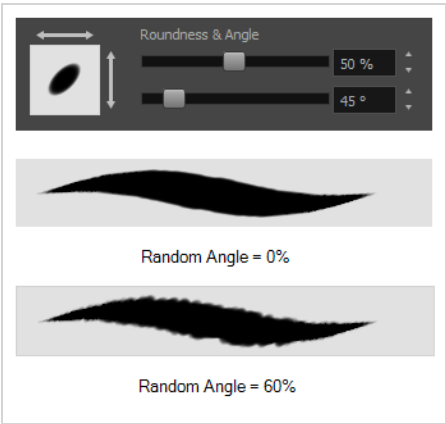
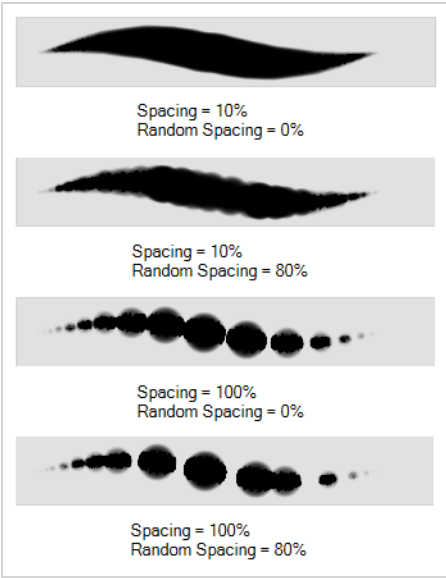
Property	Description
Brush Type	<p>Allows you to select between one of the following brush types:</p> <ul style="list-style-type: none"> <li> <b>Solid Vector Brush:</b> Creates vector shapes filled with a solid colour. Makes artwork lightweight, scalable and easy to tweak. Since this kind of brush can only create solid colour shapes, solid vector brushes have a limited set of options including size, roundness, angle, centerline smoothing and contour smoothing. </li> <li> <b>Textured Vector Brush:</b> Creates vector shapes filled with a texture. This gives you access to bitmap brush tips, paper textures, transparency and several other options. </li> </ul> <div style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b> This option is not available when working on a bitmap layer. With bitmap layers, brushes are always textured, and textured brush options are always available.</p> </div>

Brush Tip Library	 <p>This is where you select the shape of the brush tip. By default it is round. Note that some tips are designed to have semitransparent areas, even when the maximum brush opacity is set to 100%.</p> <p>To create a custom brush tip, you must prepare the file ahead of time, either in Storyboard Pro or in a third-party software, such as Adobe Photoshop. Colour is not supported and transparency is not supported in the traditional sense. Black appears as 100% opaque, white appears as 100% transparent and all the shades of grey in between appear as varying degrees of semitransparency. A range of file formats are supported—.jpeg, .png, .tif, .psd, .tga to name a few. Alpha channels are disregarded on import. It is recommended that your file be between 100 x 100 pixels and 400 x 400 pixels.</p> <p>You can also import brush tips that you exported from Storyboard Pro, so you can share them with colleagues.</p>
Minimum and Maximum Size	<p>The minimum and maximum sizes of your drawing tool produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Size:</b> Defines the maximum width of the stroke.</li> <li>• <b>Minimum Size:</b> Defines the minimum width of the stroke in relation to and as a percentage of the maximum size.</li> </ul> <div data-bbox="570 1308 1430 1507" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b></p> <p>Setting the Minimum Size value to 100% eliminates the possibility of creating width variation on your stroke. In other words, you would be forcing a uniform line width using the Maximum Size value.</p> </div>
Roundness and Angle	<p>The Roundness and Angle parameters allow you to change the shape and orientation of the tip.</p> <ul style="list-style-type: none"> <li>• <b>Roundness:</b> The vertical scaling to apply to the tip. Reducing this setting squashes the tip vertically, allowing you to turn round or square tips into flat tips.</li> <li>• <b>Angle:</b> The angle at which to rotate the brush tip, counterclockwise.</li> </ul>

	<div data-bbox="570 184 1430 548" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>The squashing is not relative to the angle—if the tip is rotated, the squashing will still be done relative to the tip's original orientation.</p> <div style="display: flex; justify-content: space-around; align-items: flex-end; margin-top: 10px;"> <div style="text-align: center;">  <p>Roundness: 100% Angle: 0°</p> </div> <div style="text-align: center;">  <p>Roundness: 33% Angle: 0°</p> </div> <div style="text-align: center;">  <p>Roundness: 100% Angle: 45°</p> </div> <div style="text-align: center;">  <p>Roundness: 33% Angle: 45°</p> </div> </div> </div>
<p>Pen Tilt Sensitivity</p>	<p>If your pen and tablet support tilt sensitivity, this option allows you to set whether your brush takes your pen's tilt angle into account, and how much.</p> <p>When your pen is fully tilted, your brush tip will be stretched by the percentage you set in this parameter, in the angle in which you tilt it. For example, if you set the Pen Tilt Sensitivity to 50%, and you tilt your pen all the way up or down, your brush tip will be stretched vertically by 50%. With the same setting, if you tilt your pen all the way left or right, your brush tip will be stretched horizontally by 50%.</p> <div data-bbox="570 930 902 1255" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;">  <p style="text-align: center;">Pen tilted up or down</p>  <p style="text-align: center;">Pen tilted left or right</p> </div>
<p>Use Pen Rotation</p>	<p>If enabled, and if your pen and tablet support tip rotation, your brush tip will rotate with the angle of your pen tip.</p> <div data-bbox="570 1413 1057 1644" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;">  <p style="text-align: center;">A stroke with a square tip without pen rotation</p>  <p style="text-align: center;">A stroke with a square tip with pen rotation, with the pen rotated at 45°</p> </div>
<p>Hardness</p>	<p>The hardness value corresponds to the softness of the brush tip's edges. The lower the value, the softer the tip edge. The higher the value, the sharper the tip edge. Be aware that some brush tips are not 100% opaque, so they will always appear somewhat soft, even at 100% hardness.</p>

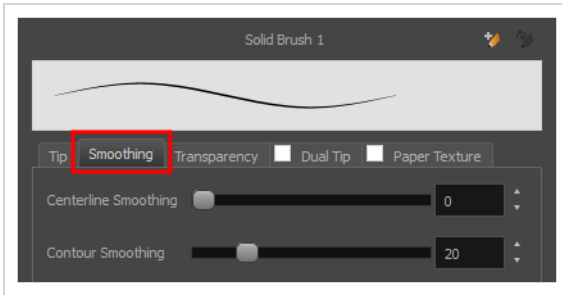


	
Spacing	<p>Defines the amount of space between each stamp of the brush. A value of 100% sets the stamp marks edge to edge, if there is no white space around the shape. The larger the value, the greater the space between marks. A really large value can make the brush stroke appear as a string of individual marks. Conversely, a small spacing value will give the appearance of a fluid brush stroke.</p> <p>Spacing is only evident when making a continuous stroke.</p> 
Random Size	<p>You can create variation between the thick and thin of your brush stroke just by setting the Maximum and Minimum Size values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p>  <div data-bbox="570 1570 1430 1801" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b></p> <p>Setting the Minimum Size to 100% eliminates the possibility of creating width variation on your stroke, whether you are applying randomness or not. Therefore, you would be forcing a uniform line width using the Maximum Size value.</p> </div>
Random Angle	Sets the range for random rotation around the set Angle value. For example, if

	<p>the Angle is set to 45° and the Random Angle set to 10°, the software will choose values between 40°–50° (plus or minus 5 degrees, equaling a total of 10 degrees).</p> 
<p>Random Spacing</p>	<p>Sets the range for random spacing around the set Spacing value. For example, if the Spacing is set to 50% and the Random Spacing is set to 10%, then Storyboard Pro will choose values between 45%–55% (plus or minus 5 percent, equaling a total of 10 percent).</p> 

## Smoothing Tab

The Smoothing tab contains options to configure how Storyboard Pro should automatically smooth your brush strokes as you paint.

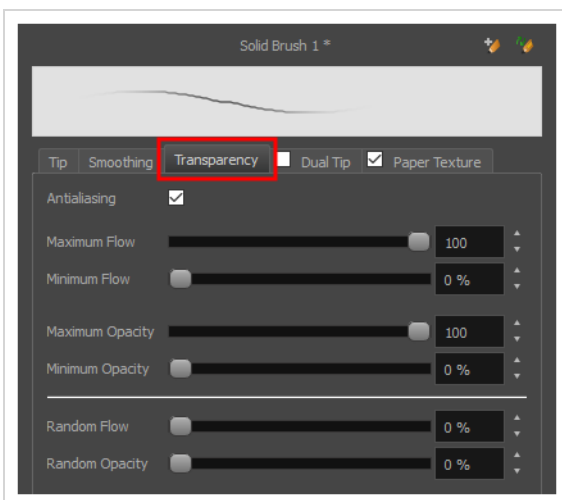
**NOTE**

The Smoothing tab is only available when working on a vector layer, as bitmap layers do not support smoothing.

Property	Description
Centerline Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the central line of the brush stroke. A higher setting will prevent your line from being shaky, but is liable to reduce drawing precision and turn sharp angles into curves.
Contour Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the outer contour of the brush stroke. A higher setting will round sharp corners and reduce the amount of control points for the resulting vector shape.

## Transparency Tab


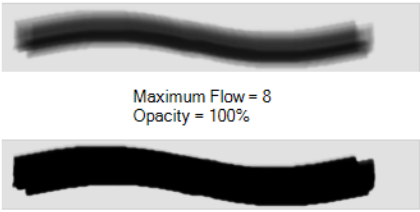
The Transparency tab allows you to decide if your brush has antialiasing as well as to set its flow and opacity settings.

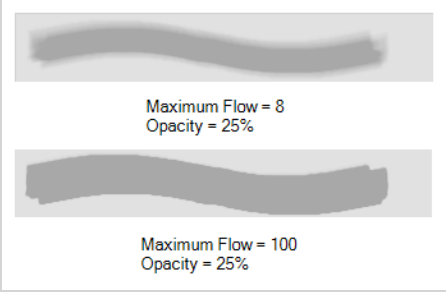
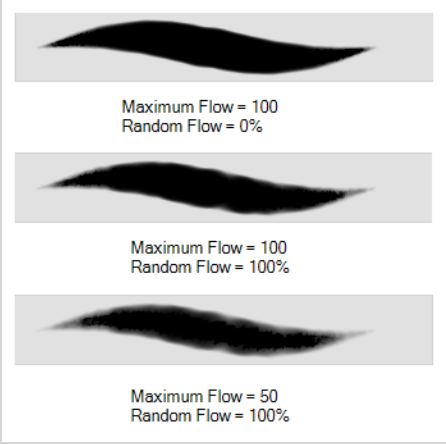



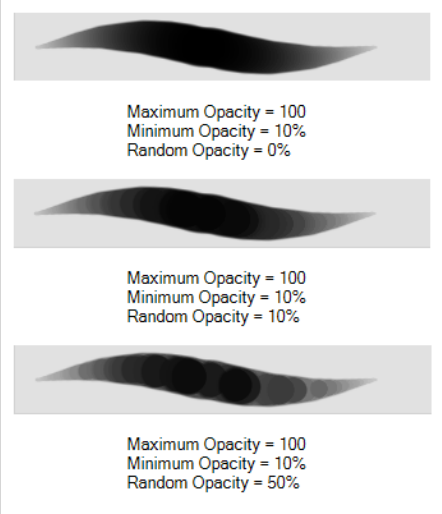



**NOTE**

The Transparency tab's options are only available on vector layers if the **Brush Type** option of the Tip tab is set to **Textured Vector Brush**. On bitmap layers, those options are always available.

Property	Description
<p>Antialiasing</p>	<p>Enabled by default. This option causes the contours of the brush strokes to blend with the surrounding colours, to create an illusion of smoothness otherwise not possible due to the picture resolution.</p> <p>If antialiasing is disabled, the brush's texture will only render fully transparent or fully opaque pixels. Disabling this option can be useful if you need your outlines to be very crisp, if you want to make pixel art or if you need your brush strokes to render in solid colors with no variation, which makes them easier to repaint or process in third party software.</p> <div data-bbox="573 821 1429 957" style="border: 1px solid #c8e6c9; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> When disabled, all other options in the Transparency tab are disabled.</p> </div>
<p>Maximum and Minimum Flow</p>	<p>The Maximum and Minimum Flow parameters let you set the range for the rate at which paint flows from your brush. The analogy works better with a pen. The greater the flow, the more ink comes out, hence the more consistent the colour and texture of the line. If the flow is light, then the colour and texture of the line may look spotty. This feature works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Flow:</b> Sets the maximum rate at which colour and texture are applied as you create a fluid stroke.</li> <li>• <b>Minimum Flow:</b> Sets the minimum rate at which colour and texture are applied as you create a fluid stroke. It is defined as a percentage of the Maximum Flow value. If the Minimum Flow value is set to 100%, then tablet pressure sensitivity will no longer be applicable. The flow will be set to the constant rate of the Maximum Flow value.</li> </ul> <div data-bbox="573 1501 1016 1791" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;">  </div>
<p>Maximum Opacity and</p>	<p>The Maximum and Minimum Opacity parameters are where you set the opacity</p>

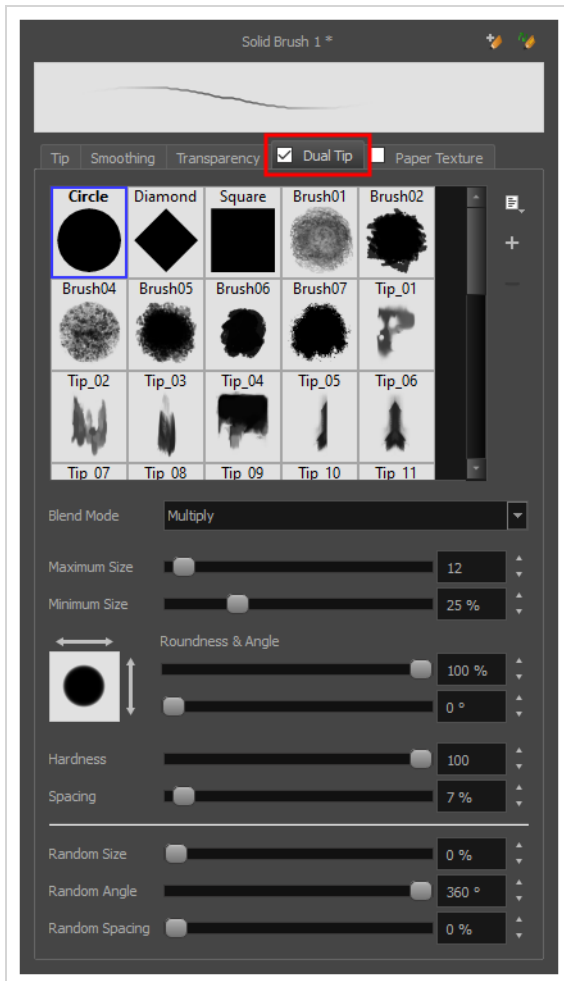
<p>Minimum Opacity</p>	<p>range for a brush mark. This works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Opacity:</b> Sets the transparency limit of the brush mark when the pressure is heavy.</li> <li>• <b>Minimum Opacity:</b> Sets the transparency limit of the brush mark when the pressure is very light. It is defined as a percentage of the Maximum Opacity value. If the Minimum Opacity value is set to 100%, then tablet pressure sensitivity will no longer be applicable. The opacity will be set to the constant rate of the Maximum Opacity value.</li> </ul> 
<p>Randomness</p>	<p>The Randomness parameter lets you set the range for the randomness of the flow and opacity. This works with the pressure sensitivity of a pen tablet.</p>
<p>Randomness Flow</p>	<p>You can create variation in the flow of your brush stroke just by setting the Maximum and Minimum Flow values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p> 

	<div style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>Setting the Minimum Flow value to 100% eliminates the possibility of creating flow variation on your stroke, whether you are applying randomness or not. That is, you would be forcing a uniform flow using the Maximum Flow value.</p> </div>
<p>Random Opacity</p>	<p>You can create variation in the opacity of your brush stroke just by setting the Maximum and Minimum Opacity values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p> <div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;">  <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 0%</p> <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 10%</p> <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 50%</p> </div> <div style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;">  <p><b>NOTE</b></p> <p>Setting the Minimum Opacity value to 100% eliminates the possibility of creating opacity variation on your stroke, whether you are applying randomness or not. That is, you would be forcing a uniform opacity using the Maximum Opacity value.</p> </div>

## Dual Tip Tab

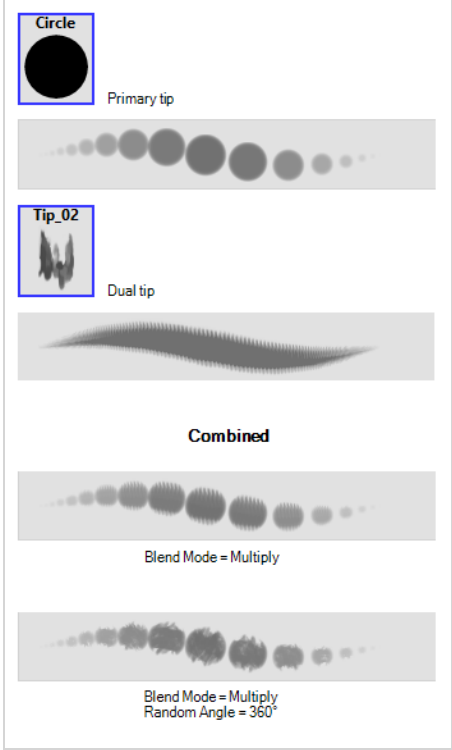
The Dual Tip tab lets you set the parameters for creating a dual tip brush. The primary bitmap brush tip and the dual tip always work together. You can set the parameters for the primary tip in the Tip tab and those for the dual tip in the Dual Tip tab. The Blend mode you select determines how the tips are combined.

By default, the Blend Mode is set to Multiply and the Random Angle to 360°.

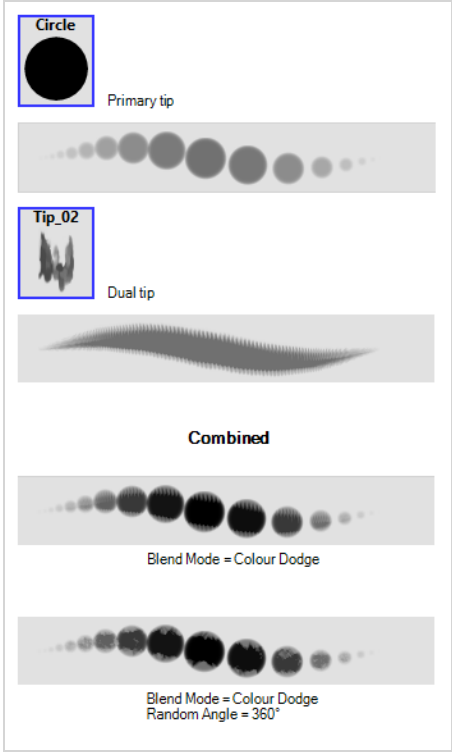
**NOTE**

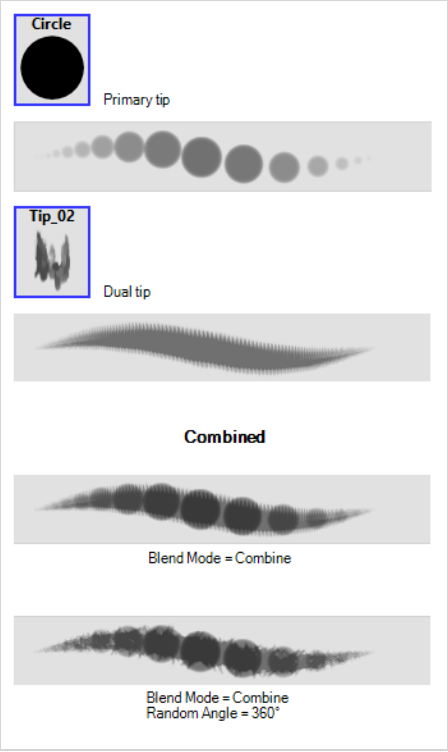
To use a Dual Tip, you must enable option by checking the checkbox inside the **Dual Tip** tab. Additionally, if you are working on a vector layer, the **Brush Type** option of the Tip tab must be set to **Textured Vector Brush**.

Property	Description
Enable/Disable	The checkbox inside the tab allows you to decide whether or not your brush uses a dual tip. If this checkbox is unchecked, the options in the Dual Tip tab will be disabled.
Blend Mode	The Blend modes let you decide how the primary tip and the dual tip are combined.
Multiply	This is the default blend mode. When the two brush tips are combined in this mode, they essentially cut each other out in overlapping areas, where one or both tips have an area of 100% transparency. The less opaque the brush tips are, the lighter their

Property	Description
	<p>combination.</p>  <p>The diagram illustrates the combination of two tip shapes. It shows a 'Circle' tip (a solid black circle) and a 'Tip_02' tip (a complex, multi-pointed shape). Below these are three examples of the combined result:</p> <ul style="list-style-type: none"> <li>A horizontal row of circles of varying sizes, representing the 'Primary tip'.</li> <li>A horizontal row of the 'Dual tip' shapes, representing the 'Dual tip'.</li> <li>A 'Combined' result where the 'Primary tip' circles are overlaid with the 'Dual tip' shapes. The text below this row is 'Blend Mode = Multiply'.</li> <li>A second 'Combined' result where the 'Dual tip' shapes are rotated at a random angle. The text below this row is 'Blend Mode = Multiply' and 'Random Angle = 360°'.</li> </ul>
<p>Colour Dodge</p>	<p>In this mode, the primary tip cuts out the shape of the dual tip. Where the tip shapes overlap, within the boundaries of the primary shape, the colour and opacity appear darker.</p>

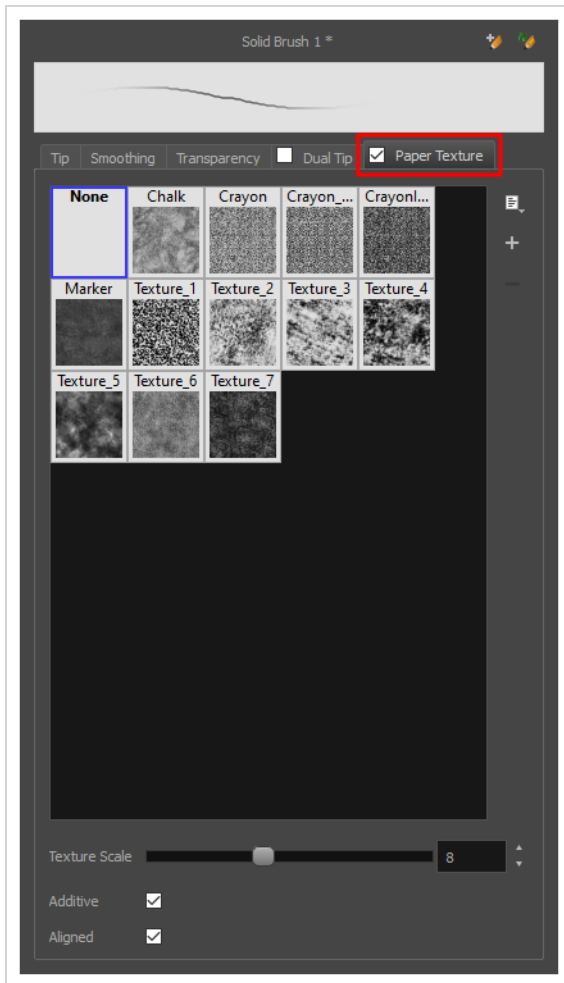


Property	Description
	 <p><b>Circle</b> Primary tip</p> <p><b>Tip_02</b> Dual tip</p> <p><b>Combined</b></p> <p>Blend Mode = Colour Dodge</p> <p>Blend Mode = Colour Dodge Random Angle = 360°</p>
Combine	This mode treats the two tips as two different and separate brushes that have the same colour and follow the same path.

Property	Description
	 <p>The diagram illustrates four different brush tip configurations:</p> <ul style="list-style-type: none"> <li><b>Circle:</b> Labeled "Primary tip", showing a row of circles of varying sizes.</li> <li><b>Tip_02:</b> Labeled "Dual tip", showing a wavy, feathered line.</li> <li><b>Combined:</b> Labeled "Blend Mode = Combine", showing a row of circles where the overlapping areas are darker.</li> <li><b>Combined:</b> Labeled "Blend Mode = Combine" and "Random Angle = 360°", showing a row of circles oriented in various directions.</li> </ul>

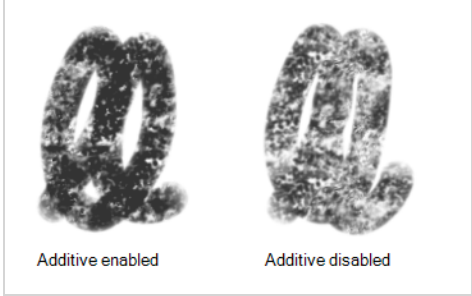
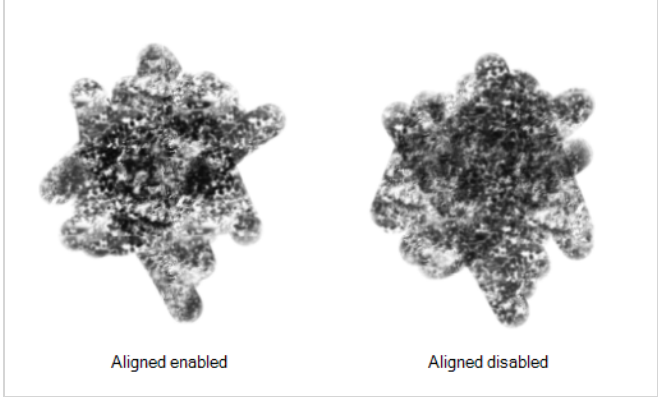
## Paper Texture Tab

The Paper Texture tab lets you configure a paper-like texture for your brush. You can also add textures by importing image files, or import paper textures that were previously exported from Storyboard Pro.

**NOTE**

To use a Paper Texture, you must enable option by checking the checkbox inside the **Paper Texture** tab. Additionally, if you are working on a vector layer, the **Brush Type** option of the Tip tab must be set to **Textured Vector Brush**.

Property	Description
Enable/Disable	The checkbox inside the tab allows you to decide whether or not your brush uses a paper texture. If this checkbox is unchecked, the options in the Paper Texture tab will be disabled.
Texture Scale	Increase or decreases the size of the paper texture.
Additive	This option layers the texture on top of itself as you scribble overlapping lines in one continuous stroke. If this option is turned off, areas of overlapping lines from a single, continuous stroke will appear the same, in terms of darkness and texture, as

Property	Description
	<p>non-overlapping areas.</p> 
<p>Aligned</p>	<p>This option defines the way separate, overlapping strokes behave. If this option is enabled, the paper texture's position does not change with each sweep of the brush. If this option is disabled, each sweep of the brush produces a different texture position. The texture orientation always stays the same.</p> 

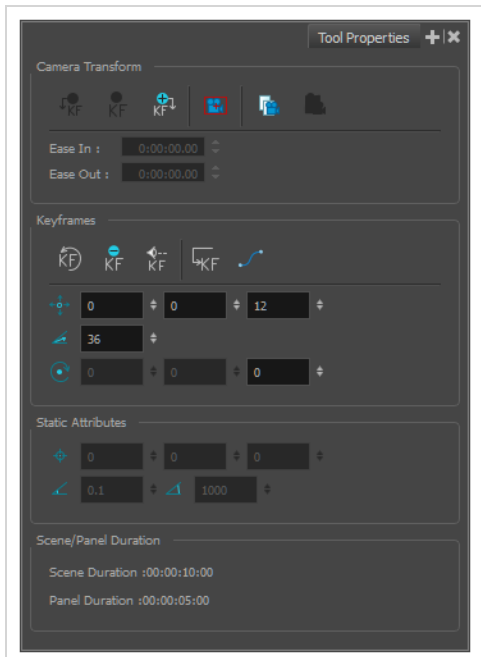
## Camera Tool Properties



The Camera tool allows you to animate the camera in a scene by adding and manipulating camera keyframes.








### How to access the Camera tool properties









1. In the Tools toolbar, select the Camera  tool.

The tool's properties are displayed in the Tool Properties view.



Icon	Property	Description
<b>Camera Transform</b>		
	Add Keyframe at Beginning of Current Panel	Adds a keyframe at the beginning of the currently selected panel. You can also select <b>Camera &gt; Add Keyframe at Beginning of Current Panel</b> .
	Add Keyframe at Beginning of Current Frame	Adds a keyframe at the beginning of the current frame. You can also select <b>Camera &gt; Add Keyframe at Beginning of Current Frame</b> .


Icon	Property	Description
	Add Keyframe at End of Current Panel	Adds a keyframe at the end of the currently selected panel. You can also select <b>Camera &gt; Add Keyframe at End of Current Panel</b> .
	Reset Camera	Deletes all keyframes in the selected scene and reverts back to the original static camera.
	Copy Camera from Selected Panels	Copies a camera keyframe in a selected panel.
	Paste and Fit Camera on Selected Panels	Pastes a copied camera keyframe in a selected panel.
--	Ease In	Lets you set the velocity at which the camera movement begins. You can enter the duration of the ease in after the first frame in which the gradual change cameramovement begins. For example, if you want to slowly accelerate to the normal cameraspeed from frame 1 to 10, enter a value of 10.
--	Ease Out	Lets you set the velocity at which the camera movement ends. You can enter the duration of the ease out after the first frame in which the gradual change in camera movement begins. Enter the number of frames before the last frame in which the change in camera movement is gradual.
<b>Keyframes</b>		
	Reset Keyframe	Resets the selected keyframe.
	Delete Keyframe	Deletes the selected keyframe from the camera.
	Align Camera Key with Stage View Position	Fits the camera frame to the current space available in the Stage view while retaining its original ratio, which is very useful in 3D scenes. You can also select <b>Camera &gt; Align Camera Key with Stage View Position</b> .

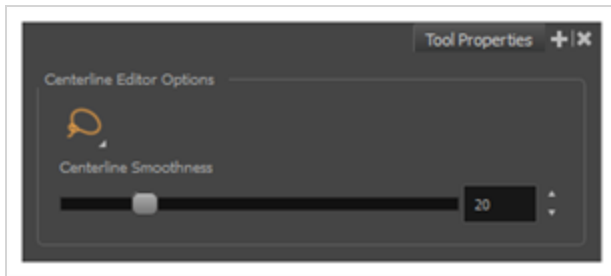
Icon	Property	Description
	Go to Selected Keyframe	Moves the playhead to the selected keyframe in the Timeline view. When working in 3D and used in combination with the Camera view, this option comes in very handy for properly frame a shot.
	Function Editor	Opens the Function Editor where you can edit function curves and parameters. It is a visual graph for adding, removing, and editing keyframes, as well as adjusting the velocity. The Function Editor allows you to display multiple functions in the background as a reference.
	Offset	Lets you set the position of the camera frame centre point. The fields represent, respectively, the X position, Y position, and Z position (enabling you to animate a truck in or truck out movement).  You can also use the Camera tool to position the camera frame from the Stage or Camera view.
	Focal Length	Lets you set the camera focal length value . By default the focal length value is set to 36 millimeters. The focal length determines the angle value of the shot.
	Rotation	Lets you set the camera rotation value. When working in a 2D project, only the last field is active, letting you rotate the camera only on the Z-axis (right and left). When working in a 3D project, the three fields become active and respectively represent the rotation value of the X, Y, and Z axis.  You can also use the Camera tool to rotate the camera frame from the Stage or Camera view
<b>Static Attributes</b>		
	Pivot	Displays the pivot position of the handle for the camera when 3D is enabled. This however does not affect actual camera position.
	Near Plane	The point on the camera cone where the camera is located.
	Far Plane	The far end of the camera cone. Nothing outside the far plane is visible.
	Scene/Panel Duration	Displays the length of the selected scene or panel in timecode format. The default length of a panel is 1 second.

## Centerline Editor Tool Properties





The Centerline Editor tool allows you to edit brush strokes by their centreline rather than by their contour. This makes it easier to tweak the tips, curves and corners of brush strokes. The purpose of this tool is to make it as easy to edit brush strokes as it is to edit pencil lines with the Contour Editor tool.

### How to access the Centerline Editor tool properties

1. In the Tools toolbar, select the Centerline Editor  tool.
2. The tool's properties are displayed in the Tool Properties view.



## Tool Options

Icon	Property	Description
	Selection Mode	<p>Allows you to choose the method to visually select multiple elements:</p> <ul style="list-style-type: none"> <li>•  <b>Lasso:</b> Allows you to select multiple elements by drawing an irregular closed shape around them with your mouse.</li> <li>•  <b>Marquee:</b> Allows you to select multiple elements by drawing a rectangle around them. This is faster, as you only need to drag your mouse from one corner of the rectangle to its opposite corner, but it may not be as precise as you want.</li> </ul> <div style="border: 1px solid #00aaff; padding: 5px; margin-top: 10px;"> <p> <b>TIP</b> You can press and hold the Alt key to temporarily use the other selection mode.</p> </div>
	Centerline Smoothness	Allows you to adjust the amount of control points on the centreline that is generated from the selected stroke. A lower value will create a centreline with less points, which makes it



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Icon	Property	Description
		easier to manipulate large lengths of the stroke, and a higher value will generate a centreline with more points, allowing you to tweak details.

## Close Gap Tool Properties

The paint tool requires the area you attempt to fill to be closed in order to know exactly what area of your artwork must be filled. However, it is common for artists to accidentally leave small gaps in their artwork.

The Close Gap tool allows you to quickly close small gaps in a shape by creating an invisible stroke connecting two extremities of the gap. You can then fill the area using the Paint tool, as this invisible stroke will be taken in account to determine the outline of the shape to fill.



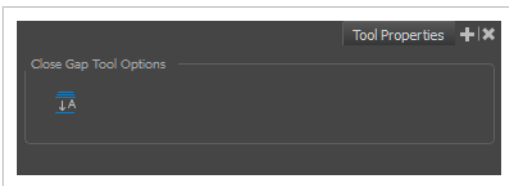
### TIP

You do not need to use the Close Gap tool with precision. If you draw a crude stroke near the gap you want to close, the tool will automatically detect the two closest line extremities and will draw an invisible straight line connecting them, closing the gap between them.



### How to access the Close Gap tool properties

1. In the Tools toolbar, select the Close Gap  tool.

The tool's properties are displayed in the Tool Properties view.



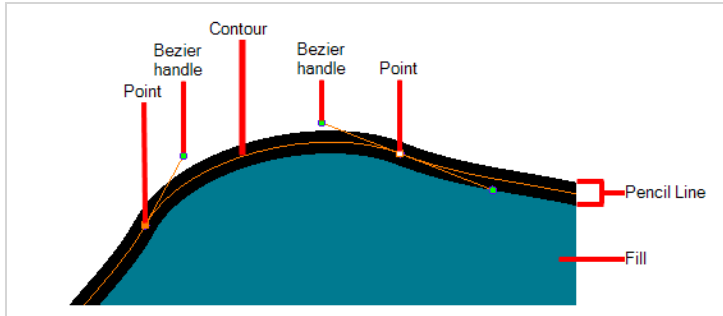
## Tool Options

Icon	Property	Description
	Auto Flatten	<p>The Close Gap tool creates an invisible drawing stroke to close the shape. Enabling this option will merge the stroke into the artwork instead of adding the stroke on top of it.</p> <div style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b> The area you close with the Close Gap tool will be fillable regardless of whether or not this option is enabled.</p> </div>

## Contour Editor Tool Properties

The Contour Editor lets you reshape vector shapes, brush strokes and lines in your drawings.

Artwork in Storyboard Pro is made of vector shapes. Vector shapes are defined by points, the lines joining the points together (contours) and the curve vectors, represented by Bezier handles, which make the curve of said lines.

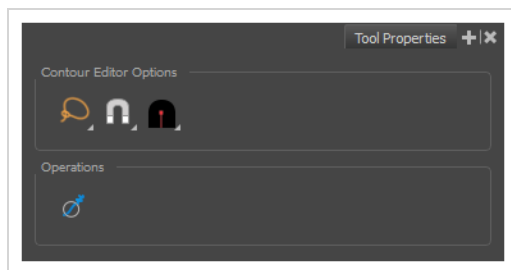


The Contour Editor tool allows you to select a contour or point, and change the position of points, add and remove points from the shape, rotate, lengthen and shorten curve handles to influence the curve of contours between those points, or drag contours between points to change their curve directly.




### How to access the Contour Editor tool properties



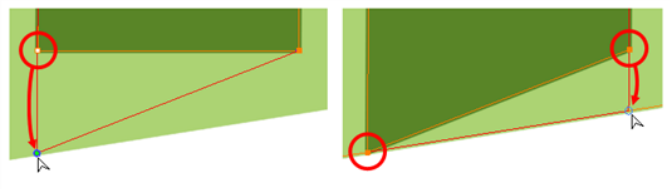
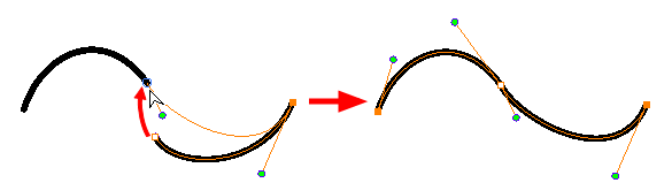
1. In the Tools toolbar, select the Contour Editor  tool.









The tool's properties are displayed in the Tool Properties view.




### Tool Modes


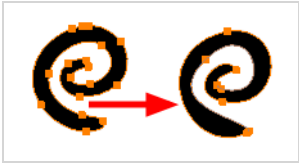
Icon	Property	Description
	Selection Mode	<p>Allows you to choose the method to visually select multiple elements:</p> <ul style="list-style-type: none"> <li>•  <b>Lasso:</b> Allows you to select multiple elements by drawing an irregular closed shape around them with your mouse.</li> <li>•  <b>Marquee:</b> Allows you to select multiple elements by</li> </ul>

Icon	Property	Description
		<p>drawing a rectangle around them. This is faster, as you only need to drag your mouse from one corner of the rectangle to its opposite corner, but it may not be as precise as you want.</p> <div data-bbox="683 415 1430 583" style="border: 1px solid #add8e6; padding: 10px;"> <p> <b>TIP</b> You can press and hold the Alt key to temporarily use the other selection mode.</p> </div>
	<p>Snapping</p>	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping modes:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Contour:</b> When enabled, moving the control point in a contour near another contour will snap that control point against that contour. This will lock the point and the contour together, and moving the control point will deform the contour.</li> </ul> <p>This option can be especially useful if you need to makes the edges of two shapes snap together, like so:</p> <div data-bbox="761 1304 1433 1499" style="border: 1px solid #ccc; padding: 5px;">  </div> <p>You can also use this option to make a control point snap against another control point, allowing you to join lines together.</p> <div data-bbox="761 1654 1433 1854" style="border: 1px solid #ccc; padding: 5px;">  </div>

Icon	Property	Description
		<div data-bbox="761 283 1430 651" style="border: 1px solid green; padding: 10px; margin-bottom: 10px;">  <p><b>NOTE</b></p> <p>When a control point is snapped against a contour or another control point in your drawing, the Contour Editor will manipulate them together. However, even if you make a point in one drawing stroke snap against another drawing stroke, they will remain separate drawing strokes unless they are flattened together, and you will still be able to manipulate them individually with the Select  tool.</p> </div> <ul style="list-style-type: none"> <li>• <b>Snap to Alignment Guides:</b> While moving the selection or one of its control points, it will snap against nearby alignment guides.</li> <li>• <b>Snap and Align:</b> Snaps the selected anchor point to any existing line while displaying temporary rulers as a guide that you can also snap your anchor point to.</li> </ul> <div data-bbox="761 928 1224 1041" style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;">  </div> <ul style="list-style-type: none"> <li>• <b>Snap to Grid:</b> While moving the selection, the mouse cursor will snap against the intersecting points of the grid.</li> </ul> <div data-bbox="761 1169 1430 1348" style="border: 1px solid blue; padding: 10px; margin-top: 10px;">  <p><b>TIP</b></p> <p>To display the grid, select <b>View &gt; Grid &gt; Show Grid</b> from the top menu or press <b>Ctrl + G</b>.</p> </div>
	Tip Style	<p>If you select and remove part of a pencil line, this option allows you to choose which kind of line tip the removed segment should leave behind:</p> <ul style="list-style-type: none"> <li>•  <b>Tip Style: Round:</b> Leaves rounded tips at the extremities of the deleted line segment.</li> </ul> <div data-bbox="761 1623 1430 1759" style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;">  </div> <ul style="list-style-type: none"> <li>•  <b>Tip Style: Flat:</b> Leaves flat tips at the extremities of the deleted line segment.</li> </ul>

Icon	Property	Description
		


## Operations

Icon	Property	Description
	Smooth Selection	<p>The Smooth operation lets you smooth out selected drawing strokes and remove extra points.</p> 

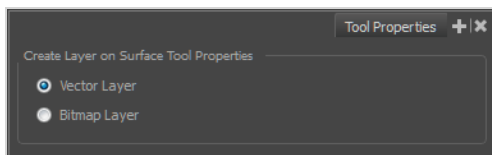
## Create Layer on Surface Tool Properties

Working in the Camera view, the Create Layer on Surface tool lets you create a new vector or bitmap layer on the surface of the 3D object over which you are hovering. The new layer will be positioned at the point in Z depth on which you clicked, and is perpendicular to the camera so you can start drawing.

### How to access the Create Layer on Surface tool properties

1. In the Tools toolbar, select the Create Layer on Surface  tool.

The tool's properties are displayed in the Tool Properties view.






Property	Description
Vector Layer	Creates a new vector layer over the 3D object over which you are hovering.
Bitmap Layer	Creates a new bitmap layer over the 3D object over which you are hovering.

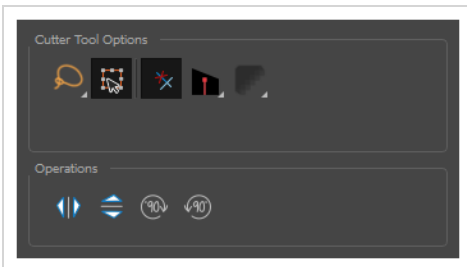
## Cutter Tool Properties

The Cutter tool lets you cut out part of a drawing so that you can transform it, copy it or delete it. It also allows you to trim overshoot lines.








### How to access the Cutter tool properties

1. In the Tools toolbar, select the Cutter  tool. In the Tools toolbar, click and hold on the Select  tool to display the menu beneath and select the Cutter  tool.

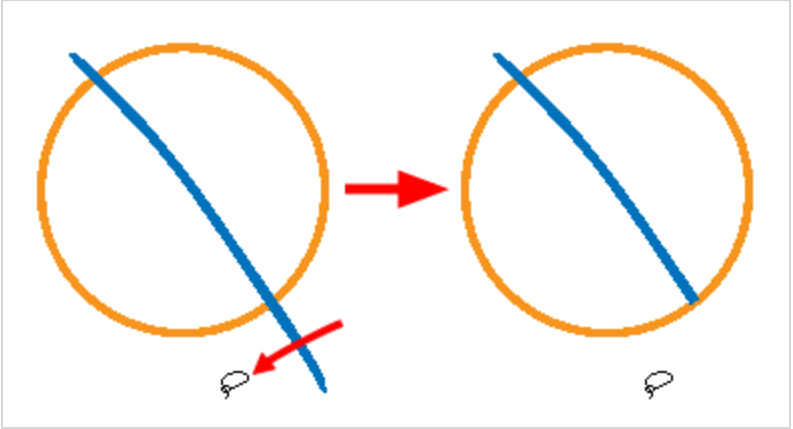


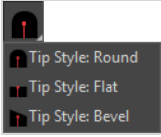



The tool's properties are displayed in the Tool Properties view.

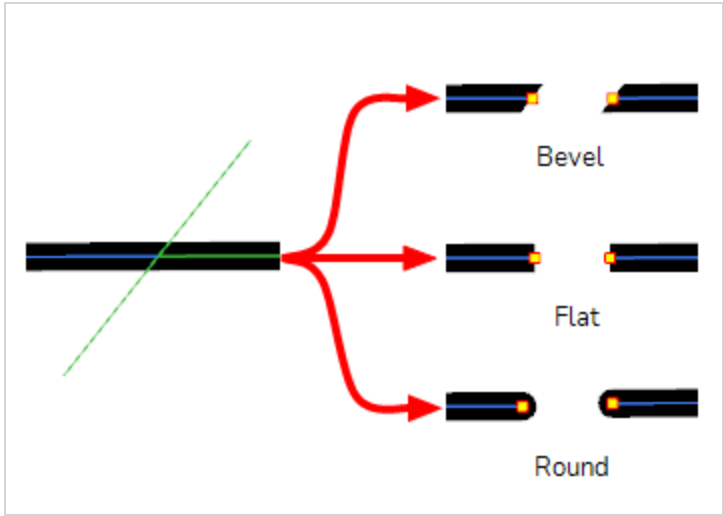




## Tool Options





Icon	Property	Description
	Selection Mode	<p>Allows you to choose the method to visually select multiple elements:</p> <ul style="list-style-type: none"> <li>•  <b>Lasso:</b> Allows you to select multiple elements by drawing an irregular closed shape around them with your mouse.</li> <li>•  <b>Marquee:</b> Allows you to select multiple elements by drawing a rectangle around them. This is faster, as you only need to drag your mouse from one corner of the rectangle to its opposite corner, but it may not be as precise as you want.</li> </ul> <div style="border: 1px solid #0070C0; padding: 5px; margin-top: 10px;"> <p> <b>TIP</b> You can press and hold the Alt key to temporarily use the other selection mode.</p> </div>
	Easy Drag	When enabled, you can drag the selection by clicking anywhere inside its bounding box. By default, you must click on the artwork in the selection to be able to drag it.
	Use Mouse Gesture	When this option is enabled along with the Lasso  selection type, quickly



Icon	Property	Description
		<p>drawing a line with the Cutter tool over a line segment in your artwork will instantly delete it. This can be useful if you want to use the Cutter tool to quickly clean up your artwork.</p>  <p>It allows you to cut in two modes as follows:</p> <ul style="list-style-type: none"> <li>• <b>Single Line Cutting Gesture:</b> It deletes first line segment over which a straight gesture is drawn with the cutter.</li> <li>• <b>Multiple Lines Cutting Gesture:</b> It deletes all line segments over which a straight gesture is drawn with the cutter.</li> </ul> <div data-bbox="584 1102 1429 1369" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b></p> <p>This option will only work when using the Cutter tool on separate brush or pencil strokes. Hence, it is important not to flatten your artwork if you intend to use this option to clean up your drawings. This option has no effect on bitmap layers as the artwork in bitmap layers is always flattened.</p> </div>
	Tip Style	<p>When cutting through pencil lines, this option decides what kind of pencil line tips to put at the extremities of the remaining pencil line segments, where they were cut.</p>  <p>By default, this is set to Bevel , which will leave the tip of the pencil line cut at the same angle as your cutter stroke. If you prefer, you can make pencil lines that you split with the Cutter tool have Flat  or Round  tips instead.</p>

Icon	Property	Description
		
	<p>Antialiasing</p>	<p>When working on bitmap artwork, enabling this will smooth the edges of the artwork you cut out, so that they do not appear pixelated.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <p><b>NOTE</b> This option is only available with bitmap layers.</p> </div>

## Operations

Icon	Property	Description
	<p>Flip Horizontal</p>	<p>Flips the current selection horizontally.</p>
	<p>Flip Vertical</p>	<p>Flips the current selection vertically.</p>
	<p>Rotate 90 Degrees CW</p>	<p>Rotates the current selection 90 degrees clockwise.</p>
	<p>Rotate 90 Degrees CCW</p>	<p>Rotates the current selection 90 degrees counter-clockwise.</p>

## Dropper Tool Properties

The Dropper tool allows you to pick a colour from your drawing without going to the Colour view.



### NOTE



When picking a colour with the Dropper tool, the colour picked becomes the current colour, but is not automatically added to the swatch list.

### How to access the Dropper tool properties

1. In the Tools toolbar, select the Dropper  tool.

The tool's properties are displayed in the Tool Properties view.




Icon	Property	Description
	Sample All Layers	<p>By default, the Dropper tool picks the colour from the active drawing layer only. This means that if the colour is semi-transparent, it will still only take the colour from the active layer, along with its transparency, and ignore the colours from layers behind it.</p> <p>With this option enabled, the Dropper tool will pick the colour as it appears on the screen instead, allowing you to pick colours that are the result of several layers composited together.</p>
	Do Not Pick Transparency	<p>By default, the Dropper tool picks the colour's alpha value as well as its colour values. When enabled, the colour picked will always have an alpha value of 255.</p>

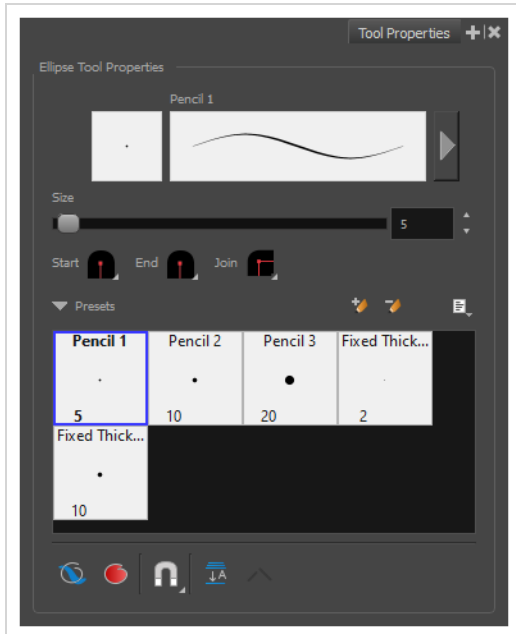
## Ellipse Tool Properties

The Ellipse tool allows you to quickly draw an ellipse or a circle.

### How to access the Ellipse tool properties


1. In the Tools toolbar, select the Ellipse  tool.


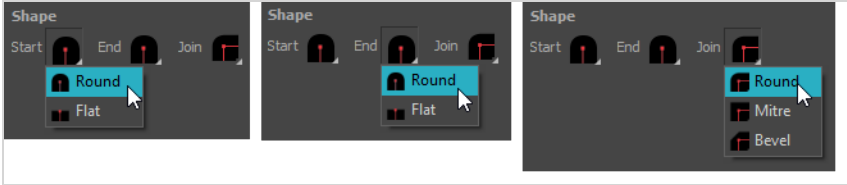
The tool's properties are displayed in the Tool Properties view.



## Pencil Properties

Just like other shape tools, this tool creates pencil lines. Hence, its tool properties are similar to the ones of the Pencil tool and it can be used with pencil presets.




Property	Description
Preview Area	<p>The Preview area lets you see a preview of the stroke your drawing tool will make.</p> 
Pencil Properties Dialog	<p>The arrow button right of the preview area opens the Pencil Properties dialog.</p>

Property	Description
	 <p>While the Tool Properties view only gives you access to a few of the pencil properties, a list of pencil presets and other drawing options, the Pencil Properties dialog gives you access to all the available options for your pencil's shape and texture. For more information on the Pencil Properties dialog, see the <a href="#">Pencil Properties Dialog on page 387</a> section below.</p>
Size	Defines the width of the pencil line used to draw the shape.
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>

## Pencil Presets


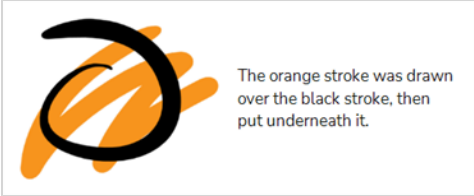
These options allow you to select, create and manage pencil presets.



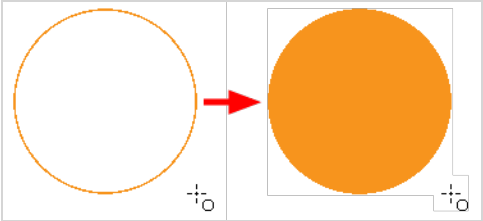


Icon	Property	Description
	Presets list	<p>Storyboard Pro provides a few pencil presets and also lets you create and save your own. It is a good idea to create and save pencils with precise sizes and parameters when you draw for efficiency and consistency.</p> <p>You can export the pencil presets that you have created and import those that others have created. This is a good way for you and project collaborators to keep a consistent look for the project.</p>

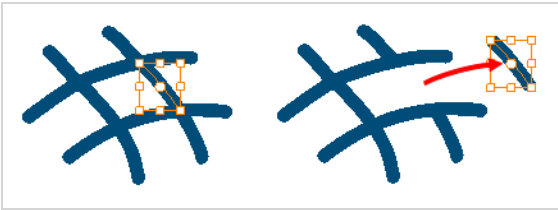
Icon	Property	Description
	New Brush Preset	Creates a new preset based on the current tool properties.
	Delete Brush Preset	Deletes the currently selected preset.
	Brush Presets Menu	<p>Open a menu that contains the following options:</p> <ul style="list-style-type: none"> <li>• <b>New Brush Preset:</b> Creates a new preset based on the current tool properties.</li> <li>• <b>Delete Brush:</b> Deletes the currently selected preset.</li> <li>• <b>Rename Brush:</b> Allows you to rename the currently selected preset.</li> <li>• <b>Import Brushes:</b> Allows you to import brush presets exported from Storyboard Pro.</li> <li>• <b>Export Brushes:</b> Allows you to export your brush presets into an <code>.xml</code> file.</li> <li>• <b>Small Thumbnail:</b> Displays presets in a grid of small thumbnails with a preview of their tip.</li> <li>• <b>Large Thumbnail:</b> Displays presets in a grid of big thumbnails, with their name and a preview of their tip.</li> <li>• <b>Stroke View:</b> Displays presets in a list, with their name and a preview of a stroke done with each preset.</li> </ul>

## Drawing Options

These options affect the way your shape is added to your artwork.

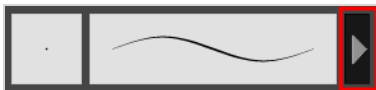
Icon	Property	Description
	Draw Behind	<p>When enabled, your brush strokes will appear behind the existing artwork.</p>  <p>The orange stroke was drawn over the black stroke, then put underneath it.</p>

Icon	Property	Description
		<div data-bbox="634 283 1430 554" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>Your brush stroke will temporarily appear over your artwork as you draw it, until you release the mouse cursor or tablet pen. If you want a live preview of your stroke, activate the Realistic Preview option by selecting <b>View &gt; Realistic Preview</b> from the top menu.</p> </div>
	Auto Fill	<p>When enabled, the shape you draw is automatically filled with the selected colour. By default, drawing a shape only creates its outlines.</p> 
	Snapping	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping modes:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Contour:</b> When enabled, while you're drawing, the mouse cursor will snap to the nearby contours of the artwork in your drawing.</li> <li>• <b>Snap to Alignment Guides:</b> While drawing, the drawing tool will snap against nearby alignment guides.</li> <li>• <b>Snap and Align:</b> When enabled, while you're drawing, the mouse cursor will automatically align to the rectangular bounding boxes of other strokes and shapes in your drawing.</li> </ul>
	Auto Flatten Mode	<p>By default, when drawing on a vector layer, each new stroke is created as a separate drawing object, which can be edited independently from other parts of the artwork. When enabled, the Auto-Flatten option automatically merges strokes into existing artwork.</p>

Icon	Property	Description
		 <div data-bbox="634 527 1430 758" style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p><b>NOTE</b></p> <p>Using the Select tool, you can use select and remove a segment of flattened pencil lines. Overlapping pencil lines drawn with the Auto-Flatten mode are essentially cut into segments by the overlap and can be treated as individual lines.</p> </div>

## Pencil Properties Dialog

The Ellipse tool draws the same type of line as the Pencil tool. Hence, you can configure the Ellipse tool's lines using the Pencil Properties dialog, which you can open by clicking on the arrow button right of the stroke display area in the Tool Properties view.

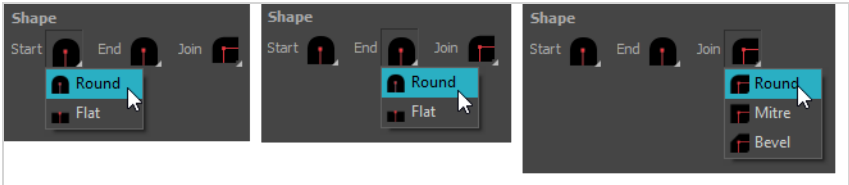


## Size and Smoothness Tab

The Size and Smoothness tab allows you to select your pencil's size, its smoothing parameters as well as the shape of its tips and corners.





Property	Description
Maximum Size	Defines the maximum size of the pencil line. If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.
Minimum Size	Defines the minimum size of your stroke as a percentage of the maximum size. If you do not have pressure sensitivity from a pen table, the minimum size value will be ignored.
Centerline Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the central line of the pencil stroke. A higher setting will prevent your line from being shaky and will reduce the amount of control points it has, making it easier to tweak, but is liable to reduce drawing precision and turn sharp angles into curves.
Contour Smoothing	<p>Defines the amount of smoothing Storyboard Pro should perform on the outer contour of the pencil stroke.</p> <p>A pencil line is defined by its centreline and its variations in thickness, rather than its apparent shape. When drawing a pencil line with a mouse, its thickness is uniform. Therefore, its outer contour does not have any control point, except at its extremities, and no smoothing is required for its contour.</p> <p>However, when drawing a pencil line with a pressure sensitive tablet, its contour will have control points and Bezier curves to define the line's variations in thickness, and thus smoothing must be performed on its contour. An increased contour smoothing will reduce the amount of control points on the line's thickness and smoothen its curves, but may affect the precision of the variations in line thickness.</p>
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>

## Texture Tab

In the Pencil Properties view, the Texture Tab allows you to select a texture to apply to your pencil lines. You can also add, remove or rename textures, save the current pencil texture palette as the default one, or import the pencil texture palette into your scene.



Icon	Property	Description
	New Texture	Allows you to import an image file into a new pencil texture swatch in the current pencil texture palette. The pencil texture's effect on your pencil line will be based on the image's transparency channel, and will follow your pencil lines on its horizontal axis. This option is also available from the menu  button.
	Delete Texture	Deletes a pencil texture swatch from the current pencil texture palette. This option is also available from the menu  button.
	Rename Texture	Renames the selected pencil texture swatch in the current pencil texture palette. This option is also available from the menu  button.
	Use as Default Pencil Texture Palette	This option is available from the menu  button. Sets the currently selected pencil texture palette as the default pencil texture palette in your user preferences. The default pencil texture palette is added to every scene you create in Storyboard Pro. The palette is copied in your preferences, so it will be added to your new scenes in the exact state it is when you make it the default pencil texture palette.


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Icon	Property	Description
	Pencil Texture Display	Displays the pencil textures in the current pencil texture palette and allows you to select one to use with the Pencil tool.

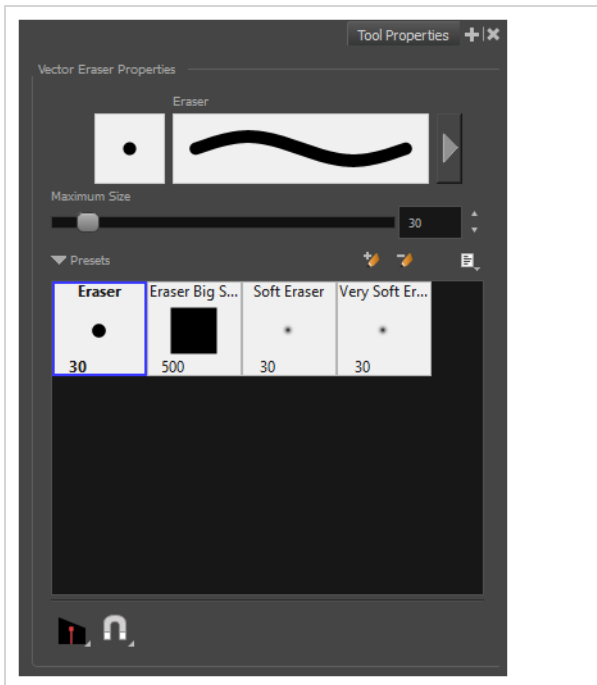
## Eraser Tool Properties

The Eraser tool allows you to erase artwork by drawing eraser strokes over it. When using the Eraser tool with a tablet, it is pressure sensitive, like with the Brush and Pencil tool.

### How to access the Eraser tool properties


1. In the Tools toolbar, select the Eraser  tool.




The tool's properties are displayed in the Tool Properties view.



## Eraser Properties

The way the Eraser tool is configured is almost identical to the way the Brush tool is configured.



Property	Description
Stroke Preview Area	The Preview area lets you see a preview of the stroke your drawing tool will make. 
Eraser Properties Dialog	The arrow button right of the display area opens the Eraser Properties dialog, which gives you access to all the parameters and options for your eraser. The Tool Properties view only gives you access to a few of the eraser properties, a list of eraser presets and

Property	Description
	<p>options for the Eraser tool that are not related to the eraser properties. For more information on the Eraser Properties dialog, see the <a href="#">Eraser Properties Dialog</a> section below.</p> 
Maximum Size	<p>Defines the maximum size of the eraser.</p> <p>If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.</p>
Flow	<p>Lets you set the opacity for each instance of the eraser tip that gets erased from your artwork. Contrary to the Opacity parameter, the flow parameter has a cumulative effect. This means that a lower flow will make your eraser strokes less effective towards its extremities and more effective in its center. Your stroke's flow will also accumulate if you draw over it. By default, your eraser's flow varies with the amount of pressure you put on your tablet pen.</p> <div data-bbox="500 1045 1430 1213" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b> This option is only displayed in the Tool Properties view when drawing on a bitmap layer.</p> </div>
Opacity	<p>The Opacity parameter are where Lets you set the opacity of your brush strokes. Contrary to the Flow parameter, the Opacity parameter is non-cumulative. Your whole brush stroke's opacity will not exceed the Opacity parameter. By default, the Opacity parameter varies depending on the amount of pressure you put on your tablet pen.</p> <div data-bbox="500 1440 1430 1608" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b> This option is only displayed in the Tool Properties view when drawing on a bitmap layer.</p> </div>

## Eraser Presets



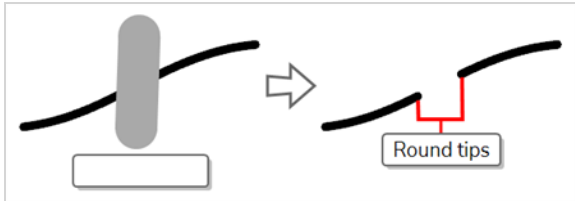
These options allow you to select, create and manage eraser presets.


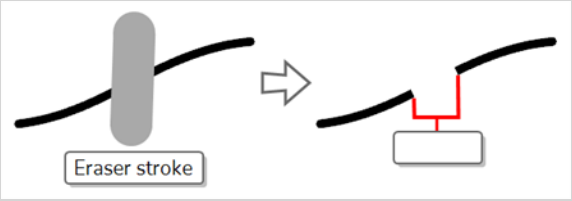

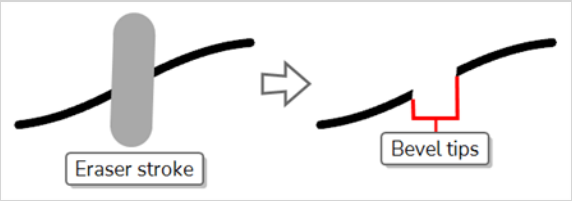

Icon	Property	Description
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	Presets list	By default, Storyboard Pro has preloaded eraser presets. You can also create your own eraser presets by configuring your eraser, then saving its properties into a new preset. It is also possible to export and import eraser presets.
	New Brush Preset	Creates a new preset based on the current tool properties.
	Delete Brush	Deletes the currently selected preset.
	Rename Brush	Allows you to rename the currently selected preset.
	Import Brushes	Allows you to import brush presets exported from Storyboard Pro.
	Export Brushes	Allows you to export your brush presets into an <code>.xml</code> file.
	Small Thumbnail	Displays presets in a grid of small thumbnails with a preview of their tip.
	Large Thumbnail	Displays presets in a grid of big thumbnails, with their name and a preview of their tip.
	Stroke View	Displays presets in a list, with their name and a preview of a stroke done with each preset.

## Erasing Options

These options affect the way your eraser strokes are applied to your artwork.

Icon	Property	Description
	Tip Style	<p>When you erase part of a pencil line, this option determines the shape of the extremity of the pencil line where you erased:</p> <ul style="list-style-type: none"> <li>  <b>Round:</b> Leaves a round tip at the extremities of the pencil line you erased. </li> </ul> 

Icon	Property	Description
		<ul style="list-style-type: none"> <li>  <b>Flat:</b> Leaves a flat tip at the extremities of the pencil line you erased. A flat tip is always perpendicular to the angle of the centreline of the pencil line, so it may not match the angle of your eraser stroke.              </li> <li>  <b>Bevel:</b> Leaves a bevel tip at the extremities of the pencil line you erased. A bevel tip is flat, but its angle matches the angle of your eraser stroke.              </li> </ul>
	Snapping	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping mode:</p> <ul style="list-style-type: none"> <li> <b>Snap to Alignment Guides:</b> While erasing, the eraser will snap against nearby alignment guides.           </li> </ul>

## Eraser Properties Dialog

Erasers have an extensive set of options and properties that are not displayed in the Tool Properties view, but rather, in a dialog you can access from it. To open the Eraser Properties dialog, click on the arrow button right of the stroke display area.

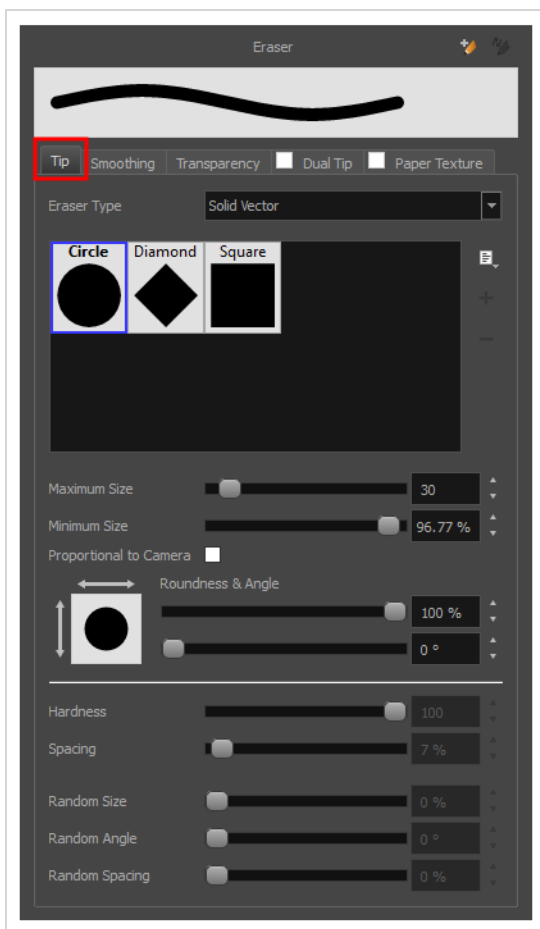


The Eraser Properties dialog has five different tabs, minus the Smoothing tab if you are working on a bitmap layers. Below is detailed information about the options available in each tab:

- [Tip Tab](#) on page 395
- [Smoothing Tab](#) on page 400
- [Transparency Tab](#) on page 401
- [Dual Tip Tab](#) on page 404
- [Paper Texture Tab](#) on page 408



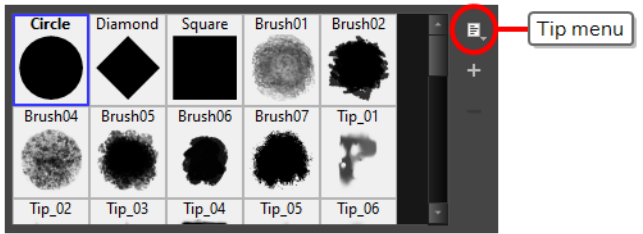
## Tip Tab




The Tip tab allows you to configure the shape, size, hardness and spacing of your eraser tip.

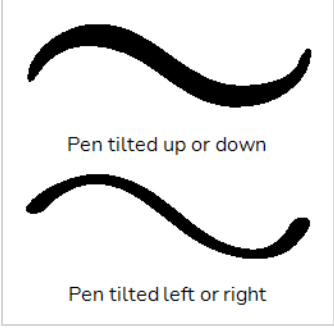
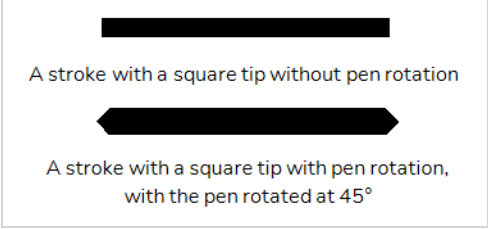



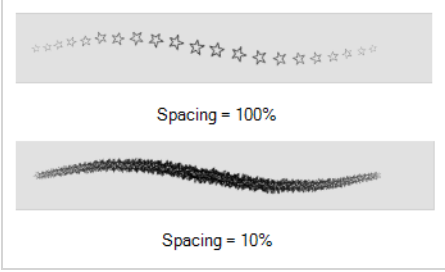
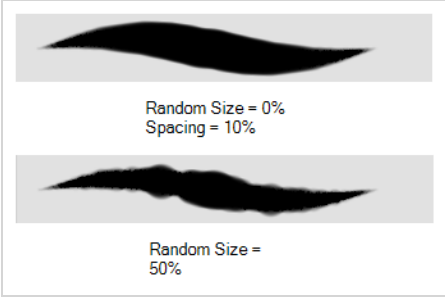

Property	Description
Eraser Type	<p>Allows you to select between one of the following eraser types:</p> <ul style="list-style-type: none"> <li>• <b>Solid Vector:</b> Simply cuts out the eraser stroke's shape from the vector artwork. A solid vector eraser always completely erase the artworks leaving</li> </ul>

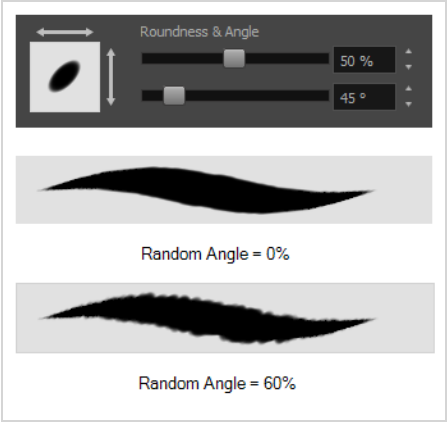
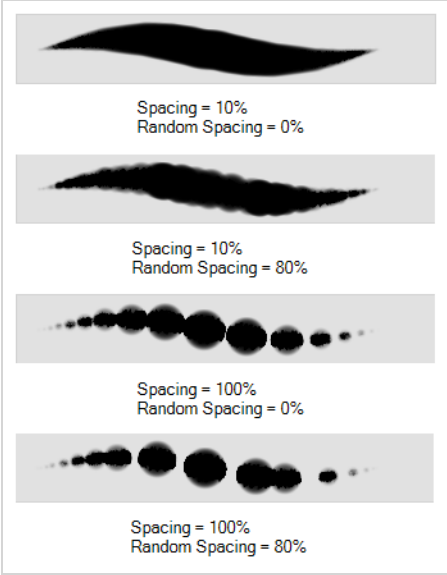


Property	Description
	<p>hard seams.</p> <ul style="list-style-type: none"> <li>• <b>Textured Eraser:</b> Allows to configure the eraser with the same options as with a textured brush. A textured eraser will decrease the opacity of bitmap textures in textured brush strokes if it doesn't completely erase it. If it completely erases a brush stroke, it will cut out the erased part from the vector artwork.</li> <li>• <b>Textured, Preserve Vector:</b> Like a Textured Eraser, except that it will not cut out from the vector shapes, even if it fully erases pixels in a textured brush stroke's texture.</li> </ul> <div data-bbox="505 630 1430 894" style="border: 1px solid green; padding: 10px; margin: 10px 0;"> <p> <b>NOTE</b> Textured erasers only work as expected on textured brush strokes. Using a Textured eraser on a solid vector brush stroke or on a pencil line will only cut the eraser stroke's shape out of it. If you use a Textured, Preserve Vector type eraser on a solid vector shape or on a pencil line, the eraser will not erase anything.</p> </div> <div data-bbox="505 921 1430 1121" style="border: 1px solid green; padding: 10px; margin: 10px 0;"> <p> <b>NOTE</b> This option is not available when working on a bitmap layer. With bitmap layers, erasers are always textured, and textured eraser options are always available.</p> </div>
Eraser Tip Library	<div data-bbox="505 1180 1166 1436" style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;">  </div> <p>This is where you select the shape of the eraser tip. By default, it is round. Note that some tips are designed to have semitransparent areas, even when the maximum eraser opacity is set to 100%.</p> <p>To create a custom eraser tip, you must prepare the file ahead of time, either in Storyboard Pro or in a third-party software, such as Adobe Photoshop. Colour is not supported and transparency is not supported in the traditional sense. Black appears as 100% opaque, white appears as 100% transparent and all the shades of grey in between appear as varying degrees of semitransparency. A range of file formats are supported—.jpeg, .png, .tif, .psd, .tga to name a few. Alpha channels are disregarded on import. It is recommended that your file be between 100 x 100 pixels and 400 x 400 pixels.</p>

Property	Description
	<p>You can also import eraser tips that you exported from Storyboard Pro, so you can share them with colleagues.</p>
<p>Minimum and Maximum Size</p>	<p>The minimum and maximum sizes of your drawing tool produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Size:</b> Defines the maximum width of the stroke.</li> <li>• <b>Minimum Size:</b> Defines the minimum width of the stroke in relation to and as a percentage of the maximum size.</li> </ul> <div data-bbox="505 646 1430 852" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b></p> <p>Setting the Minimum Size value to 100% eliminates the possibility of creating width variation on your stroke. In other words, you would be forcing a uniform line width using the Maximum Size value.</p> </div>
<p>Roundness and Angle</p>	<p>The Roundness and Angle parameters allow you to change the shape and orientation of the tip.</p> <ul style="list-style-type: none"> <li>• <b>Roundness:</b> The vertical scaling to apply to the tip. Reducing this setting squashes the tip vertically, allowing you to turn round or square tips into flat tips.</li> <li>• <b>Angle:</b> The angle at which to rotate the brush tip, counterclockwise.</li> </ul> <div data-bbox="505 1182 1430 1543" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b></p> <p>The squashing is not relative to the angle—if the tip is rotated, the squashing will still be done relative to the tip's original orientation.</p> <div data-bbox="613 1335 1330 1503" style="border: 1px solid #ccc; padding: 10px; text-align: center;">  <p>Roundness: 100%    Roundness: 33%    Roundness: 100%    Roundness: 33%  Angle: 0°            Angle: 0°            Angle: 45°            Angle: 45°</p> </div> </div>
<p>Pen Tilt Sensitivity</p>	<p>If your pen and tablet support tilt sensitivity, this option allows you to set whether your eraser takes your pen's tilt angle in account, and how much.</p> <p>When your pen is fully tilted, your eraser tip will be stretched by the percentage you set in this parameter, in the angle in which you tilt it. For example, if you set the Pen Tilt Sensitivity to 50%, and you tilt your pen all the way up or down, your eraser tip will be stretched vertically by 50%. With the same setting, if you tilt your pen all the way left or right, your eraser tip will be stretched horizontally by 50%.</p>

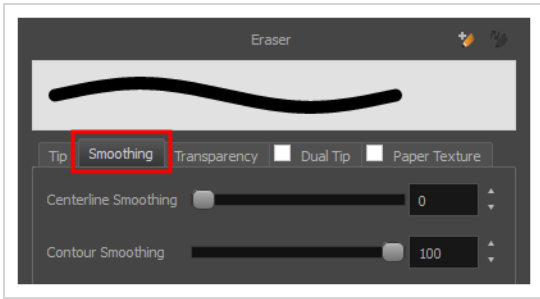
Property	Description
	
Use Pen Rotation	<p>If enabled, and if your pen and tablet support tip rotation, your eraser tip will rotate with the angle of your pen tip.</p> 
Hardness	<p>The Hardness and Spacing parameters allow you to change the softness and spacing of the marks made by the eraser tip. You can preview the hardness and spacing at the top of the Eraser Properties window, stroke preview area.</p> <p>The hardness value corresponds to the softness of the eraser tip's edges. The lower the value, the softer the tip edge. The higher the value, the sharper the tip edge. Be aware that some eraser tips are not 100% opaque, so they will always appear somewhat soft, even at 100% hardness.</p> 
Spacing	<p>Defines the amount of space between each stamp of the eraser. A value of 100% sets the stamp marks edge to edge, if there is no white space around the shape. The larger the value, the greater the space between marks. A really large value can make the eraser stroke appear as a string of individual marks. Conversely, a small spacing value will give the appearance of a fluid brush stroke.</p> <p>Spacing is only evident when making a continuous stroke.</p>

Property	Description
	
<p>Randomness</p>	<p>The Randomness parameters let you create a varied bitmap eraser stroke. Refining these options can give your stroke a lovely, non-mechanical look.</p>
<p>Random Size</p>	<p>You can create variation between the thick and thin of your eraser stroke just by setting the Maximum and Minimum Size values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p>  <div data-bbox="505 1314 1430 1545" style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>Setting the Minimum Size to 100% eliminates the possibility of creating width variation on your stroke, whether you are applying randomness or not. Therefore, you would be forcing a uniform line width using the Maximum Size value.</p> </div>
<p>Random Angle</p>	<p>Sets the range for random rotation around the set Angle value. For example, if the Angle is set to 45° and the Random Angle set to 10°, the software will choose values between 40°–50° (plus or minus 5 degrees, equaling a total of 10 degrees).</p>

Property	Description
	 <p>Roundness &amp; Angle</p> <p>50 %</p> <p>45 °</p> <p>Random Angle = 0%</p> <p>Random Angle = 60%</p>
Random Spacing	<p>Sets the range for random spacing around the set Spacing value. For example, if the Spacing is set to 50% and the Random Spacing is set to 10%, then Storyboard Pro will choose values between 45%–55% (plus or minus 5 percent, equaling a total of 10 percent).</p>  <p>Spacing = 10% Random Spacing = 0%</p> <p>Spacing = 10% Random Spacing = 80%</p> <p>Spacing = 100% Random Spacing = 0%</p> <p>Spacing = 100% Random Spacing = 80%</p>

## Smoothing Tab

The Smoothing tab contains options to configure how Storyboard Pro should automatically smooth your eraser strokes as you paint.



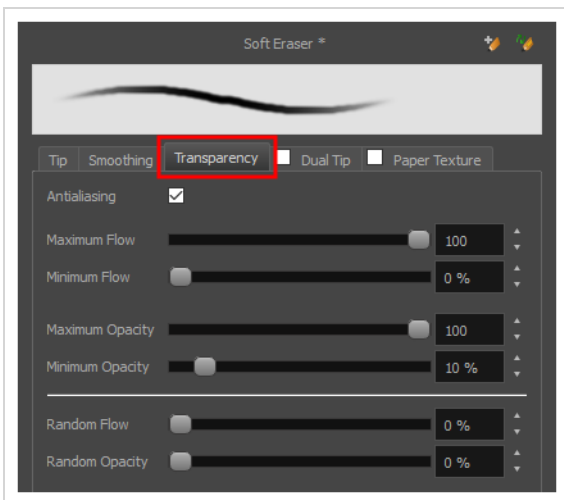
**NOTE**

The Smoothing tab is only available when working on a vector layer, as bitmap layers do not support smoothing.

Property	Description
Centerline Smoothing	Defines the amount of smoothing Storyboard Pro should perform on your eraser stroke's direction, curves and corners. A higher setting will prevent your line from being shaky, but is liable to reduce drawing precision and turn sharp angles into curves.
Contour Smoothing	Defines the amount of smoothing Storyboard Pro should perform on outer contour of the eraser stroke. A higher setting will round sharp corners and reduce the amount of control points for the resulting vector shape.


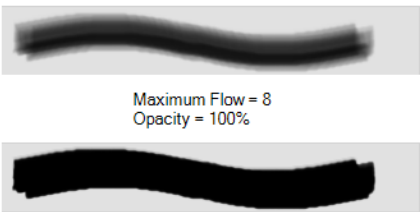
## Transparency Tab

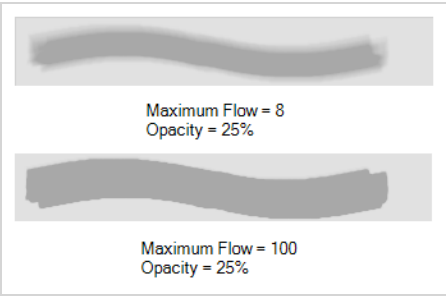
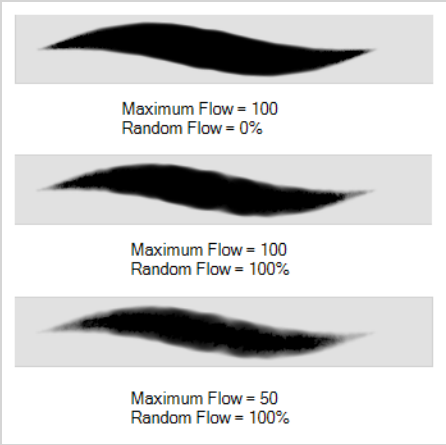

The Transparency tab allows you to decide if your eraser has antialiasing as well as to set its flow and opacity settings.





**NOTE**

The Transparency tab's options are only available on vector layers if the **Eraser Type** option of the Tip tab is set to **Textured Vector** or **Textured, Preserve Vector**.. On bitmap layers, those options are always available.

Property	Description
Antialiasing	<p>Enabled by default. This option causes the contours of the eraser strokes to blend with the surrounding colours, to create an illusion of smoothness otherwise not possible due to the picture resolution.</p> <p>If antialiasing is disabled, the eraser will either fully erase pixels or leave them intact.</p> <div data-bbox="573 758 1430 894" style="border: 1px solid green; padding: 5px;">  <p><b>NOTE</b> When disabled, all other options in the Transparency tab are disabled.</p> </div>
Maximum and Minimum Flow	<p>The Maximum and Minimum Flow parameters let you set the range for the rate at which your eraser's effect flows. The greater the flow, the more consistent the effect is. If the flow is light, then the effect may look spotty. This feature works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Flow:</b> Sets the maximum rate at which colour and texture are applied as you create a fluid stroke.</li> <li>• <b>Minimum Flow:</b> Sets the minimum rate at which colour and texture are applied as you create a fluid stroke. It is defined as a percentage of the Maximum Flow value. If the Minimum Flow value is set to 100%, then tablet pressure sensitivity will no longer be applicable. The flow will be set to the constant rate of the Maximum Flow value.</li> </ul> <div data-bbox="573 1402 1016 1692" style="border: 1px solid gray; padding: 10px; text-align: center;">  <p>Maximum Flow = 8 Opacity = 100%</p> <p>Maximum Flow = 100 Opacity = 100%</p> </div>
Maximum Opacity and Minimum Opacity	<p>The Maximum and Minimum Opacity parameters are where you set the opacity range for an eraser mark. This works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Opacity:</b> Sets the transparency limit of the eraser mark when the pressure is heavy.</li> </ul>

Property	Description
	<ul style="list-style-type: none"> <li> <b>Minimum Opacity:</b> Sets the transparency limit of the eraser mark when the pressure is very light. It is defined as a percentage of the Maximum Opacity value. If the Minimum Opacity value is set to 100%, then tablet pressure sensitivity will no longer be applicable. The opacity will be set to the constant rate of the Maximum Opacity value.                     </li> </ul> 
<p>Randomness</p>	<p>The Randomness parameter lets you set the range for the randomness of the flow and opacity. This works with the pressure sensitivity of a pen tablet.</p>
<p>Randomness Flow</p>	<p>You can create variation in the flow of your eraser stroke just by setting the Maximum and Minimum Flow values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p>  <div data-bbox="573 1675 1430 1913" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b></p> <p>Setting the Minimum Flow value to 100% eliminates the possibility of creating flow variation on your stroke, whether you are applying randomness or not. That is, you would be forcing a uniform flow using the Maximum Flow value.</p> </div>

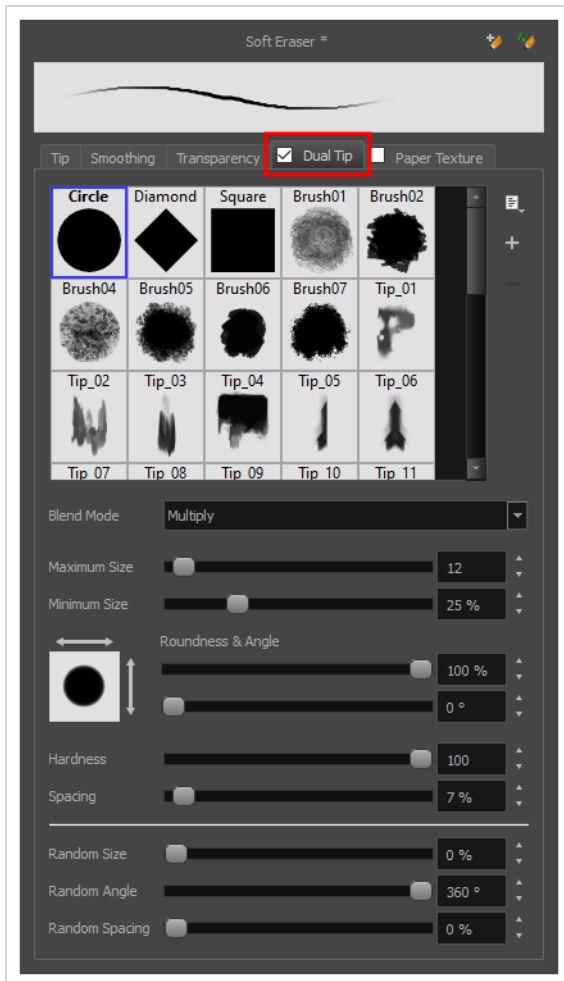


Property	Description
Random Opacity	<p>You can create variation in the opacity of your eraser stroke just by setting the Maximum and Minimum Opacity values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p> <div data-bbox="574 516 1013 1031" style="border: 1px solid gray; padding: 10px;">  <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 0%</p> <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 10%</p> <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 50%</p> </div> <div data-bbox="574 1066 1430 1299" style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>Setting the Minimum Opacity value to 100% eliminates the possibility of creating opacity variation on your stroke, whether you are applying randomness or not. That is, you would be forcing a uniform opacity using the Maximum Opacity value.</p> </div>

## Dual Tip Tab

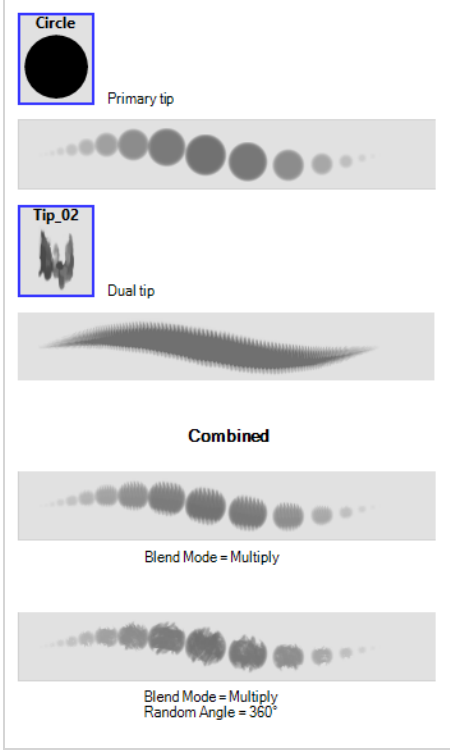
The Dual Tip tab lets you set the parameters for creating a dual tip eraser. The primary bitmap eraser tip and the dual tip always work together. You can set the parameters for the primary tip in the Tip tab and those for the dual tip in the Dual Tip tab. The Blend mode you select determines how the tips are combined.

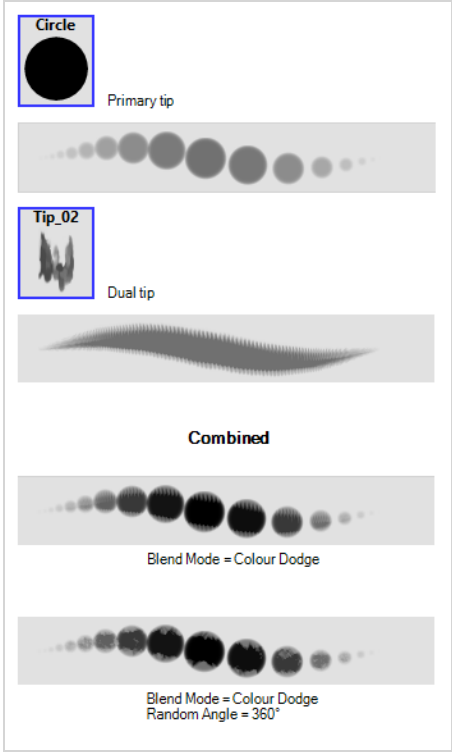
By default, the Blend Mode is set to Multiply and the Random Angle to 360°.

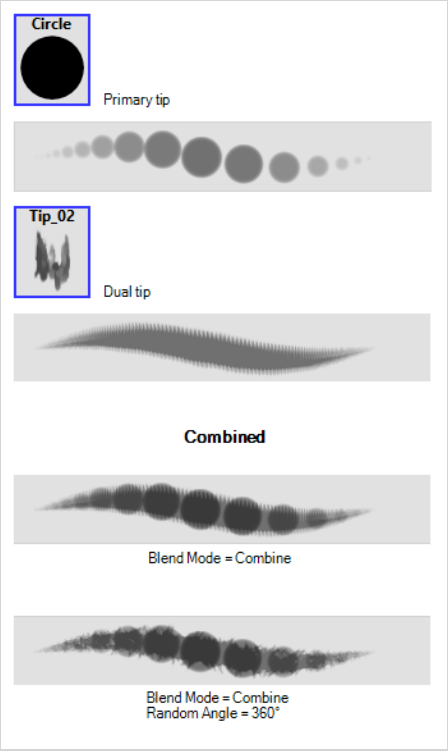
**NOTE**

To use a Dual Tip, you must enable option by checking the checkbox inside the **Dual Tip** tab. Additionally, if you are working on a vector layer, the **Eraser Type** option of the Tip tab must be set to **Textured Vector** or **Textured, Preserve Vector**.

Tool Name	Description
Enable/Disable	The checkbox inside the tab allows you to decide whether or not your eraser uses a dual tip. If this checkbox is unchecked, the options in the Dual Tip tab will be disabled.
Blend Mode	The Blend modes let you decide how the primary tip and the dual tip are combined.
Multiply	This is the default blend mode. When the two eraser tips are combined in this mode, they essentially cut each other out in overlapping areas, where one or both tips have an area of 100% transparency. The less opaque the eraser tips are, the lighter their

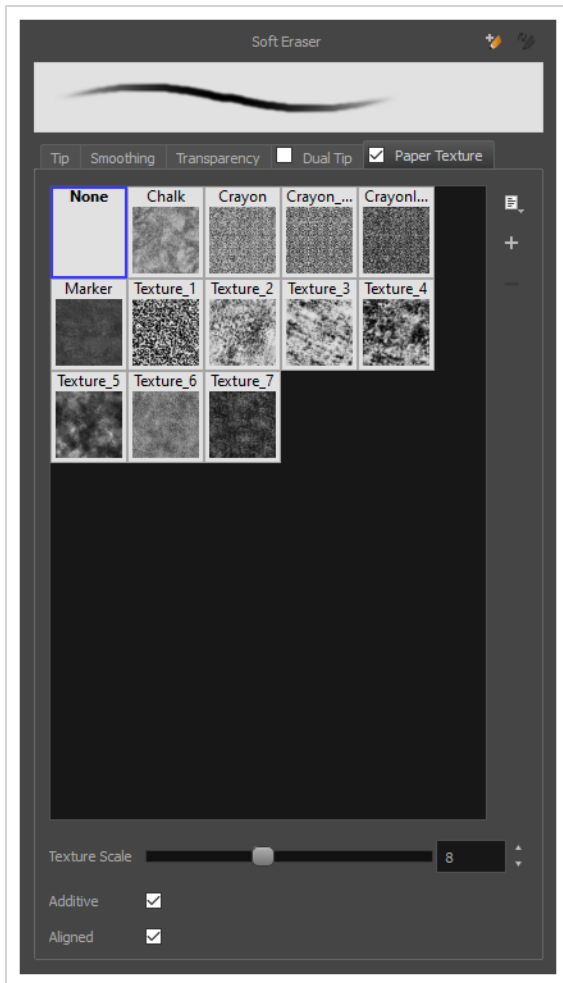
Tool Name	Description
	<p>combination.</p>  <p>The diagram illustrates the combination of two brush tips. It shows a 'Circle' primary tip and a 'Tip_02' dual tip. Below these are three examples of the combined result:</p> <ul style="list-style-type: none"> <li>The first example shows the 'Combined' result with 'Blend Mode = Multiply'.</li> <li>The second example shows the 'Combined' result with 'Blend Mode = Multiply' and 'Random Angle = 360°'.</li> </ul>
Colour Dodge	<p>In this mode, the primary tip cuts out the shape of the dual tip. Where the tip shapes overlap, within the boundaries of the primary shape, the colour and opacity appear darker.</p>

Tool Name	Description
	 <p>The diagram illustrates the 'Combine' tool configuration. It features two tip types: a 'Circle' primary tip and a 'Tip_02' dual tip. Below these, a 'Combined' section shows two rows of eraser strokes. The first row is labeled 'Blend Mode = Colour Dodge' and the second row is labeled 'Blend Mode = Colour Dodge' and 'Random Angle = 360°'.</p>
Combine	<p>This mode treats the two tips as two different and separate erasers that have the same colour and follow the same path.</p>

Tool Name	Description
	 <p>The diagram illustrates the combination of two eraser tips. It shows a 'Circle' tip (a solid black circle) and a 'Tip_02' tip (a dual-pointed tip). The 'Combined' result shows the two tips merged. Below, two variations are shown: one with 'Blend Mode = Combine' and another with 'Blend Mode = Combine' and 'Random Angle = 360°'.</p>

## Paper Texture Tab

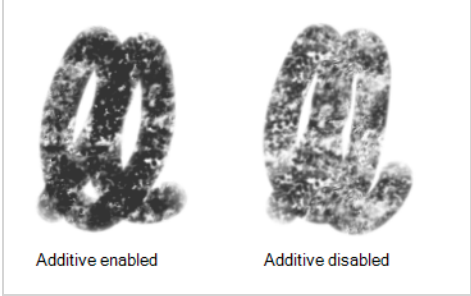
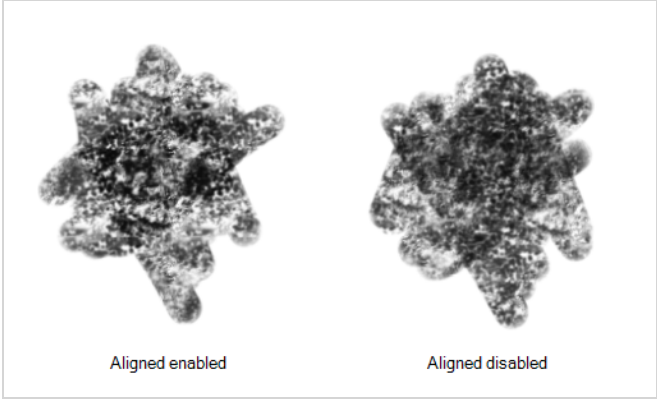
The Paper Texture tab lets you configure a paper-like texture for your eraser. You can also add textures by importing image files, or import paper textures that were previously exported from Storyboard Pro.



**NOTE**

To use a Paper Texture, you must enable option by checking the checkbox inside the **Paper Texture** tab. Additionally, if you are working on a vector layer, the **Eraser Type** option of the **Tip** tab must be set to **Textured Vector** or **Textured, Preserve Vector**.


Property	Description
Enable/Disable	The checkbox inside the tab allows you to decide whether or not your eraser uses a paper texture. If this checkbox is unchecked, the options in the Paper Texture tab will be disabled.
Texture Scale	Increase or decreases the size of the paper texture.
Additive	This option layers the texture on top of itself as you scribble overlapping lines in one continuous stroke. If this option is turned off, areas of overlapping lines from a single, continuous stroke will appear the same, in terms of darkness and texture, as

Property	Description
	<p>non-overlapping areas.</p>  <p>Additive enabled      Additive disabled</p>
Aligned	<p>This option defines the way separate, overlapping strokes behave. If this option is enabled, the paper texture's position does not change with each sweep of the eraser. If this option is disabled, each sweep of the eraser produces a different texture position. The texture orientation always stays the same.</p>  <p>Aligned enabled      Aligned disabled</p>

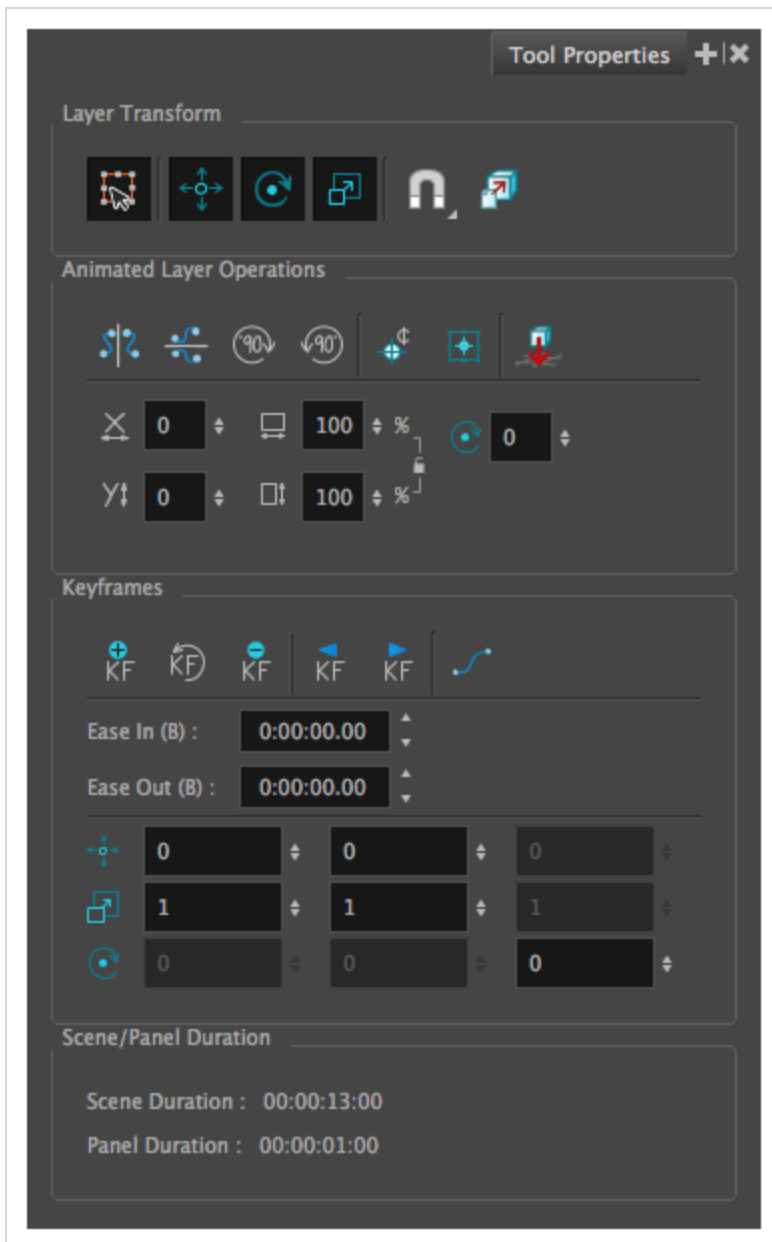
## Layer Transform Tool Properties

The Layer Transform tool lets you show or hide the translation control, flip, rotate, translate and scale a selected layer. You can also animate layers by setting keyframes and then fine-tune them using the Function Editor.






### How to access the Layer Transform tool properties

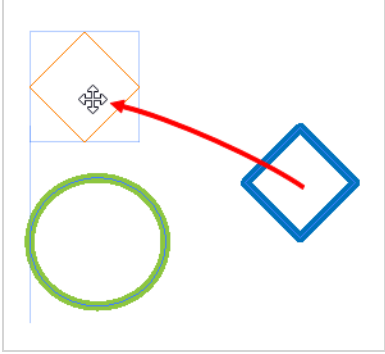









1. In the Tools toolbar, select the Layer Transform  tool.













The tool's properties are displayed in the Tool Properties view.










Icon	Property	Description
<b>Layer Transform</b>		
	Easy Drag	When enabled, you can drag the selection by clicking anywhere inside its bounding box. By default, you must click on the artwork in the selection to be able to drag it.
	Show Translate Controls	Shows or hides the translation controls in the Stage view when using the Layer Transform tool on a layer. The controls are displayed by default.
	Show Rotate Controls	Shows or hides the rotation controls in the Stage view when using the Layer Transform tool on a layer. The controls are displayed by default.
	Show Scale Controls	Shows or hides the scale controls in the Stage view when using the Layer Transform tool on a layer. The controls are displayed by default.
	Snapping	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping modes :</p> <ul style="list-style-type: none"> <li>• <b>Snap to Contour:</b> While moving the selection or one of its control points, it will snap against the nearby points and contours of your artwork, allowing you to snap parts of your artwork together.</li> <li>• <b>Snap to Alignment Guides:</b> While moving the selection or one of its control points, it will snap against nearby alignment guides.</li> <li>• <b>Snap and Align:</b> While moving the selection, the rectangular bounding box of the selection will align with the rectangular bounding boxes of other layers in the current panel. If you move one of your selection's control points, it will also align with the bounding boxes of other layers.</li> </ul>

Icon	Property	Description
		
	Snap to 3D Surface	When enabled, the layer or 3D element will snap against the nearby surfaces of 3D objects.
<b>Animated Layer Operations</b>		
	Flip Vertical	Flips the selection vertically.
	Flip Horizontal	Flips the selection horizontally.
	Rotate 90 CW	Rotates the selection 90° clockwise.
	Rotate 90 CWW	Rotates the selection 90° counterclockwise.
	Reset Pivot	The Reset Pivot button resets the current layer's pivot point to its original position at the centre of the camera frame. You can also select <b>Layer &gt; Pivot &gt; Reset Pivot</b> .
	Center Pivot on Selection	By default, the pivot is positioned at the center of the camera frame. Use this button to set the pivot at the centre of the selected layer. You can also select <b>Layer &gt; Pivot &gt; Center Pivot on Selection</b> .
	Snap to Ground	Lets you snap a layer to the surface directly below it The angle of the layer is retained and the lowest point of the layer will connect to the surface.
	Offset X	Lets you enter a value to reposition the selection along the X-axis.


Icon	Property	Description
	Offset Y	Lets you enter a value to reposition the selection along the Y-axis.
	Width	Lets you enter a value to resize the width of the selection.
	Height	Lets you enter a value to resize the height of the selection.
	Lock	Locks or unlocks the ratio between the Width and Height values.
	Angle	Lets you enter specific values to rotate the selection. A positive value rotates the selection counter clockwise and a negative value rotates the selection clockwise. <div data-bbox="542 793 1429 928" style="border: 1px solid green; padding: 5px; margin-top: 10px;">  <b>NOTE</b>  This field is only available when working in 2D mode. </div>
<b>Keyframes</b>		
	Add Keyframe	Adds a keyframe to the selected layer.
	Reset Keyframe	Resets all the position values to their defaults.
	Delete Keyframe	Deletes the selected keyframe from the layer.
	Previous Keyframe	Displays the previous keyframe.
	Next Keyframe	Displays the next keyframe.
	Function Editor	Opens the Function Editor where you can edit function curves and parameters. It is a visual graph for adding, removing, and editing keyframes, as well as adjusting the velocity. The Function Editor allows you to display multiple functions in the background as a reference.

Icon	Property	Description
--	Ease In	<p>Lets you set the velocity at which the layer movement begins.</p> <p>You can enter the duration of the ease in after the first frame in which the gradual change layer movement begins. For example, if you want to slowly accelerate to the normal layer speed from frame 1 to 10, enter a value of 10.</p>
--	Ease Out	<p>Lets you set the velocity at which the layer movement ends.</p> <p>You can enter the duration of the ease out after the first frame in which the gradual change in layer movement begins. Enter the number of frames before the last frame in which the change in layer movement is gradual.</p>
	Offset	<p>Lets you position the layer along the X and Y axes.</p> <div data-bbox="542 774 1430 915" style="border: 1px solid #c8e6c9; padding: 5px;"> <p> <b>NOTE</b> This field is only available when working in 2D mode.</p> </div>
	Scale	<p>Lets you scale the selected layer vertically and horizontally.</p> <div data-bbox="542 1031 1430 1171" style="border: 1px solid #c8e6c9; padding: 5px;"> <p> <b>NOTE</b> This field is only available when working in 2D mode.</p> </div>
	Rotation	<p>Lets you rotate the selected layer clockwise and counter clockwise.</p>
--	Scene/Panel Duration	<p>Displays the length of the selected scene or panel in timecode format. The default length of a panel is 1 second.</p>

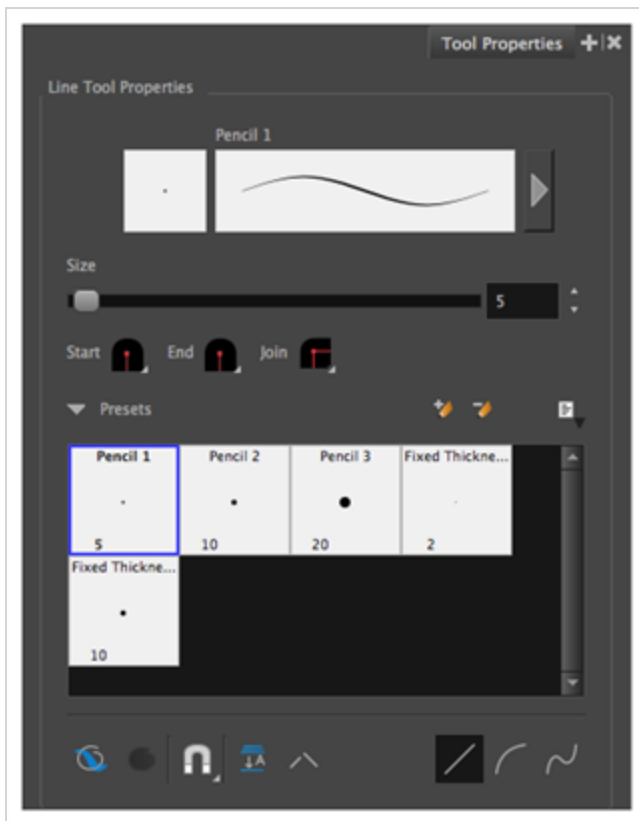
## Line Tool Properties

The Line tool allows you to quickly draw a line segment by dragging the mouse from its starting point to its end point.

### How to access the Line tool properties


1. In the Tools toolbar, select the Line  tool.


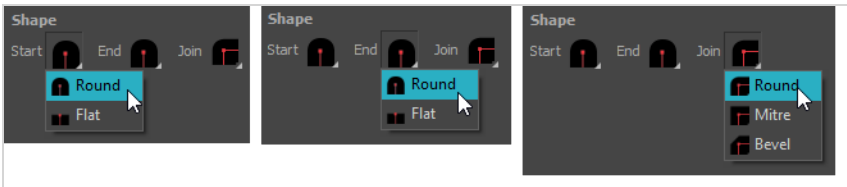
The tool's properties are displayed in the Tool Properties view.



## Pencil Properties

Just like other shape tools, this tool creates pencil lines. Hence, its tool properties are similar to the ones of the Pencil tool and it can be used with pencil presets.




Tool Name	Description
Preview Area	<p>The Preview area lets you see a preview of the stroke your drawing tool will make.</p> 

Tool Name	Description
Pencil Properties Dialog	<p>The arrow button right of the preview area opens the Pencil Properties dialog.</p>  <p>While the Tool Properties view only gives you access to a few of the pencil properties, a list of pencil presets and other drawing options, the Pencil Properties dialog gives you access to all the available options for your pencil's shape and texture. For more information on the Pencil Properties dialog, see the <a href="#">Pencil Properties Dialog</a> section below.</p>
Size	<p>Defines the width of the pencil line used to draw the line.</p>
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>

## Pencil Presets


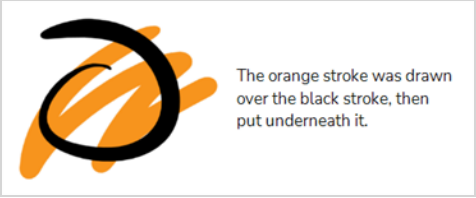
These options allow you to select, create and manage pencil presets.






Icon	Property	Description
	Presets list	<p>Storyboard Pro provides a few pencil presets and also lets you create and save your own. It is a good idea to create and save pencils with precise sizes and parameters when you draw for efficiency and consistency.</p> <p>You can export the pencil presets that you have created and import those that others have created. This is a good way for you and project collaborators to keep a consistent look for the project.</p>

Icon	Property	Description
	New Brush Preset	Creates a new preset based on the current tool properties.
	Delete Brush Preset	Deletes the currently selected preset.
	Brush Presets Menu	<p>Open a menu that contains the following options:</p> <ul style="list-style-type: none"> <li>• <b>New Brush Preset:</b> Creates a new preset based on the current tool properties.</li> <li>• <b>Delete Brush:</b> Deletes the currently selected preset.</li> <li>• <b>Rename Brush:</b> Allows you to rename the currently selected preset.</li> <li>• <b>Import Brushes:</b> Allows you to import brush presets exported from Storyboard Pro.</li> <li>• <b>Export Brushes:</b> Allows you to export your brush presets into an <code>.xml</code> file.</li> <li>• <b>Small Thumbnail:</b> Displays presets in a grid of small thumbnails with a preview of their tip.</li> <li>• <b>Large Thumbnail:</b> Displays presets in a grid of big thumbnails, with their name and a preview of their tip.</li> <li>• <b>Stroke View:</b> Displays presets in a list, with their name and a preview of a stroke done with each preset.</li> </ul>

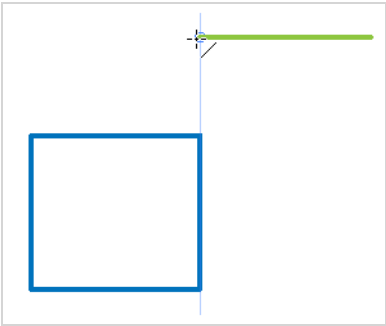

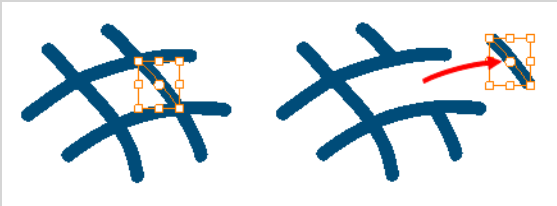


## Drawing Options

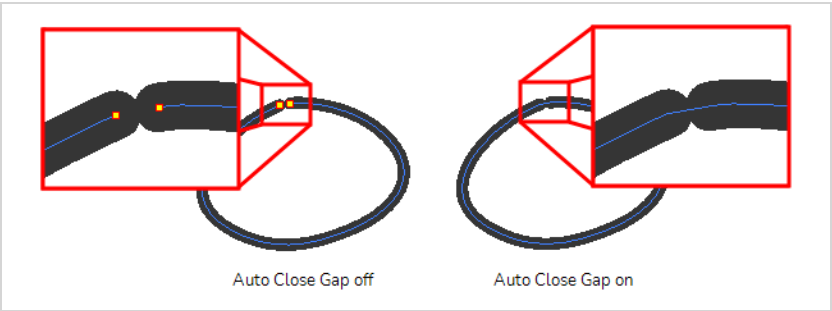


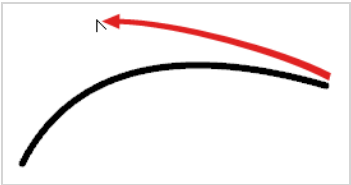


These options affect the way your drawing strokes are added to your artwork.

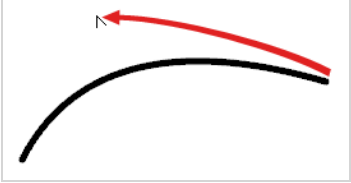

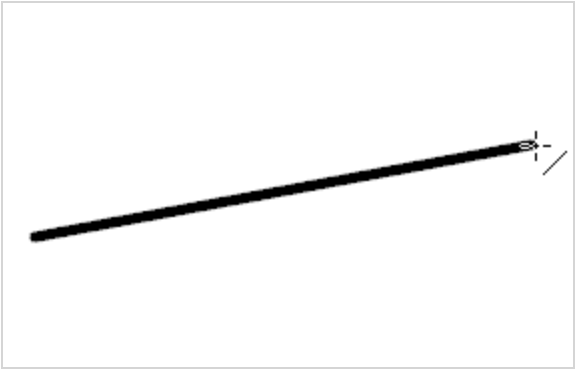

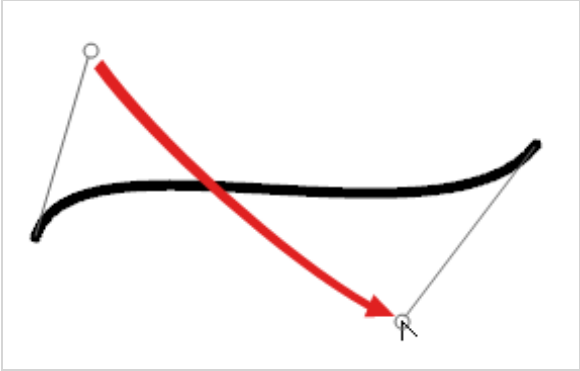
Icon	Tool Name	Description
	Draw Behind	<p>When enabled, your brush strokes will appear behind the existing artwork.</p>  <p>The orange stroke was drawn over the black stroke, then put underneath it.</p>

Icon	Tool Name	Description
		<div data-bbox="492 317 1430 562" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> Your brush stroke will temporarily appear over your artwork as you draw it, until you release the mouse cursor or tablet pen. If you want a live preview of your stroke, activate the Realistic Preview option by selecting <b>View &gt; Realistic Preview</b> from the top menu.</p> </div>
	<p>Snapping</p>	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping modes:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Contour:</b> When enabled, while you're drawing, the mouse cursor will automatically snap to the nearby contours of existing artwork, allowing you to draw shapes that connect with other parts of your drawing.</li> </ul> <div data-bbox="570 1083 1182 1293" style="border: 1px solid #ccc; padding: 10px; text-align: center;"> </div> <div data-bbox="570 1329 1430 1640" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> If you draw a line with the Line tool and make its tip snap to a contour or another control point in your artwork, they will be locked together. You can then manipulate both simultaneously using the  Contour Editor tool. You can also separate two drawing strokes that have been snapped together by selecting one of them with the  Select tool and moving it away.</p> </div> <ul style="list-style-type: none"> <li>• <b>Snap to Alignment Guides:</b> While drawing, the drawing tool will snap against nearby alignment guides.</li> <li>• <b>Snap and Align:</b> When enabled, while you're drawing, the mouse cursor will automatically align with the edges of strokes and shapes in your artwork, allowing you to draw shapes that align with parts of your drawing.</li> </ul>



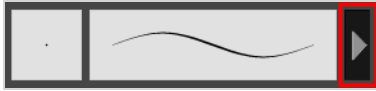
Icon	Tool Name	Description
		
	<p>Auto-Flatten Mode</p>	<p>By default, when drawing on a vector layer, each new stroke is created as a separate drawing object, which can be edited independently from other parts of the artwork. When enabled, the Auto-Flatten option automatically merges strokes into existing artwork.</p>  <div style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>Using the Select tool, you can use select and remove a segment of flattened pencil lines. Overlapping pencil lines drawn with the Auto-Flatten mode are essentially cut into segments by the overlap and can be treated as individual lines.</p> </div>
	<p>Auto-Close Gap</p>	<p>When enabled, small gaps between the pencil lines you draw will be closed by an invisible stroke to make sure your shapes are closed and that they can be filled with the Paint tool.</p> <p>When drawing contours with pencil lines, the centreline is used to determine whether or not the contour is closed, but the visible tips of the pencil line will extend a bit beyond the tips of its centreline, making it possible to have shapes that appear closed, but are not really. This can prevent the shape from being filled with the Paint tool. Enabling this option when drawing with the Pencil or Line tool will prevent you from leaving invisible gaps in your contours.</p>

Icon	Tool Name	Description
		 <p style="text-align: center;">Auto Close Gap off      Auto Close Gap on</p>
	<p>Straight Line Mode</p>	<p>Draws a straight line.</p> <p>In this mode, you can draw curved lines with the following method:</p> <ol style="list-style-type: none"> <li>1. Draw the line by clicking and dragging from the start point to the end point of the line, but don't release the mouse button or pen yet.</li> </ol>  <ol style="list-style-type: none"> <li>2. While holding the mouse button or pen down, press and hold the Ctrl (Windows) or ⌘ (macOS) and move the mouse or pen to define the line's curve.</li> </ol>  <ol style="list-style-type: none"> <li>3. Once the line's curve looks right, release the mouse button or pen.</li> </ol>
	<p>Curve Line Mode</p>	<p>This mode allows you to draw a simple curved (quadratic Bezier) line in two clicks:</p> <ol style="list-style-type: none"> <li>1. Draw the line by clicking and dragging from the start point to the end point of the line.</li> </ol>  <ol style="list-style-type: none"> <li>2. Move the mouse or pen to define the curve of the line and click.</li> </ol>

Icon	Tool Name	Description
		
	<p data-bbox="326 1186 410 1283">S Curve Line Mode</p>	<p data-bbox="492 573 1414 636">Draws an S-shaped (cubic Bezier) line. This mode allows you to draw lines with finely tuned or even S-shaped curves with three clicks:</p> <ol data-bbox="532 663 1398 726" style="list-style-type: none"> <li data-bbox="532 663 1398 726">1. Draw the line by clicking and dragging from the start point to the end point of the line.</li> </ol>  <ol data-bbox="532 1150 1422 1213" style="list-style-type: none"> <li data-bbox="532 1150 1422 1213">2. Move the mouse or pen to define the Bezier position of the beginning of the line and click.</li> </ol>  <ol data-bbox="532 1440 1398 1503" style="list-style-type: none"> <li data-bbox="532 1440 1398 1503">3. Move the mouse or pen to define the Bezier position of the end of the line and click.</li> </ol> 

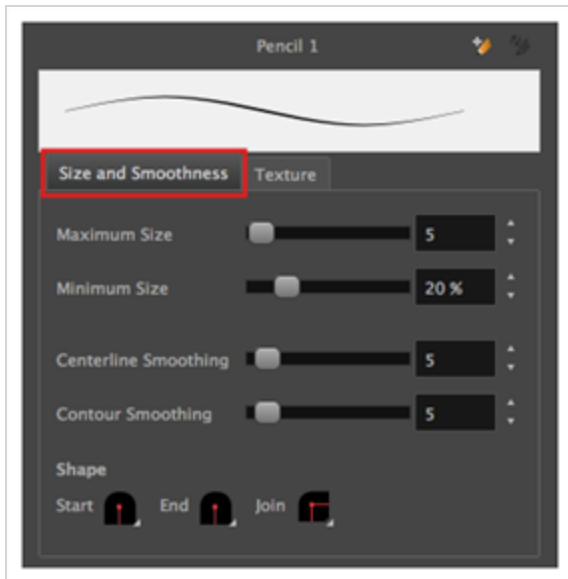
## Pencil Properties Dialog

Since the Line tool draws pencil lines, you can use the Pencil Properties dialog to customize the type of lines it draws. To open the Pencil Properties dialog, click on the arrow button right of the stroke display area.

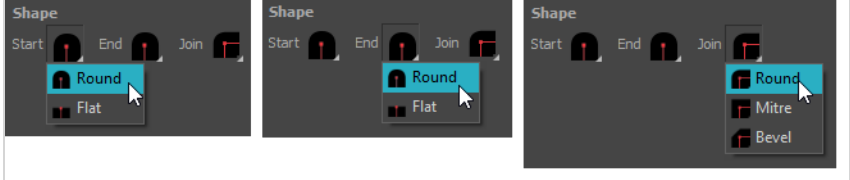


## Size and Smoothness Tab

The Size and Smoothness tab allows you to select your pencil's size, its smoothing parameters as well as the shape of its tips and corners.









Property	Description
Maximum Size	Defines the maximum size of the pencil line. If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.
Minimum Size	Defines the minimum size of your stroke as a percentage of the maximum size. If you do not have pressure sensitivity from a pen table, the minimum size value will be ignored.
Centerline Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the central line of the pencil stroke. A higher setting will prevent your line from being shaky and will reduce the amount of control points it has, making it easier to tweak, but is liable to reduce drawing precision and turn sharp angles into curves.

Property	Description
Contour Smoothing	<p>Defines the amount of smoothing Storyboard Pro should perform on the outer contour of the pencil stroke.</p> <p>A pencil line is defined by its centreline and its variations in thickness, rather than its apparent shape. When drawing a pencil line with a mouse, its thickness is uniform. Therefore, its outer contour does not have any control point, except at its extremities, and no smoothing is required for its contour.</p> <p>However, when drawing a pencil line with a pressure sensitive tablet, its contour will have control points and Bezier curves to define the line's variations in thickness, and thus smoothing must be performed on its contour. An increased contour smoothing will reduce the amount of control points on the line's thickness and smoothen its curves, but may affect the precision of the variations in line thickness.</p>
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>

## Texture Tab

In the Pencil Properties view, the Texture Tab allows you to select a texture to apply to your pencil lines. You can also add, remove or rename textures, save the current pencil texture palette as the default one, or import the pencil texture palette into your scene.



Icon	Property	Description
	New Texture	Allows you to import an image file into a new pencil texture swatch in the current pencil texture palette. The pencil texture's effect on your pencil line will be based on the image's transparency channel, and will follow your pencil lines on its horizontal axis. This option is also available from the menu  button.
	Delete Texture	Deletes a pencil texture swatch from the current pencil texture palette. This option is also available from the menu  button.
	Rename Texture	Renames the selected pencil texture swatch in the current pencil texture palette. This option is also available from the menu  button.
	Use as Default Pencil Texture Palette	This option is available from the menu  button. Sets the currently selected pencil texture palette as the default pencil texture palette in your user preferences. The default pencil texture palette is added to every scene you create in Storyboard Pro. The palette is copied in your preferences, so it will be added to your new scenes in the exact state it is when you make it the default pencil texture palette.
	Pencil Texture Display	Displays the pencil textures in the current pencil texture palette and allows you to select one to use with the Pencil tool.

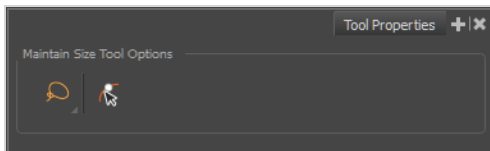
## Maintain Size Tool Properties






The Maintain Size tool lets you retain the visual scale of elements as you move them in the Z-axis in the Side or Top views. As you move drawing layers on the Z-axis, they are scaled to preserve their size in the camera.

### How to access the Maintain Size tool properties

1. In the Tools toolbar, select the Maintain Size  tool.

The tool's properties are displayed in the Tool Properties view.



Icon	Property	Description
<b>Maintain Size Tool Properties</b>		
	Selection Mode	<p>Allows you to choose the method to visually select multiple elements:</p> <ul style="list-style-type: none"> <li>•  <b>Lasso:</b> Allows you to select multiple elements by drawing an irregular closed shape around them with your mouse.</li> <li>•  <b>Marquee:</b> Allows you to select multiple elements by drawing a rectangle around them. This is faster, as you only need to drag your mouse from one corner of the rectangle to its opposite corner, but it may not be as precise as you want.</li> </ul> <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;">  <b>TIP</b>            You can press and hold the Alt key to temporarily use the other selection mode.         </div>
	Peg Selection Mode	Lets you switch between selecting peg and drawing layers. Select this option to select peg layers. Deselect this option to select drawing layers.

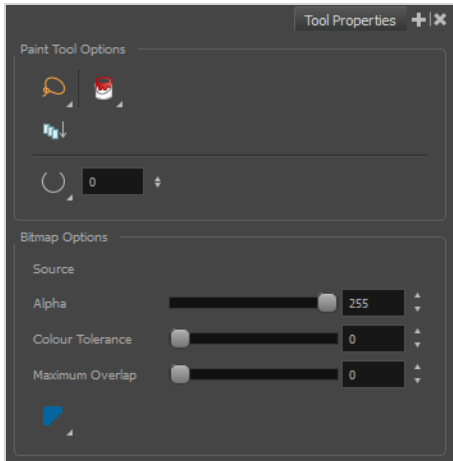
## Paint Tool Properties

The Paint tool allows you to fill closed areas of your drawing with the selected colour.







### How to access the Paint tool properties

1. In the Tools toolbar, select the Paint , Paint Unpainted  or Unpaint  tool.








The tool's properties are displayed in the Tool Properties view.



### Paint Tool Options

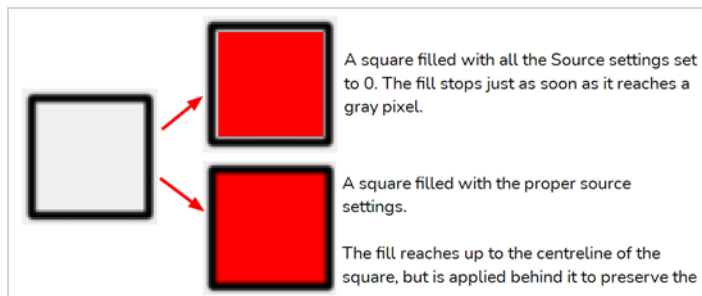
Icon	Property	Description
	Selection Mode	<p>Allows you to choose the method to visually select multiple elements:</p> <ul style="list-style-type: none"> <li>•  <b>Lasso:</b> Allows you to select multiple elements by drawing an irregular closed shape around them with your mouse.</li> <li>•  <b>Marquee:</b> Allows you to select multiple elements by drawing a rectangle around them. This is faster, as you only need to drag your mouse from one corner of the rectangle to its opposite corner, but it may not be as precise as you want.</li> </ul> <div style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;"> <p> <b>TIP</b> You can press and hold the Alt key to temporarily use the other selection mode.</p> </div>
	Paint Mode	<p>The Paint tool has three different modes:</p> <ul style="list-style-type: none"> <li>•  <b>Paint:</b> Paints or repaints selected zones, whether or not they are already filled.</li> </ul>




Icon	Property	Description
		<ul style="list-style-type: none"> <li>•  <b>Paint Unpainted:</b> Only paints empty zones, and does not repaint zones that are already filled with colour.</li> <li>•  <b>Unpaint:</b> Removes colour from the selected zone, replacing it with transparency.</li> </ul>
	Close Gap	<p>By default, if you attempt to fill a shape that has a small gap in its contour, the Paint tool will not be able to fill the shape. This option allows you to make the Paint tool automatically add a stroke to close the shape when it detects a small gap between two strokes in the shape.</p> <p>The Close Gap setting can be set to a value between 0 and 10. This determines the maximum size of a gap to close, in pixels. You can also use one of the following presets:</p> <ul style="list-style-type: none"> <li>•  <b>No Close Gap:</b> Sets the Close Gap setting to 0, disabling the feature.</li> <li>•  <b>Close Small Gap:</b> Sets the Close Gap setting to 2, making the Paint tool close gaps that are barely visible.</li> <li>•  <b>Close Medium Gap:</b> Sets the Close Gap setting to 4, making the Paint tool close gaps that are somewhat visible.</li> <li>•  <b>Close Large Gap:</b> Sets the Close Gap setting to 8, making the Paint tool close gaps that are easy to notice.</li> </ul>




## Bitmap Options

Since bitmap drawings are made of pixels instead of shapes, and that the outlines of shapes in bitmap drawings are often feathered, it can be complicated to figure out exactly the area the Paint tool must fill when trying to fill a zone in a bitmap drawing. For example, if the Paint tool only replaces pixels with the exact same colour as the one you click on with the selected colour, it will leave a small gap near the outlines of the shape.



The following settings determine how the Paint tool figures out the area it must fill. When any of these settings are increased, the Paint tool's tolerance for colour or alpha differences increases and it will a bigger area that it otherwise would.

Icon	Property	Description
--	Alpha	<p>The alpha threshold that separates opaque and transparent zones. When filling a "transparent" zone, the paint tool will apply the colour under semi-transparent pixels, making them opaque. Then filling an "opaque" zone, the paint tool will replace the colour of semi-transparent pixels without affecting their transparency.</p> <p>If you want to repaint lineart or shapes that have no outlines, you can do so by decreasing this setting completely. This will make it fill any pixel that isn't 100% transparent, so it will paint your outlines completely. However, if you're using this method to repaint outlines, they must not be filled yet for this method to work.</p> <p>If you want to paint transparent zones that have dirt or semi-transparent spots, you can increase this setting to make the Paint tool paint behind them instead of around them.</p> <div data-bbox="657 808 1429 1039" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b></p> <p>Raising this setting too high may cause the paint tool to ignore outlines that are not 100% opaque, which can cause it to think the shape is not closed. Hence, it might fail to find a zone to fill and not do anything.</p> </div>
--	Colour Tolerance	<p>The amount of tolerance the paint tool has for changes in colour when filling an area. Raising this setting will allow the paint tool to fill over areas that have some variations in colour, but may cause it to fill beyond the areas you meant to paint.</p>
--	Maximum Overlap	<p>The maximum amount of pixels beyond the fillable zone that the Paint tool can fill.</p> <p>When this setting is set to any value above zero, the paint tool will fill the zone until it finds a pixel that is a different colour, value or transparency as the one you clicked on. Then, it will start filling pixels beyond that point, up until it filled the amount of pixels in the Maximum Overlap setting.</p> <p>If it lands outside of a fillable zone before it reached the maximum overlap, it will stop filling at that point. However, if it lands into another fillable zone before reaching its maximum overlap, it will fill that zone as well. Therefore, if you're filling shapes inside other shapes, you have to set this setting to the approximate width of your outlines. Setting it higher will make the colour spill beyond the zone you clicked on and fill the zone outside of it, and setting it lower is liable to leave a small gap between the fill and the outlines.</p>


Icon	Property	Description
		<div data-bbox="657 283 1430 674" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>When you fill a zone with overlap, Storyboard Pro tries to detect and preserve the outlines of your shape. This is easy to do when filling a transparent shape, or when repainting a shape made of solid outlines and a solid fill. However, if you are trying to repaint an already painted zone, it may fail to detect your outlines and may repaint over them if the colour of your outlines or inside the shape isn't consistent. Therefore, it is highly recommended to avoid repainting painted zones as much as possible when working with bitmap layers.</p> </div>
	Antialiasing	<p>When enabled, the outlines of the fill will be smoothed so that they do not look pixelated.</p> <div data-bbox="657 829 1430 1031" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>The effect of this setting will not be visible if you fill all the way to the outlines, as the Paint tool will preserve the antialiasing of existing outlines when filling up to them.</p> </div>

## Pencil Tool Properties

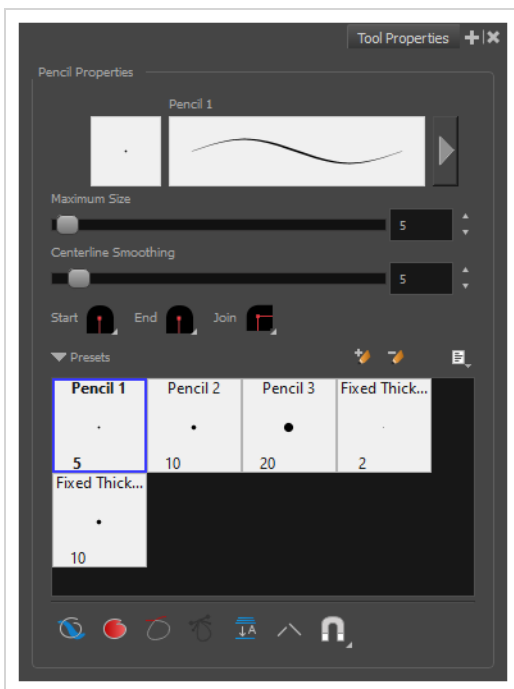
The Pencil tool allows you to draw simple contour lines that are defined by their centerline and their thickness.

When you select the Pencil tool, the Tool Properties view displays the different Pencil modes that control how the pencil line is drawn.

### How to access the Pencil tool properties


1. In the Tools toolbar, select the Pencil  tool.


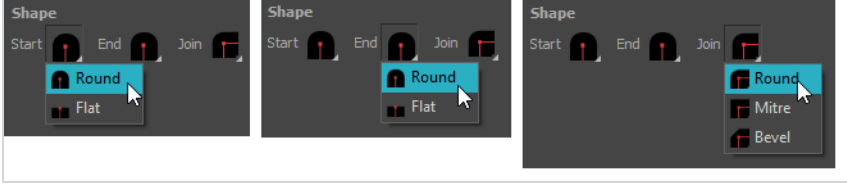
The tool's properties are displayed in the Tool Properties view.



## Pencil Properties




The following properties affect the pencil's size, smoothing, shape and other properties for the drawing style of your pencil. Those properties can be saved into pencil presets for later use.

Property	Description
Preview Area	<p>The Preview area lets you see a preview of the stroke your drawing tool will make.</p> 

Property	Description
Pencil Properties Dialog	<p>The arrow button right of the preview area opens the Pencil Properties dialog.</p>  <p>While the Tool Properties view only gives you access to a few of the pencil properties, a list of pencil presets and other drawing options, the Pencil Properties dialog gives you access to all the available options for your pencil's shape and texture. For more information on the Pencil Properties dialog, see the <a href="#">Pencil Properties Dialog</a> section below.</p>
Maximum Size	<p>Defines the maximum width of the pencil line.</p> <p>If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.</p>
Centerline Smoothing	<p>Defines the number of control points added to the centre line. The fewer the control points the smoother (but less faithful) the line.</p>
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>


## Pencil Presets




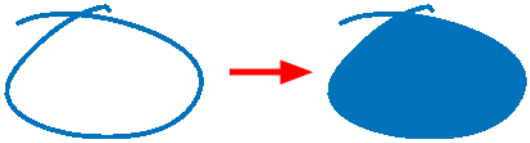



These options allow you to select, create and manage pencil presets.

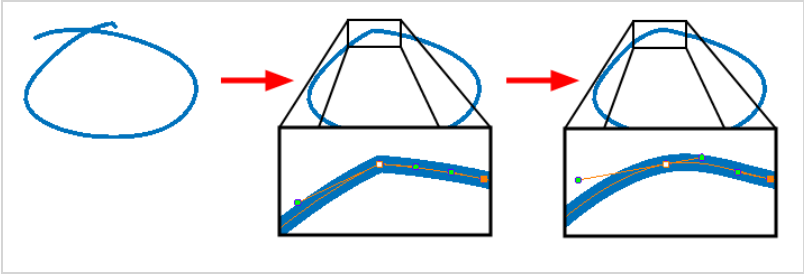

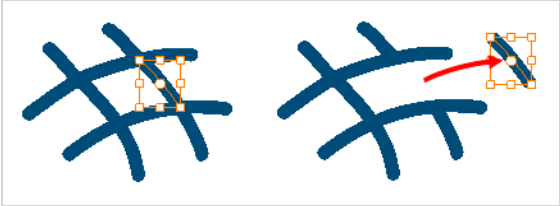


Icon	Property	Description
	Presets list	<p>Storyboard Pro provides a few pencil presets and also lets you create and save your own. It is a good idea to create and save pencils with precise sizes and parameters when you draw for efficiency and consistency.</p> <p>You can export the pencil presets that you have created and import those that others have created. This is a good way for you and project collaborators to keep a consistent look for the project.</p>
	New Brush Preset	Creates a new preset based on the current tool properties.
	Delete Brush Preset	Deletes the currently selected preset.
	Brush Presets Menu	<p>Open a menu that contains the following options:</p> <ul style="list-style-type: none"> <li>• <b>New Brush Preset:</b> Creates a new preset based on the current tool properties.</li> <li>• <b>Delete Brush:</b> Deletes the currently selected preset.</li> <li>• <b>Rename Brush:</b> Allows you to rename the currently selected preset.</li> <li>• <b>Import Brushes:</b> Allows you to import brush presets exported from Storyboard Pro.</li> <li>• <b>Export Brushes:</b> Allows you to export your brush presets into an <code>.xml</code> file.</li> <li>• <b>Small Thumbnail:</b> Displays presets in a grid of small thumbnails with a preview of their tip.</li> <li>• <b>Large Thumbnail:</b> Displays presets in a grid of big thumbnails, with their name and a preview of their tip.</li> <li>• <b>Stroke View:</b> Displays presets in a list, with their name and a preview of a stroke done with each preset.</li> </ul>

## Drawing Options

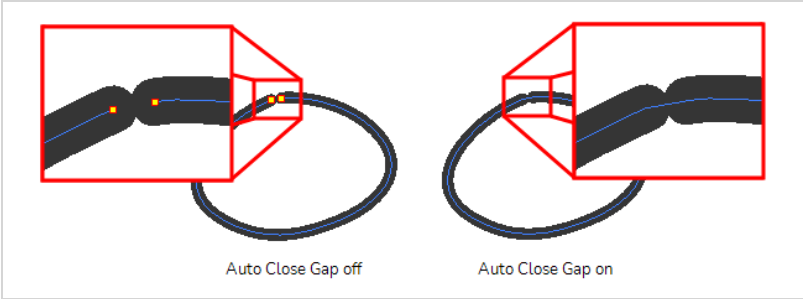

These options affect the way your drawing strokes are added to your artwork.

Icon	Property	Description
	Draw Behind	When enabled, your brush strokes will appear behind the existing artwork.

Icon	Property	Description
		<div data-bbox="634 281 1105 478">  <p>The orange stroke was drawn over the black stroke, then put underneath it.</p> </div> <div data-bbox="634 516 1430 785" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b></p> <p>Your brush stroke will temporarily appear over your artwork as you draw it, until you release the mouse cursor or tablet pen. If you want a live preview of your stroke, activate the Realistic Preview option by selecting <b>View &gt; Realistic Preview</b> from the top menu.</p> </div>
	Auto Fill	<p>When enabled, drawing a closed shape will automatically fill it with the currently selected Paint colour.</p> <div data-bbox="634 932 1214 1115">  </div>
	Trim Extra Lines	<p>When enabled, drawing a closed shape will automatically remove the outstanding lines.</p> <div data-bbox="634 1272 1219 1455">  </div>
	Align Handles After Trim	<p>When the Trim Extra Lines option is enabled, enable this option to make the point where the beginning and end of the stroke meet into a smooth curve rather than a hard corner.</p>

Icon	Property	Description
		
	<p>Auto Flatten</p>	<p>By default, when drawing on a vector layer, each new stroke is created as a separate drawing object, which can be edited independently from other parts of the artwork. When enabled, the Auto-Flatten option automatically merges strokes into existing artwork.</p>  <div data-bbox="634 1026 1430 1262" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b></p> <p>Using the Select tool, you can select and remove a segment of flattened pencil lines. Overlapping pencil lines drawn with the Auto-Flatten mode are essentially cut into segments by the overlap and can be treated as individual lines.</p> </div>
	<p>Auto-Close Gap</p>	<p>When enabled, small gaps between the pencil lines you draw will be closed by an invisible stroke to make sure your shapes are closed and that they can be filled with the Paint tool.</p> <p>When drawing contours with pencil lines, the centreline is used to determine whether or not the contour is closed, but the visible tips of the pencil line will extend a bit beyond the tips of its centreline, making it possible to have shapes that appear closed, but are not really. This can prevent the shape from being filled with the Paint tool. Enabling this option when drawing with the Pencil or Line tool will prevent you from leaving invisible gaps in your contours.</p>



Icon	Property	Description
		
	Snapping	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping mode:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Alignment Guides:</b> While drawing, the drawing tool will snap against nearby alignment guides.</li> </ul>

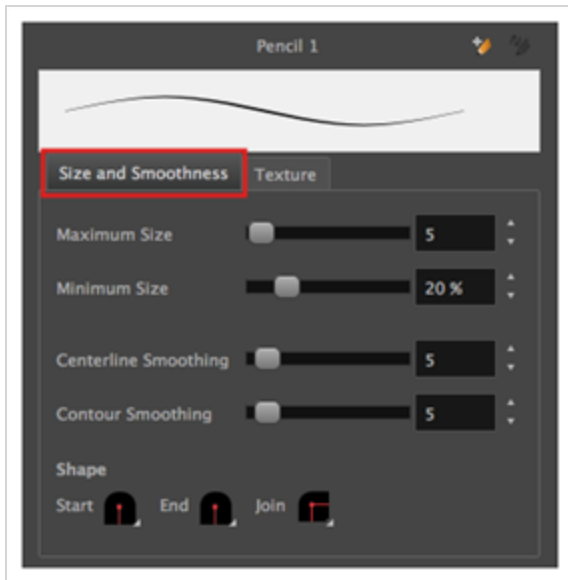
## Pencil Properties Dialog

Pencils have extra parameters which are not accessible from the Tool Properties view. To open the Pencil Properties dialog, click on the arrow button right of the stroke display area.

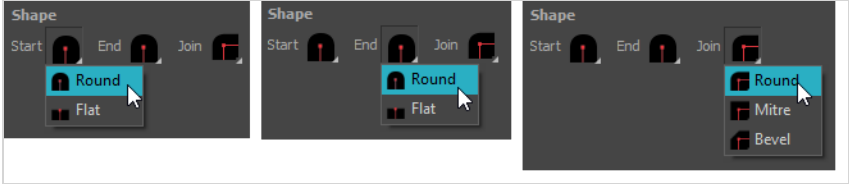


## Size and Smoothness Tab

The Size and Smoothness tab allows you to select your pencil's size, its smoothing parameters as well as the shape of its tips and corners.









Property	Description
Maximum Size	Defines the maximum size of the pencil line. If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.
Minimum Size	Defines the minimum size of your stroke as a percentage of the maximum size. If you do not have pressure sensitivity from a pen table, the minimum size value will be ignored.
Centerline Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the central line of the pencil stroke. A higher setting will prevent your line from being shaky and will reduce the amount of control points it has, making it easier to tweak, but is liable to reduce drawing precision and turn sharp angles into curves.
Contour Smoothing	<p>Defines the amount of smoothing Storyboard Pro should perform on the outer contour of the pencil stroke.</p> <p>A pencil line is defined by its centreline and its variations in thickness, rather than its apparent shape. When drawing a pencil line with a mouse, its thickness is uniform. Therefore, its outer contour does not have any control point, except at its extremities, and no smoothing is required for its contour.</p> <p>However, when drawing a pencil line with a pressure sensitive tablet, its contour will have control points and Bezier curves to define the line's variations in thickness, and thus smoothing must be performed on its contour. An increased contour smoothing will reduce the amount of control points on the line's thickness and smoothen its curves, but may affect the precision of the variations in line thickness.</p>

Property	Description
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>

## Texture Tab

In the Pencil Properties view, the Texture Tab allows you to select a texture to apply to your pencil lines. You can also add, remove or rename textures, save the current pencil texture palette as the default one, or import the pencil texture palette into your scene.



Icon	Property	Description
	New Texture	Allows you to import an image file into a new pencil texture swatch in the current pencil texture palette. The pencil texture's effect on your pencil line will be based on the image's transparency channel, and will follow your pencil lines on its horizontal axis. This option is also available from the menu  button.
	Delete Texture	Deletes a pencil texture swatch from the current pencil texture palette. This option is also available from the menu  button.
	Rename Texture	Renames the selected pencil texture swatch in the current pencil texture palette. This option is also available from the menu  button.
	Use as Default Pencil Texture Palette	This option is available from the menu  button. Sets the currently selected pencil texture palette as the default pencil texture palette in your user preferences. The default pencil texture palette is added to every scene you create in Storyboard Pro. The palette is copied in your preferences, so it will be added to your new scenes in the exact state it is when you make it the default pencil texture palette.
	Pencil Texture Display	Displays the pencil textures in the current pencil texture palette and allows you to select one to use with the Pencil tool.

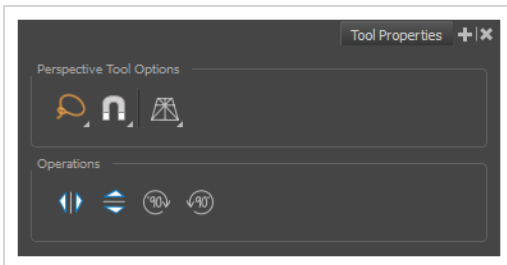
## Perspective Tool Properties






The perspective tool allows you to deform artwork by creating a rectangular bounding box around it and allowing you to manipulate any of the four corners. The selected artwork will be deformed to fit the shape you make by simulating a perspective effect.





### How to access the Perspective tool properties

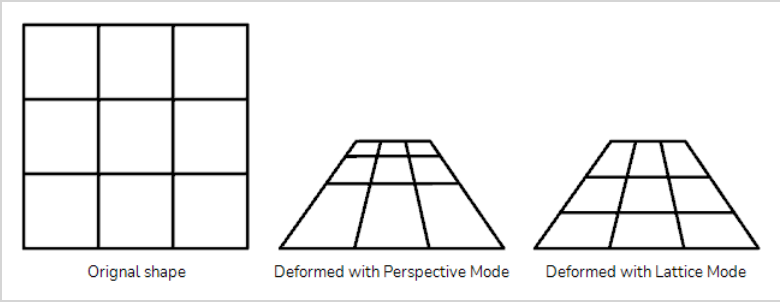




1. In the Tools toolbar, select the Perspective  tool.

The tool's properties are displayed in the Tool Properties view.



Icon	Tool Name	Description
<b>Perspective Tool Options</b>		
	Selection Mode	<p>Allows you to choose the method to visually select multiple elements:</p> <ul style="list-style-type: none"> <li>•  <b>Lasso:</b> Allows you to select multiple elements by drawing an irregular closed shape around them with your mouse.</li> <li>•  <b>Marquee:</b> Allows you to select multiple elements by drawing a rectangle around them. This is faster, as you only need to drag your mouse from one corner of the rectangle to its opposite corner, but it may not be as precise as you want.</li> </ul> <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;"> <p> <b>TIP</b> You can press and hold the Alt key to temporarily use the other selection mode.</p> </div>
	Snapping	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also</p>

Icon	Tool Name	Description
		<p>click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping modes:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Contour:</b> While moving the selection or one of its control points, it will snap against the nearby points and contours of your artwork, allowing you to snap parts of your artwork together.</li> <li>• <b>Snap to Alignment Guides:</b> While moving the selection or one of its control points, it will snap against nearby alignment guides.</li> <li>• <b>Snap and Align:</b> When enabled, while moving a selection, the rectangular bounding box of the selection will snap to the rectangular bounding box of any other drawing stroke in the drawing, allowing you to align drawing strokes laterally.</li> <li>• <b>Snap to Grid:</b> While moving the selection, the mouse cursor will snap against the intersecting points of the grid.</li> </ul> <div data-bbox="737 1003 1429 1178" style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;">  <b>TIP</b>  To display the grid, select <b>View &gt; Grid &gt; Show Grid</b> from the top menu or press <b>Ctrl + G</b>. </div>
	Deformation Mode	<p>Allows you to select between one of the two following deformation modes:</p> <ul style="list-style-type: none"> <li>•  <b>Perspective:</b> Deforms the selection by simulating a perspective effect.</li> <li>•  <b>Lattice:</b> Deforms the selection by simply making the artwork fit the bounding box, without applying a perspective effect.</li> </ul> <p>The difference between both modes becomes easier to understand if you apply a transformation to a drawing of a grid to make it look like it's laid down on a surface:</p>

Icon	Tool Name	Description
		 <p>Original shape      Deformed with Perspective Mode      Deformed with Lattice Mode</p>
<b>Operations</b>		
	Flip Horizontal	Flips the selection horizontally.
	Flip Vertical	Flips the selection vertically.
	Rotate 90 CW	Rotates the selection 90° clockwise.
	Rotate 90 CCW	Rotates the selection 90° counterclockwise.

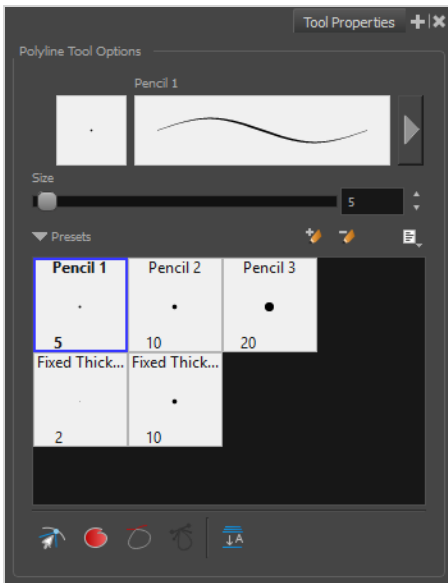
## Polyline Tool Properties

The Polyline tool allows you to draw complex lines or shapes by defining each point and their Bezier handles one by one.

### How to access the Polyline tool properties


1. In the Tools toolbar, select the Polyline  tool.

The tool's properties are displayed in the Tool Properties view.




## Pencil Properties




Just like other shape tools, this tool creates pencil lines. Hence, its tool properties are similar to the ones of the Pencil tool and it can be used with pencil presets.

Icon	Property	Description
	Preview Area	<p>The Preview area lets you see a preview of the stroke your drawing tool will make.</p> 
	Pencil Properties Dialog	<p>The arrow button right of the preview area opens the Pencil Properties dialog.</p>




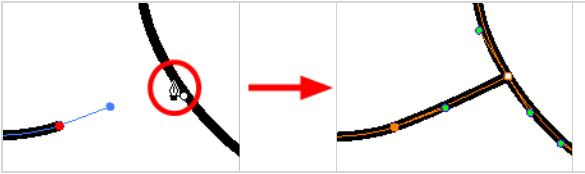




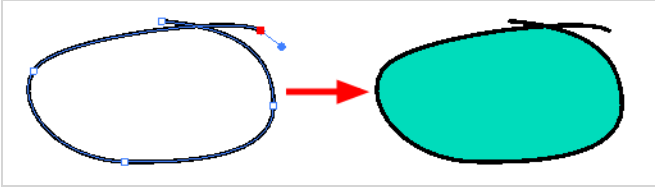

		 <p>While the Tool Properties view only gives you access to the pencil size, a list of pencil presets and other drawing options, the Pencil Properties dialog gives you access to all the available options for your pencil's shape and texture. For more information on the Pencil Properties dialog, see the <a href="#">Polyline Tool Properties</a> section below.</p>
	Size	Defines the width of the pencil line used to draw the shape.

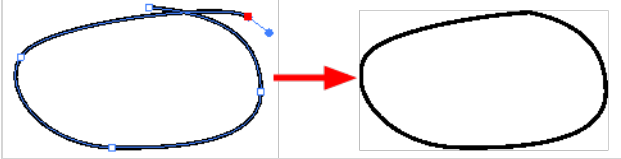

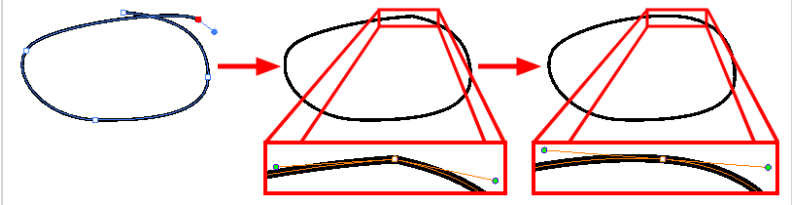

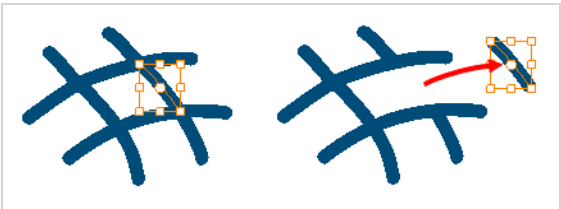

## Pencil Presets

Icon	Property	Description
	Presets list	<p>Storyboard Pro provides a variety of presets and also lets you create and save your own. It is a good idea to create and save pencils with precise sizes and parameters when you draw and design for efficiency and consistency.</p> <p>All tools using pencil lines share the same preset list. Therefore, the Polyline, Line, Rectangle, Ellipse, and Pencil tools share the same preset list.</p>
	New Preset	Creates a new preset based on the current tool properties.
	Delete Preset	Deletes the currently selected preset.
	Presets Menu	Gives access to more options for managing presets.
	Rename Brush	Allows you to rename the currently selected preset.
	Import Brushes	Allows you to import brush presets exported from Storyboard Pro.
	Export Brushes	Allows you to export your brush presets into an <b>.xml</b> file.
	Small Thumbnail	Displays presets in a grid of small thumbnails with a preview of their tip.
	Large Thumbnail	Displays presets in a grid of big thumbnails, with their name and a preview of their tip.

	Stroke View	Displays presets in a list, with their name and a preview of a stroke done with each preset.
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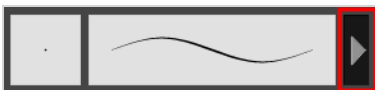
## Drawing Options

Icon	Property	Description
	Snap to Contour	<p>When this option is enabled, clicking close to a contour in your drawing will add the point to that contour. The line you are building will be linked to that contour.</p>  <p>If this option is disabled, attempting to click on existing contours will always create a point very close to that contour, but not exactly on it. Therefore, it is necessary to enable this mode if you want to create lines that branch from into existing contours in your drawing.</p> <div style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>If you draw a line with the Line tool and make its tip snap to a contour or another control point in your artwork, they will be locked together. You can then manipulate both simultaneously using the  Contour Editor tool. You can also separate two drawing strokes that have been snapped together by selecting one of them with the  Select tool and moving it away.</p> </div>
	Auto Fill	<p>When enabled, drawing a closed shape will automatically fill it with the currently selected Paint colour.</p> 
	Trim Extra Lines	<p>When enabled, drawing a closed shape will automatically remove the outstanding lines.</p>

		
	<p>Align Handles After Trim</p>	<p>When the Trim Extra Lines option is enabled, enable this option to make the point where the beginning and end of the stroke meet into a smooth curve rather than a hard corner.</p> 
	<p>Auto-Flatten Mode</p>	<p>By default, when drawing on a vector layer, each new stroke is created as a separate drawing object, which can be edited independently from other parts of the artwork. When enabled, the Auto-Flatten option automatically merges strokes into existing artwork.</p>  <div data-bbox="649 1228 1429 1459" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b></p> <p>Using the Select tool, you can use select and remove a segment of flattened pencil lines. Overlapping pencil lines drawn with the Auto-Flatten mode are essentially cut into segments by the overlap and can be treated as individual lines.</p> </div>

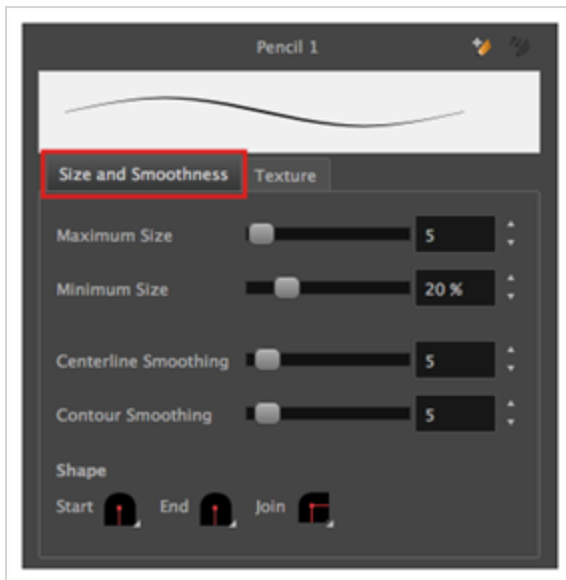
## Pencil Properties Dialog

The Polyline tool draws the same type of line as the Pencil tool. Hence, you can configure the Polyline tool's lines using the Pencil Properties dialog, which you can open by clicking on the arrow button right of the stroke display area in the Tool Properties view.

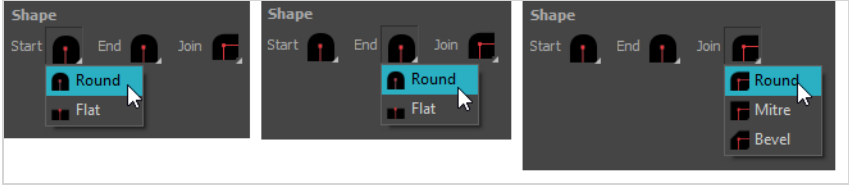


## Size and Smoothness Tab

The Size and Smoothness tab allows you to select your pencil's size, its smoothing parameters as well as the shape of its tips and corners.



Property	Description
Maximum Size	Defines the maximum size of the pencil line. If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.
Minimum Size	Defines the minimum size of your stroke as a percentage of the maximum size. If you do not have pressure sensitivity from a pen table, the minimum size value will be ignored.
Centerline Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the central line of the pencil stroke. A higher setting will prevent your line from being shaky and will reduce the amount of control points it has, making it easier to tweak, but is liable to reduce drawing precision and turn sharp angles into curves.
Contour Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the outer contour of the pencil stroke.  A pencil line is defined by its centreline and its variations in thickness, rather than its apparent shape. When drawing a pencil line with a mouse, its thickness is uniform. Therefore, its outer contour does not have any control point, except at its extremities, and no smoothing is required for its contour.  However, when drawing a pencil line with a pressure sensitive tablet, its contour will

Property	Description
	<p>have control points and Bezier curves to define the line's variations in thickness, and thus smoothing must be performed on its contour. An increased contour smoothing will reduce the amount of control points on the line's thickness and smoothen its curves, but may affect the precision of the variations in line thickness.</p>
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>

## Texture Tab

In the Pencil Properties view, the Texture Tab allows you to select a texture to apply to your pencil lines. You can also add, remove or rename textures, save the current pencil texture palette as the default one, or import the pencil texture palette into your scene.



Icon	Property	Description
	New Texture	Allows you to import an image file into a new pencil texture swatch in the current pencil texture palette. The pencil texture's effect on your pencil line will be based on the image's transparency channel, and will follow your pencil lines on its horizontal axis. This option is also available from the menu  button.
	Delete Texture	Deletes a pencil texture swatch from the current pencil texture palette. This option is also available from the menu  button.
	Rename Texture	Renames the selected pencil texture swatch in the current pencil texture palette. This option is also available from the menu  button.
	Use as Default Pencil Texture Palette	This option is available from the menu  button. Sets the currently selected pencil texture palette as the default pencil texture palette in your user preferences. The default pencil texture palette is added to every scene you create in Storyboard Pro. The palette is copied in your preferences, so it will be added to your new scenes in the exact state it is when you make it the default pencil texture palette.
	Pencil Texture Display	Displays the pencil textures in the current pencil texture palette and allows you to select one to use with the Pencil tool.

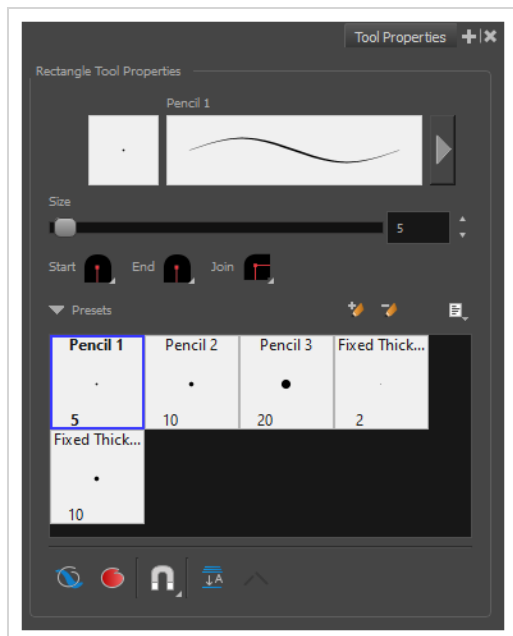
## Rectangle Tool Properties

The Rectangle tool allows you to quickly draw a rectangle or a square.

### How to access the Rectangle tool properties


1. In the Tools toolbar, select the Rectangle  tool.


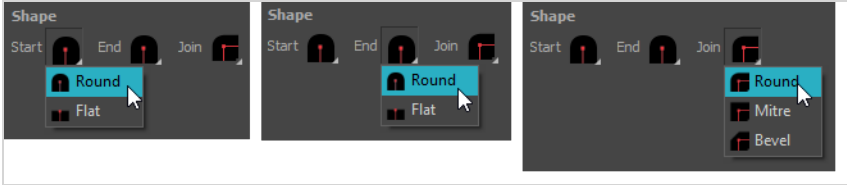
The tool's properties are displayed in the Tool Properties view.



## Pencil Properties


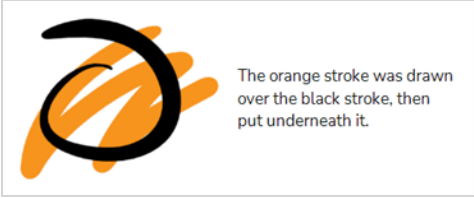
Just like other shape tools, this tool creates pencil lines. Hence, its tool properties are similar to the ones of the Pencil tool and it can be used with pencil presets.

Property	Description
Preview Area	The Preview area lets you see a preview of the stroke your drawing tool will make. 
Pencil Properties Dialog	The arrow button right of the preview area opens the Pencil Properties dialog.



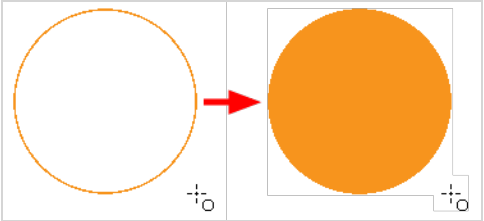


Property	Description
	 <p>While the Tool Properties view only gives you access to a few of the pencil properties, a list of pencil presets and other drawing options, the Pencil Properties dialog gives you access to all the available options for your pencil's shape and texture. For more information on the Pencil Properties dialog, see the <a href="#">Pencil Properties Dialog on page 454</a> section below.</p>
Size	<p>Defines the width of the pencil line used to draw the shape.</p>
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>

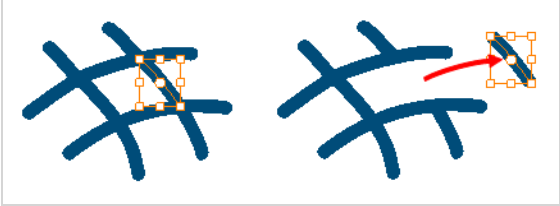

## Drawing Options

These options affect the way your shape is added to your artwork.

Icon	Property	Description
	<p>Draw Behind</p>	<p>When enabled, your brush strokes will appear behind the existing artwork.</p>  <p>The orange stroke was drawn over the black stroke, then put underneath it.</p>






Icon	Property	Description
		<div data-bbox="634 283 1430 552" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>Your brush stroke will temporarily appear over your artwork as you draw it, until you release the mouse cursor or tablet pen. If you want a live preview of your stroke, activate the Realistic Preview option by selecting <b>View &gt; Realistic Preview</b> from the top menu.</p> </div>
	Auto Fill	<p>When enabled, the shape you draw is automatically filled with the selected colour. By default, drawing a shape only creates its outlines.</p> 
	Snapping	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping modes:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Contour:</b> When enabled, while you're drawing, the mouse cursor will snap to the nearby contours of the artwork in your drawing.</li> <li>• <b>Snap to Alignment Guides:</b> While drawing, the drawing tool will snap against nearby alignment guides.</li> <li>• <b>Snap and Align:</b> When enabled, while you're drawing, the mouse cursor will automatically align to the rectangular bounding boxes of other strokes and shapes in your drawing.</li> </ul>
	Auto Flatten Mode	<p>By default, when drawing on a vector layer, each new stroke is created as a separate drawing object, which can be edited independently from other parts of the artwork. When enabled, the Auto-Flatten option automatically merges strokes into existing artwork.</p>

Icon	Property	Description
		 <div data-bbox="634 527 1430 758" style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>Using the Select tool, you can use select and remove a segment of flattened pencil lines. Overlapping pencil lines drawn with the Auto-Flatten mode are essentially cut into segments by the overlap and can be treated as individual lines.</p> </div>

## Pencil Presets

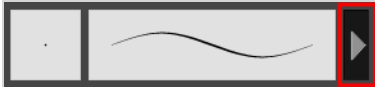
These options allow you to select, create and manage pencil presets.

Icon	Property	Description
	Presets list	<p>Storyboard Pro provides a few pencil presets and also lets you create and save your own. It is a good idea to create and save pencils with precise sizes and parameters when you draw for efficiency and consistency.</p> <p>You can export the pencil presets that you have created and import those that others have created. This is a good way for you and project collaborators to keep a consistent look for the project.</p>
	New Brush Preset	Creates a new preset based on the current tool properties.
	Delete Brush Preset	Deletes the currently selected preset.
	Brush Presets Menu	<p>Open a menu that contains the following options:</p> <ul style="list-style-type: none"> <li>• <b>New Brush Preset:</b> Creates a new preset based on the current tool properties.</li> <li>• <b>Delete Brush:</b> Deletes the currently selected preset.</li> <li>• <b>Rename Brush:</b> Allows you to rename the currently selected preset.</li> <li>• <b>Import Brushes:</b> Allows you to import brush presets exported</li> </ul>

Icon	Property	Description
		<p>from Storyboard Pro.</p> <ul style="list-style-type: none"> <li>• <b>Export Brushes:</b> Allows you to export your brush presets into an <code>.xml</code> file.</li> <li>• <b>Small Thumbnail:</b> Displays presets in a grid of small thumbnails with a preview of their tip.</li> <li>• <b>Large Thumbnail:</b> Displays presets in a grid of big thumbnails, with their name and a preview of their tip.</li> <li>• <b>Stroke View:</b> Displays presets in a list, with their name and a preview of a stroke done with each preset.</li> </ul>

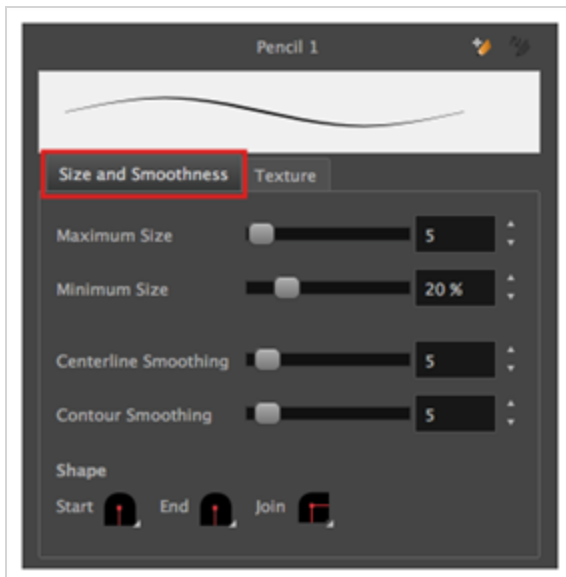
## Pencil Properties Dialog

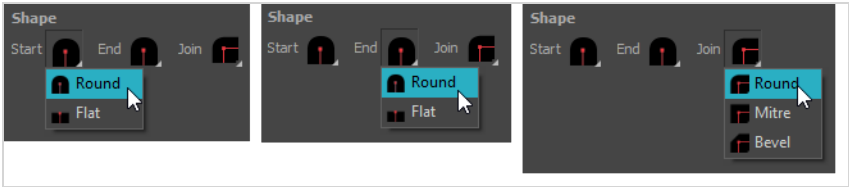
The Rectangle tool draws the same type of line as the Pencil tool. Hence, you can configure the Rectangle tool's lines using the Pencil Properties dialog, which you can open by clicking on the arrow button right of the stroke display area in the Tool Properties view.



## Size and Smoothness Tab

The Size and Smoothness tab allows you to select your pencil's size, its smoothing parameters as well as the shape of its tips and corners.



Property	Description
Maximum Size	Defines the maximum size of the pencil line. If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.
Minimum Size	Defines the minimum size of your stroke as a percentage of the maximum size. If you do not have pressure sensitivity from a pen table, the minimum size value will be ignored.
Centerline Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the central line of the pencil stroke. A higher setting will prevent your line from being shaky and will reduce the amount of control points it has, making it easier to tweak, but is liable to reduce drawing precision and turn sharp angles into curves.
Contour Smoothing	<p>Defines the amount of smoothing Storyboard Pro should perform on the outer contour of the pencil stroke.</p> <p>A pencil line is defined by its centreline and its variations in thickness, rather than its apparent shape. When drawing a pencil line with a mouse, its thickness is uniform. Therefore, its outer contour does not have any control point, except at its extremities, and no smoothing is required for its contour.</p> <p>However, when drawing a pencil line with a pressure sensitive tablet, its contour will have control points and Bezier curves to define the line's variations in thickness, and thus smoothing must be performed on its contour. An increased contour smoothing will reduce the amount of control points on the line's thickness and smoothen its curves, but may affect the precision of the variations in line thickness.</p>
Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>

## Texture Tab

In the Pencil Properties view, the Texture Tab allows you to select a texture to apply to your pencil lines. You can also add, remove or rename textures, save the current pencil texture palette as the default one, or import the pencil texture palette into your scene.



Icon	Property	Description
	New Texture	Allows you to import an image file into a new pencil texture swatch in the current pencil texture palette. The pencil texture's effect on your pencil line will be based on the image's transparency channel, and will follow your pencil lines on its horizontal axis. This option is also available from the menu  button.
	Delete Texture	Deletes a pencil texture swatch from the current pencil texture palette. This option is also available from the menu  button.
	Rename Texture	Renames the selected pencil texture swatch in the current pencil texture palette. This option is also available from the menu  button.
	Use as Default Pencil Texture Palette	This option is available from the menu  button. Sets the currently selected pencil texture palette as the default pencil texture palette in your user preferences. The default pencil texture palette is added to every scene you create in Storyboard Pro. The palette is copied in your preferences, so it will be added to your new scenes in the exact state it is when you make it the default pencil texture palette.

Icon	Property	Description
	Pencil Texture Display	Displays the pencil textures in the current pencil texture palette and allows you to select one to use with the Pencil tool.

## Select Tool Properties

The Select tool lets you select strokes and apply basic transformations such as repositioning, rotating, scaling or skewing, using the different handles of the bounding box.

If you have text or pencil lines selected with the Select tool, their properties will display in the Tool Properties view, allowing you to make changes to your selection.


### How to access the Select tool properties

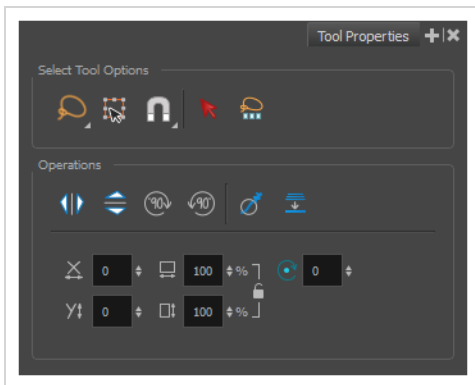
1. In the Tools toolbar, select either the Select  tool or the Select by Colour  tool.

The tool's properties are displayed in the Tool Properties view.









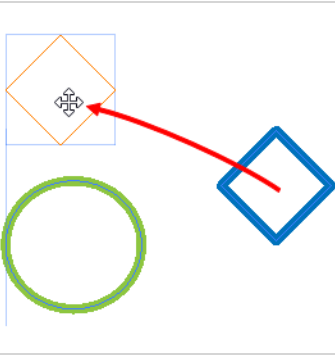
#### NOTE

Selecting the Select by Colour  tool from the Tools toolbar activates the Select tool, with the Select by Colour option enabled. Hence, this topic covers the tool properties for both the Select and Select by Colour tools.









## Tool Options





Icon	Property	Description
	Selection Mode	<p>Allows you to choose the method to visually select multiple elements:</p> <ul style="list-style-type: none"> <li>•  <b>Lasso:</b> Allows you to select multiple elements by drawing an irregular closed shape around them with your mouse.</li> <li>•  <b>Marquee:</b> Allows you to select multiple elements by drawing a rectangle around them. This is faster, as you only need to drag your mouse from one corner of the rectangle to its opposite corner, but it may not be as precise as you want.</li> </ul>


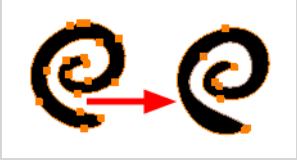

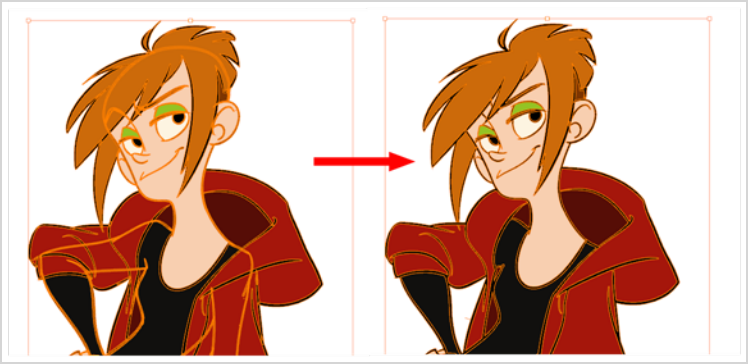






Icon	Property	Description
		<div data-bbox="641 283 1429 451" style="border: 1px solid #add8e6; padding: 10px;">  <p><b>TIP</b> You can press and hold the Alt key to temporarily use the other selection mode.</p> </div>
	<p>Easy Drag</p>	<p>When enabled, you can drag the selection by clicking anywhere inside its bounding box. By default, you must click on the artwork in the selection to be able to drag it.</p>
	<p>Snapping</p>	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping modes:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Contour:</b> While moving the selection or one of its control points, it will snap against the nearby points and contours of your artwork, allowing you to snap parts of your artwork together.</li> <li>• <b>Snap to Alignment Guides:</b> While moving the selection or one of its control points, it will snap against nearby alignment guides.</li> <li>• <b>Snap and Align:</b> While moving the selection, the rectangular bounding box of the selection will align with the rectangular bounding boxes of other strokes and shapes in your artwork. If you move one of your selection's control points, it will also align with the bounding boxes of other strokes and shapes in your artwork.</li> </ul> <div data-bbox="717 1497 1101 1850" style="border: 1px solid #ccc; padding: 10px; text-align: center;">  </div>



Icon	Property	Description
	Select by Colour	<p>When enabled, clicking on a coloured zone in your artwork will instantly select all the zones that are filled with the same colour.</p>  <div style="border: 1px solid #add8e6; padding: 10px; margin-top: 10px;"> <p> <b>TIP</b>            You can quickly enable this mode by selecting the Select by Colour  tool from the Tools toolbar, in the Select  tool's pop-up menu.</p> </div>
	Select All in Drawings Scene	Selects all the drawings in the current scene.

## Operations

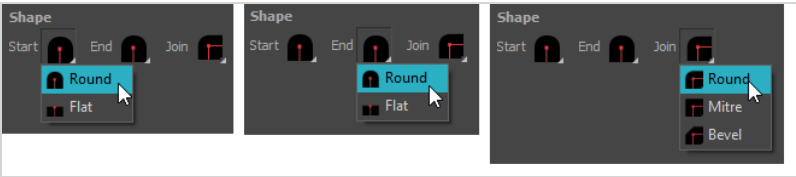
Icon	Property	Description
	Flip Horizontal	Flips the current selection horizontally.
	Flip Vertical	Flips the current selection vertically.
	Rotate 90 Degrees CW	Rotates the current selection 90 degrees clockwise.
	Rotate 90 Degrees CCW	Rotates the current selection 90 degrees counter-clockwise.







Icon	Property	Description
	Smooth	<p>Smooth out selected drawing strokes and remove extra points.</p> 
	Flatten	<p>Merges drawing objects and brush strokes into a single layer. If you draw new lines to fix a drawing or line with many brush strokes, it can be useful to flatten them all into a single shape. By default, lines are drawn one on top of each other. If you intend to repaint the lines or modify their shape, it will be easier if they are flattened.</p> 
	Offset X	Lets you enter a value to reposition the selection along the X-axis.
	Offset Y	Lets you enter a value to reposition the selection along the Y-axis.
	Width	Lets you enter a value to resize the width of the selection.
	Height	Lets you enter a value to resize the height of the selection.
	Lock	Locks or unlocks the ratio between the Width and Height values.
	Angle	Lets you enter specific values to rotate the selection. A positive value rotates the selection counter clockwise and a negative value rotates the selection clockwise.

## Pencil Selection

If the selection contains pencil lines, the Pencil Selection section appears at the bottom of the Tool Properties view, allowing you to adjust the properties of those pencil lines.



Icon	Property	Description
	Maximum Size	Adjusts the size of the parts of the pencil lines that are the thickest. Parts of the pencil lines that are between the minimum and maximum sizes will be adjusted proportionally.
	Minimum Size	Adjusts the size of the parts of the pencil lines that are the thinnest. Parts of the pencil lines that are between the minimum and maximum sizes will be adjusted proportionally.
	Pencil Line Shape	<p>You can adjust the start, end, and join style of a pencil line.</p>  <ul style="list-style-type: none"> <li>• <b>Start:</b> Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.</li> <li>• <b>End:</b> Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.</li> </ul>

Icon	Property	Description
		<ul style="list-style-type: none"> <li>• <b>Join:</b> Lets you select the joint style. The joints are where the line curves abruptly. You could also define the Join style as the corner style. You can choose between Round, Mitre and Bevel style.</li> </ul>
	New Texture	Allows you to import an image file into a new pencil texture swatch in the current pencil texture palette. The pencil texture's effect on your pencil line will be based on the image's transparency channel, and will follow your pencil lines on its horizontal axis. This option is also available from the menu  button.
	Delete Texture	Deletes a pencil texture swatch from the current pencil texture palette. This option is also available from the menu  button.
	Rename Texture	Renames the selected pencil texture swatch in the current pencil texture palette. This option is also available from the menu  button.
	Use as Default Pencil Texture Palette	This option is available from the menu  button. Sets the currently selected pencil texture palette as the default pencil texture palette in your user preferences. The default pencil texture palette is added to every scene you create in Storyboard Pro. The palette is copied in your preferences, so it will be added to your new scenes in the exact state it is when you make it the default pencil texture palette.
	Pencil Texture Display	Displays the pencil textures in the current pencil texture palette and allows you to select one to use with the Pencil tool.

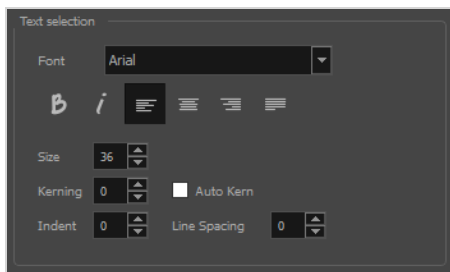
## Text Selection

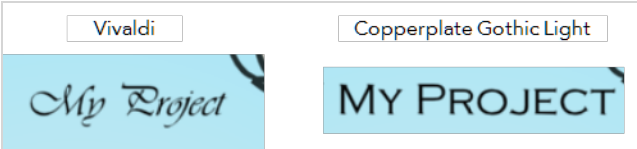



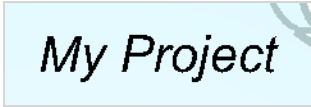

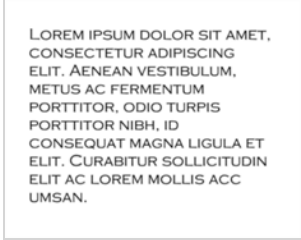

If your selection include text boxes created with the Text tool, a Text Selection section will appear at the bottom of the Tool Properties view, allowing you to adjust the formatting of the whole text box.





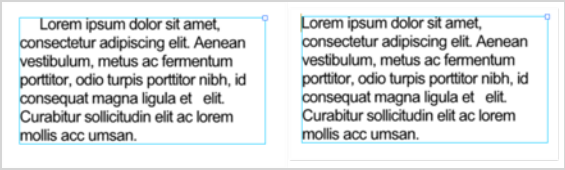
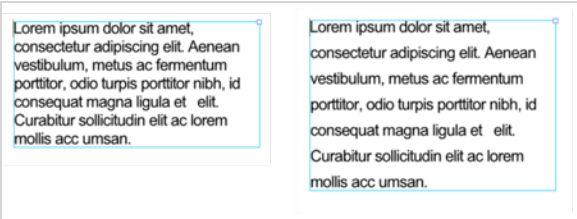
### TIP

You can also adjust the formatting of parts of the text in the text box using the Text tool—see [Text Tool Properties](#) on page 495.



Icon	Property	Description
	Font	Lets you select the font in which to display the text. 
	Bold	Makes the selected text bold. 
	Italic	Makes the selected text italic. 
	Align Left	Aligns the text in the selected text box to the left. 
	Align Center	Aligns the text in the selected text box to the centre.


Icon	Property	Description
		<div data-bbox="659 302 938 499" style="border: 1px solid black; padding: 5px; text-align: center;">                     LOREM IPSUM DOLOR SIT AMET,                      CONSECTETUR ADIPISCING                      ELIT. AENEAN VESTIBULUM,                      METUS AC FERMENTUM                      PORTTITOR, ODIO TURPIS                      PORTTITOR NIBH, ID                      CONSEQUAT MAGNA LIGULA ET                      ELIT. CURABITUR SOLLICITUDIN                      ELIT AC LOREM MOLLIS ACC                      UMSAN.                 </div>
	Align Right	<p>Aligns the text in the selected text box to the right.</p> <div data-bbox="659 627 917 825" style="border: 1px solid black; padding: 5px;">                     LOREM IPSUM DOLOR SIT AMET,                      CONSECTETUR ADIPISCING                      ELIT. AENEAN VESTIBULUM,                      METUS AC FERMENTUM                      PORTTITOR, ODIO TURPIS                      PORTTITOR NIBH, ID                      CONSEQUAT MAGNA LIGULA ET                      ELIT. CURABITUR SOLLICITUDIN                      ELIT AC LOREM MOLLIS ACC                      UMSAN.                 </div>
	Justify	<p>Makes the text in the selected text box take all the horizontal space by adjusting the spacing between each word. Text that use a single line and text in the last line of a paragraph is aligned to the left.</p> <div data-bbox="659 1024 927 1222" style="border: 1px solid black; padding: 5px;">                     LOREM IPSUM DOLOR SIT AMET,                      CONSECTETUR ADIPISCING                      ELIT. AENEAN VESTIBULUM,                      METUS AC FERMENTUM                      PORTTITOR, ODIO TURPIS                      PORTTITOR NIBH, ID                      CONSEQUAT MAGNA LIGULA ET                      ELIT. CURABITUR SOLLICITUDIN                      ELIT AC LOREM MOLLIS ACC                      UMSAN.                 </div>
	Size	<p>Allows you to set the size of the selected text.</p> <div data-bbox="659 1352 1089 1476" style="border: 1px solid black; padding: 5px; text-align: center;">                     small text <b>big text</b> </div>
	Kerning	<p>Allows you to increase or decrease the spacing between each character.</p> <div data-bbox="659 1598 1224 1858" style="border: 1px solid black; padding: 5px;"> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p>                             Lorem ipsum dolor                              sit amet, consectetur                              adipiscing elit.                              Aenean vestibulum,                              metus ac fermentum                              porttitor, odio turpis                              porttitor nibh, id                              consequat magna                              ligula et elit.                              Curabitur                              sollicitudin elit ac                              lorem mollis acc                              umsan.                         </p> </div> <div style="width: 45%;"> <p>                             Lorem ipsum dolor sit amet,                              consectetur adipiscing elit.                              Aenean vestibulum, metus ac                              fermentum porttitor, odio turpis                              porttitor nibh, id consequat                              magna ligula et elit. Curabitur                              sollicitudin elit ac lorem mollis                              acc umsan.                         </p> </div> </div> </div>

Icon	Property	Description
	Auto Kern	Sets the kerning automatically based on the font's predefined standard.
	Indent	<p>Allows you to increase or decrease the indentation of the first line of text in each paragraph.</p> 
	Line Spacing	<p>Increases or decreases the space between each line of text.</p> 

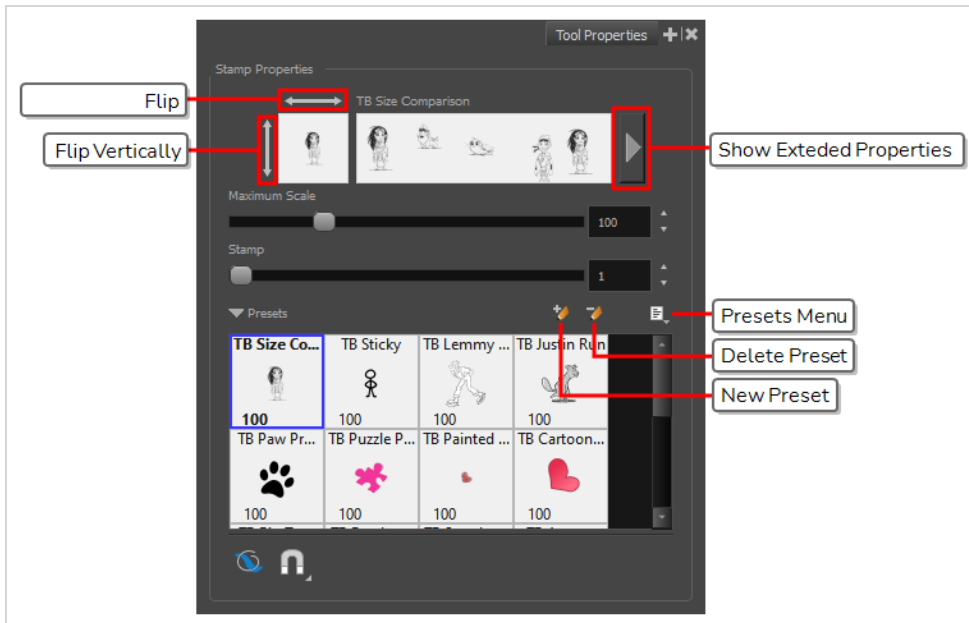
## Stamp Tool Properties

The Stamp tool allows you to create and use stamps, which can contain one or several drawings that can be stamped individually or in sequence onto your artwork.

### How to access the Stamp tool properties


1. In the Tools toolbar, select the Stamp  tool.

The tool's properties are displayed in the Tool Properties view.


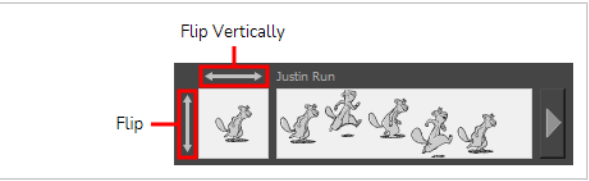





## Stamp Properties

The following options allow you, among other things, to preview your stamp, to change the size of your stamp as well as to flip it horizontally and vertically.

Property	Description
Preview Area	<p>The Preview area lets you see a preview of what will appear if you draw a stroke with the Stamp tool.</p> 
Stamp Properties	<p>The arrow button right of the preview area opens the Stamp Properties dialog.</p>







Property	Description
Dialog	 <p>While the Tool Properties view only gives you access to a few of the stamp properties and a list of stamp presets, the Stamp Properties dialog gives you access to all the available options for the way your stamp will be applied. For more information on the Stamp Properties dialog, see the <a href="#">Stamp Properties Dialog on page 471</a> section below.</p>
Flip Horizontally / Flip Vertically	<p>The two-ended arrows to the left and over the Stamp thumbnail allow you to flip the stamp horizontally or vertically.</p> 
Maximum Scale	<p>The maximum scaling factor to apply to the stamp before stamping it onto the drawing.</p> <p>This setting is a percentage, which is relative to the size of the original drawing that was used to create the stamp. This means that, at 100%, the drawing will be stamped into your artwork in its original size.</p> <div data-bbox="386 1161 1430 1394" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b></p> <p>If the tool is used with a pressure sensitive tablet, the scale of the stamp can be made to be relative to the amount of pressure you put on your pen. To do this, you must reducing the Minimum Scale property of your stamp in the Stamp Properties dialog. If the Minimum Scale setting is left at its default value, which is 100%, the size of the stamp will not vary.</p> </div>
Stamp	<p>When using a multi-drawing stamp, this is the number of the drawing in the series that will be stamped on the next time you use the Stamp tool. For example, if your stamp has 3 drawings and this is set to 2, the next drawing that will be stamped on is the second drawing in the series.</p> <p>If your stamp's <b>Cycle</b> setting is set to <b>Hold</b>, then you have to use this slider to select which drawing to stamp with the Stamp tool.</p> <p>If your stamp's <b>Reset Cycle for Each Stroke</b> option is enabled, then you can use this slider to select which drawing to start each stroke with.</p> <p>Otherwise, when you draw a stroke with the Stamp tool, the Stamp slider will automatically update to the next drawing in the sequence.</p>

Property	Description
	<div style="border: 1px solid #0070C0; padding: 10px; margin-bottom: 10px;">  <b>TIP</b>            You can also cycle through the drawings in your stamp by using the Left Arrow and Right Arrow keys.         </div> <div style="border: 1px solid #008000; padding: 10px;">  <b>NOTE</b>            The <b>Cycle</b> and <b>Reset Cycle for Each Stroke</b> options are available in the Stamp Properties dialog.         </div>

## Stamp Presets

These options allow you to select, create and manage stamp presets.





Contrary to the Brush and Pencil tools, creating a Stamp preset is required to use the Stamp tool, as this preset will contain the drawings to stamp onto your artwork. A Stamp preset is created by selecting one or several layers, then adding a preset to the Stamp Presets list. If several layers are selected, the Stamp will contain a series of drawings, which it will stamp onto your artwork in a sequence as you draw strokes with the Stamp tool.

Icon	Property	Description
	Presets list	The list of Stamp presets. Click on one of the presets to select it and use it in your drawing.
	New Brush Preset	<p>Creates a new Stamp preset based on the selected artwork. The artwork can either be a selection made with the Select  tool, or by selecting a layer.</p> <p>If several layers are selected, this will create a multi-drawing Stamp. As you draw a stroke with the Stamp tool using a multi-drawing stamp, each drawing in the stamp will be applied onto your artwork, one after the other.</p>
	Delete Brush	Deletes the currently selected preset.
	Brush Presets Menu	<p>Open a menu that contains all of the previous options, along with all of the following options:</p> <ul style="list-style-type: none"> <li>• <b>New Brush Preset:</b> Creates a new stamp based on the selected artwork.</li> </ul>

		<ul style="list-style-type: none"> <li>• <b>Rename Preset:</b> Allows you to rename the currently selected preset.</li> <li>• <b>Import Brushes:</b> Allows you to import brush presets exported from Storyboard Pro.</li> <li>• <b>Export Brushes:</b> Allows you to export your brush presets into an <code>.xml</code> file.</li> <li>• <b>Small Thumbnail:</b> Displays presets in a grid of small thumbnails with a preview of their tip.</li> <li>• <b>Large Thumbnail:</b> Displays presets in a grid of big thumbnails, with their name and a preview of their tip.</li> <li>• <b>Stroke View:</b> Displays presets in a list, with their name and a preview of a stroke done with each preset.</li> </ul>
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## Drawing Options

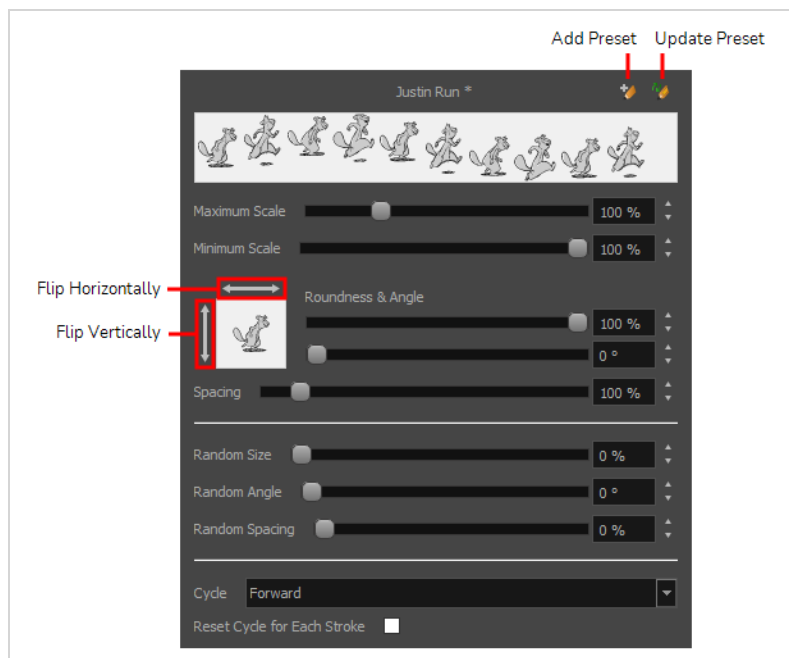
These options affect the way your drawing strokes are added to your artwork

Icon	Property	Description
	Draw Behind	<p>When enabled, your brush strokes will appear behind the existing artwork.</p>  <p>The orange stroke was drawn over the black stroke, then put underneath it.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b></p> <p>Your brush stroke will temporarily appear over your artwork as you draw it, until you release the mouse cursor or tablet pen. If you want a live preview of your stroke, activate the Realistic Preview option by selecting <b>View &gt; Realistic Preview</b> from the top menu.</p> </div>
	Snapping	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping</p>

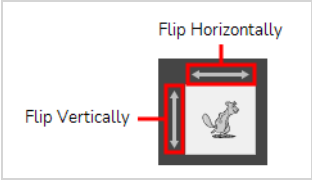

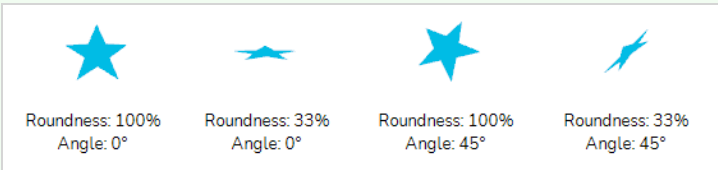
		<p>modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping mode:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Alignment Guides:</b> While drawing, the drawing tool will snap against nearby alignment guides.</li> </ul>
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## Stamp Properties Dialog


The Stamp Properties dialog allows you to set more specific settings for your stamp, such as pressure sensitivity, spacing, angle, randomness and, for multi-drawing stamps, how to cycle through each drawing in the stamp. To open the Stamp Properties dialog, click on the arrow button right of the stroke display area.



Property	Description
Maximum Scale	The maximum scaling factor to apply to the stamp before stamping it onto the drawing. This setting is a percentage, which is relative to the size of the original drawing that was used to create the stamp. This means that, at 100%, the drawing will be stamped into your artwork in its original size.
Minimum Scale	The minimum scaling factor to apply to the stamp before stamping it onto your drawing.

Property	Description
	<p>When using the Stamp tool with a pressure-sensitive pen tablet, the size of the stamps applied onto your artwork will vary between its Minimum Scale and Maximum Scale properties, relative to the amount of pressure you apply to the pen.</p> <p>This setting is relative to the Maximum Scale property. This means that if the Maximum Scale is set to 50% and the Minimum Scale is set to 50%, the actual scaling factor applied to the stamp will vary between 25% and 50%.</p> <p>This setting is also used with the Random Size setting.</p>
Flip Horizontally / Flip Vertically	<p>The two-ended arrows to the left and over the Stamp thumbnail allow you to flip the stamp horizontally or vertically.</p> 
Roundness & Angle	<p>The Roundness and Angle parameters allow you to change the shape and orientation of the stamp.</p> <ul style="list-style-type: none"> <li>• <b>Roundness:</b> The vertical scaling to apply to the stamp. Reducing this setting squashes the stamp vertically, allowing you to turn round or square stamps into flat stamps.</li> <li>• <b>Angle:</b> The angle at which to rotate the brush tip, counterclockwise.</li> </ul> <div data-bbox="451 1234 1429 1596" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b></p> <p>The squashing is not relative to the angle—if the stamp is rotated, the squashing will still be done relative to the stamp's original orientation.</p>  </div>
Spacing	<p>Defines the amount of space between each stamp that is applied onto the artwork. The larger the value, the greater the space between each stamp.</p>



Property	Description
	
<p>Random Size</p>	<p>The percentage of randomness to apply to the size of the stamp. This makes the size of the stamp randomly vary between its Maximum Scale and Minimum Scale settings each time it is applied to your artwork.</p>  <p>The greater the value of the Random Size property, the closer to its Minimum Scale the size of each stamp can get. For example, if the Random Size setting is set to 50% and the Minimum Scale is set to 50%, the size of the stamp will randomly vary between 75% and 100% of its Maximum Scale.</p>
<p>Random Angle</p>	<p>The maximum value of randomness to apply to the angle of the stamp. This makes the angle of the stamp randomly vary within the range of degrees in this setting, in either direction, each time it is applied to your artwork. For example, if the stamp's Angle is set to 0°, and the Random Angle is set to 180°, each instance of the stamp will be at a random angle varying between -90° and 90°.</p> 
<p>Random Spacing</p>	<p>The maximum amount of randomness to apply to the spacing of the stamp. Increasing this setting makes the distance between each instance of the stamp vary randomly as you draw a stroke. At 100%, this makes the distance between each stroke vary between 0% and 200% of its Spacing property.</p> 
<p>Cycle</p>	<p>For multi-drawing stamps, this decides the logic with which to cycle through the sequence of drawings in the stamp as you draw a stroke.</p> <ul style="list-style-type: none"> <li>• <b>Forward:</b> Starts by applying the first drawing in the sequence, then the next one, and so on until it reaches the last drawing in the sequence, then cycles back to the first one.</li> </ul>

Property	Description
	<div data-bbox="532 285 768 352" style="border: 1px solid gray; padding: 2px; display: inline-block; margin-bottom: 10px;">1231231</div> <ul style="list-style-type: none"> <li>• <b>Reverse:</b> Starts by applying the last drawing in the sequence, then the previous one, and so on until it reaches the first drawing in the sequence, then cycles back to the last one.</li> </ul> <div data-bbox="532 512 768 579" style="border: 1px solid gray; padding: 2px; display: inline-block; margin-bottom: 10px;">3213213</div> <ul style="list-style-type: none"> <li>• <b>Forward-&gt;Reverse:</b> Starts by cycling forward through the sequence until it reaches the last drawing, then cycles backward to the first drawing, and so on.</li> </ul> <div data-bbox="532 701 768 768" style="border: 1px solid gray; padding: 2px; display: inline-block; margin-bottom: 10px;">1232123</div> <ul style="list-style-type: none"> <li>• <b>Reverse-&gt;Forward:</b> Starts by cycling backward through the sequence until it reaches the first drawing, then cycles back to the last drawing, and so on.</li> </ul> <div data-bbox="532 890 768 957" style="border: 1px solid gray; padding: 2px; display: inline-block; margin-bottom: 10px;">3212321</div> <ul style="list-style-type: none"> <li>• <b>Random:</b> Applies a random drawing in the sequence each time the stamp is applied.</li> </ul> <div data-bbox="532 1050 768 1117" style="border: 1px solid gray; padding: 2px; display: inline-block; margin-bottom: 10px;">1321123</div> <ul style="list-style-type: none"> <li>• <b>Hold:</b> Applies a single one of the drawings in the sequence over and over again.</li> </ul> <div data-bbox="532 1201 768 1268" style="border: 1px solid gray; padding: 2px; display: inline-block; margin-bottom: 10px;">1111111</div> <div data-bbox="451 1310 1430 1486" style="border: 1px solid gray; padding: 10px; margin-top: 20px;"> <div style="display: flex; align-items: center;">  <div> <p><b>TIP</b></p> <p>When this option is set to <b>Hold</b>, you can select which one of the drawings is stamped on by changing the <b>Stamp</b> setting in the Tool Properties view.</p> </div> </div> </div>
Reset Cycle for Each Stroke	<p>For multi-drawing stamps. This makes it so each stroke you draw with the stamp too always starts with the first drawing in the cycle, which is decided by the <b>Stamp</b> option in the Tool Properties view.</p> <p>When disabled, the Stamp tool keeps track of which drawing it was going to stamp next when you finish drawing a stroke by storing the number of that drawing in the Stamp setting. When this option is enabled, it simply stops updating the Stamp setting. Hence, your strokes always start at the drawing selected with that setting. Likewise, you can manually decide which drawing to start your strokes with by adjusting the Stamp setting.</p>

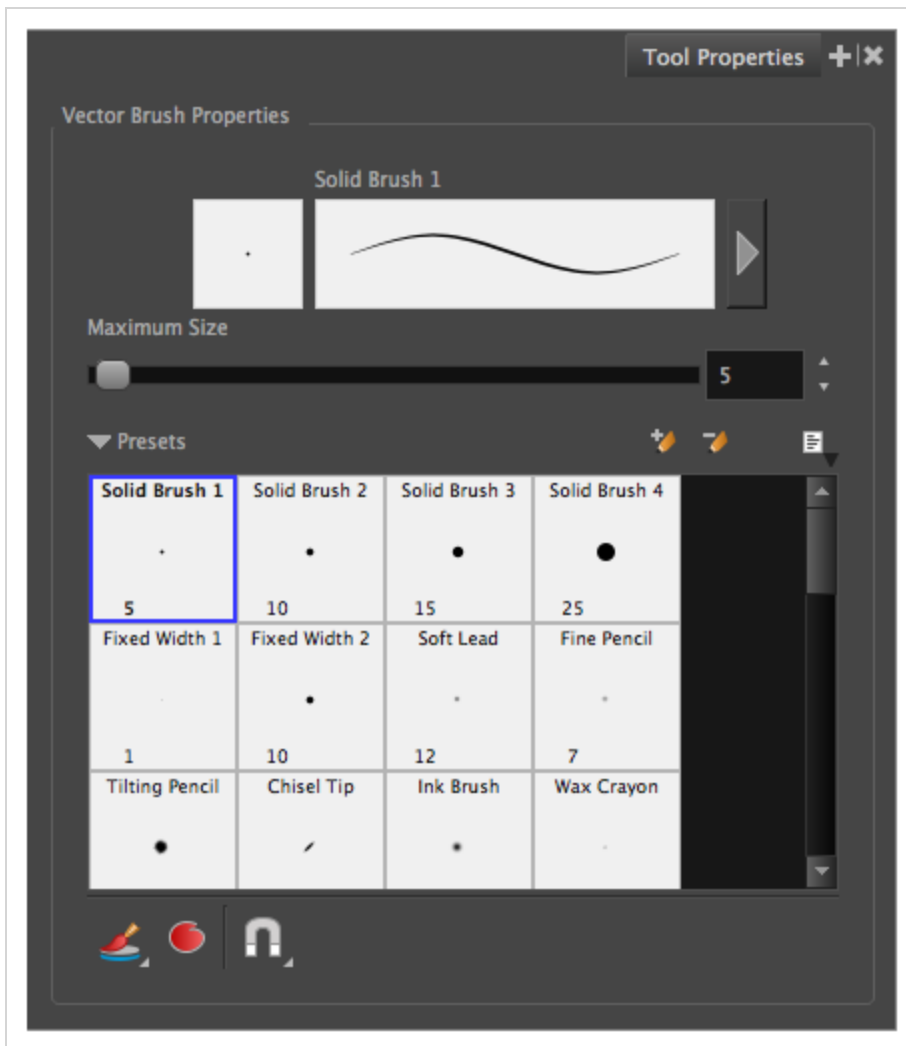
## Stencil Brush Tool Properties

The Stencil Brush tool allows you to paint over existing artwork within the boundaries of that artwork or the boundaries set by selecting the artwork of different layers.

### How to access the Stencil Brush tool properties

1. In the Tools toolbar, click and hold on the Brush  tool to display the menu beneath and select the Stencil Brush  tool, or use the keyboard shortcut Alt + X.




The tool's properties are displayed in the Tool Properties view.




## Brush Properties

The following properties affect the brush's size, smoothing and other properties for the drawing style of your brush. Those properties can be saved into brush presets for later use.

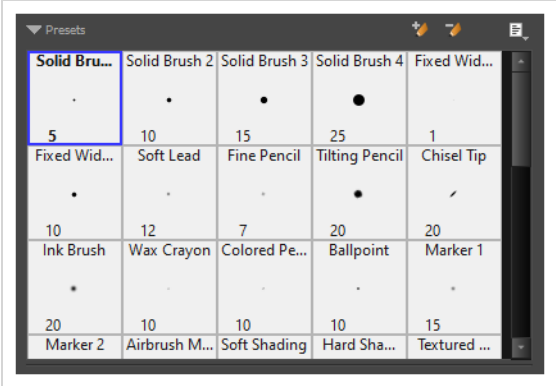





Property	Description
Preview Area	<p>The Preview area lets you see a preview of the stroke your drawing tool will make.</p> 
Brush Properties Dialog	<p>The arrow button right of the preview area opens the Brush Properties dialog.</p>  <p>While the Tool Properties view only gives you access to a few of the brush properties, a list of brush presets and other drawing options, the Brush Properties dialog gives you access to all the available options for your brush's tip and texture. For more information on the Brush Properties dialog, see the <a href="#">Brush Properties Dialog</a> section below.</p>
Maximum Size	<p>Defines the maximum width of brush strokes.</p> <p>If the tool is used with a pressure sensitive pen tablet, the width of the stroke will vary between its maximum size and minimum size depending on the amount of pressure used. If used with a mouse, the width of the stroke will always be its maximum size.</p>
Flow	<p>Allows you to set the opacity for each instance of the brush tip that gets printed into your canvas. Contrary to the Opacity parameter, the flow parameter has a cumulative effect. This means that a lower flow will make your brush strokes more transparent towards its extremities and more opaque in its center. Your stroke's flow will also accumulate if you draw over it. By default, your brush's flow varies with the amount of pressure you put on your tablet pen.</p> <div data-bbox="527 1415 1429 1585" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b> This option is only displayed in the Tool Properties view when drawing on a bitmap layer.</p> </div>
Opacity	<p>The Opacity parameter are where Lets you set the opacity of your brush strokes. Contrary to the Flow parameter, the Opacity parameter is non-cumulative. Your whole brush stroke's opacity will not exceed the Opacity parameter. By default, the Opacity parameter varies depending on the amount of pressure you put on your tablet pen.</p>

Property	Description
	<div style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b> This option is only displayed in the Tool Properties view when drawing on a bitmap layer.</p> </div>

## Brush Presets






These options allow you to select, create and manage brush presets.

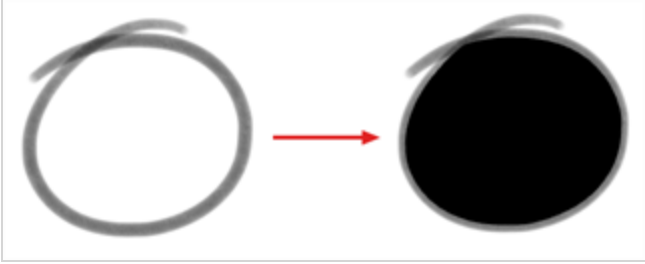

Icon	Property	Description
	Presets list	<p>By default, Storyboard Pro has preloaded brush presets. You can also create your own brush presets by configuring your brush, then saving its properties into a new preset. It is also possible to export and import brush presets.</p> 
	New Brush Preset	Creates a new preset based on the current tool properties.
	Delete Brush	Deletes the currently selected preset.
	Brush Presets Menu	<p>Open a menu that contains the following options:</p> <ul style="list-style-type: none"> <li>• <b>New Brush Preset:</b> Creates a new preset based on the current tool properties.</li> <li>• <b>Delete Brush:</b> Deletes the currently selected preset.</li> <li>• <b>Rename Brush:</b> Allows you to rename the currently selected preset.</li> <li>• <b>Import Brushes:</b> Allows you to import brush presets exported</li> </ul>

		<p>from Storyboard Pro.</p> <ul style="list-style-type: none"> <li>• <b>Export Brushes:</b> Allows you to export your brush presets into an <code>.xml</code> file.</li> <li>• <b>Small Thumbnail:</b> Displays presets in a grid of small thumbnails with a preview of their tip.</li> <li>• <b>Large Thumbnail:</b> Displays presets in a grid of big thumbnails, with their name and a preview of their tip.</li> <li>• <b>Stroke View:</b> Displays presets in a list, with their name and a preview of a stroke done with each preset.</li> </ul>
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## Drawing Options

These options affect the way brush strokes are added to your artwork.

Icon	Property	Description
	Overlay	<p>In this mode, existing artwork form the boundaries of a mask by having their layers selected. Drawing or painting over existing artwork results in these strokes being cut by the boundaries of the mask. These strokes are not flattened with the existing artwork and remain editable. This can be useful to quickly add shadows to drawings.</p> <div data-bbox="646 1140 1427 1278" style="border: 1px solid #c8e6c9; padding: 5px;">  <b>NOTE</b> Only available if a vector layer is selected.         </div>
	Repaint	<p>In this mode, existing artwork is repainted, ignoring empty zones.</p> <div data-bbox="646 1400 1427 1539" style="border: 1px solid #c8e6c9; padding: 5px;">  <b>NOTE</b> Only available if a vector layer is selected.         </div>
	Auto Fill	<p>When enabled, a closed shaped automatically fills with its stroke colour.</p>

		
	<p>Snapping</p>	<p>Allows you to enable or disable snapping for this tool and all other animation and drawing tools that support snapping, as well as to select which types of snapping are enabled.</p> <p>If you double-click or long-click on this button, it will open a pop-up menu in which you can toggle different snapping modes. You can also click on this button to toggle it off, which will disable all snapping modes, and click on it again and toggle it on to re-enable the snapping modes which were previously enabled.</p> <p>This tool supports the following snapping mode:</p> <ul style="list-style-type: none"> <li>• <b>Snap to Alignment Guides:</b> While drawing, the drawing tool will snap against nearby alignment guides.</li> </ul>

## Brush Properties Dialog

Brushes have an extensive set of options and properties that are not displayed in the Tool Properties view, but rather, in a dialog you can access from it. To open the Brush Properties dialog, click on the arrow button right of the stroke display area.

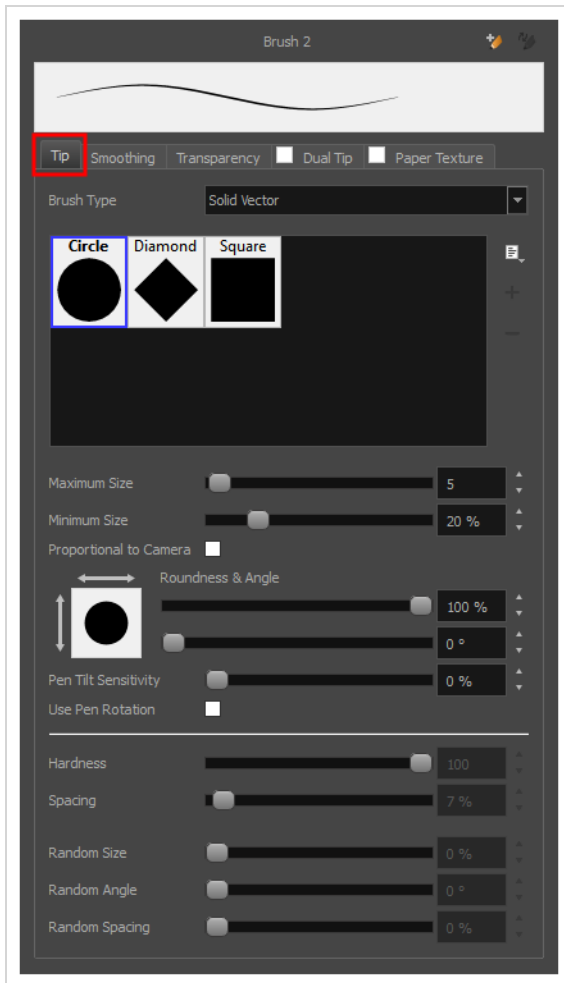



The Brush Properties dialog has five different tabs, minus the Smoothing tab if you are working on a bitmap layers. Below is detailed information about the options available in each tab:

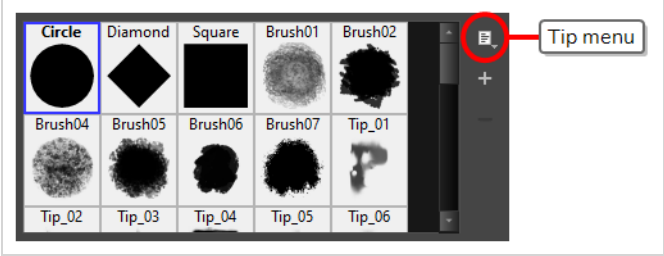

- [Tip Tab](#) on page 479
- [Smoothing Tab](#) on page 484
- [Transparency Tab](#) on page 485
- [Dual Tip Tab](#) on page 488
- [Paper Texture Tab](#) on page 492









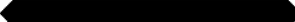
### Tip Tab

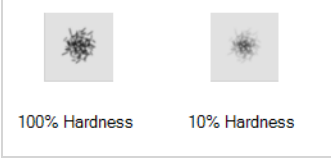
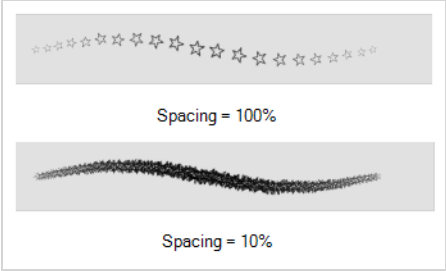
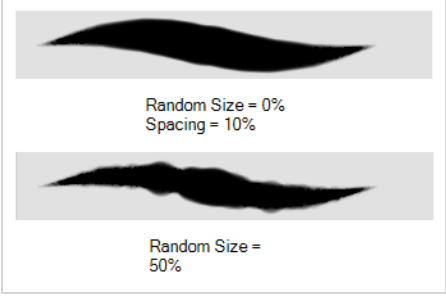

The Tip tab allows you to configure the shape, size, hardness and spacing of your brush tip.



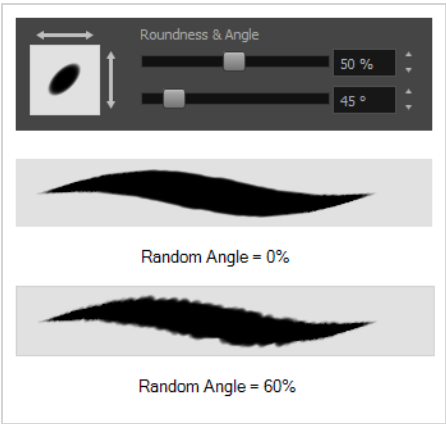
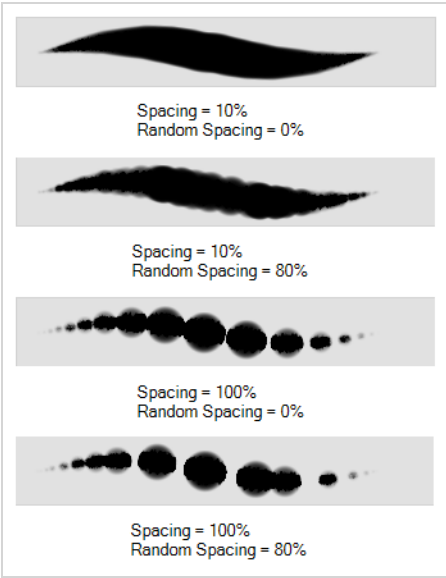
Property	Description
Brush Type	<p>Allows you to select between one of the following brush types:</p> <ul style="list-style-type: none"> <li>• <b>Solid Vector Brush:</b> Creates vector shapes filled with a solid colour. Makes artwork lightweight, scalable and easy to tweak. Since this kind of brush can only create solid colour shapes, solid vector brushes have a limited set of options including size, roundness, angle, centerline smoothing and contour smoothing.</li> <li>• <b>Textured Vector Brush:</b> Creates vector shapes filled with a texture. This gives you access to bitmap brush tips, paper textures, transparency and several other options.</li> </ul> <div data-bbox="570 1675 1427 1873" style="border: 1px solid green; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b> This option is not available when working on a bitmap layer. With bitmap layers, brushes are always textured, and textured brush options are always available.</p> </div>

<p>Brush Tip Library</p>	 <p>This is where you select the shape of the brush tip. By default it is round. Note that some tips are designed to have semitransparent areas, even when the maximum brush opacity is set to 100%.</p> <p>To create a custom brush tip, you must prepare the file ahead of time, either in Storyboard Pro or in a third-party software, such as Adobe Photoshop. Colour is not supported and transparency is not supported in the traditional sense. Black appears as 100% opaque, white appears as 100% transparent and all the shades of grey in between appear as varying degrees of semitransparency. A range of file formats are supported—.jpeg, .png, .tif, .psd, .tga to name a few. Alpha channels are disregarded on import. It is recommended that your file be between 100 x 100 pixels and 400 x 400 pixels.</p> <p>You can also import brush tips that you exported from Storyboard Pro, so you can share them with colleagues.</p>
<p>Minimum and Maximum Size</p>	<p>The minimum and maximum sizes of your drawing tool produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Size:</b> Defines the maximum width of the stroke.</li> <li>• <b>Minimum Size:</b> Defines the minimum width of the stroke in relation to and as a percentage of the maximum size.</li> </ul> <div data-bbox="570 1308 1430 1507" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b></p> <p>Setting the Minimum Size value to 100% eliminates the possibility of creating width variation on your stroke. In other words, you would be forcing a uniform line width using the Maximum Size value.</p> </div>
<p>Roundness and Angle</p>	<p>The Roundness and Angle parameters allow you to change the shape and orientation of the tip.</p> <ul style="list-style-type: none"> <li>• <b>Roundness:</b> The vertical scaling to apply to the tip. Reducing this setting squashes the tip vertically, allowing you to turn round or square tips into flat tips.</li> <li>• <b>Angle:</b> The angle at which to rotate the brush tip, counterclockwise.</li> </ul>

	<div data-bbox="570 184 1430 552" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>The squashing is not relative to the angle—if the tip is rotated, the squashing will still be done relative to the tip's original orientation.</p> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 10px;"> <div style="text-align: center;">  <p>Roundness: 100% Angle: 0°</p> </div> <div style="text-align: center;">  <p>Roundness: 33% Angle: 0°</p> </div> <div style="text-align: center;">  <p>Roundness: 100% Angle: 45°</p> </div> <div style="text-align: center;">  <p>Roundness: 33% Angle: 45°</p> </div> </div> </div>
Pen Tilt Sensitivity	<p>If your pen and tablet support tilt sensitivity, this option allows you to set whether your brush takes your pen's tilt angle into account, and how much.</p> <p>When your pen is fully tilted, your brush tip will be stretched by the percentage you set in this parameter, in the angle in which you tilt it. For example, if you set the Pen Tilt Sensitivity to 50%, and you tilt your pen all the way up or down, your brush tip will be stretched vertically by 50%. With the same setting, if you tilt your pen all the way left or right, your brush tip will be stretched horizontally by 50%.</p> <div data-bbox="570 930 902 1255" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;">  <p style="text-align: center;">Pen tilted up or down</p>  <p style="text-align: center;">Pen tilted left or right</p> </div>
Use Pen Rotation	<p>If enabled, and if your pen and tablet support tip rotation, your brush tip will rotate with the angle of your pen tip.</p> <div data-bbox="570 1413 1057 1640" style="border: 1px solid #ccc; padding: 10px; margin-top: 10px;">  <p style="text-align: center;">A stroke with a square tip without pen rotation</p>  <p style="text-align: center;">A stroke with a square tip with pen rotation, with the pen rotated at 45°</p> </div>
Hardness	<p>The hardness value corresponds to the softness of the brush tip's edges. The lower the value, the softer the tip edge. The higher the value, the sharper the tip edge. Be aware that some brush tips are not 100% opaque, so they will always appear somewhat soft, even at 100% hardness.</p>

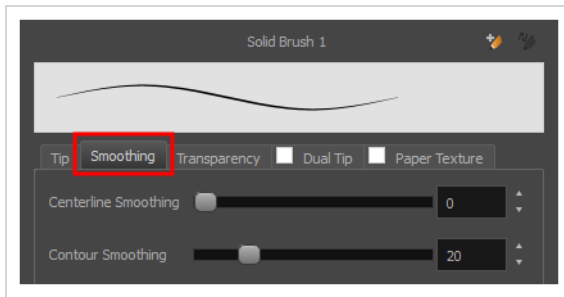
	
<p>Spacing</p>	<p>Defines the amount of space between each stamp of the brush. A value of 100% sets the stamp marks edge to edge, if there is no white space around the shape. The larger the value, the greater the space between marks. A really large value can make the brush stroke appear as a string of individual marks. Conversely, a small spacing value will give the appearance of a fluid brush stroke.</p> <p>Spacing is only evident when making a continuous stroke.</p> 
<p>Random Size</p>	<p>You can create variation between the thick and thin of your brush stroke just by setting the Maximum and Minimum Size values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p>  <div data-bbox="570 1570 1430 1801" style="border: 1px solid green; padding: 10px;"> <p> <b>NOTE</b></p> <p>Setting the Minimum Size to 100% eliminates the possibility of creating width variation on your stroke, whether you are applying randomness or not. Therefore, you would be forcing a uniform line width using the Maximum Size value.</p> </div>
<p>Random Angle</p>	<p>Sets the range for random rotation around the set Angle value. For example, if</p>



	<p>the Angle is set to 45° and the Random Angle set to 10°, the software will choose values between 40°–50° (plus or minus 5 degrees, equaling a total of 10 degrees).</p> 
Random Spacing	<p>Sets the range for random spacing around the set Spacing value. For example, if the Spacing is set to 50% and the Random Spacing is set to 10%, then Storyboard Pro will choose values between 45%–55% (plus or minus 5 percent, equaling a total of 10 percent).</p> 

## Smoothing Tab

The Smoothing tab contains options to configure how Storyboard Pro should automatically smooth your brush strokes as you paint.

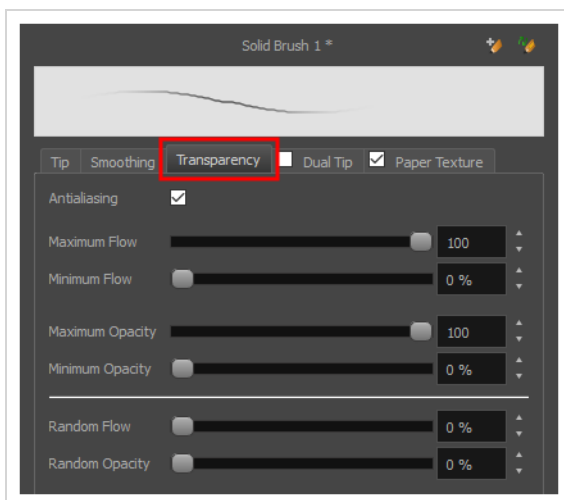
**NOTE**

The Smoothing tab is only available when working on a vector layer, as bitmap layers do not support smoothing.

Property	Description
Centerline Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the central line of the brush stroke. A higher setting will prevent your line from being shaky, but is liable to reduce drawing precision and turn sharp angles into curves.
Contour Smoothing	Defines the amount of smoothing Storyboard Pro should perform on the outer contour of the brush stroke. A higher setting will round sharp corners and reduce the amount of control points for the resulting vector shape.


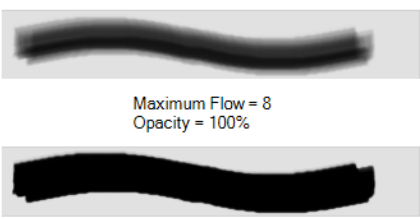
## Transparency Tab

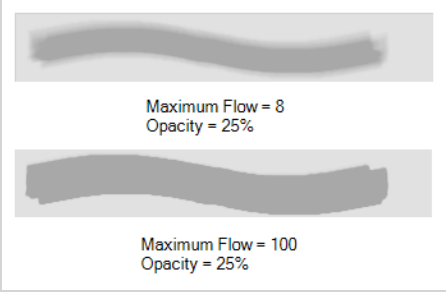
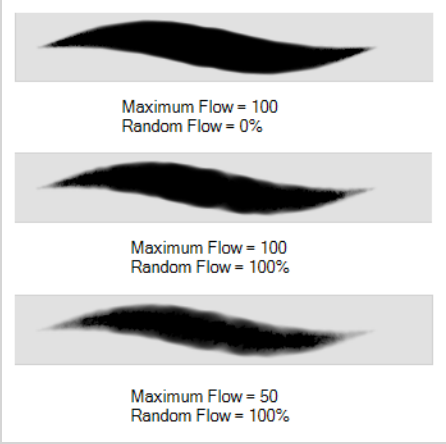
The Transparency tab allows you to decide if your brush has antialiasing as well as to set its flow and opacity settings.


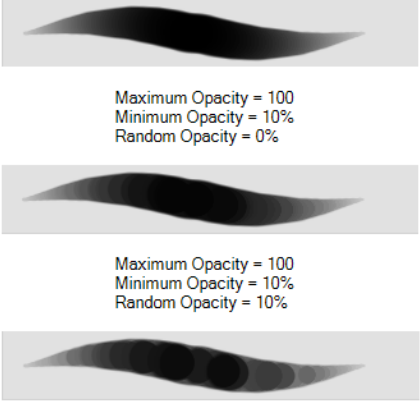



**NOTE**

The Transparency tab's options are only available on vector layers if the **Brush Type** option of the Tip tab is set to **Textured Vector Brush**. On bitmap layers, those options are always available.

Property	Description
Antialiasing	<p>Enabled by default. This option causes the contours of the brush strokes to blend with the surrounding colours, to create an illusion of smoothness otherwise not possible due to the picture resolution.</p> <p>If antialiasing is disabled, the brush's texture will only render fully transparent or fully opaque pixels. Disabling this option can be useful if you need your outlines to be very crisp, if you want to make pixel art or if you need your brush strokes to render in solid colors with no variation, which makes them easier to repaint or process in third party software.</p> <div data-bbox="573 821 1430 957" style="border: 1px solid green; padding: 5px;">  <p><b>NOTE</b> When disabled, all other options in the Transparency tab are disabled.</p> </div>
Maximum and Minimum Flow	<p>The Maximum and Minimum Flow parameters let you set the range for the rate at which paint flows from your brush. The analogy works better with a pen. The greater the flow, the more ink comes out, hence the more consistent the colour and texture of the line. If the flow is light, then the colour and texture of the line may look spotty. This feature works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Flow:</b> Sets the maximum rate at which colour and texture are applied as you create a fluid stroke.</li> <li>• <b>Minimum Flow:</b> Sets the minimum rate at which colour and texture are applied as you create a fluid stroke. It is defined as a percentage of the Maximum Flow value. If the Minimum Flow value is set to 100%, then tablet pressure sensitivity will no longer be applicable. The flow will be set to the constant rate of the Maximum Flow value.</li> </ul> <div data-bbox="573 1499 1016 1791" style="border: 1px solid gray; padding: 10px;">  </div>
Maximum Opacity and	The Maximum and Minimum Opacity parameters are where you set the opacity

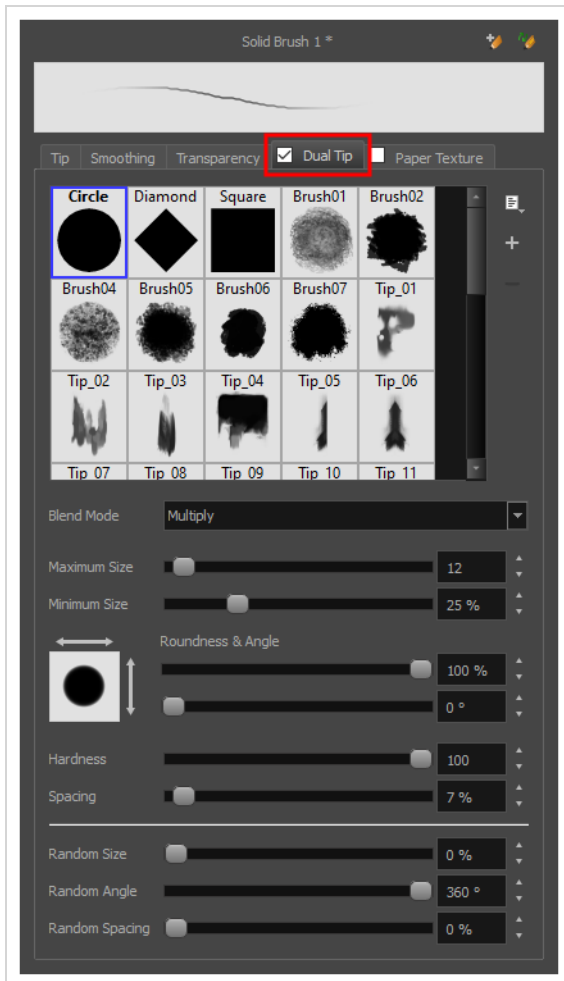
<p>Minimum Opacity</p>	<p>range for a brush mark. This works with the pressure sensitivity of a pen tablet.</p> <ul style="list-style-type: none"> <li>• <b>Maximum Opacity:</b> Sets the transparency limit of the brush mark when the pressure is heavy.</li> <li>• <b>Minimum Opacity:</b> Sets the transparency limit of the brush mark when the pressure is very light. It is defined as a percentage of the Maximum Opacity value. If the Minimum Opacity value is set to 100%, then tablet pressure sensitivity will no longer be applicable. The opacity will be set to the constant rate of the Maximum Opacity value.</li> </ul> 
<p>Randomness</p>	<p>The Randomness parameter lets you set the range for the randomness of the flow and opacity. This works with the pressure sensitivity of a pen tablet.</p>
<p>Randomness Flow</p>	<p>You can create variation in the flow of your brush stroke just by setting the Maximum and Minimum Flow values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p> 

	<div data-bbox="574 191 1430 422" style="border: 1px solid green; padding: 10px;">  <b>NOTE</b>          Setting the Minimum Flow value to 100% eliminates the possibility of creating flow variation on your stroke, whether you are applying randomness or not. That is, you would be forcing a uniform flow using the Maximum Flow value.       </div>
Random Opacity	<p>You can create variation in the opacity of your brush stroke just by setting the Maximum and Minimum Opacity values. If you add randomness to the mix, pressure sensitivity from your drawing tablet will still be applied. Light pressure will create random values around the minimum, while heavy pressure will create random values closer to the maximum. The larger the percentage, the larger the range of random variation.</p> <div data-bbox="574 716 1015 1228" style="border: 1px solid gray; padding: 10px;">  <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 0%</p> <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 10%</p> <p style="text-align: center;">Maximum Opacity = 100 Minimum Opacity = 10% Random Opacity = 50%</p> </div> <div data-bbox="574 1266 1430 1497" style="border: 1px solid green; padding: 10px;">  <b>NOTE</b>          Setting the Minimum Opacity value to 100% eliminates the possibility of creating opacity variation on your stroke, whether you are applying randomness or not. That is, you would be forcing a uniform opacity using the Maximum Opacity value.       </div>

## Dual Tip Tab

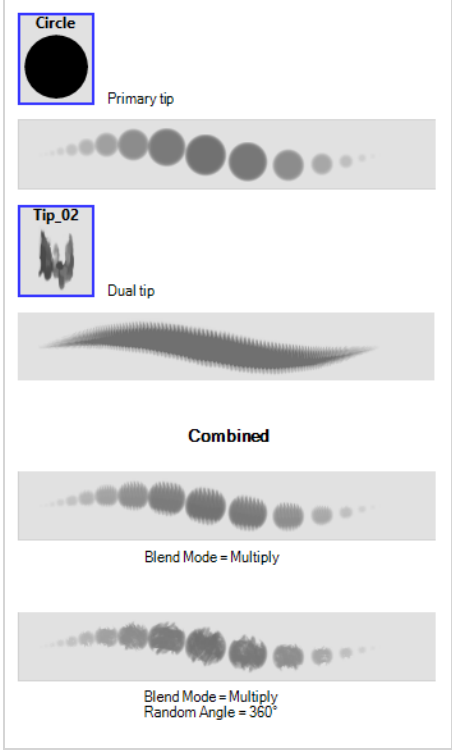
The Dual Tip tab lets you set the parameters for creating a dual tip brush. The primary bitmap brush tip and the dual tip always work together. You can set the parameters for the primary tip in the Tip tab and those for the dual tip in the Dual Tip tab. The Blend mode you select determines how the tips are combined.

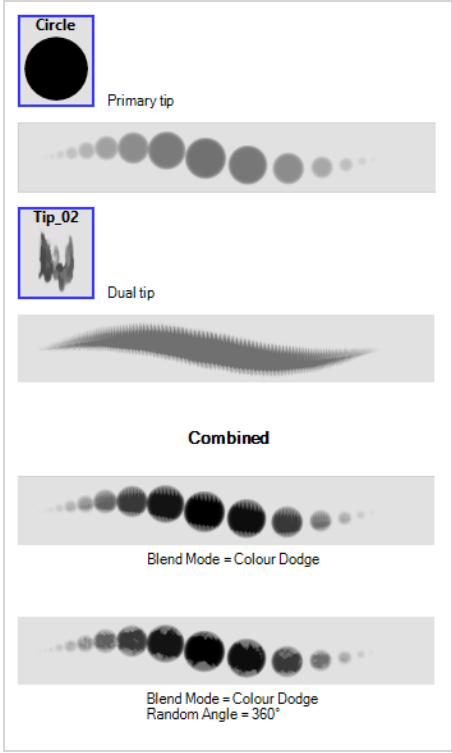
By default, the Blend Mode is set to Multiply and the Random Angle to 360°.

**NOTE**

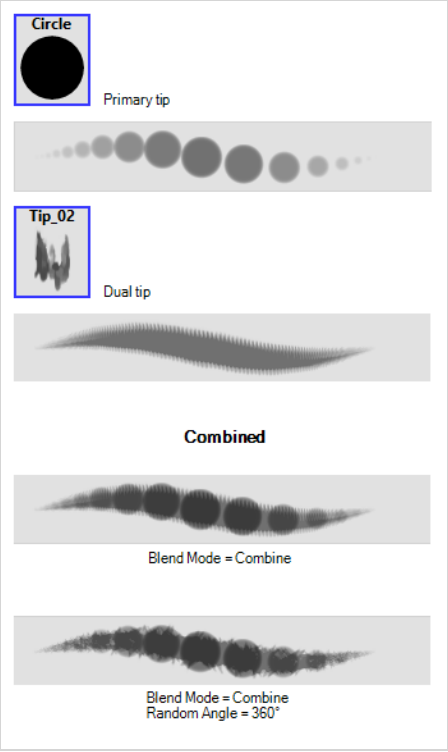
To use a Dual Tip, you must enable option by checking the checkbox inside the **Dual Tip** tab. Additionally, if you are working on a vector layer, the **Brush Type** option of the Tip tab must be set to **Textured Vector Brush**.

Property	Description
Enable/Disable	The checkbox inside the tab allows you to decide whether or not your brush uses a dual tip. If this checkbox is unchecked, the options in the Dual Tip tab will be disabled.
Blend Mode	The Blend modes let you decide how the primary tip and the dual tip are combined.
Multiply	This is the default blend mode. When the two brush tips are combined in this mode, they essentially cut each other out in overlapping areas, where one or both tips have an area of 100% transparency. The less opaque the brush tips are, the lighter their

Property	Description
	<p>combination.</p>  <p>Circle Primary tip</p> <p>Tip_02 Dual tip</p> <p><b>Combined</b></p> <p>Blend Mode = Multiply</p> <p>Blend Mode = Multiply Random Angle = 360°</p>
Colour Dodge	<p>In this mode, the primary tip cuts out the shape of the dual tip. Where the tip shapes overlap, within the boundaries of the primary shape, the colour and opacity appear darker.</p>

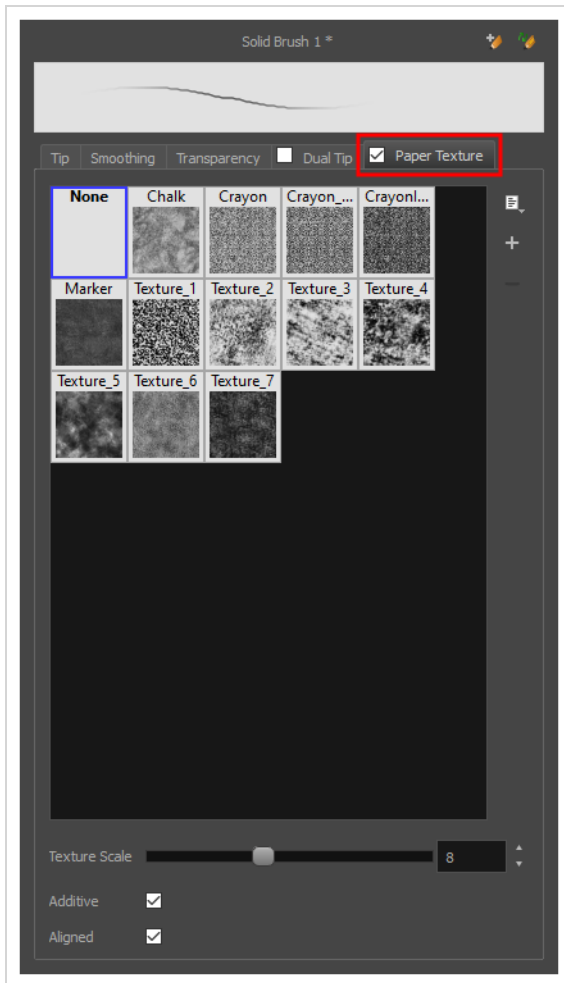
Property	Description
	 <p>The diagram illustrates the 'Combine' brush property. It shows two individual tips: 'Circle' (Primary tip) and 'Tip_02' (Dual tip). Below these are three examples of the combined brush stroke. The first is labeled 'Combined' and shows the two tips overlapping. The second is labeled 'Blend Mode = Colour Dodge' and shows the tips overlapping with a lighter, more transparent center. The third is labeled 'Blend Mode = Colour Dodge' and 'Random Angle = 360°', showing the tips overlapping with a more complex, textured center.</p>
Combine	<p>This mode treats the two tips as two different and separate brushes that have the same colour and follow the same path.</p>



Property	Description
	 <p>The diagram illustrates various brush tip configurations and their resulting strokes. It is organized into four sections:</p> <ul style="list-style-type: none"> <li><b>Circle:</b> A solid black circle is shown as the 'Primary tip'. Below it, a horizontal brush stroke is composed of a series of overlapping circles of varying sizes, creating a soft, feathered edge.</li> <li><b>Tip_02:</b> A dual-pointed tip is shown. Below it, a horizontal brush stroke is a smooth, wavy line.</li> <li><b>Combined:</b> This section shows two examples of combined tips. The first example shows a brush stroke with a central peak and feathered sides, labeled 'Blend Mode = Combine'. The second example shows a similar brush stroke but with a more irregular, textured appearance, labeled 'Blend Mode = Combine' and 'Random Angle = 360°'.</li> </ul>

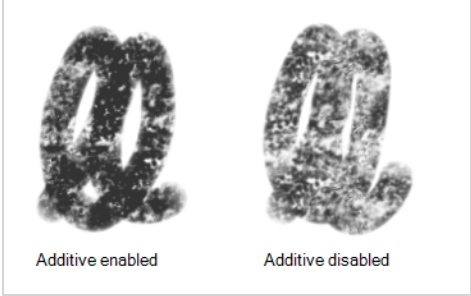
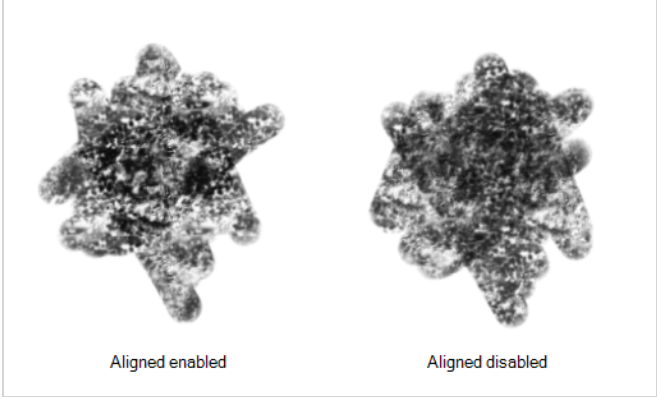
## Paper Texture Tab

The Paper Texture tab lets you configure a paper-like texture for your brush. You can also add textures by importing image files, or import paper textures that were previously exported from Storyboard Pro.

**NOTE**

To use a Paper Texture, you must enable option by checking the checkbox inside the **Paper Texture** tab. Additionally, if you are working on a vector layer, the **Brush Type** option of the Tip tab must be set to **Textured Vector Brush**.

Property	Description
Enable/Disable	The checkbox inside the tab allows you to decide whether or not your brush uses a paper texture. If this checkbox is unchecked, the options in the Paper Texture tab will be disabled.
Texture Scale	Increase or decreases the size of the paper texture.
Additive	This option layers the texture on top of itself as you scribble overlapping lines in one continuous stroke. If this option is turned off, areas of overlapping lines from a single, continuous stroke will appear the same, in terms of darkness and texture, as

Property	Description
	<p>non-overlapping areas.</p>  <p>Additive enabled      Additive disabled</p>
Aligned	<p>This option defines the way separate, overlapping strokes behave. If this option is enabled, the paper texture's position does not change with each sweep of the brush. If this option is disabled, each sweep of the brush produces a different texture position. The texture orientation always stays the same.</p>  <p>Aligned enabled      Aligned disabled</p>

## Text Tool Properties

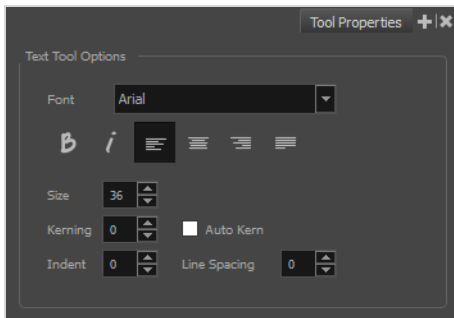
The Text tool lets you add text fields to your project, in which you can type text, then adjust its formatting using various fonts and text attributes.

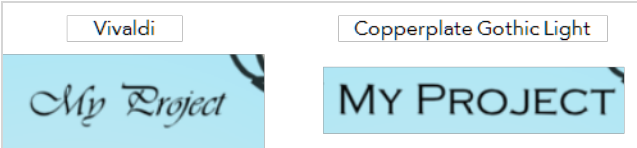



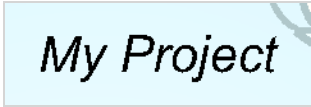
With the Text tool selected, you can select text within text boxes you created and change the formatting of the selection. You can also select and manipulate text boxes using the Select tool, and change the formatting of the entire text box in the Select tool properties.





### How to access the Text tool properties

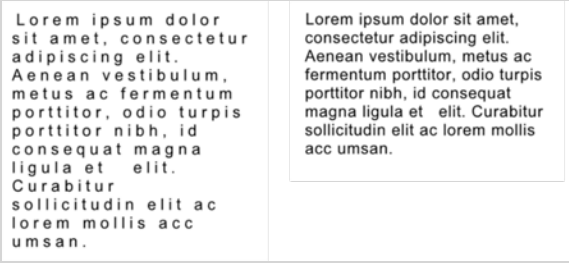
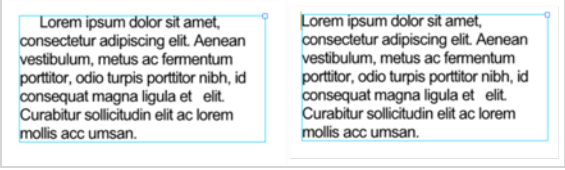
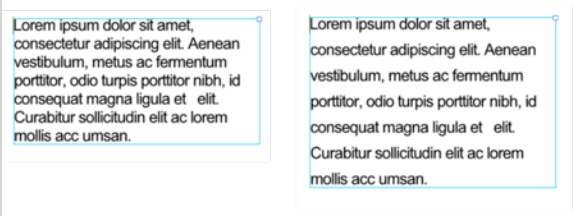
- In the Tools toolbar, select the Text **T** tool.

The tool's properties are displayed in the Tool Properties view.



Icon	Property	Description
	Font	Lets you select the font in which to display the text. 
	Bold	Makes the selected text bold. 
	Italic	Makes the selected text italic. 


Icon	Property	Description
	Align Left	<p>Aligns the text in the selected text box to the left.</p> <div data-bbox="659 338 956 577" style="border: 1px solid black; padding: 5px;"> <p>LOREM IPSUM DOLOR SIT AMET,  CONSECTETUR ADIPISCING  ELIT. AENEAN VESTIBULUM,  METUS AC FERMENTUM  PORTTITOR, ODIO TURPIS  PORTTITOR NIBH, ID  CONSEQUAT MAGNA LIGULA ET  ELIT. CURABITUR SOLLICITUDIN  ELIT AC LOREM MOLLIS ACC  UMSAN.</p> </div>
	Align Center	<p>Aligns the text in the selected text box to the centre.</p> <div data-bbox="659 716 940 919" style="border: 1px solid black; padding: 5px;"> <p>LOREM IPSUM DOLOR SIT AMET,  CONSECTETUR ADIPISCING  ELIT. AENEAN VESTIBULUM,  METUS AC FERMENTUM  PORTTITOR, ODIO TURPIS  PORTTITOR NIBH, ID  CONSEQUAT MAGNA LIGULA ET  ELIT. CURABITUR SOLLICITUDIN  ELIT AC LOREM MOLLIS ACC  UMSAN.</p> </div>
	Align Right	<p>Aligns the text in the selected text box to the right.</p> <div data-bbox="659 1045 919 1249" style="border: 1px solid black; padding: 5px;"> <p>LOREM IPSUM DOLOR SIT AMET,  CONSECTETUR ADIPISCING  ELIT. AENEAN VESTIBULUM,  METUS AC FERMENTUM  PORTTITOR, ODIO TURPIS  PORTTITOR NIBH, ID  CONSEQUAT MAGNA LIGULA ET  ELIT. CURABITUR SOLLICITUDIN  ELIT AC LOREM MOLLIS ACC  UMSAN.</p> </div>
	Justify	<p>Makes the text in the selected text box take all the horizontal space by adjusting the spacing between each word. Text that use a single line and text in the last line of a paragraph is aligned to the left.</p> <div data-bbox="659 1444 927 1648" style="border: 1px solid black; padding: 5px;"> <p>LOREM IPSUM DOLOR SIT AMET,  CONSECTETUR ADIPISCING  ELIT. AENEAN VESTIBULUM,  METUS AC FERMENTUM  PORTTITOR, ODIO TURPIS  PORTTITOR NIBH, ID  CONSEQUAT MAGNA LIGULA ET  ELIT. CURABITUR SOLLICITUDIN  ELIT AC LOREM MOLLIS ACC  UMSAN.</p> </div>
	Size	<p>Allows you to set the size of the selected text.</p> <div data-bbox="659 1772 1089 1894" style="border: 1px solid black; padding: 5px;"> <p>small text <b>big text</b></p> </div>

Icon	Property	Description
	Kerning	<p>Allows you to increase or decrease the spacing between each character.</p> 
	Auto Kern	<p>Sets the kerning automatically based on the font's predefined standard.</p>
	Indent	<p>Allows you to increase or decrease the indentation of the first line of text in each paragraph.</p> 
	Line Spacing	<p>Increases or decreases the space between each line of text.</p> 

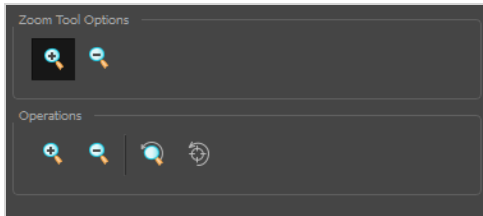
## Zoom Tool Properties

The Zoom tool lets you zoom in and out of the Stage, Camera, Side and Top views. You can also use it to reset the zoom level.



### How to access the Zoom tool properties

1. In the Tools toolbar, select the Zoom  tool.





The tool's properties are displayed in the Tool Properties view.



## Tool Options

Icon	Parameter	Description
	Zoom In Mode	Use the mouse cursor to zoom in to the Camera or Drawing view.
	Zoom Out Mode	Use the mouse cursor to zoom out of the Camera or Drawing view.

## Operations

Icon	Parameter	Description
	Perform Zoom In	Zoom in the Camera or Drawing view. The keyboard shortcut is 2.
	Perform Zoom Out	Zoom out the Camera or Drawing view. The keyboard shortcut is 1.
	Reset Zoom	Restores the current zoom level to 100%.
	Reset View	Restores the original display by resetting any pan, rotation or zoom actions.





## Chapter 6: Views

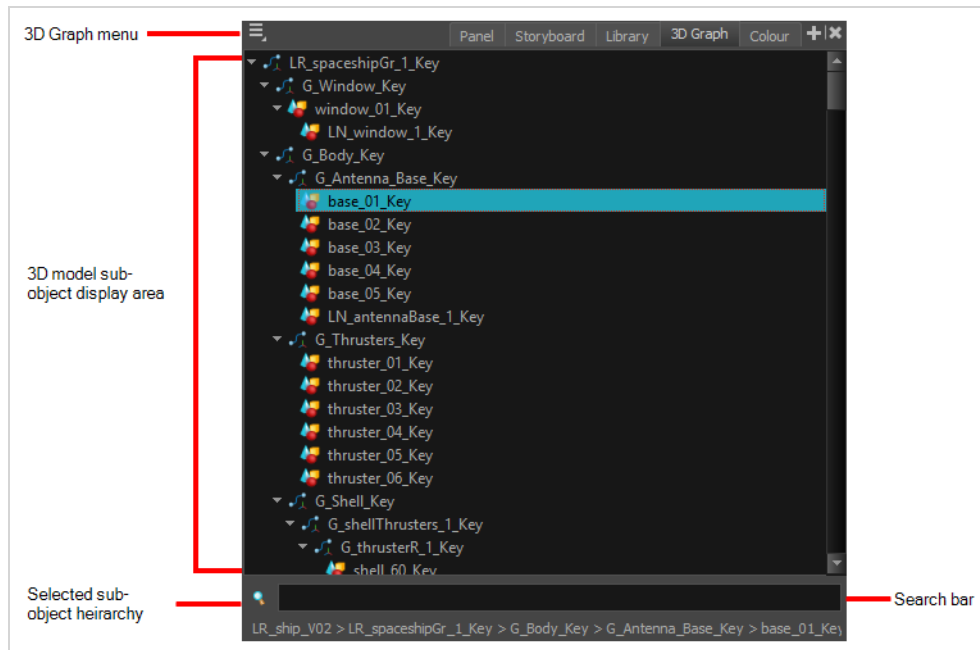
The Storyboard Pro user interface is comprised of different views, each one designed for a specific purpose. You can modify the location and accessibility of the views by adding a new view as a tab or as a window. You can also swap the view locations around, as well as do the following:

Here is a complete list of the views available in Storyboard Pro.

3D Graph View .....	501
Camera View .....	503
Colour View .....	509
Effect Stack View .....	510
Function Editor View .....	514
Guides View .....	521
Layers View .....	525
Library View .....	528
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Model View .....	531
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## 3D Graph View

The 3D Graph view lets you view the sub-objects that make up your 3D model.





### How to access the 3D Graph view

1. Do one of the following:

- From the top menu, select **Windows > 3D Graph**.
- From any of the other views, click the **Add View +** button and select **3D Graph**.

Section	Description
3D Graph menu	Access commands through this menu.
3D model sub-object display area	Displays the parts (sub-objects) of the selected 3D model.
Selected sub-object hierarchy path	Displays the selected sub-object's parent hierarchy chain within the 3D model.
Search bar	Use this field to search for a specific sub-object within the 3D model.
<b>Sub-Object Icon</b>	<b>Type</b>

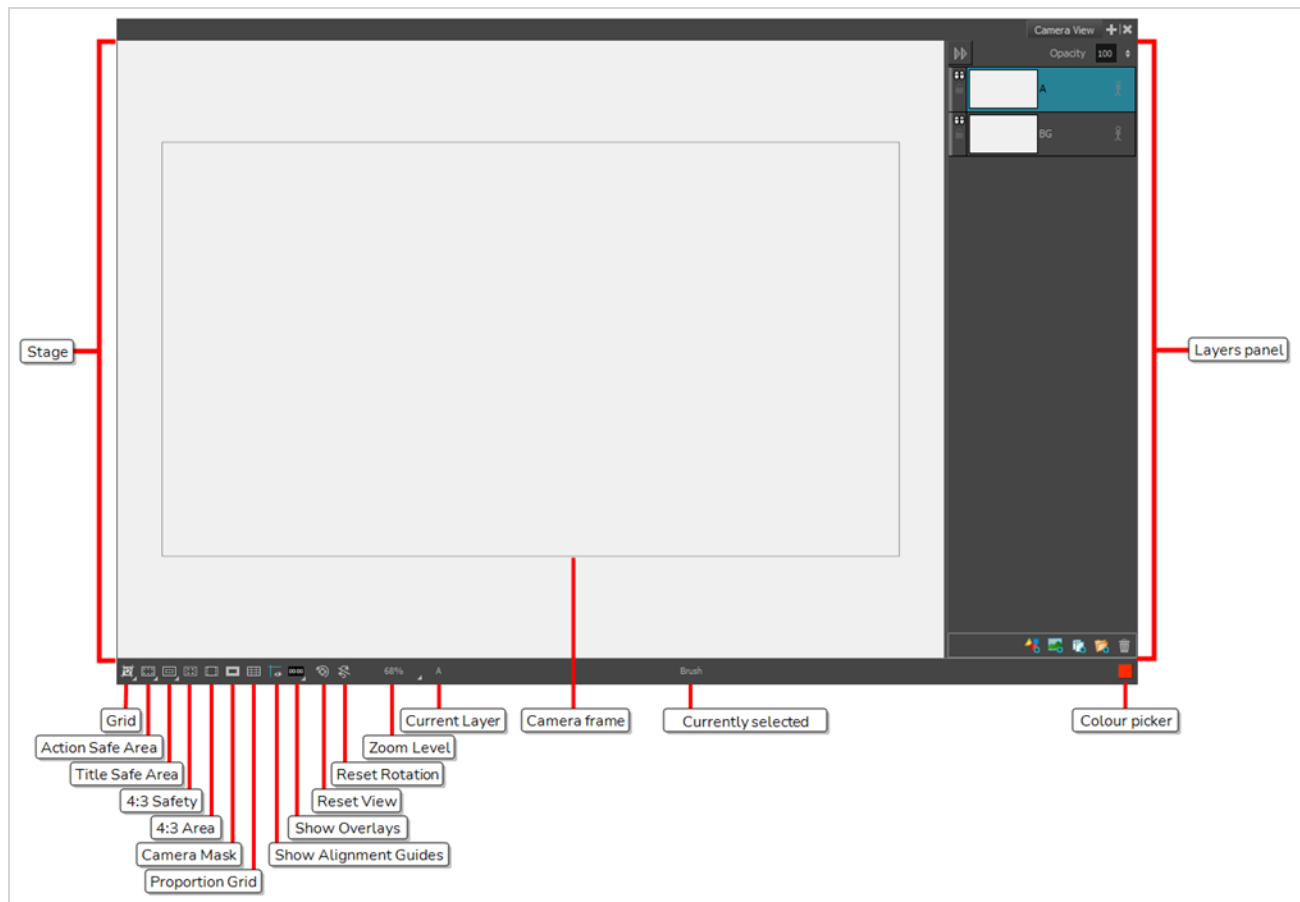
	In the 3D model sub-object display area, sub-objects with geometry are preceded by this icon. Geometry sub-objects have a transformation.
	In the 3D model sub-object display area, sub-objects with a transformation are preceded by this icon.
<b>Sub-Object Text Colour</b>	<b>State</b>
White	The sub-object shape is visible and the sub-object is enabled.
Red	The sub-object and its children are disabled.
Yellow	The sub-object shape is hidden.
Disabled	One of the sub-object parents is disabled.

## Camera View

Like the Stage view, the Camera view allows you to see and position elements in your scene. However, contrary to the Stage view, the Camera view always displays elements from the point of view of the camera lens.

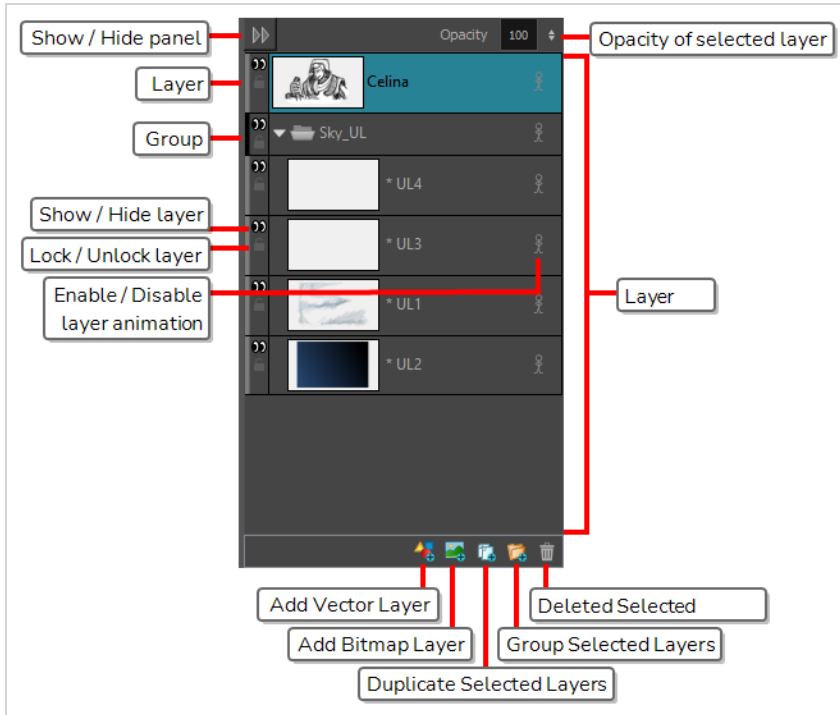
The difference is only visible when working on a 3D scene. If your scene contains 3D models or elements that are positioned at different depths in the stage, panning, zooming and rotating the Stage view will make elements appear in different positions relative to each other, whereas the Camera view will always display elements in the position and proportions they are meant to appear from the camera's point of view, and hence, the way they're meant to appear in the storyboard. This remains true even if you pan, zoom or rotate the Camera view. Furthermore, while the Stage view can be rotated on all axes, allowing you see your stage in perspective, the Camera view can only be rotated in 2D.

Hence, if you work in 2D, the Camera view is not useful. However, if you work in 3D, it is important to become familiar with the difference between both views and to use the Stage view when you want to position elements or the camera relative to each other in the 3D space, and the Camera view when you need to see elements in your stage as they will appear in the exported storyboard, or to position elements relative to the camera's point of view.



**NOTE**











A status bar is located at the bottom of the Stage and Camera views, which contain toggle buttons to hide and display different kind of indicators as well as to adjust the zoom level of the view.


















## How to access the Camera view

- In a view area, click the Add View **+** button and select **Camera**.






Tool Name	Icon	Description
Grid		Displays a grid in the Stage and Camera views. The default size is the standard 12-field (4:3) animation grid, but you can choose another.  You can also select <b>View &gt; Grid &gt; Show Grid</b> or press Ctrl + G (Windows) or ⌘ + G (macOS).
16 Field Grid		Displays a 16x16 field grid. Each cell in the grid has an aspect ratio of 4:3. This makes overall aspect ratio of the grid 4:3.
16x12 Field Grid		Displays a 16x12 field grid. Each cell in the grid has an aspect ratio of 4:3. This makes overall aspect ratio of the grid 16:9.

Tool Name	Icon	Description
Square		Displays a standard square grid.
World Grid		Displays a reference grid that remains the same size when you scale objects. This is useful when creating elements in your drawing and you need a reference point.
Action Safe Area		<p>Displays the Title Safe Area frame inside the camera frame. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be placed within this area.</p> <div data-bbox="732 747 1430 919" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
Action Safe Area Mask		<p>Displays a semi-transparent black mask covering the area between the camera frame and the Title Safe Area frame.</p> <div data-bbox="732 1073 1430 1278" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> You can select the Action Safe Area Mask option by clicking and holding the Action Safe Area  button and selecting it from the pop-up menu.</p> </div>
Title Safe Area		<p>Displays the Action Safe Area frame inside the camera frame. By default, this area is 10% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Characters and action should be placed within this area.</p> <div data-bbox="732 1507 1430 1680" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
Title Safe Area Mask		Displays a semi-transparent black mask covering the area between the camera frame and the Action Safe Area.

Tool Name	Icon	Description
		<div data-bbox="734 283 1430 491" style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>            You can select the Title Safe Area Mask option by clicking and holding the Title Safe Area  button and selecting it from the pop-up menu.         </div>
4:3 Safe Area		<p>Shows or hides the TV safety zone and the centre of the camera frame for a regular 4:3 resolution. If you are working on a widescreen project, for example, you can easily plan in advance the conversion of your project to a TV format. This way, you can create your project to fit both resolutions.</p> <p>You can also select <b>View &gt; Extras &gt; Show 4:3 Safe Area</b>.</p>
4:3 Area		<p>Shows or hides the 4:3 resolution zone without the centre of the camera frame and TV safety zone.</p> <p>You can also select <b>View &gt; Extras &gt; Show 4:3 Area</b>.</p>
Camera Mask		<p>Shows or hides a black mask around the scene's frame to avoid seeing anything outside the Camera frame. This is handy when you are setting up the scene as it allows you to see the scene's composition better.</p> <p>You can also select <b>View &gt; Extras &gt; Camera Mask</b>.</p>
Proportion Grid		<p>Shows or hides the proportion grid, which divides the stage in equal sections horizontally and vertically so as to help you with the composition of your scene.</p> <p>You can also select <b>View &gt; Extras &gt; Show Proportion Grid</b>.</p> <div data-bbox="734 1455 1430 1724" style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>            By default, the proportion grid is divided in 3 horizontally and vertically so as to help you follow the rule of thirds in composition. The number of vertical and horizontal divisions in the proportion grid can be customized in the Camera tab of the Preferences dialog.         </div> <p>You can also select <b>View &gt; Extras &gt; Show Proportion Grid</b>.</p>
Show Alignment Guides		<p>When enabled, alignment guides will be visible in the Stage View and the Camera View.</p>

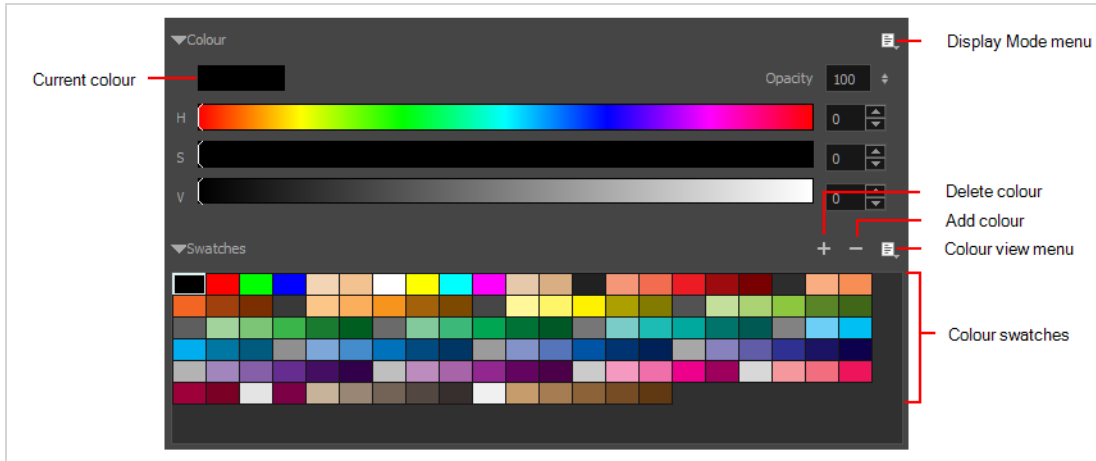
Tool Name	Icon	Description
		This is enabled by default. Disabling this option will hide and disable alignment guides, meaning that animation and drawing tools will not snap to them, even if the  Snap to Alignment Guides option is enabled in the Tool Properties view.
Show Overlays		<p>Displays information about the current frame and panel in the Stage and Camera views, over the artwork.</p> <p>By default, this displays the timecode of the current frame, as well as the name of the current scene and of the current panel. You can configure what to display in the overlays by double-clicking or long-clicking on this button and selecting  <b>Overlay Settings</b> in the pop-up menu—see <a href="#">Overlay Settings Dialog Box</a> on page 163.</p>
Reset View		<p>Resets any panning, zooming or rotation done in the Stage view and returns the display to its initial settings.</p> <p>You can also select <b>View &gt; Reset View</b> or press Shift + M.</p> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b> This option works with the <a href="#">Camera View</a> on page 503.</p> </div>
Reset Rotation		<p>Resets any rotation done in the Stage or Camera view and returns the display to its initial rotation settings.</p> <p>You can also select <b>View &gt; Reset Rotation</b> or press Shift + X.</p>
Zoom Factor	-	Lets you enlarge or reduce the Stage or Camera view display. If you want the camera frame size to always match the size of your Stage view, select the <b>Fit to View</b> option.
Layer Name	-	Displays the name of the selected layer of the current panel.
Tool Name	-	Displays the name of the selected tool. If you override a tool using an overriding keyboard shortcut, the tool's name turns red.
Colour Picker		Displays the currently selected colour in the Colour View . You can click the colour swatch to open the Colour view and select a new colour.



Tool Name	Icon	Description
Layer Panel	-	<p>The Layer panel is where a scene's layers are superposed to form the final image.</p> <p>When you import an image or draw in a panel, you are actually adding artwork to one of its layers. By default, each panel has two layers; a background layer (BG) and a foreground layer (A). As you add layers, they are automatically assigned subsequent letters in alphabetical order, but you can rename them. They are also placed on top of the selected layer or at the very top of other layers if there is no layer selected in the panel.</p>
Add Vector Layer		Adds a vector layer to the Layers list.
Add Bitmap Layer		Adds a bitmap layer to the Layers list.
Duplicate Selected Layers		<p>Duplicates selected layers so you can quickly copy and paste in one operation. Unlike copying a layer, you cannot paste multiple copies of a layer on other panels. Duplicating layers is only available within one panel. Duplicated layers retain their names and are appended with a number.</p>
Group Selected Layers		<p>Groups selected layers. The grouped layer is named <i>Group</i> and appended with an underscore and a number. For example, <i>Group_1</i>. Each time you create a group, the number is incremented.</p>
Delete Selected Layers		Deletes the selected layers.



## Colour View

The Colour view is where you create colours; it is also necessary for drawing and painting.



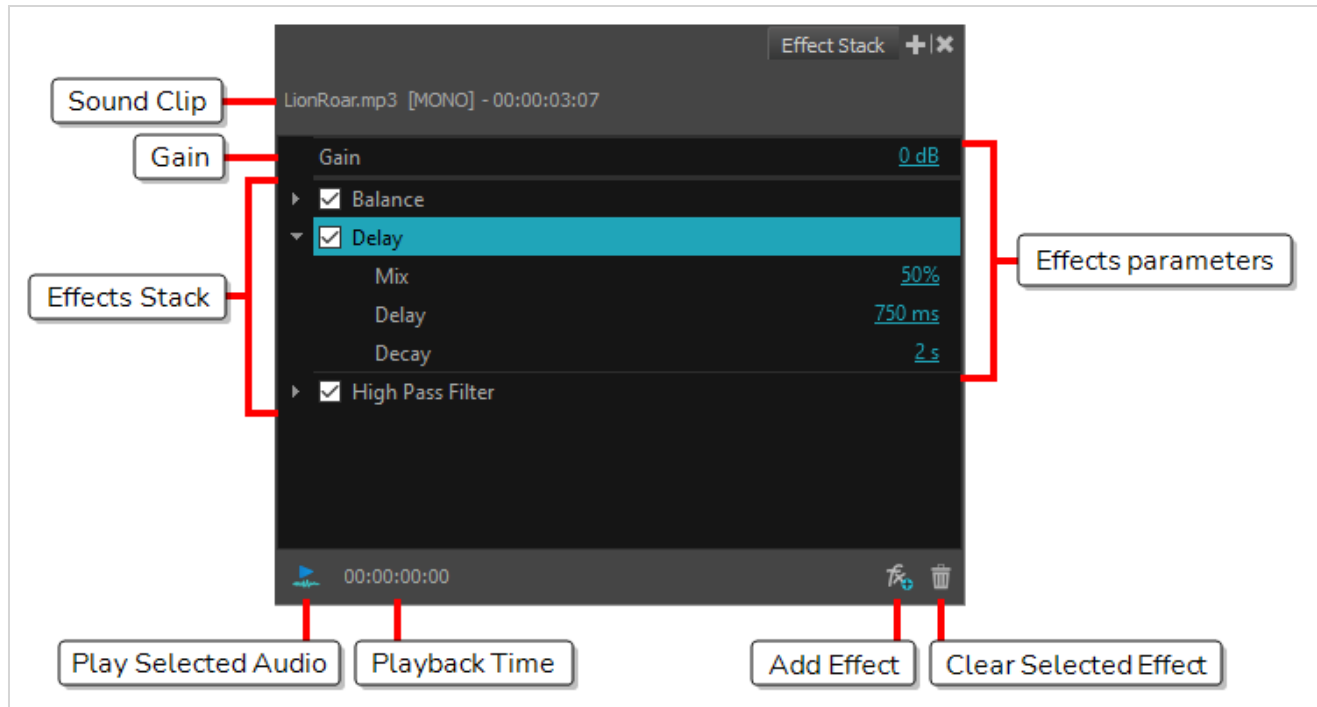
### How to access the Colour view

- ▶ In the Panel view, click the Add View **+** button and select **Colour**.

Icon	Tool Name	Description
Current colour	--	Displays the currently selected colour swatch.
Display Mode menu		Lets you change the display mode to HSV or RGB.
Delete Colour	-	The Delete Colour button lets you delete a selected colour swatch from the Colour view.
Add Colour	+	Lets you create a new colour swatch from the current colour. The new colour swatch is added at the end of the colour swatches.
Colour view menu		Lets you create new colours and textures, delete colours, switch the display mode from swatch to list, import and export colours and save palettes.
Colour swatches	--	Displays the currently available colours. When you create new colour swatches, they are added to the end of the list.

## Effect Stack View

The Effect Stack view is used to edit a sound clip by layering effects onto the clip. The parameters of these effects can be adjusted to fine tune the desired result. Pitch Shift, Reverb and Balance are a few examples of these effects.



### How to access the Effect Stack view

- Do one of the following:
  - In the Top menu, Select **Windows > Effect Stack**.
  - In any view, click the Add View **+** button and select **Effect Stack**.

Name	Description
Sound Clip	Where the selected sound clip name is displayed. This includes the file name, file format and whether the file is mono or stereo (indicated in square brackets). The sound clip name is followed by the current time location of the playhead in the Timeline view.
Gain	A default effect in the Effect Stack with a decibel (dB) value of 0. Controls how loud the selected sound clip is before it goes through any processing (other effects are added). The gain value (loudness) can affect the tone of the sound clip as it goes through processing.

Name	Description
Effects Stack	Where effects are displayed. These effects can be disabled, enabled, have their parameter values modified or be deleted from the list.
Play Selected Audio	Click the Play Selected Audio button to playback the selected sound clip directly in the Effect Stack view.
Playback Time	Indicates the playback time location.
Add Effect	Click on the Add Effect button to display a list of sound effects that can be applied to the selected sound clip. Selecting an item from the list will add this effect to the bottom of the Effect Stack.
Balance	Applies volume independently to the left or right channel. Only works on clips with stereo sound. Mono audio clips will duplicate the audio in each channel and then apply the volume.
Left Volume	Sets the distribution of volume being applied to the left channel in decibels (dB).
Right Volume	Sets the distribution of volume being applied to the right channel in decibels (dB).
Delay	Applies an echo effect to the audio.
Mix	The percentage volume of the echo effect, as it is mixed with the original source audio. A value of 100% will only play the effect, whereas a value of 0% will only play the source audio.
Delay	Defines the delay between the original source audio and the initial echo reverberation, as well as between each subsequent reverberation. This value is in milliseconds (ms).
Decay	Defines the point at which the echoing source can no longer be heard. This value is in seconds (s). If there is more than one echo, each subsequent echo will get quieter and quieter over the length of the decay.  Given a delay of 500 ms and a decay of 2 seconds (2000 ms), the listener will hear a total of 4 individual echos (2000 ms decay / 500 ms delay).
High Pass Filter	Passes frequencies higher than the Frequency Cutoff and mutes frequencies lower than the Frequency Cutoff. Will cut out all the bass of the audio clip and sounds tinnier.

Name	Description
Frequency Cutoff	Set point for passing frequencies above this value, while muting those below this point. Minimum = 0 hz (all frequencies pass), maximum = 22050 Hz (no frequencies pass).
Low Pass Filter	Passes frequencies lower than the Frequency Cutoff and mutes frequencies higher than the Frequency Cutoff.
Frequency Cutoff	Set point for passing frequencies below this value, while muting those above this point. Minimum = 0 hz (no frequencies pass), maximum = 22050 Hz (all frequencies pass).
Pitch Shift	Allows the pitch to be raised or lowered by a defined octave value.
Pitch	<p>Sets the value in octaves by which to shift the pitch, where 0 octaves will result in the original audio. A positive value will increase the pitch, while a negative value will decrease the pitch.</p> <p>Octaves are on a logarithmic scale. This means that shifting the pitch up by one octave (+1) doubles the sound's frequency, while shifting the pitch down by one octave (-1) puts the sound at half its original frequency.</p>
Reverb	Creates a reverberation effect that mimics the way sound bounces within an enclosed space.
Mix	The percentage volume of the reverberation effect, as it is mixed with the original source audio. A value of 100% will only play the effect, whereas a value of 0% will only play the source audio.
Decay	The time decay in seconds (s) for the length that an audio source reverberates within a space. A higher decay time sustains the reverberation for longer and produces more internal reverbs. A lower decay time results in a sharper reverberation.
Absorb	<p>The amount as a percentage (%) that the reverberating audio is absorbed on each sample pass</p> <p>A lower absorption percentage allows the audio to endure for longer. A high absorption value muffles the reverberation faster. A 100% absorb value will result in no reverberation.</p>
Use Frequency Filter	Determines whether the Reverb effect stifles frequencies outside a certain range. When this option is checked, the High Pass and Low Pass filters affect the sound clip's audio frequencies by their selected values. Without this option checked, frequencies will reverberate consistently.

Name	Description
Low Pass	When the Use Frequency Filter option is enabled, this value defines what frequencies can pass on each reverberation. Frequencies below this value will be audible, but frequencies above it will be muted. This parameter can be adjusted to create hollower sounding rooms and larger spaces.
High Pass	When the Use Frequency Filter option is enabled, this value defines what frequencies can pass on each reverberation. Frequencies above this value will be audible, but frequencies below it will be muted. This parameter can be adjusted to create bouncier sounding rooms with harder walls.
Volume	Controls how loud the sound clip is after it's been processed.
Volume	Increase the decibel (dB) value to a number greater than 0 to increase the loudness of the selected sound clip or to a value less than 0 to decrease loudness, where 0 is the starting value. Unlike gain, the volume's loudness will not affect the tone of the sound. The Volume range is -96 dB to +6 dB.
Clear Selected Effect	After selecting an effect from the Effect Stack, click on this button to delete the effect from the stack.

## Function Editor View

T-SBANIM-003-008

The Function Editor view lets you edit function curves and parameters. It contains a visual graph for adding, removing, and editing keyframes, as well as adjusting the velocity. The Function Editor view allows you to display multiple functions in the background as a reference.

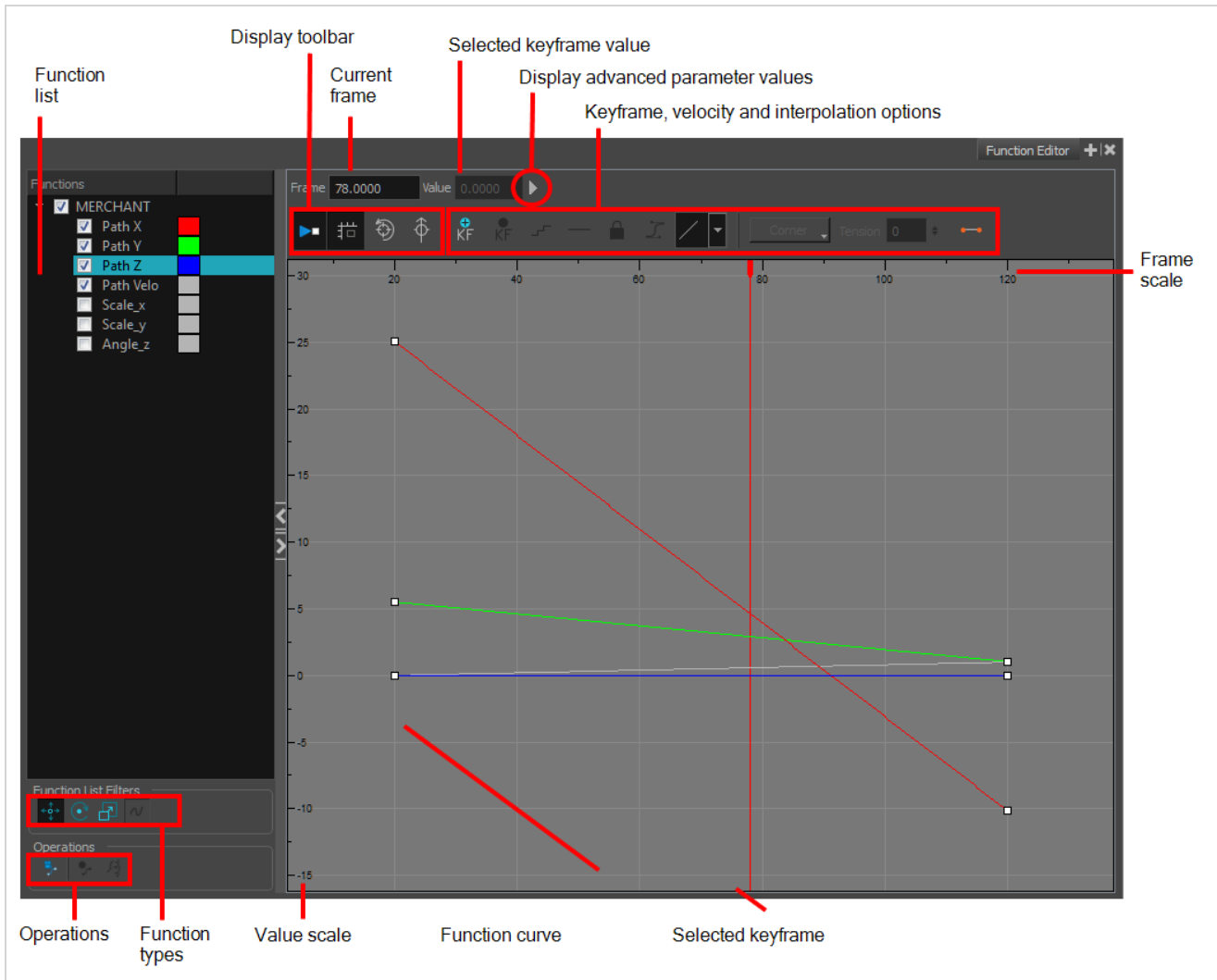
A motion path is easy to manipulate. One important concept to understand is that a trajectory contains both keyframes and control points. Both can be used to shape a path; each have their own behaviour, however only keyframes appear in the Timeline view.

- **Keyframes** have a transformation value and a position in space at a given frame. Keyframes are locked in time.
- **Control points** have a position but no fixed frame or timing. It is mainly used to deform a trajectory. There are no velocity handles available on a control point. The velocity segments are set between keyframes only, making curves and trajectories much smoother. Control points can only be added on a 3D path.

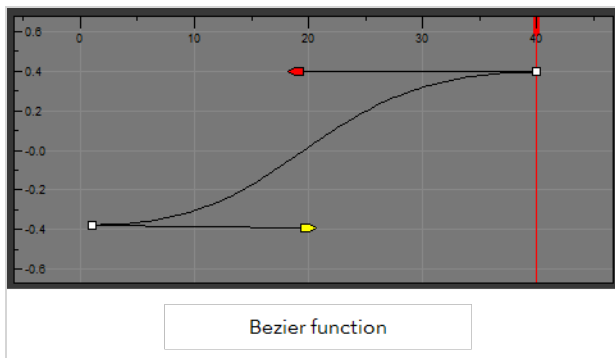


### NOTE

The Function Editor can be used with animated layers, groups, the camera and 3D objects, but does not work with animated video clips.



You can manipulate the curve of any of functions in the Function Editor view by clicking on a keyframe and adjusting its Bezier handles.

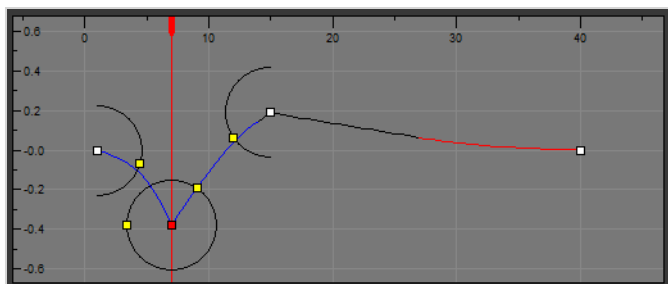






**NOTE**

Ease circles can appear in the Function Editor view if an earlier version of a Storyboard Pro project file is opened in Storyboard Pro 20 or later. If a project file later than Storyboard Pro 20 is opened in Storyboard Pro 7 or earlier, velocity curves will still appear as Bezier. However, if the easing values are modified in the Ease in Ease out boxes, the Bezier editing system changes to the Ease circles customary to earlier versions of Storyboard Pro.



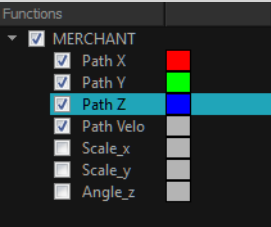
Ease function

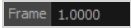
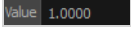




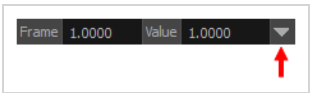





**How to access the Function Editor view**

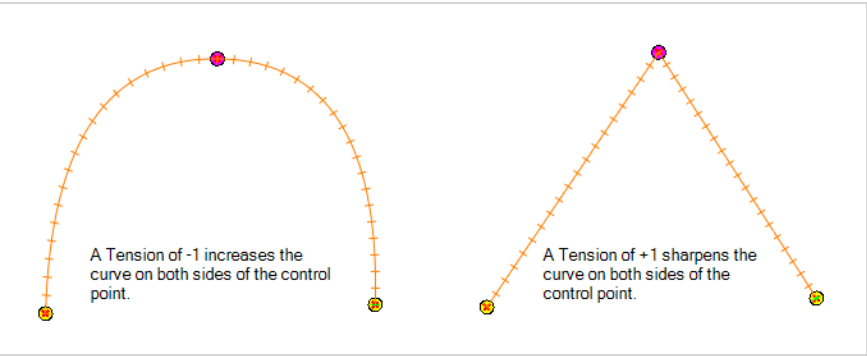

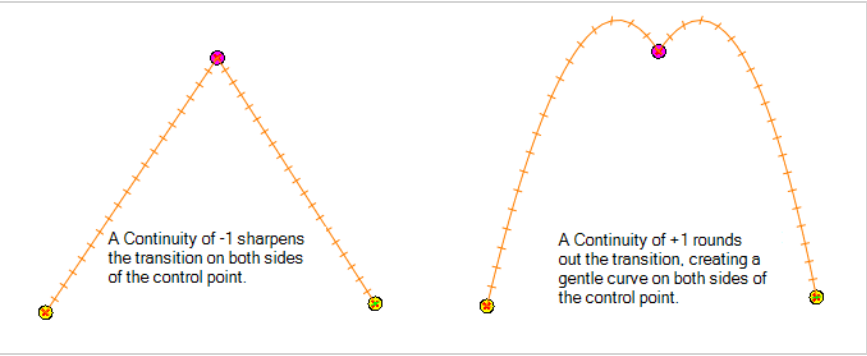

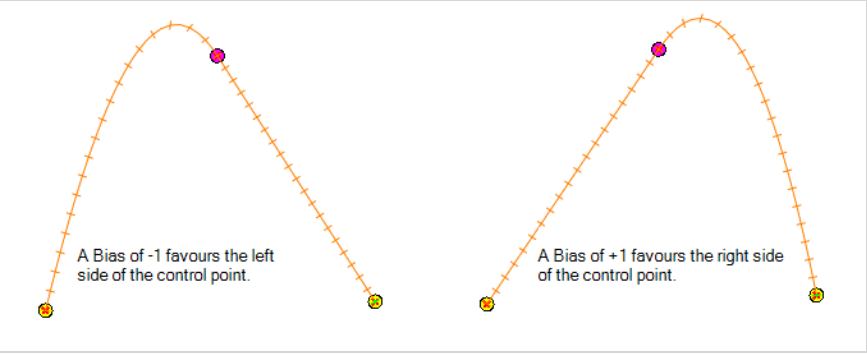

1. Do one of the following:
  - ▶ In a view area, click the Add View **+** button and select **Function Editor**.
  - ▶ Select **Windows > Function Editor**.






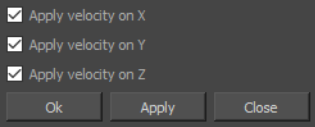






The Function Editor displays and is blank.






2. From the Stage or Camera view, select a layer that contains functions.

Parameter	Description
Function List	 <p>When selecting a layer, all the corresponding functions are displayed. Select all the functions you want to see and edit; hide the ones you do not want to see nor edit.</p> <p>To display a function, select its check-box. To hide a function, deselect its check-box.</p>

	You can change the color of the function by double-clicking the color box, and choosing another color from the dialog box that displays.
	Displays the current scene frame.
	Displays the value of the selected keyframe.
Display Toolbar	Allows you to modify how the editing area is displayed. You can hide the grid, disable the synchronization with the current frame, reset the zoom level and normalize the function display by stacking them one over the other to compare them regardless of their value range.
 Show Current Frame	Displays the frame currently selected.
 Toggle Grid	Displays/hides the grid.
 Reset View	Optimizes the horizontal and vertical view of your keyframes, for better viewing.
 Reset View Vertically	Optimizes the vertical view of your keyframes for better viewing.
	Clicking the arrow gives access to various parameters enabling you to modify the layer animation by adjusting the curve around the selected keyframe.
 Right Angle	In Bezier function, this is the angle value of the handle on the right side of the selected keyframe.
 Left Angle	In Bezier function, this is the angle value of the handle on the left side of the selected keyframe.
 Right Length	Available when paths other than velocity are selected. The length value of the Bezier handle on the right side of the selected keyframe.
 Left Length	Available when paths other than velocity are selected. The length value of the Bezier handle on the left side of the selected keyframe.
 Tension	Available when a velocity path is selected. Controls how sharply the path bends as it passes through a control point or keyframe. The higher the value, the more

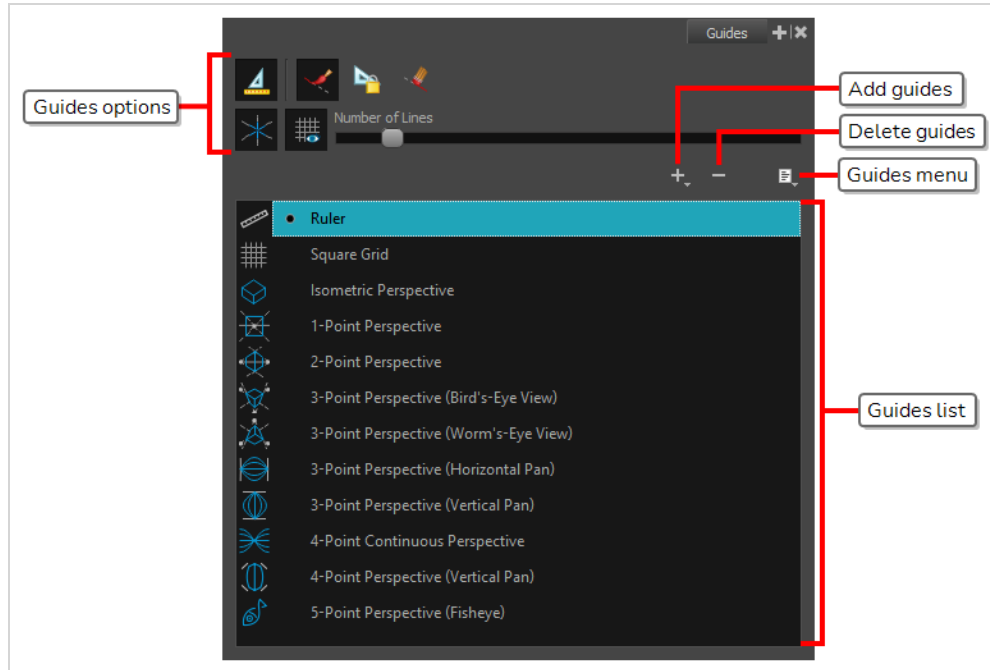
	<p>drastic the curve. The lower the value, the more gradual the curve.</p>  <p>A Tension of -1 increases the curve on both sides of the control point.</p> <p>A Tension of +1 sharpens the curve on both sides of the control point.</p>
 Continuity	<p>Available when a velocity path is selected. Controls the smoothness of a transition between the segments joined by a point.</p>  <p>A Continuity of -1 sharpens the transition on both sides of the control point.</p> <p>A Continuity of +1 rounds out the transition, creating a gentle curve on both sides of the control point.</p>
 Bias	<p>Available when a velocity path is selected. Controls the slope of the path so it flows towards one side of the motion point or the other.</p>  <p>A Bias of -1 favours the left side of the control point.</p> <p>A Bias of +1 favours the right side of the control point.</p>
<p>Keyframe, Velocity and Interpolation Options</p>	<p>This toolbar lets you add and delete keyframes, adjust the velocity curve, adjust the segments to motion or stop-motion keyframes and set the velocity to create steps instead of a constant progression.</p>
 Add Keyframe	<p>Adds a keyframe at the current frame.</p>

 Remove Keyframe	Deletes selected keyframes.
 Hold Value Editor	Creates a stepped curve to hold the same value over a selected number of frames. This works well when you are animating drawings on 2s, for example, and you want to hold the same value for a function over those two frames.
 Reshape to Stop Motion Keyframe	Converts a motion keyframe into a stop-motion keyframe.
 Lock in Time	Converts a keyframe into a control point, or a control point into a keyframe. More specifically, indicates whether the point is locked to a specific frame (keyframe) or only locked to a specific position and the curve can flow through it freely as other points are being added, moved, or adjusted (control point).
 Apply Velocity Editor	<p>Gives access to the Velocity Editor dialog box. You can apply velocity on the x, y, or z axes, independently.</p> 
	Defines the ease-in ease-out type for your animation. Click the down arrow to access velocity pre-set choices.
	Gives access to various Bezier handle manipulation options. Click the down arrow to choose a pre-defined option.
	Enables you to enter a value for the tension on velocity movement. The higher the value, the more tension on the velocity curve.
 Stop-Motion Keyframe	Converts a motion keyframe into a stop-motion keyframe. The same value is applied to all frames until the next keyframe. Motion changes to the next keyframe's position, when the next keyframe is reached.
Function List Filters	Enables you to quickly select or deselect all functions within a category.
 Show Motion	Displays the functions related to motion.
 Show Rotation	Displays the functions related to rotation.

 Show Scale	Displays the functions related to scale.
 Show Other	Displays other parameters not included in the Show Motion, Show Rotation and Show Scale filters.
Operations	Lets you display the Camera functions, add other editable functions and convert to Bezier.
 Show Camera Functions	Displays the functions related to the camera.
 Add Editable Functions	Enables you to view the functions of a layer that has no keyframes.
 Convert to Bezier Functions	Enables you to switch from Ease function to Bezier function. Bezier curves enables you adjust the ease in and ease out of each keyframe. The more the handle is pulled out horizontally, the slower the animation will be. The more the handle is pulled out vertically, the faster the animation will be.
Value Scale	Displays the value range for the displayed editing area. It can be referenced to know the value of a keyframe.
Selected Keyframe	The selected keyframe is displayed in red. When selected, the keyframe values are displayed in the corresponding fields.
Function Curve	The thin line going from keyframe to keyframe is the actual curve. The section of a curve located between two keyframes is called a segment.
Frame Scale	The Frame Scale displays the frame range for the displayed editing area. It can be referenced to know the current frame of a keyframe.

## Guides View





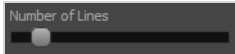












The Guides view allows you to add drawing guides to the current panel, to select which guide to use, to manage existing guides, to export and import guides and to enable or disable drawing guides as well as their various options.







### NOTE

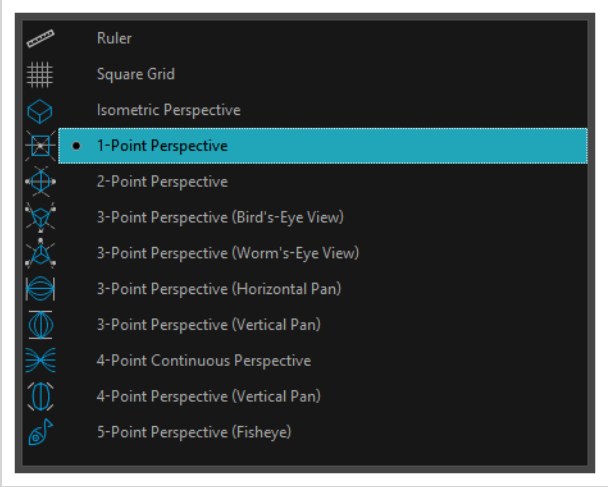
For more information on each type of guide and how to use them, refer to the User Guide.

Icon	Name	Description
Options		
	Enable Guide	Enables or disables drawing guides. When guides are disabled, they are not visible and you cannot edit them or use them with drawing tools.
	Align with Guide	<p>When enabled, when drawing with the  Brush,  Pencil and  Line tools, the cursor is automatically locked against the axis of the currently selected guide that most closely matches the angle of your stroke, as if you were drawing against a rule.</p> <p>When disabled, the drawing tools are not constrained by the axes of the guide, allowing you to draw freely. The guide's axes act as a visual aids only.</p>

Icon	Name	Description
	Lock Guide	When enabled, you cannot do modifications on the currently selected guide. This prevents making unwanted modifications to the guide when drawing.
	Enable Guide with Eraser	Allows you to use the Eraser tool with drawing guides.
	Full Cursor Display	<p>When enabled, the guide's axes that go through the mouse cursor in the drawing space go throughout the entire drawing space and display even when you're drawing.</p> <p>When disabled, the guide's axes that go through the mouse cursor only display over a short distance from the mouse cursor. Also, the guide's axes disappear when drawing a stroke.</p>
	Show Reference Lines	When enabled, semi-transparent reference lines for each of the currently selected guide's axes appear all over your drawing space.
	Number of Lines	<p>Adjusts the amount of reference lines to display in your drawing space.</p> 
Guides List		
	New Guide	<p>Allows you to add a guide to the panel's guides list. You can add a guide of one of the following types:</p> <ul style="list-style-type: none"> <li>•  Ruler</li> <li>•  Square Grid</li> <li>•  Isometric Perspective</li> <li>•  1-Point Perspective</li> <li>•  2-Point Perspective</li> <li>•  3-Point Perspective (Bird's-Eye View)</li> <li>•  3-Point Perspective (Worm's-Eye View)</li> <li>•  3-Point Perspective (Horizontal Pan)</li> <li>•  3-Point Perspective (Vertical Pan)</li> <li>•  4-Point Continuous Perspective</li> <li>•  4-Point Perspective (Vertical Pan)</li> </ul>

Icon	Name	Description
		<ul style="list-style-type: none"> <li>•  5-Point Perspective (Fisheye)</li> </ul> <div data-bbox="540 344 1430 514" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b> For more information on each type of guide and how to use them, refer to the User Guide.</p> </div>
	Delete Guide	Deletes the selected drawing guides from the panel's guides list.
	Guides View Menu	Opens a menu with the following commands:
	Rename Guide	Renames the selected drawing guide.
	Cut	Cuts the selected drawing guides from the list and adds them to the clipboard.
	Copy	Copies the selected drawing guides to the clipboard.
	Paste	Pastes drawing guides from the clipboard to the current panel's guides list. Pasted guides are inserted under the selected guide.
	Import Guides	Imports drawing guides that were previously exported to a file and inserts them at the bottom of the panel's guides list. Duplicate guides are filtered out to avoid cluttering the list.
	Export Selected Guides	Exports the selected drawing guides into a file.
	Drawing Guides List	Displays the panel's list of guides and allows you to select which guide to display, edit and use.

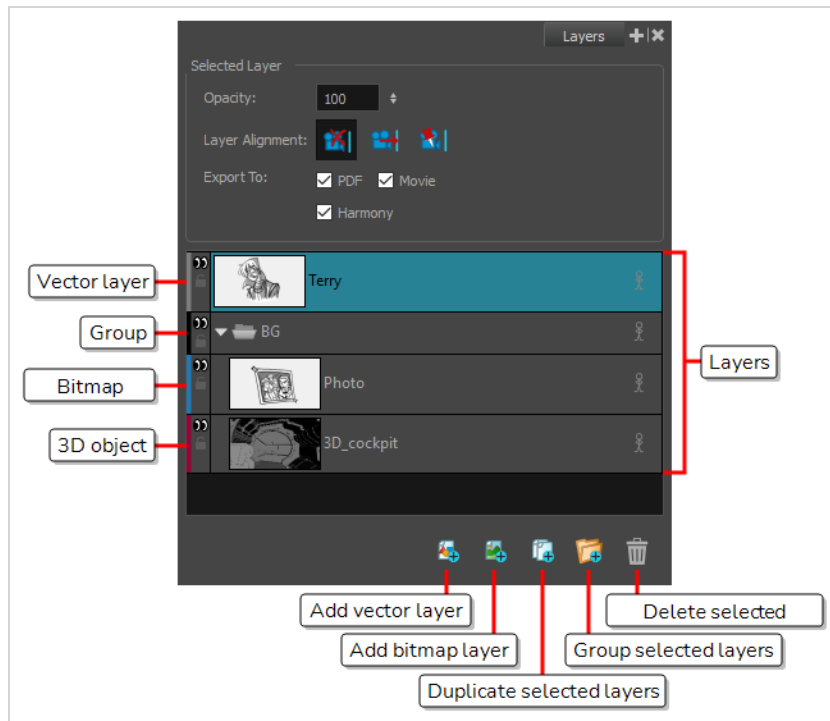


Icon	Name	Description
		

## Layers View


The Layers view is where a scene's layers are superimposed to form the final image.






When you import an image or draw in a panel, you are actually adding artwork to one of its layers. By default, each panel has two layers; a background layer (BG) and a foreground layer (A). As you add layers, they are automatically assigned subsequent letters in alphabetical order, but you can rename them. They are also placed on top of the selected layer or at the very top of other layers if there is no layer selected in the panel.








### How to access the Layers view

- ▶ In the Panel view, click the Add View **+** button and select **Layers**.

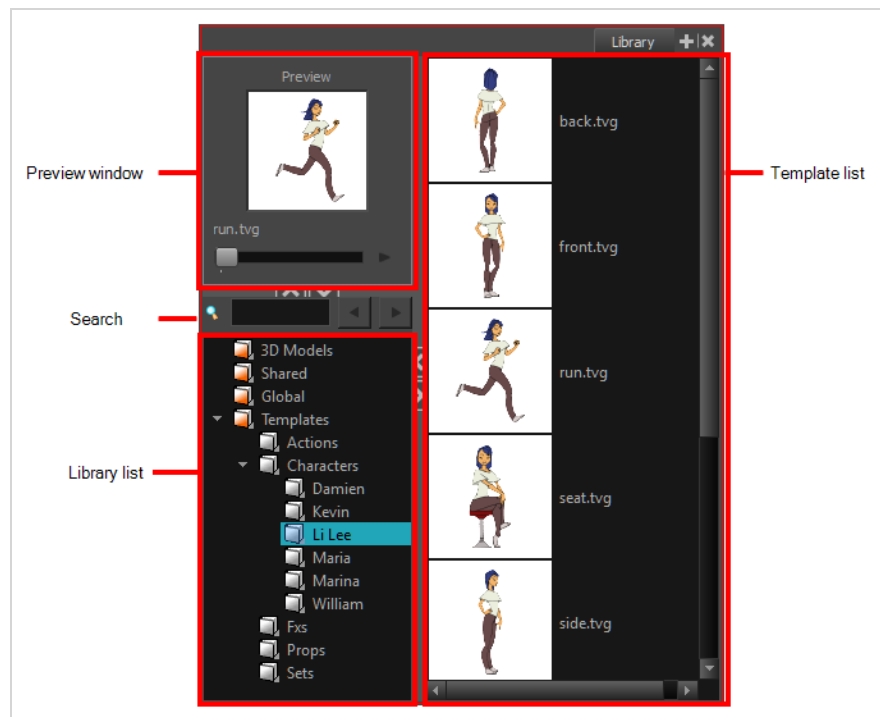
Icon	Tool Name	Description
<b>Selected Layer</b>		
	Opacity	Allows you to adjust the opacity of the layer, to make it opaque or semi-transparent.
	Layer Alignment	Allows you to select how the layer is aligned with the camera: <ul style="list-style-type: none"> <li>•  <b>No Alignment:</b> The layer is independent of the camera.</li> </ul>

Icon	Tool Name	Description
		<div data-bbox="740 283 1430 516" style="border: 1px solid #c8e6c9; padding: 10px; margin-bottom: 10px;">  <b>NOTE</b>            If you change the alignment of a layer from Pin to Camera to No Alignment, its animation will be discarded and it will be in the position it is at the current frame throughout the panel.         </div> <ul style="list-style-type: none"> <li data-bbox="711 548 1414 646">•  <b>Face Camera:</b> The layer is oriented to face the camera, so it rotates around its pivot point to always face the camera, but does not move with the camera.</li> </ul> <div data-bbox="740 678 1430 1115" style="border: 1px solid #c8e6c9; padding: 10px; margin-bottom: 10px;">  <b>NOTES</b> <ul style="list-style-type: none"> <li data-bbox="862 758 1390 930">• If you change the alignment of a layer from No Alignment to Face Camera, its offset and scale transformations and animations will be preserved, but not its rotation angle transformations and animations.</li> <li data-bbox="862 947 1398 1083">• If you change the alignment of a layer from Pin to Camera to Face Camera, its animation will be discarded and it will be in the position it is at the current frame throughout the panel.</li> </ul> </div> <ul style="list-style-type: none"> <li data-bbox="711 1146 1425 1209">•  <b>Pin to Camera:</b> The layer is oriented to the camera's perspective. Essentially the layer always moves with the camera.</li> </ul> <div data-bbox="740 1241 1430 1440" style="border: 1px solid #c8e6c9; padding: 10px;">  <b>NOTE</b>            When changing the alignment of a layer to Pin to Camera, all its transformations and animation are discarded.         </div>
	Export To	<p>The following options allow you to control whether the selected layer appear in one of the three main export mediums for Storyboard Pro projects:</p> <ul style="list-style-type: none"> <li data-bbox="711 1686 1417 1787">• <b>PDF:</b> If enabled, the selected layer will show up in the exported document when you export your storyboard in Photoshop Document (.pdf) format.</li> <li data-bbox="711 1812 1417 1913">• <b>Movie:</b> If enabled, the selected layer will appear in the exported image when you export your animatic as a movie or as an image sequence.</li> </ul>

Icon	Tool Name	Description
		<ul style="list-style-type: none"><li>• <b>Harmony:</b> If enabled, the selected layer will appear in the exported scenes when you export your animatic as Harmony scenes.</li></ul>
	Layers	The list of layers in the current panel.
	Add Vector Layer	Adds a vector layer to the Layers list.
	Add Bitmap Layer	Adds a bitmap layer to the Layers list.
	Duplicate Selected Layers	Duplicates selected layers so you can quickly copy and paste in one operation. Unlike copying a layer, you cannot paste multiple copies of a layer on other panels. Duplicating layers is only available within one panel. Duplicated layers retain their names and are appended with a number.
	Group Selected Layers	Groups selected layers. The grouped layer is named <i>Group</i> and appended with an underscore and a number. For example, <i>Group_1</i> . Each time you create a group, the number is incremented.
	Delete Selected Layers	Deletes the selected layers.

## Library View

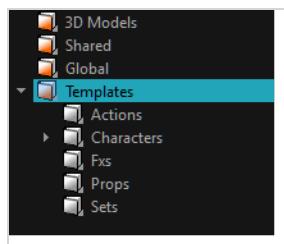
The Library view is used to create and manage templates, as well as the folders containing them.



The Preview window of the Library view lets you preview the contents of the selected template. Audio files cannot be previewed in the Preview window of the Library view.



The Library List is used to navigate through the different libraries and subfolders. You can also open, close and create new libraries from here.



The Library view has two default Library folders:

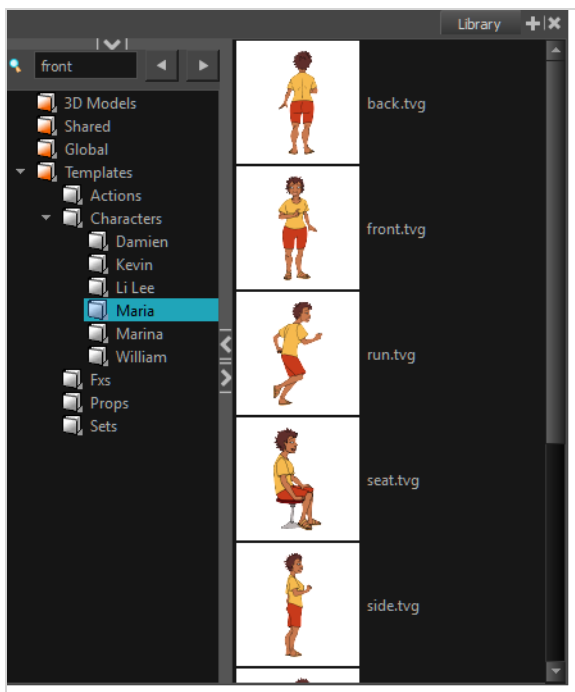
- **Global:** This is an empty folder you can use to organize your templates. This library is automatically shared between different projects. You can organize this library folder using subfolders. When you save items in the Global library, it is saved by default to a location in your **Documents** folder on your machine.
- **Templates:** This folder contains default templates provided with Storyboard Pro and is stored on your hard drive. The content of this Library is automatically shared between the different projects.

**NOTE**

To verify the path where files are being stored, hover your cursor over the folder to display the path

The templates contained in the selected Library list can be displayed on the right side of the Library view as thumbnails, in a list or as details.

In the Library view's right side, right-click and select **View > List, Thumbnails** or **Details**.

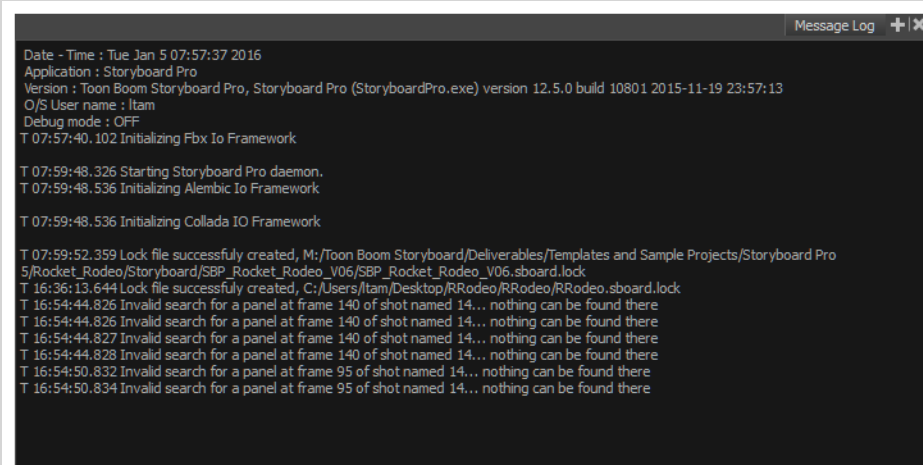


## How to access the Library view

- In the Panel view, click the Add View **+** button and select **Library**.

## Message Log View

The Message log view displays information gathered during a render task, such as which frames and at what time they were each rendered. The view also contains a list of the colour recovery operations.



```
Message Log + x
Date - Time : Tue Jan 5 07:57:37 2016
Application : Storyboard Pro
Version : Toon Boom Storyboard Pro, Storyboard Pro (StoryboardPro.exe) version 12.5.0 build 10801 2015-11-19 23:57:13
O/S User name : Itam
Debug mode : OFF
T 07:57:40.102 Initializing Fbx Io Framework

T 07:59:48.326 Starting Storyboard Pro daemon.
T 07:59:48.536 Initializing Alembic Io Framework

T 07:59:48.536 Initializing Collada IO Framework


T 07:59:52.359 Lock file successfully created, M:/Toon Boom Storyboard/Deliverables/Templates and Sample Projects/Storyboard Pro
5/Rocket_Rodeo/Storyboard/SBP_Rocket_Rodeo_V06/SBP_Rocket_Rodeo_V06.sboard.lock
T 16:36:13.644 Lock file successfully created, C:/Users/Itam/Desktop/RRodeo/RRodeo/RRodeo.sboard.lock
T 16:54:44.826 Invalid search for a panel at frame 140 of shot named 14... nothing can be found there
T 16:54:44.826 Invalid search for a panel at frame 140 of shot named 14... nothing can be found there
T 16:54:44.827 Invalid search for a panel at frame 140 of shot named 14... nothing can be found there
T 16:54:44.828 Invalid search for a panel at frame 140 of shot named 14... nothing can be found there
T 16:54:50.832 Invalid search for a panel at frame 95 of shot named 14... nothing can be found there
T 16:54:50.834 Invalid search for a panel at frame 95 of shot named 14... nothing can be found there
```

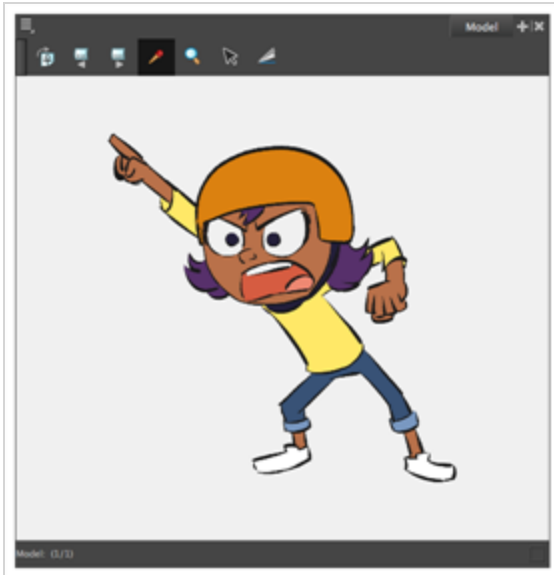
### How to access the Message Log view

- Select **Windows > Message Log**.

## Model View


Once you have a fully painted drawing, you can use it as a colour model and load it in the Model view. This drawing can be used and loaded in any of your Storyboard Pro scenes.




Once a drawing is loaded in the Model view, you can use the Colour Eyedropper  tool to select a colour from the model and use it to paint in the Camera or Drawing view without having to pick the colour from the colour palette.





### How to open the Model view




Do one of the following:

- From the top menu, select **Windows > Model**.
- From any of the other views, click the Add View  button and select **Model**.

Icon	Tool/Command	Description
	View Menu	The View menu contains all the tools and options that you can use to manage models.
	Previous Model	Allows you to navigate backwards from the currently displayed model, to view other models previously loaded into the Model view.
	Next Model	Allows you to navigate forwards from the currently displayed model, to view other models loaded

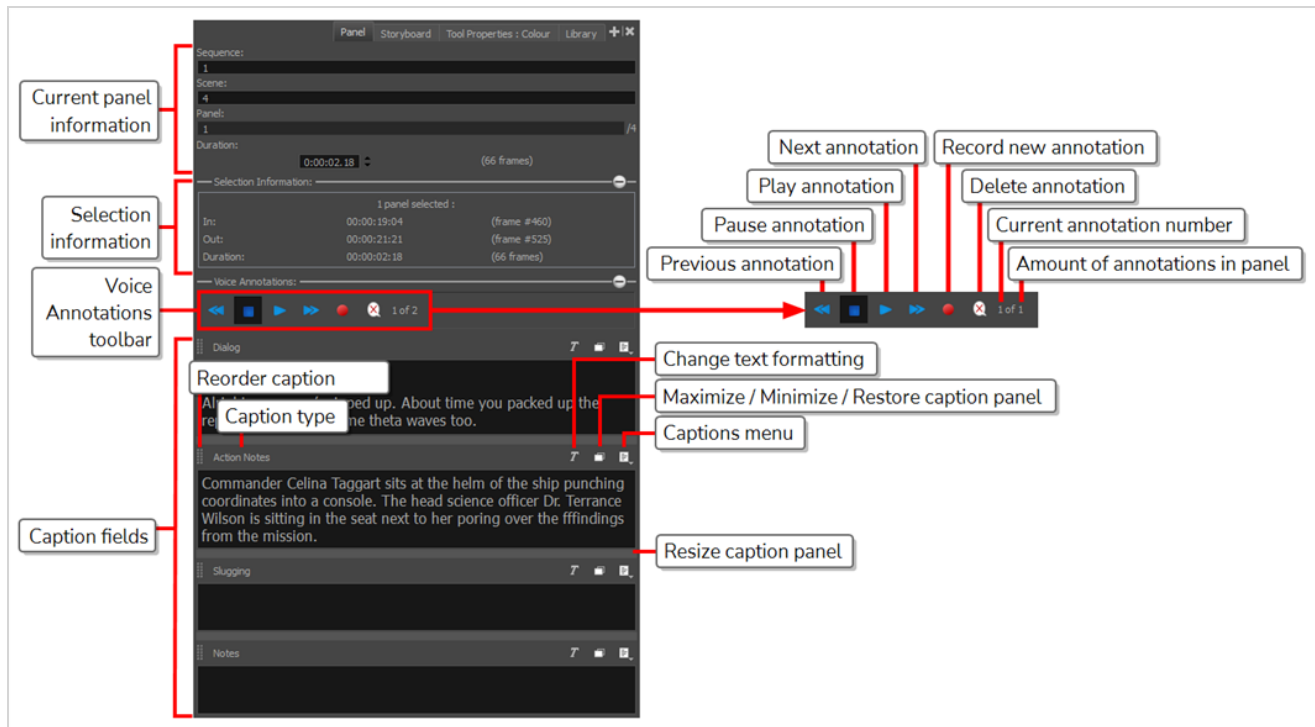


		afterwards into the Model view.
	Import Model	Opens a browser window to locate and select *.tvg drawing files from outside the project. Once selected, these drawing files are imported into the Model view as models.
	Use Current Drawing as Model	Imports the drawing from the currently selected layer into the Model view. This layer can be selected from the Camera, Stage, Layer or Thumbnail views.
	Load Default Models	Requires the creation of a folder named <b>models</b> in your primary project folder. This folder then needs to be populated with *.tvg drawing files. Once these 2 steps are complete, this menu command allows for the import of any of these drawings files from the <b>models</b> folder into the Model view.
	Clear Model	Removes the currently displayed model from the model view.
	Zoom In	Zooms in the view.
	Zoom Out	Zooms out the view.
	Reset Zoom	Resets the view's zoom to its default position.
	Reset View	Resets the view to its default position.
	Rotate View CW	Rotates the Camera view 30 degrees clockwise, like an animation table.
	Rotate View CCW	Rotates the Camera view 30 degrees counter-clockwise, like an animation table.
	Reset Rotation	Resets the view's rotation to its default position.
	Select	Allows you to select and reposition, scale, rotate and skew brush strokes, pencil lines, shapes and other parts of your artwork.

	Cutter	Allows you to cut a part of your artwork, then reposition, scale, rotate and skew it.
	Dropper	Allows you to select a colour by clicking on a colour in your artwork.
	Zoom	Allows you zoom in and out of the Model view.

## Panel View






The Panel view displays the basic information about the currently selected panel. It also allows to view and edit captions in the current panel, as well as to add sketches or voice annotations to the panel.



### How to access the Panel view

- Do one of the following:
  - In the top-right corner of a view, click the **+** Add View button and select **Panel**.
  - In the top menu, select **Windows > Panel**.

Icon	Tool Name	Description
--	Current panel information	This section of the Panel view is where information, such as the duration of the current panel, name of the current panel and name of the scene in which it is part of is displayed. It is possible to edit some of the field.
--	Selection information	This collapsible section of the Panel view is where the information, such as the number of selected panels, the in and out of the current selection, as well as the duration of the selected panels. These fields are for reference only; they cannot be edited.  Click the Collapse <b>—</b> button to hide the section and leave more room for the Script

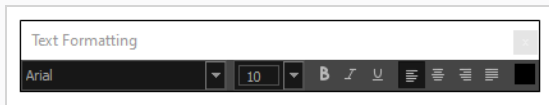
		caption field. Once it is collapsed, you can click the Expand  button to display the entire section again.
--	Voice Annotations toolbar	It is possible to add voice annotations to a panel. This collapsible section is used to control and edit these annotations.
	Text Formatting	Displays the Text Formatting toolbar for formatting the text in the Script caption area.
	Resize	When there are two or more panels present, resizes the panel in three different sizes: opens panel fully, opens mid-sized panel or collapses the panel.  See
	Caption Menu	Lets you access commands for adding, importing, deleting and renaming captions. You can also import scripts created in Final Draft.
--	Caption fields	<p>Captions are text fields in which you can store information for each panel in your project. The types of captions for your project are fully customizable. By default, a new project will have the following type of captions:</p> <ul style="list-style-type: none"> <li>• <b>Dialogue:</b> The lines of dialogue spoken by the characters in the current panel.</li> <li>• <b>Action Notes:</b> The actions performed by the characters in the current panel.</li> <li>• <b>Slugging:</b> Notes regarding the timing of dialogues and actions in the current panel. These can be added while creating the storyboard to give instructions on how to create the animatic.</li> <li>• <b>Notes:</b> Any relevant information about the current panel or the current scene, such as the scene heading, the characters and props, ambient sounds, background and foreground actions, continuity notes or, if working on a live action project, the cast, crew, props or material required to complete the shot.</li> </ul> <p>The caption fields are named by default, you can easily change the name of these fields by clicking the Caption Menu  button and selecting the Rename Caption option. Once you have changed the names of the captions and you are certain that you want to keep these names throughout the project, you can set the new names as default by selecting <b>Caption &gt; Save Captions Layout as Default</b> from the top menu.</p>

## How to display the Text Formatting toolbar

1. Click the

**T** Text Formatting button.


The Text Formatting toolbar displays.



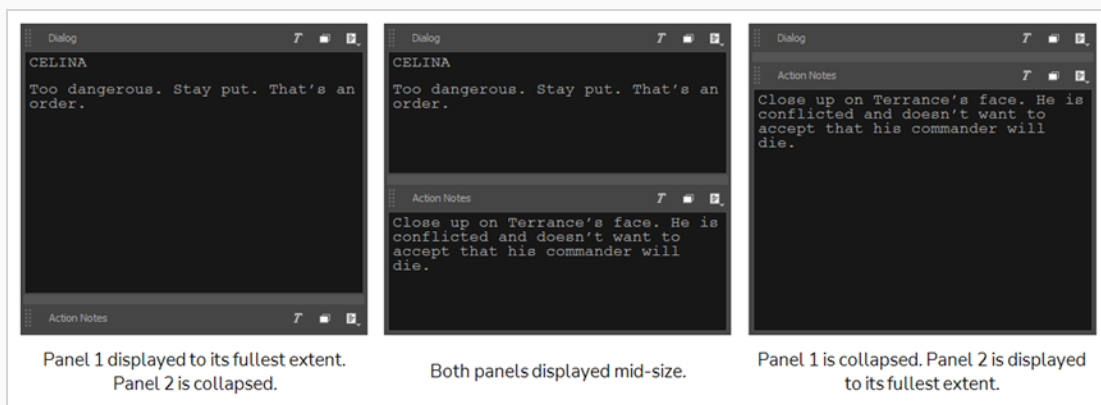
2. Format the text in the panel.

## How to resize a panel

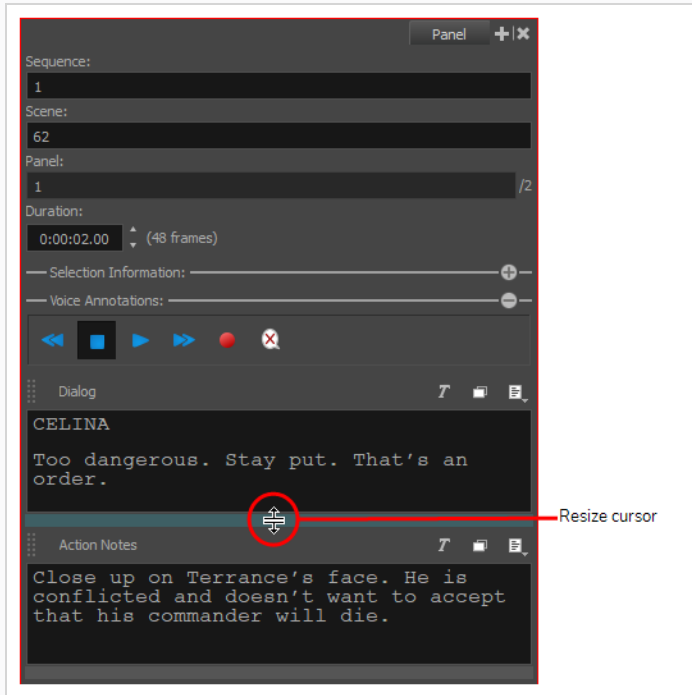
1. When there are two or more panels present, do one of the following:

- Click on the Collapse / Expand  button.

The panel toggles between fully expanded, expanded and collapsed.



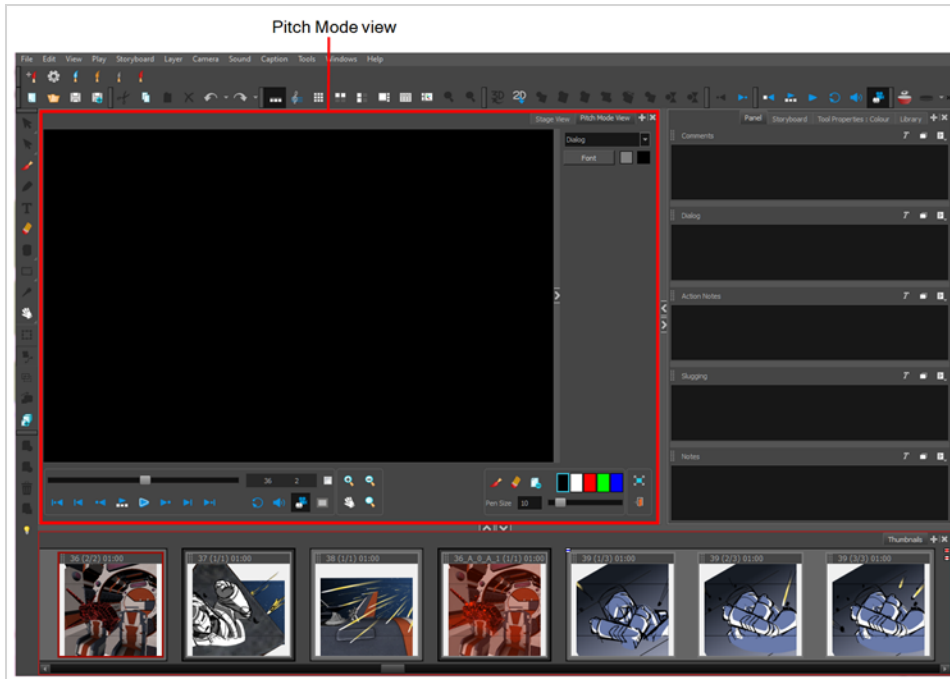
- Hover over a bar between two panels. When the bar turns cyan and the resize cursor appears, click and drag to resize the panel.



## Pitch Mode View

The Pitch Mode view is optimized for pitching your storyboard. When using the Pitch Mode view, the tools and functions that cannot be used are dimmed. You will no longer have access to your drawing layers. To return to the normal mode, you must close the Pitch Mode view.

There is also a Pitch Mode workspace which is similar the Pitch Mode view. This workspace occupies the entire screen and provides access only to a certain number of tools—see [Pitch Mode Workspace on page 571](#).



### How to access the Pitch Mode view

1. Do one of the following:
  - Select **Windows > Pitch Mode View**.
  - In the Panel view, click the Add View **+** button and select **Pitch Mode View**.

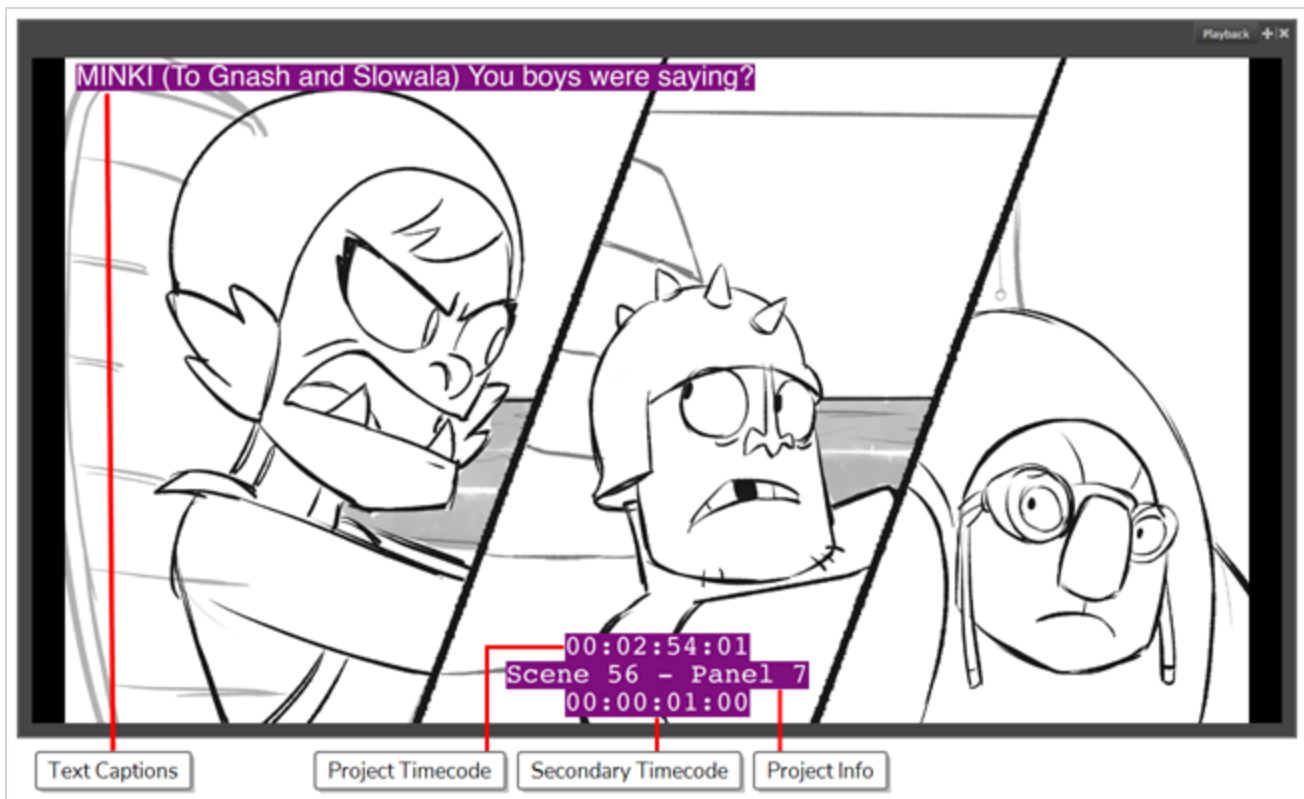
## Playback View

You can view a high quality playback of your animatic in the Playback view. By default, this view does not appear in the software. You must enable this option in the Preferences and relaunch the software to make this option available.

The Playback view pre-renders frames (composites camera moves, effects, transitions, etc.) and saves them in a cache, then uses this cache for playback. The result is an accurate real-time preview.

The Playback view allows for the display of information pertaining to the current frame. This can include captions and dialog, the project timecode and the current scene and panel. Consult the Preferences Guide > Playback tab for more details.

You can now define the playback range and select the playback range options. You can also redefine the working range by setting the Start and Stop frames.



### How to make the Playback view available

1. In the top menu, select **Edit > Preferences (Windows)** or **Storyboard Pro > Preferences (macOS)**.  
The Preferences window opens.
2. In the Preferences window, click on the **Playback** tab.



3. In the Playback tab, in the Cached Playback section, click on the Playback Mode drop-down menu and select **Playback View**.
4. Click **OK** to confirm the changes and to close the Preferences window.
5. Close Storyboard Pro by either clicking on the red square with an X, located at the top corner of the software, or by using the keyboard shortcut Ctrl + Q (Windows) or ⌘ + Q (macOS).
6. Relaunch Storyboard Pro.

The Playback view and its options are now available in the software.

### How to access the Playback view

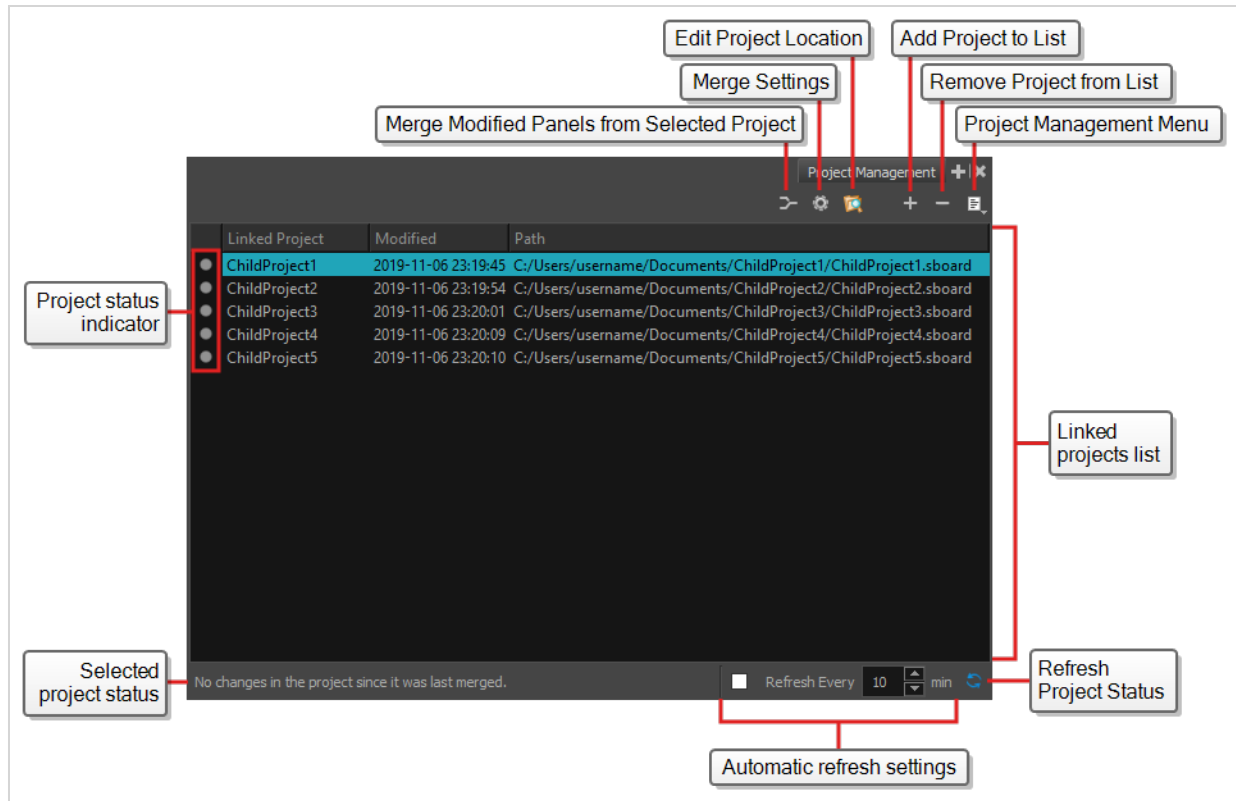
Do one of the following:

- From the top menu, select **Windows > Playback**.
- From any of the other views, click the Add View **+** button and select **Playback**.

## Project Management View

When you extract smaller Storyboard Pro projects from your main project to allow other project collaborators to work on the storyboard and animatic together, the Project Management view allows you to keep a list of the smaller projects that were extracted from your main project, to see if those smaller projects have been updated and to quickly import their changes into the main project.


Likewise, if you are working on a smaller project that was extracted from a bigger project, the Project Management view allows you to check if the bigger project was changed and to import its changes into your smaller project.










### How to access the Project Management view

1. Do one of the following:

- In the top-right corner of any view, click on **+** Add View and select **Project Management**.
- In the top menu, select **Windows > Project Management**.

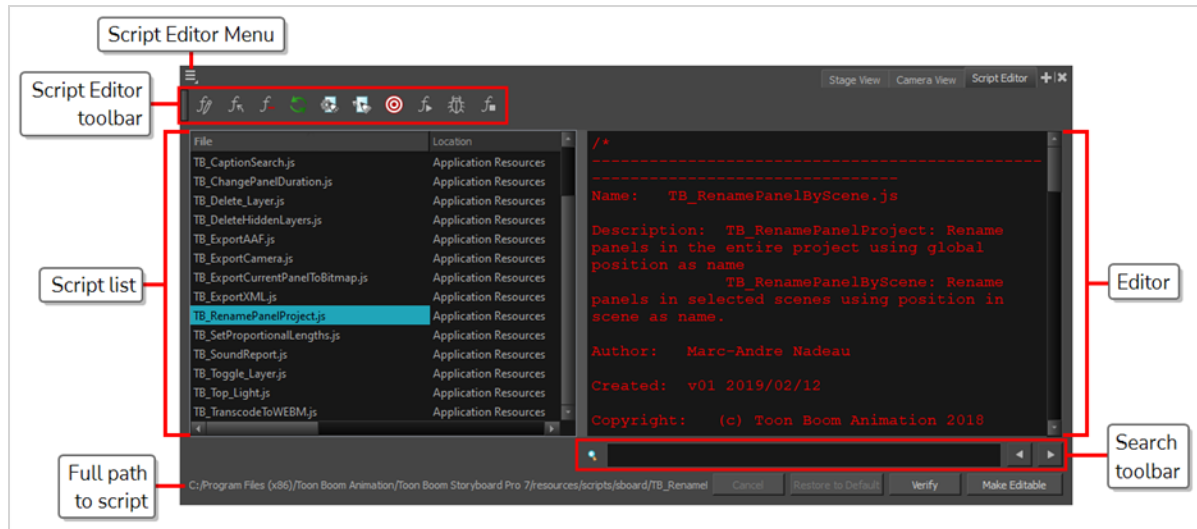
Icon	Name	Description
	Merge Modified Panels from	Analyzes the project that is selected in the linked projects list for changes, and imports the changes into the current project.

Icon	Name	Description
	Selected Project	
	Merge Settings	Opens the Merge Settings dialog. When you merge the modified panels from a project in the list, it will use the settings selected in this dialog to determine how to select and import the changes in the selected project.
	Edit Project Location	If a project in the list is no longer in its original location, select it and click on this button to browse for it and specify its new location.
	Add Project to List	Allows you to browse for a project and add it to the list of linked project.
	Remove Project from List	Removes the selected project from the list of linked project.
	Project Management Menu	Opens a menu from which you can split your project, extract child projects, merge projects into the current project or insert projects into the current project.
	Split	Opens the Split Storyboard dialog, in which you can divide the current Storyboard Pro project into two smaller project so that two different project collaborators can work on each half simultaneously. The project will be split at the currently selected panel, so you should select the panel where you want to divide your project before opening this dialog.
	Extract	Opens the Extract Storyboard dialog, in which you can extract different parts of the current project into several smaller projects, so that several project collaborators can work on different parts of your project at the same time.
	Merge	Opens the Merge Storyboard dialog, which allows you to combine several small projects into the current project. You can insert each project in a specific order, before or after the scenes in your current project.
	Insert	Allows you to browse for an insert another Storyboard Pro project into the current project. The selected project will be inserted after the currently selected scene.
	Merge and Replace	Opens the Advanced Merge Storyboard dialog. This dialog allows you to select one or several projects that were extracted from the current project, then modified by project collaborators, and scenes in the current project with their

Icon	Name	Description
		corresponding scenes in these extracted projects. You can manually select which scenes to import from the extracted projects.
	Merge Modified Panels	Opens the Merge Modified Panels dialog. This dialog allows you to select a project that was extracted from the current project, then modified by a project collaborator, and to quickly import the changes that were made to this project into the current project. It automatically selects which panels to import, either by the time and date of their last modification, or based on whether or not they are marked as tracked.
	Project Status Indicator	<p>Indicates the status of the project using a colour code:</p> <ul style="list-style-type: none"> <li>● <b>Gray:</b> The project does not have any modifications to merge.</li> <li>● <b>Orange:</b> The project has modifications to merge.</li> <li>● <b>Red:</b> The project cannot be found in the location indicated in the <b>Path</b> column.</li> </ul>
	Selected project status	Indicates the status of the currently selected project.
	Automatic refresh settings	<p>By default, the status of linked projects is not automatically updated. You can check the checkbox in this area to make the Project Management view automatically update the status of each project in the list at a specific interval.</p> <p>The interval can be specified in minutes in the field to the right. By default, when this is checked, the status of each project is updated every 10 minutes.</p>
	Refresh Project Status	Instantly updates the status of every project in the list of linked projects.

## Script Editor View

The Scripting view allows you to edit scripts to run in Storyboard Pro directly from the application. It displays a list of available scripts, from which you can select an existing script, edit it, test it and save it. The Script Editor will highlight the syntax of your script for easy reading.



### How to access the Script Editor view

Do one of the following:

- From the top menu, select **Windows > Script Editor**.
- From any of the other views, click the Add View **+** button and select **Script Editor**.

Parameter	Description
Script Editor menu	The menu for this view—see <a href="#">Script Editor View Menu</a> on page 301.
Script Editor toolbar	The toolbar for this view—see <a href="#">Script Editor Toolbar</a> on page 327.
Script list	The list of script files available as well as their location and their read and write permissions. Selecting a script in this list will open it in the editor.

**NOTE**

The << **Sandbox** >> item at the top of the list does not correspond to an actual script file. It is a temporary container to type and test code, and its content cannot be saved.

The file list has three columns: **File**, **Location** and **Permissions**.

- The **File** column indicates the filename of each script.

**NOTE**

The << **Sandbox** >> item at the top of the list does not correspond to an actual script file. It is a temporary container to type and test code, and its content cannot be saved.




- The **Location** of the script can be one of the following:
  - **Application Folder:** Scripts that are packaged and installed with Storyboard Pro. By default, you cannot edit these scripts until you select them and click on Make Editable, at which point you are prompted to copy the script to a location from which you can edit them.



Scripts in the Application Resources folder are in the following location:

- **Windows:** `C:\Program Files (x86)\Toon Boom Animation\Toon Boom Storyboard Pro 20\resources\scripts`
- **macOS:** `/Applications/Toon Boom Storyboard Pro 20/Storyboard Pro 20.app/Contents/tba/resources/scripts`
- **User:** Scripts that are saved in your user preferences. Those scripts can be edited and executed from any scene, provided that you are logged in as the same user.

Scripts in the User folder are in the following location:

- **Windows:** `C:\Users\[username]\AppData\Roaming\Toon Boom Animation\Toon Boom Storyboard Pro\20100-scripts`
- **macOS:** `/Users/[username]/Library/Preferences/Toon Boom Animation/Toon Boom Storyboard Pro/20100-scripts`
- **Scene:** Scripts in the `scripts` sub-folder of the currently open scene. These scripts can only be edited and executed when the current scene is open.
- **System Variable:** Scripts inside the directory set in the `TOONBOOM_GLOBAL_SCRIPT_LOCATION` environment variable, if this variable is set. These scripts can be edited and executed by anyone on your workstation.

	<div data-bbox="453 191 1430 646" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>When two or more scripts with the same file name exist in different locations, Storyboard Pro will give priority to a single one of these scripts. The script given priority will be the one listed in the Script Editor and the one executed if it is associated to a toolbar button.</p> <p>Which script is prioritized is determined by the order of priority of script locations. From highest priority to lowest priority, the order goes as follows:</p> <p style="text-align: center;"><b>User &gt; Scene &gt; System Variable &gt; Application Resources</b></p> <p>An exception to this rule is if you have a script with the same name in both the scene folder and your user preferences. In this case, both versions of the script will be listed and you will be able to edit both.</p> </div> <ul style="list-style-type: none"> <li>• The <b>Permissions</b> of the script can be one of the following: <ul style="list-style-type: none"> <li>• <b>Read Only:</b> You cannot edit the script in the Script Editor and save your changes.</li> </ul> </li> </ul> <div data-bbox="532 787 1430 1262" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTES</b></p> <ul style="list-style-type: none"> <li>• If the script's location is the Application Resources folder, it will always be Read Only to prevent you from making changes to scripts packaged with Storyboard Pro. However, you can click on the <b>Make Editable</b> button below the script editor to make a copy of the script in your user preferences folder, after which you can make changes to this copy.</li> <li>• If the script is in any other location and is Read Only, then it is likely that a network administrator made the script or the folder containing the script read-only to prevent other users from making unwanted changes to it.</li> </ul> </div> <ul style="list-style-type: none"> <li>• <b>Read/Write:</b> You can edit the script in the Script Editor and save your changes.</li> </ul>
Editor	<p>A text field in which you can edit the selected script.</p> <div data-bbox="373 1440 1430 1612" style="border: 1px solid #c8e6c9; padding: 10px;">  <p><b>NOTE</b></p> <p>If the selected script is in the Application Resources folder, you will not be able to edit it until you click on the <b>Make Editable</b> button.</p> </div>
Search toolbar	<p>Allows you to type in a keyword and search for this keyword within the script. You can use the ► Next button to go to the next instance of the keyword and the ◀ Previous button to go to the previous instance.</p>
Cancel	<p>If you have made any changes to your script that you have not yet saved, this discards those changes and reloads the saved version.</p>

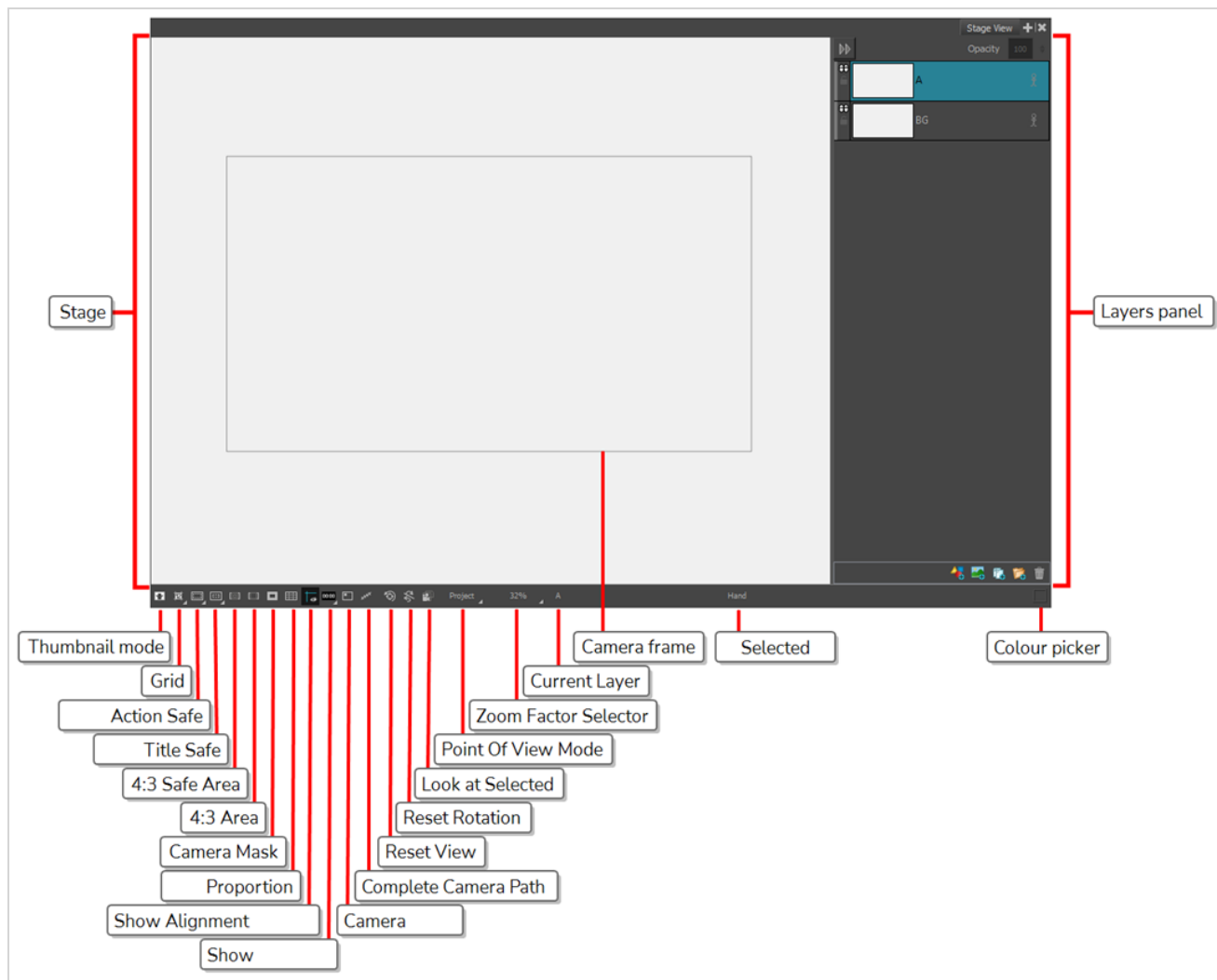
Restore to Default	<p>If the selected script is a script that was packaged with Storyboard Pro, and which you copied to your User folder, to the Scene folder or to the Job, Environment or Global folder to make changes to it, you can click on this button to delete this copy of this script and resume using the original version of the script that is packaged with Storyboard Pro instead.</p> <div data-bbox="373 357 1429 493" style="border: 1px solid #f08080; padding: 5px;">  <p><b>IMPORTANT</b> This will permanently delete your version of the script and any changes you have made to it.</p> </div>
Verify	Verifies that the script has no syntax error.
Make Editable	<p>If the currently selected script is in the Application Resources folder, you cannot edit it. By clicking on this button, the script can be copied to a location where you can edit it.</p> <p>When you click on this button, you are prompted to choose whether to copy in either of these locations:</p> <ul style="list-style-type: none"> <li>• <b>User:</b> Saves the script to a directory in your user preferences directory. You will be able to run and edit the script from any scene as long as you are logged in as the same user.</li> <li>• <b>Scene:</b> Save the script to the project's <b>scripts</b> sub-folder. Anyone will be able to edit and run the script when working on this specific project.</li> <li>• <b>System Variable:</b> Save the script to the directory in the <b>TOONBOOM_GLOBAL_SCRIPT_LOCATION</b> environment variable. This option is only available if this environment variable is set.</li> </ul> <div data-bbox="373 1134 1429 1302" style="border: 1px solid #90ee90; padding: 5px;">  <p><b>NOTE</b> This button will be greyed out if the script is in any location other than Application Resources and is read only.</p> </div>
Save	<p>Saves the modifications you made to the script.</p> <p>This button replaces the Make Editable button after you have used the Make Editable button to copy the script to a location from which you can edit it.</p>



## Stage View

The Stage view can be used to position elements as well as the camera within the stage for each of your scene.

When working on 2D scenes, the Stage view has the same functionality as the Camera view. However, if you are working on a 3D scene, the Stage view allows you to view the stage from any point of view in the 3D space, whereas the Camera view always displays the stage from the point of view of the Camera lens. For more information, see [Camera View](#).

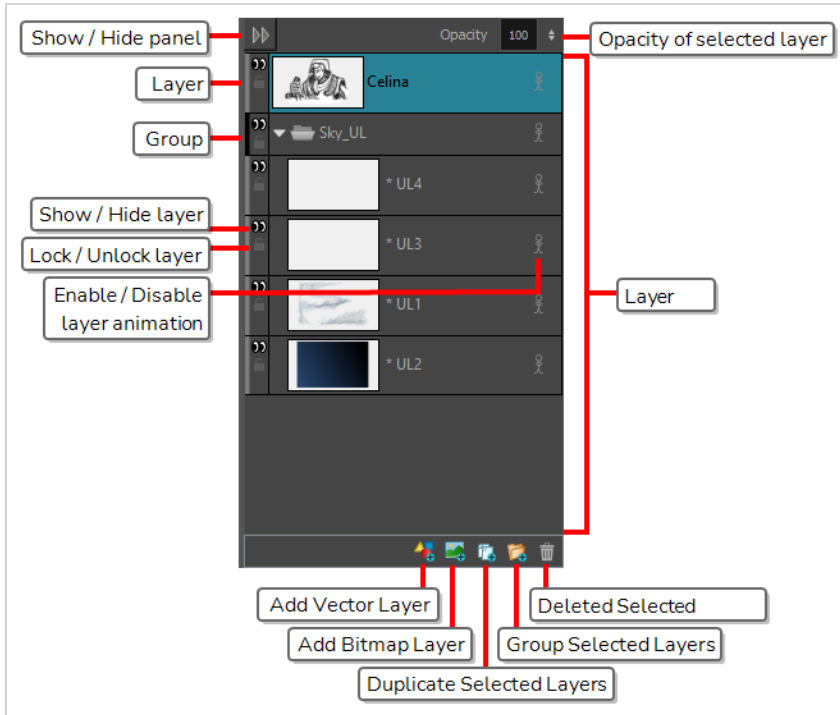


### NOTE

A status bar is located at the bottom of the Stage and Camera views, which contain toggle buttons to hide and display different kind of indicators as well as to adjust the zoom level of the view.

**TIP**












You can hide the status bar in the Stage view by opening the Preferences dialog, selecting the **Camera** tab and disabling the **Show Status Bar** option.




















## How to access the Stage view






- In a view area, click the Add View **+** button and select **Stage**.




Tool Name	Icon	Description
Thumbnail		Displays the thumbnail of a selected panel.
Grid (12 Field Grid)		Displays a grid in the Stage and Camera views. The default size is the standard 12-field (4:3) animation grid, but you can choose another.  You can also select <b>View &gt; Grid &gt; Show Grid</b> or press <b>Ctrl + G</b> (Windows) or <b>⌘ + G</b> (macOS).
16 Field Grid		Displays a 16x16 field grid. Each cell in the grid has an aspect ratio of 4:3. This makes overall aspect ratio of the grid 4:3.

Tool Name	Icon	Description
16x12 Field Grid		Displays a 16x12 field grid. Each cell in the grid has an aspect ratio of 4:3. This makes overall aspect ratio of the grid 16:9.
Square		Displays a standard square grid.
World Grid		Displays a reference grid that remains the same size when you scale objects. This is useful when creating elements in your drawing and you need a reference point.
Action Safe Area		<p>Displays the Title Safe Area frame inside the camera frame. By default, this area is 20% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Visual elements such as text and logos should be placed within this area.</p> <div data-bbox="594 842 1430 1014" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
Action Safe Area Mask		<p>Displays a semi-transparent black mask covering the area between the camera frame and the Title Safe Area frame.</p> <div data-bbox="594 1167 1430 1373" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> You can select the Action Safe Area Mask option by clicking and holding the Action Safe Area  button and selecting it from the pop-up menu.</p> </div>
Title Safe Area		<p>Displays the Action Safe Area frame inside the camera frame. By default, this area is 10% smaller than the camera frame. It is used as a guideline of the area that CRT displays might crop out of the picture. Characters and action should be placed within this area.</p> <div data-bbox="594 1598 1430 1770" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> The size of this area can be changed in the Camera tab of the Preferences dialog.</p> </div>
Title Safe Area Mask		Displays a semi-transparent black mask covering the area between the camera frame and the Action Safe Area.

Tool Name	Icon	Description
		<p>Displays a semi-transparent black mask covering the area between the camera frame and the Action Safe Area.</p> <div data-bbox="597 380 1430 554" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> You can select the Title Safe Area Mask option by clicking and holding the Title Safe Area  button and selecting it from the pop-up menu.</p> </div>
4:3 Safe Area		<p>Shows or hides the TV safety zone and the centre of the camera frame for a regular 4:3 resolution. If you are working on a widescreen project, for example, you can easily plan in advance the conversion of your project to a TV format. This way, you can create your project to fit both resolutions.</p> <p>You can also select <b>View &gt; Extras &gt; Show 4:3 Safe Area</b>.</p>
4:3 Area		<p>Shows or hides the 4:3 resolution zone without the centre of the camera frame and TV safety zone.</p> <p>You can also select <b>View &gt; Extras &gt; Show 4:3 Area</b>.</p>
Camera Mask		<p>Shows or hides a black mask around the scene's frame to avoid seeing anything outside the Camera frame. This is handy when you are setting up the scene as it allows you to see the scene's composition better.</p> <p>You can also select <b>View &gt; Extras &gt; Camera Mask</b>.</p>
Proportion Grid		<p>Shows or hides the proportion grid, which divides the stage in equal sections horizontally and vertically so as to help you with the composition of your scene.</p> <p>You can also select <b>View &gt; Extras &gt; Show Proportion Grid</b>.</p> <div data-bbox="597 1451 1430 1682" style="border: 1px solid #c8e6c9; padding: 10px;"> <p> <b>NOTE</b> By default, the proportion grid is divided in 3 horizontally and vertically so as to help you follow the rule of thirds in composition. The number of vertical and horizontal divisions in the proportion grid can be customized in the Camera tab of the Preferences dialog.</p> </div>
Show Alignment Guides		<p>When enabled, alignment guides will be visible in the Stage View and the Camera View.</p> <p>This is enabled by default. Disabling this option will hide and disable alignment guides, meaning that animation and drawing tools will not snap to</p>

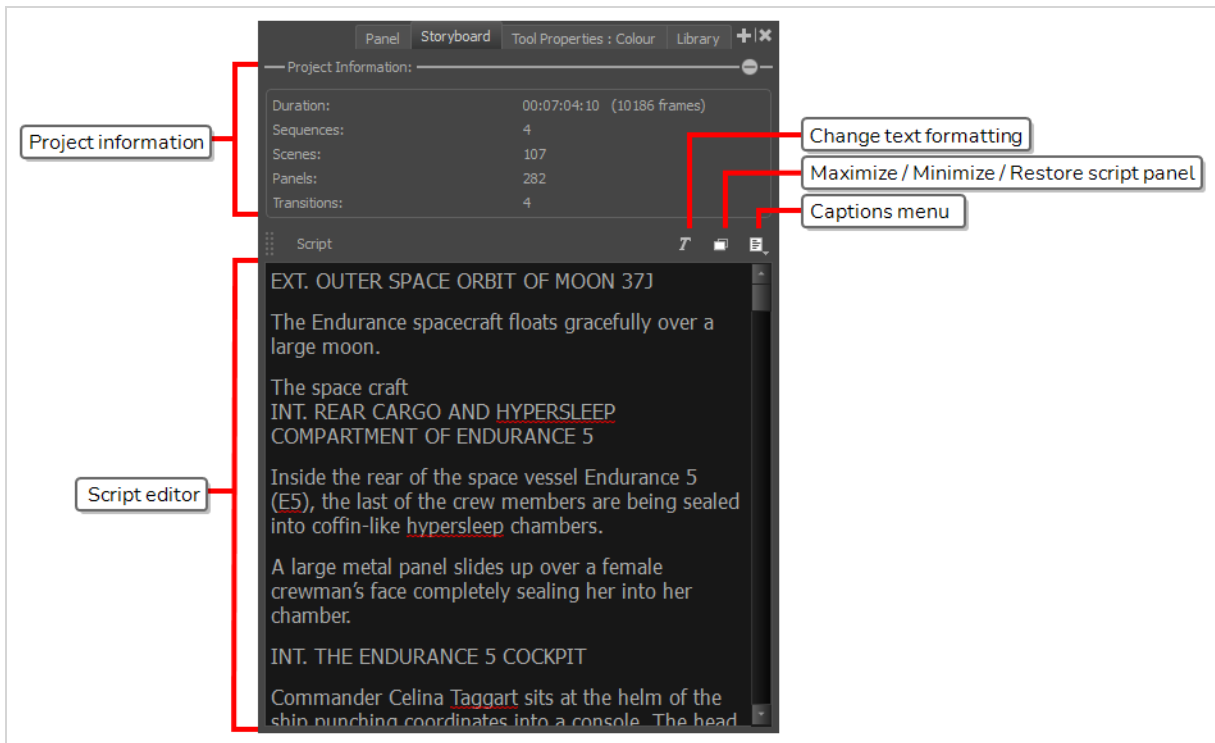
Tool Name	Icon	Description
		<p>them, even if the  Snap to Alignment Guides option is enabled in the Tool Properties view.</p>
Show Overlays		<p>Displays information about the current frame and panel in the Stage and Camera views, over the artwork.</p> <p>By default, this displays the timecode of the current frame, as well as the name of the current scene and of the current panel. You can configure what to display in the overlays by double-clicking or long-clicking on this button and selecting  <b>Overlay Settings</b> in the pop-up menu—see <a href="#">Overlay Settings Dialog Box on page 163</a>.</p>
Camera Label		<p>Shows or hides the IN and OUT indications in the top-left corner of the camera frames, on the start and end position of a camera move for the current panel. When the Camera tool is selected, the labels switch to alphabetical labels that clearly show the different camera keyframes.</p>
Complete Camera Path		<p>Displays all the related camera keyframes and paths in a scene. When this button is deactivated, the Stage view displays only keyframes that are contained in a panel.</p> <p>You can also access this feature by selecting <b>View &gt; Show Complete Camera Path</b>.</p> <div data-bbox="597 1161 1430 1297" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b> This option is not available in Camera by Panel Compatibility mode.</p> </div>
Reset View		<p>Resets any panning, zooming or rotation done in the Stage view and returns the display to its initial settings.</p> <p>You can also select <b>View &gt; Reset View</b> or press Shift + M.</p> <div data-bbox="597 1507 1430 1644" style="border: 1px solid #c8e6c9; padding: 10px; margin-top: 10px;"> <p> <b>NOTE</b> This option works with the <a href="#">Stage View on page 548</a>.</p> </div>
Reset Rotation		<p>Resets any rotation done in the Stage or Camera view and returns the display to its initial rotation settings.</p> <p>You can also select <b>View &gt; Reset Rotation</b> or press Shift + X.</p>

Tool Name	Icon	Description
Look At Selected (3D Only)		<p>When rotating 2D layers in 3D space, you may find that the Stage view is no longer perpendicular to a drawing layer, making it impossible to draw on it. This option makes the Stage view perpendicular to a selected drawing layer, allowing you to draw on it.</p> <div data-bbox="597 449 1430 590" style="border: 1px solid green; padding: 5px;"> <p> <b>NOTE</b> This option is used when working in 3D space.</p> </div>
Point of View	-	<p>The Point of View menu lets you determine the level at which the current position of the Stage view (zoom, pan and rotation) is remembered when you flip through the panels. The current Point of View mode will also affect the different Reset View commands' behaviour as they will reset according to the Point of View mode.—see <a href="#">Point of View Menu on page 300</a>.</p>
Zoom Factor	-	<p>Lets you enlarge or reduce the Stage or Camera view display. If you want the camera frame size to always match the size of your Stage view, select the <b>Fit to View</b> option.</p>
Layer Name	-	<p>Displays the name of the selected layer of the current panel.</p>
Tool Name	-	<p>Displays the name of the selected tool. If you override a tool using an overriding keyboard shortcut, the tool's name turns red.</p>
Colour Picker		<p>Displays the currently selected colour in the Colour View . You can click the colour swatch to open the Colour view and select a new colour.</p>
Layer Panel	-	<p>The Layer panel is where a scene's layers are superposed to form the final image.</p> <p>When you import an image or draw in a panel, you are actually adding artwork to one of its layers. By default, each panel has two layers; a background layer (BG) and a foreground layer (A). As you add layers, they are automatically assigned subsequent letters in alphabetical order, but you can rename them. They are also placed on top of the selected layer or at the very top of other layers if there is no layer selected in the panel.</p>
Add Vector Layer		<p>Adds a vector layer to the Layers list.</p>
Add Bitmap Layer		<p>Adds a bitmap layer to the Layers list.</p>

Tool Name	Icon	Description
Duplicate Selected Layers		Duplicates selected layers so you can quickly copy and paste in one operation. Unlike copying a layer, you cannot paste multiple copies of a layer on other panels. Duplicating layers is only available within one panel. Duplicated layers retain their names and are appended with a number.
Group Selected Layers		Groups selected layers. The grouped layer is named <i>Group</i> and appended with an underscore and a number. For example, <i>Group_1</i> . Each time you create a group, the number is incremented.
Delete Selected Layers		Deletes the selected layers.


## Storyboard View

The Storyboard view displays basic information about your project. It also allows you to write, import, view and edit the script for your storyboard.




### How to access the Storyboard view

1. Do one of the following:
  - ▶ In a view area, click the Add View **+** button and select **Storyboard**.
  - ▶ Select **Windows > Storyboard**.

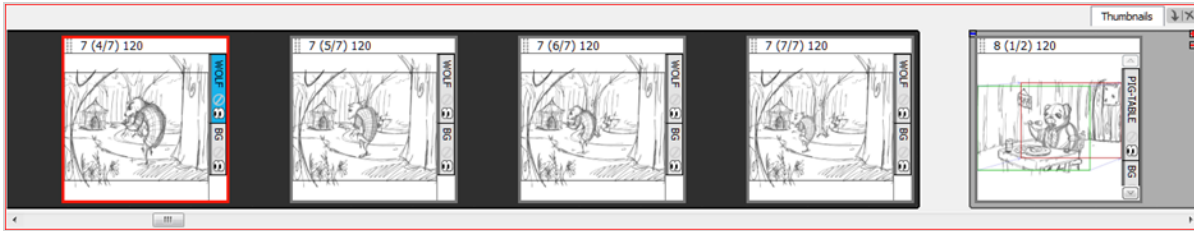
Icon	Tool Name	Description
--	Project Information	A collapsible section that displays the following information: duration, number of acts, sequences, scenes, panels, and transitions.
<i>T</i>	Text Formatting	Displays the Text Formatting toolbar for formatting the text in the Script caption area.
	Resize	When there are two or more panels present, resizes the panel in three different sizes: opens panel fully,



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		opens mid-sized panel or collapses the panel.
	Caption Menu	Lets you access commands for adding, importing, deleting and renaming captions. You can also import scripts created in Final Draft.
--	Script Caption	Like panel captions, storyboard captions are fully customizable. The difference is that the information you store here is relevant for the entire storyboard, rather than for a specific panel. This default caption field is specifically there for your script.

## Thumbnails View



The Thumbnails View displays all the panels of your project in chronological order. You can use this view to navigate through your storyboard, rearrange panels and scenes, and select the panel to display in the Stage view.

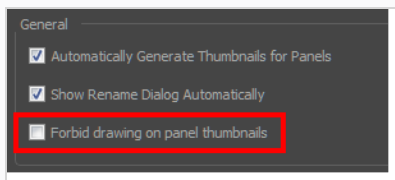
By default, it is not possible to draw in the Thumbnails view and there are no browsing buttons. But you can change these settings in the Preferences dialog box.

### How to access the Thumbnails view

1. Do one of the following:
  - ▶ In a view area, click the Add View **+** button and select **Thumbnails View**.
  - ▶ Select **Windows > Thumbnails**.

### How to enable drawing in the Thumbnails view

1. Do one of the following:
  - ▶ Select **Edit File > Preferences (Windows)** or **Storyboard Pro > Preferences (macOS)**.
  - ▶ Press **Ctrl + U (Windows)** or **⌘ + , (macOS)**.
2. In the Preferences dialog box, select the **General** tab.
3. In the General section, deselect the **Forbid drawing on panel thumbnails** option.



### How to display the next and previous thumbnails

1. In the Preferences dialog box, select the **Global UI** tab.

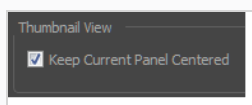
2. In the Thumbnails View section, select the **Display Next and Previous Buttons** option.

Two buttons appear on the Thumbnails view to let you display the next and previous thumbnails.



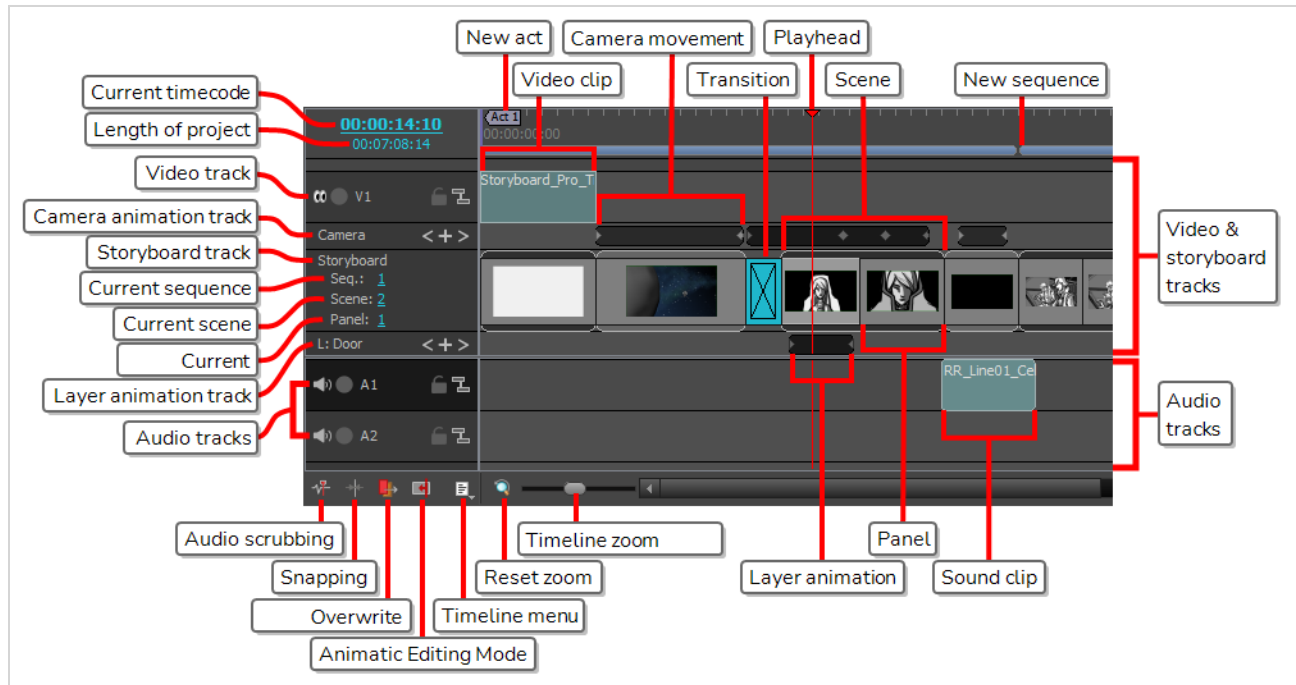
## How to keep the current panel centered

1. In the Preferences dialog box, select the **Global UI** tab.
2. In the Thumbnail View section, select the **Keep Current Panel Centred** option.



## Timeline View










In Storyboard Pro, you can create an animatic from your storyboard by using the Timeline view. The Timeline view is very much like the timeline in a video editing software. Among other things, it allows you to visually adjust the timing of each panel, to import, cue and clip sound and video clips, to animate camera movements, to animate layers and to add transitions between scenes. Hence, it will accompany you in each step towards making your animatic.

















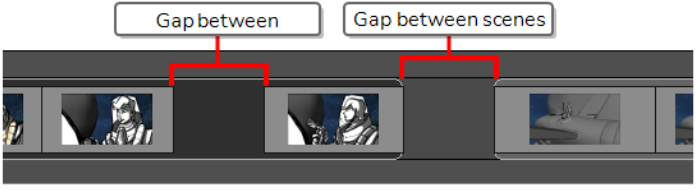
### How to access the Timeline view



- Do one of the following:
  - In the top-right corner of a view, click on the Add View **+** button and select **Timeline**.
  - Select **Windows > Timeline.#**

Icon	Functionality	Description
--	Current timecode	The timecode of at which the timeline cursor is. You can click and drag the timecode to move the timeline cursor.
--	Length of project	The total length of the animatic.


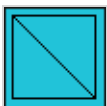
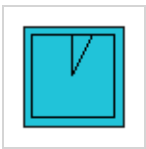
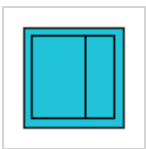

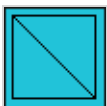
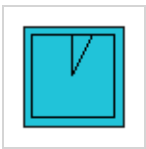
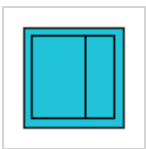

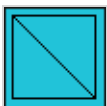
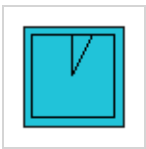
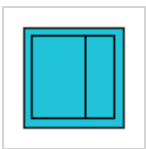
Icon	Functionality	Description
<b>Video &amp; storyboard tracks</b>		
--	Video track	<p>Video tracks can be added below or above the Storyboard track to show images or videos in overlay or underlay.</p> <p>Each video track has the following toggle buttons:</p> <ul style="list-style-type: none"> <li>•  <b>Visible</b> /  <b>Hidden</b>: If the video track is hidden, its video clips will not be visible in the Stage View and the Camera View.</li> <li>•  <b>Solo Mode Off</b> /  <b>Solo Mode On</b>: When Solo Mode is enabled for a video track, only its video clips will be visible in the Stage View and the Camera View.</li> <li>•  <b>Unlocked</b> /  <b>Locked</b>: When a video track is locked, it is not possible to add, remove or edit clips inside it, nor to manipulate its clips in the Stage View and Camera View.</li> <li>•  <b>Synced</b> /  <b>Unsynced</b>: When Sync is enabled for a video track, when moving or offsetting a panel, any video clip that is cued during this panel will move along with it, to remain synchronized with the action.</li> </ul> <div data-bbox="532 997 1429 1197" style="border: 1px solid #add8e6; padding: 10px;"> <p> <b>TIP</b></p> <p>If you hold the Alt key and click on a toggle button for a video track, it will turn on the switch for that video track, and toggle it on or off for every other video track.</p> </div>
--	Camera animation track	<p>For scenes where the camera is animated, this allows you to see and manipulate the keyframes of the camera movements. A dark grey bar displays between camera keyframes to indicate that the camera moves.</p> <ul style="list-style-type: none"> <li>• <b>&lt; Previous Keyframe</b>: Moves the timeline playhead to the previous keyframe on the track</li> <li>• <b>+ Add Keyframe / - Remove Keyframe</b>: If no keyframe is at the current frame, this adds a keyframe. If a keyframe is at the current frame, this deletes the keyframe.</li> <li>• <b>&gt; Next Keyframe</b>: Moves the timeline playhead to the next keyframe on the track.</li> </ul>
--	Storyboard track	<p>The track containing the panels and scenes of your storyboard.</p> <p>Contrary to the Thumbnails view, the width of each panel and scene is relative to their length in the animatic.</p>



Icon	Functionality	Description
--	Current sequence	The number of the sequence in which the timeline cursor is.
--	Current scene	The number of the scene in which the timeline cursor is.
--	Current panel	The number of the panel in which the timeline cursor is.
--	Layer animation track	<p>If the currently selected layer is animated, this allows you to see and manipulate the keyframes of the layer. A dark grey bar displays between layer keyframes to indicate that the layer is animated.</p> <ul style="list-style-type: none"> <li>• <b>&lt; Previous Keyframe:</b> Moves the timeline playhead to the previous keyframe on the track</li> <li>• <b>+ Add Keyframe / - Remove Keyframe:</b> If no keyframe is at the current frame, this adds a keyframe. If a keyframe is at the current frame, this deletes the keyframe.</li> <li>• <b>&gt; Next Keyframe:</b> Moves the timeline playhead to the next keyframe on the track.</li> </ul> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;"> <p> <b>NOTE</b> The name of the currently selected layer is displayed in the layer animation track, just right of <b>L:</b>.</p> </div>
<b>Audio tracks section</b>		
--	Audio tracks	<p>Where you can put sound clips to play sound along with your animatic. Your project can have several audio tracks.</p> <p>Each audio track has the following toggle buttons:</p> <ul style="list-style-type: none"> <li>•  <b>Mute Off</b> /  <b>Mute On:</b> If an audio track is muted, you will not hear its sound clips during playback or while scrubbing.</li> <li>•  <b>Solo Mode Off</b> /  <b>Solo Mode On:</b> When Solo Mode is enabled on an audio track, you will only hear this track's sound clip during playback or while scrubbing.</li> <li>•  <b>Unlocked</b> /  <b>Locked:</b> When an audio track is locked, it is not possible to add, remove or edit clips inside it.</li> <li>•  <b>Synced</b> /  <b>Unsynced:</b> When Sync is enabled for an audio track, when moving or offsetting a panel, any sound clip that is cued during this panel will move along with it, to remain synchronized with the action.</li> </ul>

Icon	Functionality	Description
		<div data-bbox="532 283 1430 485" style="border: 1px solid #add8e6; padding: 10px;">  <p><b>TIP</b> If you hold the Alt key and click on a toggle button for an audio track, it will turn on the switch for that audio track, and toggle it on or off for every other audio track.</p> </div>
	Audio Scrubbing	When enabled, the part of the soundtrack that is at the current frame will play every time you move the timeline cursor, allowing you to navigate the timeline of your animatic by sound. This makes it easier to synchronize the action and the audio in your animatic.
	Snapping	Enable this option to make sound clips align with the beginning and end of panels in the animatic when you move or resize them.
	Overwrite Sound Clips	Enable this option to be able to move a video or sound clip over another video or sound clip. The part of the target clip that meshes with the clip being moved will be cut out.
	Animatic Editing Mode	<p>By default, every change you make in the lengths of your scenes and panels will result in subsequent scenes and panels to ripple backward or forward, so as to make sure there is no hole in the timeline.</p> <p>When Animatic Editing Mode is enabled, you can reposition the in-point and out-point of each panel without affecting anything else in your your animatic. This means that, in this mode, shortening or deleting a panel creates a hole in the timeline in which another panel can be extended, moved or created. You can also delete panels or scenes and leave holes behind instead of rippling subsequent panels backward.</p> <p>Then, in the gaps you created in your animatic, you can move existing panels, create new panels or resize a panel next to the gap to fill it.</p> <div data-bbox="532 1478 1247 1688" style="border: 1px solid #ccc; padding: 10px; text-align: center;">  <p>The diagram shows a horizontal timeline with several video panels. Two gaps are highlighted with red brackets and labeled 'Gap between' and 'Gap between scenes'. The panels contain various scenes, including a person in a space suit and a person in a room.</p> </div> <p>In this way, Animatic Editing Mode makes the workflow in Storyboard Pro more similar to that of a typical video editing software, which may make editing easier for users who are familiar with this kind of application.</p>

Icon	Functionality	Description
		<div data-bbox="532 285 1430 453" style="border: 1px solid #add8e6; padding: 10px;">  <p><b>TIP</b> You can also temporarily toggle Animatic Editing Mode by pressing and holding Ctrl (Windows) or ⌘ (macOS).</p> </div>
--	Timeline menu	<p>Opens a menu containing the following options:</p> <ul style="list-style-type: none"> <li>• <b>Show Camera Track:</b> Show or hide the Camera movement track above the Storyboard track.</li> <li>• <b>Show Layer Track:</b> Show or hide the Layer animation track beneath the Storyboard track.</li> <li>• <b>Show Waveform:</b> Displays a waveform inside the audio clip, allowing you to see where the audio peaks so you can sync the action with it.</li> <li>• <b>Show Volume:</b> Displays a volume envelope throughout the sound clip. By default, this envelope is a straight line in the middle of the clip, indicating that the volume of the clip is neutral all throughout. You can add keyframes to the envelope, and move them up or down to modulate the volume of the sound clip as it plays.</li> <li>• <b>Show Sound Clip Names:</b> Displays the name of the audio file inside each sound clip.</li> <li>• <b>Overwrite Clips:</b> Enable this option to be able to move a video or sound clip over another video or sound clip. The part of the target clip that meshes with the clip being moved will be cut out.</li> <li>• <b>Change Frame When Clicking on Tracks:</b> Enable this to automatically move the timeline cursor to the position of the mouse cursor when you click on a video or audio track. By default, the timeline cursor only moves when you click on the timeline ruler or on the camera, storyboard or layer track.</li> <li>• <b>Snapping:</b> Enable this option to make sound clips align with the beginning and end of panels in the animatic when you move or resize them.</li> </ul>
--	New act	<p>If acts are enabled, these markers indicate when a new act starts as well as the number of this act.</p> <div data-bbox="532 1629 1430 1797" style="border: 1px solid #90ee90; padding: 10px;">  <p><b>NOTE</b> Acts are disabled by default, and can be enabled in the General tab of the Preferences dialog.</p> </div>
--	Video clip	<p>A video clip can contain a still image or a video. Each video clip is defined by a teal</p>

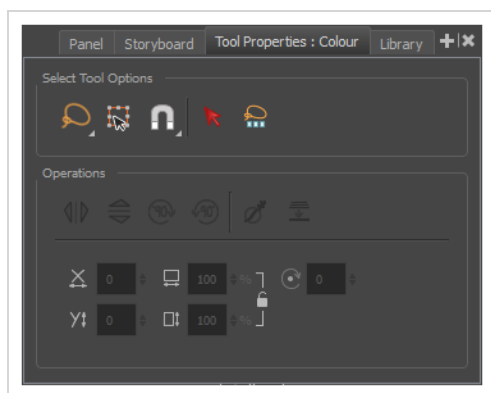


Icon	Functionality	Description										
		<p>rectangle in a video track. You can change the duration of still images and clip videos by clicking and dragging the left or right edge of video clips. You can also click and drag video clips to move them backward or forward in time, or to move them from one video track to another.</p>										
--	Transition	<p>This indicates transitions between two scenes. The transition will have a specific appearance depending on the type of transition used:</p> <table border="1" data-bbox="529 573 1430 1470"> <thead> <tr> <th data-bbox="529 573 742 663">Preview</th> <th data-bbox="742 573 1430 663">Transition Type</th> </tr> </thead> <tbody> <tr> <td data-bbox="529 663 742 873"></td> <td data-bbox="742 663 1430 873">Dissolve</td> </tr> <tr> <td data-bbox="529 873 742 1045"></td> <td data-bbox="742 873 1430 1045">Edge Wipe</td> </tr> <tr> <td data-bbox="529 1045 742 1255"></td> <td data-bbox="742 1045 1430 1255">Clock Wipe</td> </tr> <tr> <td data-bbox="529 1255 742 1470"></td> <td data-bbox="742 1255 1430 1470">Slide</td> </tr> </tbody> </table>	Preview	Transition Type		Dissolve		Edge Wipe		Clock Wipe		Slide
Preview	Transition Type											
	Dissolve											
	Edge Wipe											
	Clock Wipe											
	Slide											
--	Timeline cursor	<p>Allows you to select a point in your timeline to work on your animatic.</p> <p>Dragging the timeline cursor displays the animatic at the precise point in time where the cursor is in the Stage and Camera views, allowing you to scrub through your animatic. It will also automatically set the current panel to the panel the cursor is over, allowing you to edit that panel.</p>										
--	Scene	<p>Scenes are defined by rounded rectangles with their upper and lower edges visible above and below their panels.</p>										

Icon	Functionality	Description
--	Camera movement	Each keyframe in the Camera animation track defines a position for the camera. If two or more camera keyframes are in the same scene, the camera will be animated from each keyframe to the next keyframe, creating a camera movement.
--	New sequence	If your project contains sequence, each sequence is defined in the Timeline view by a purple bar above the scenes the sequence contains. A new sequence is indicated by a break in the purple bar.
--	Reset zoom	Sets the zoom level of the Timeline view to its default value.
--	Timeline zoom slider	Allows you to change the zoom level of the Timeline view. The Timeline view only zooms horizontally, meaning zooming in will make panels, animations and sound clips span over more horizontal space, but they will take the same amount of vertical space.
--	Layer animation	Each keyframe in the Layer animation track defines a position for the currently selected layer. If two or more layer keyframes are in the same panel, the layer will be animated from each keyframe to the next keyframe, creating a layer animation.
--	Panel	Each panel displays a thumbnail and is separated by a black vertical bar in the storyboard track. You can change the length of each panel by clicking and dragging its right edge.
--	Sound clip	<p>Each sound clip is defined by a teal rectangle in an audio track. You can clip sound clips by clicking and dragging their left or right edge. You can also click and drag sound clips to move them backward or forward in time, or to move them from one audio track to another.</p> <div data-bbox="532 1392 1430 1734" style="border: 1px solid #0070C0; padding: 10px;"> <p> <b>TIP</b></p> <p>You can enable the <b>Show Waveform</b> option to get a visual idea of the content of sound clips, which can help you synchronize the action with the audio. You can also enable the <b>Show Volume</b> option to display a volume envelope on each sound clip, to which you can add keyframes and modulate the volume of sound clips as they play. These options are available in the Sound top menu, in the right-click menu of audio tracks and in the Timeline menu  at the bottom left of the Timeline view.</p> </div>

## Tool Properties View

The Tool Properties view contains the options and operations available for the currently selected tool. When you select a tool in the Tools toolbar, the Tool Properties view updates to display its available options.



For information on specific tools, see [Tool Properties on page 346](#).

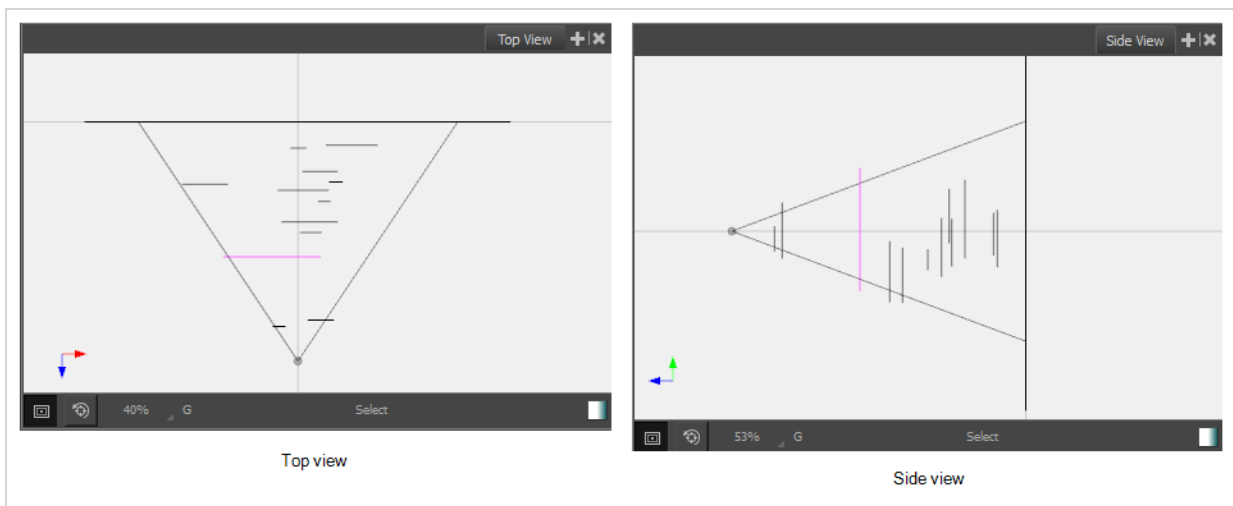
### How to access the Tool Properties view

1. Do one of the following:
  - ▶ In a view area, click the Add View **+** button and select **Tool Properties View**.
  - ▶ Select **Windows > Tool Properties**.

## Top and Side Views

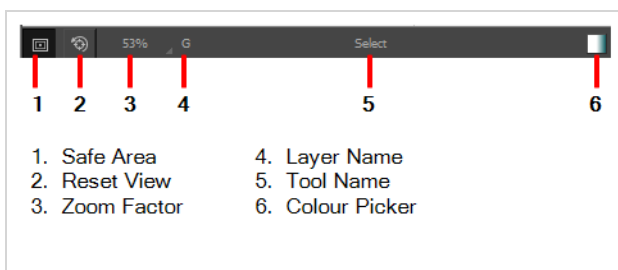
When working in 3D, you can use the Stage view to look at your stage from any point of view and any angle, allowing you to see how objects are positioned in space, and you can use the Camera view to look at your stage from the point of view of the camera. However, you may often need to have precise control over how objects and layers are positioned on the z-axis.

The Top and Side views allow you to view the stage from its top and from its side, respectively. Because these views do not apply perspective to the stage, they can be used to position elements with more precision. Using the Side view, you can view and position layers and objects on the front-back (z) axis, as well as on the north-south (y) axis. Using the Top view, you can view and position layers and objects on the front-back (z) as well as on the east-west (x) axis. Hence, both views combined can help you position objects on the z-axis without losing sight of their position on the other axes.



## Status Bar

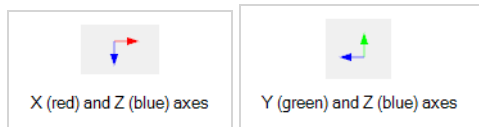
The status bar is located at the bottom of the Top and Side views and contains tools for helping you view 3D objects, identify the layer name, the current tool and access the Colour Picker tool.



## Axes

The Top and Side views provide you with the following information:

- **Top View:** Displays the position of layers and objects on the Front-Back (Z) axis, as well as on the East-West (X) axis.
- **Side View:** Displays the position of layers and objects on the Front-Back (Z) axis, as well as on the North-South (Y) axis.



## How to access the Top and Side views









1. Do one of the following:
  - ▶ In a view area, click the Add View **+** button and select **Top View** or **Side View**.
  - ▶ Select **Windows > Top View or Side View**.



## Chapter 7: Workspaces

The Storyboard Pro workspace is comprised of several views. You can customize your workspace to suit your work style, save it as a new workspace, and load it from the Workspace toolbar.

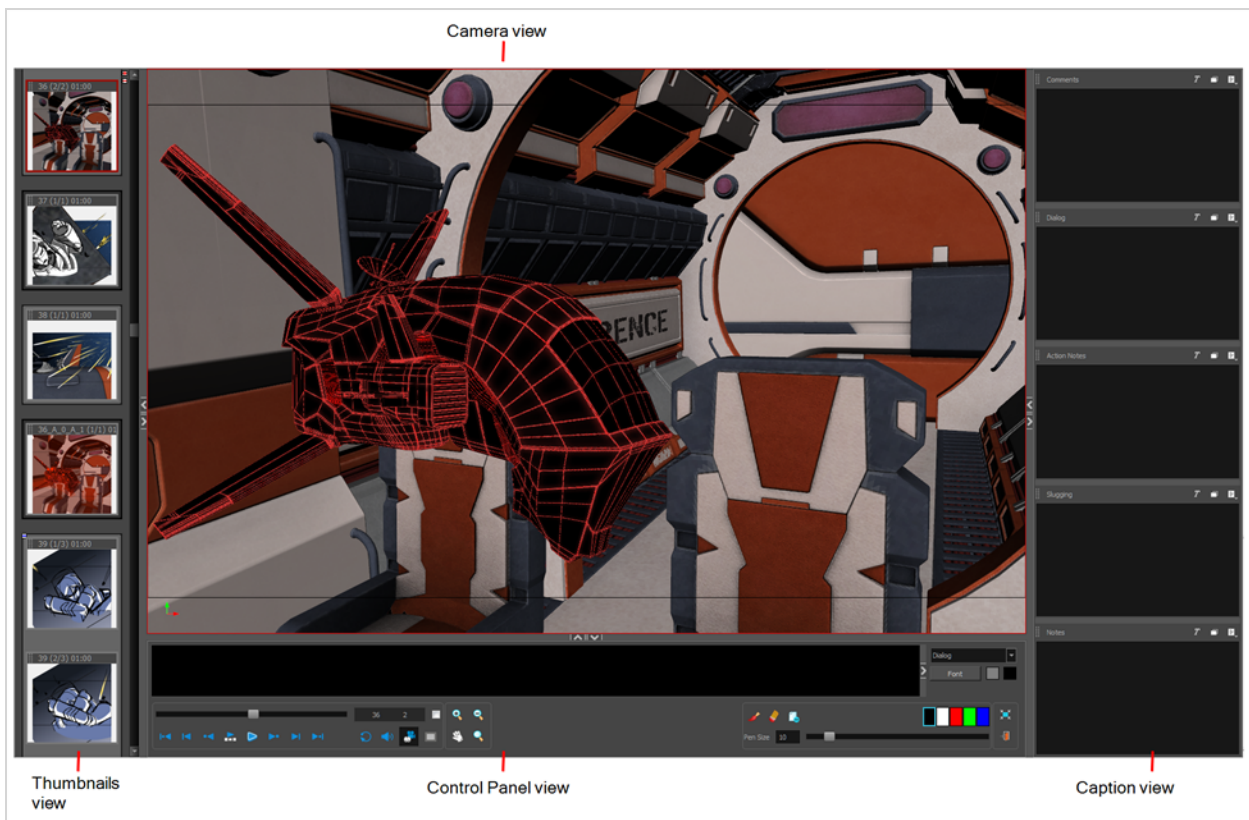
The first time you open Storyboard Pro, the default Drawing workspace is loaded. There are a total of eight ready-made workspaces.

Workspace	Icon	Description
Drawing		This workspace is designed to enable you to draw your storyboard efficiently. The main space is the large Stage view and the Thumbnails view is at the bottom. This workspace also gives you quick and easy access to all your tools, as well as the Panel and Storyboard views.
Timeline		This workspace is designed with the process of animatic creation in mind. The main space is the large Stage view and the Timeline view is at the bottom, where you can easily edit the timing of panels, transitions and sounds. This workspace also gives you quick and easy access to all your tools, as well as the Panel and Storyboard views.
Overview		This workspace is designed to provide an organized overview of your project. The main space is the Thumbnails view where you can efficiently reorganize the order of your panels.
Horizontal		This workspace displays your project as a classic horizontal paper storyboard layout. The main space displays three panels at a time, with the panel information shown below each one.
Vertical		This workspace displays your project as a classic vertical paper storyboard layout. The main space displays two panels at a time, with the panel information shown at the side of each.
Pitch Mode		This workspace displays your project with a different set of views than the other workspaces. Access is only given to a certain number of features. This maximizes the viewing space to focus solely on the story being pitched.  The Pitch Mode workspace occupies the entire display screen. There are no toolbars or top menu available.
PDF View		This workspace displays your project with the views required to quickly set up your PDF export.
3D View		This workspace displays your project with the views appropriate for working with 3D objects, including the Camera, Top, Timeline, and Layers views.

## Pitch Mode Workspace


The Pitch Mode workspace contains a different set of views than the other workspaces, and occupies the entire display screen. Access is only given to a certain number of features. This maximizes the viewing space by removing any unnecessary distractions such as toolbars and buttons, allowing your audience to focus solely on the story being pitched. It also has an easy comment feature that is not available in the other workspaces. The views in this workspace do not have tabs or names. You cannot add or remove views. However, you can hide the side views temporarily to maximize the Camera view.

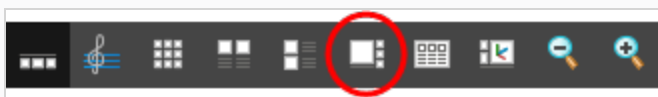
There is also a Pitch Mode view that behaves in almost the same way as the Pitch Mode workspace, but provides access to the other views and menus.



### How to access the Pitch Mode workspace

Do one of the following:

- In the View toolbar, click on the Pitch Mode  button.



- From the Workspace toolbar, select **Pitch Mode**.
- In the top menu, select **Windows > Workspace > Workspace > Pitch Mode**.



## How to exit the Pitch Mode workspace

- In the Control Panel view, click the Exit Pitch Mode  button.



### NOTE

To exit the workspace, you can also switch to another workspace using the top menu.

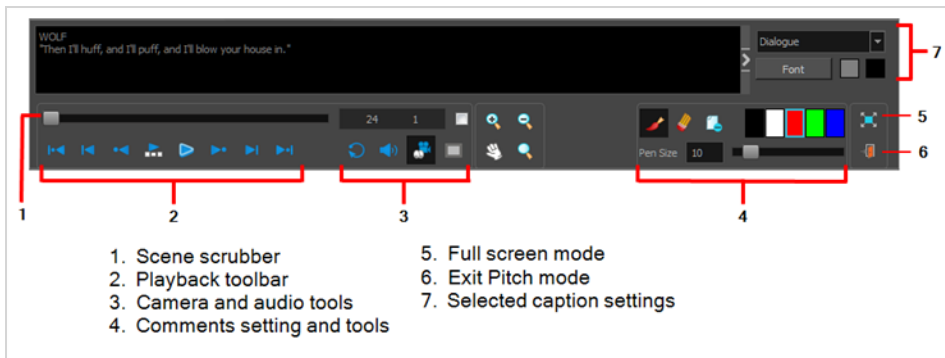
## Thumbnails View

The Thumbnails view is very similar to the Thumbnails view found in the other workspaces and the View menu. It allows you to see the scenes, panels, and transitions in your storyboard. The main difference is that you cannot see the drawing layers included in the panel, only the composited image of all your layers—see [Thumbnails View on page 557](#).

You can easily navigate through the thumbnails without clicking on them by using the default keyboard shortcuts A and F.

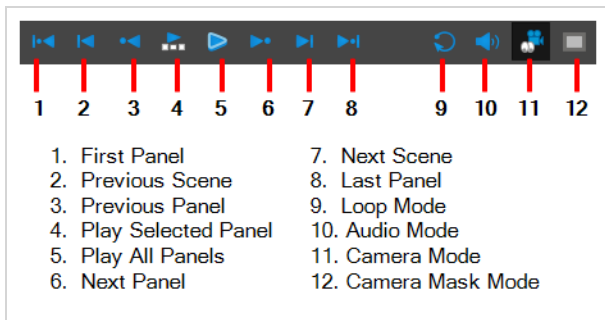
## Control Panel

The Control Panel view is where you play back the storyboard, see the dialogue or selected caption for the current panel, and access the comments settings and tools



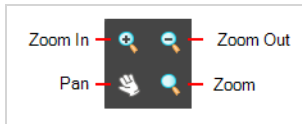
## Playing Back the Storyboard

The Playback toolbar lets you play back your storyboard. When you create an animatic with transitions and sound, you can play it back in real time to check the timin.







## Navigating the Camera View

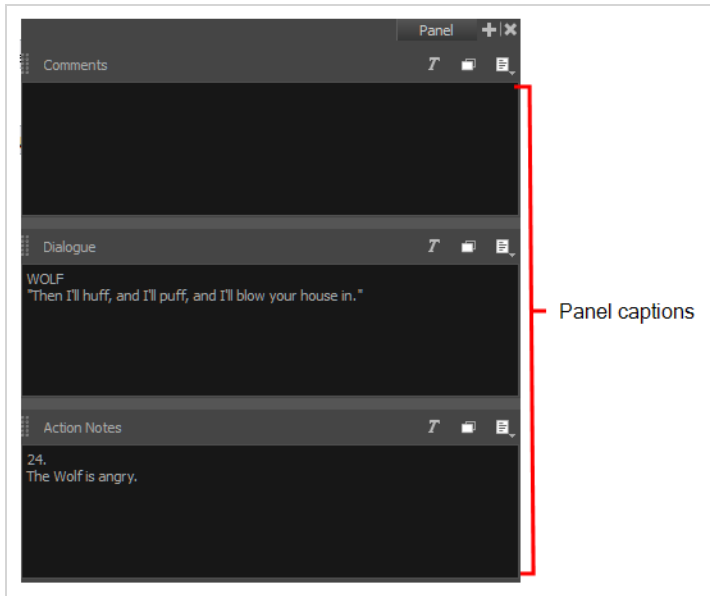
If you want to zoom in and out or pan in the Camera view, you can use the View tools in the Control Panel view.



- ▶ To navigate in the Camera view, deselect the Camera Mode  button in the Control Panel view.

Icon	Tool Name	Keyboard Shortcut
	Zoom In	2
	Zoom Out	1
	Pan	Spacebar
	Zoom Tool	2 for zoom in 1 for zoom out When the Zoom tool is selected, hold Alt as you click to zoom out.

## Panel View



The Panel view displays the captions related to the current panel. You can see the dialogue, action notes or any other caption available in your storyboard. You can also add, remove or edit Comments captions.