Harmony20
Advanced

Toon Boom
Harmony 20 Advanced
Preferences Guide

Legal Notices

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About Harmony Preferences

The Preferences dialog box allows you to adjust preferences to suit your workflow and your production's needs.
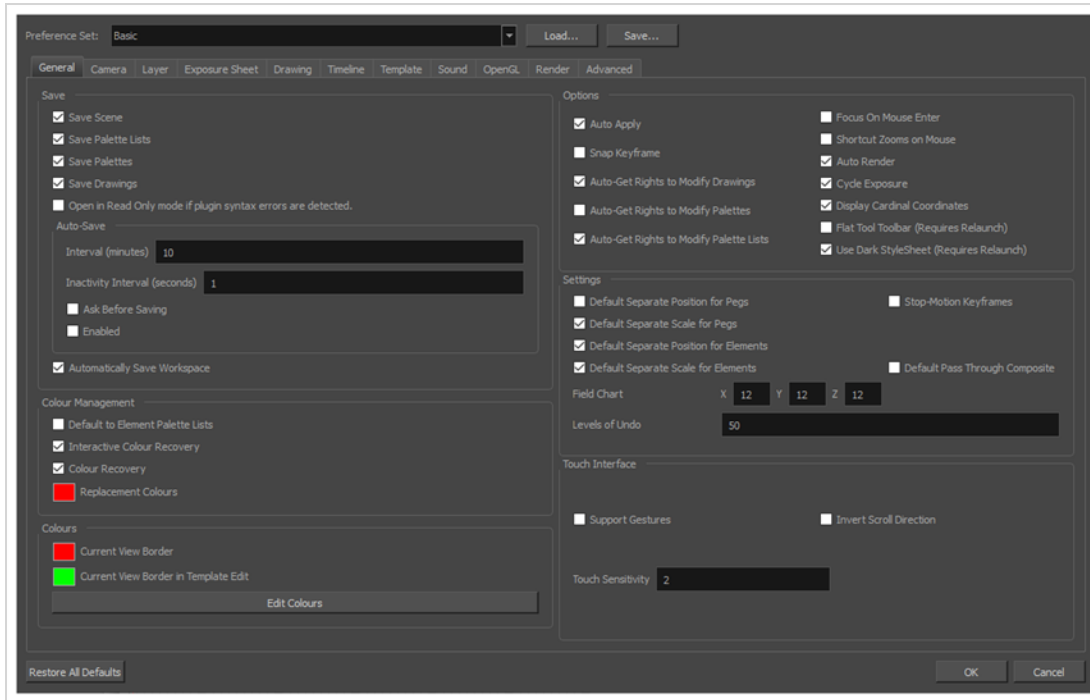
Accessing the Preferences Dialog

You can access the Preferences dialog from the **Edit** menu on Windows and GNU/Linux, or from the **Harmony Advanced** menu on macOS.

How to open the Preferences dialog box

1. Do one of the following:

   - **Windows or GNU/Linux:**

     - In the top menu, select **Edit > Preferences**.

     - Press Ctrl + U.

   - **macOS:**

     - In the top menu, select **Harmony Advanced > Preferences**.

     - Press ⌘ + U.

Switching Between Preference Sets

Harmony comes preloaded with five different preference presets (referred to as preference sets), each tailored for a different kind of task. By default, the Basic preference set is used. You can choose which preference set to use in Preferences dialog.

A large part of the default settings in the different preference sets are the same. The following table describes which option is different depending in each preference set, and how:

Tab / Location	Preference	Preference Set				
		Basic	Compositing	Cutout Animation	Paperless Animation	Rigging
General	Focus on Mouse Enter	Off	On	On	On	On
	Default Separate Position for Pegs	Off	Off	On	Off	On
	Stop-Motion Keyframes	Off	Off	On	Off	On
Timeline	Reduce Indentation	Off	On	On	Off	On
	Drawing Substitution: Create Key Exposure	On	Off	Off	Off	On
Advanced	Support Overlay and Underlay Arts	Off	On	On	Off	On
	Advanced Palette List	Off	On	On	On	On
	Advanced Element Mode	Off	On	Off	Off	Off

| Tab / Location	Preference	Preference Set				
		Basic	Compositing	Cutout Animation	Paperless Animation	Rigging
	Element Node Animate Using Animation Tools	On	On	Off	On	Off
Pencil Tool Properties	**Auto Close Gap**	On	On	On	On	Off

NOTES

- When you customize a preference manually, it is not saved to the current preference set. It is saved as an override for all preference sets.

- Switching between preference sets only affects preferences that you have not manually customized yourself. This means, for example, that if you manually enable the **Focus on Mouse Enter** preference, this preference will no longer be affected when you switch to a different preference set.

- To make all your preferences affected by the preference set you select again, you must reset your preferences—see *Resetting Preferences* on page 16.

How to switch between preference presets

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

    - **Windows or GNU/Linux:**

        - In the top menu, select **Edit > Preferences**.

        - Press Ctrl + U.

    - **macOS:**

        - In the top menu, select **Harmony Advanced > Preferences**.

        - Press ⌘ + U.

2. In the top-left corner of the Preferences dialog, open the **Preference Set** drop-down and select the preset you want to use.
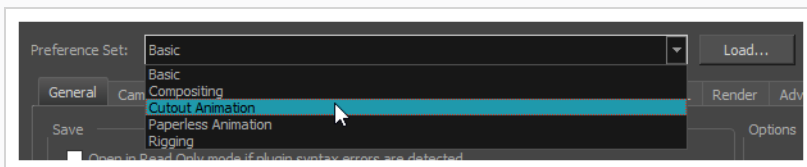
Preferences will be updated according to the table above, except for those that you manually set.

3. Click on **OK**.

Exporting Preferences

You can export your current preferences to an XML file. You can reimport this file later to restore your preferences, or share it with project collaborators so that you all use the same preferences.

> **NOTE**
>
> When you export your preferences, only the preferences for the currently selected preference set are exported.

How to export your preferences configuration

1. Do one of the following to open the Keyboard Shortcuts dialog:

    - **Windows or GNU/Linux:**

        - In the top menu, select **Edit > Preferences**.

        - Press Ctrl + U.

    - **macOS:**

        - In the top menu, select **Harmony Advanced > Preferences**.

        - Press ⌘ + U.

2. Near the top of the dialog, right of the **Preference Set:** drop-down, click on the **Save...** button.

    A save dialog appears.

3. Browse to the location where you want to save your preference file.

4. Type in the desired name for your preference file.

5. Click on **Save**.

    Your current preference settings have been exported as an XML file, in the selected location with the file name you gave it.

Importing Preferences

You can import a preference file exported from Harmony.

> **NOTES**
>
> - To export preferences into a file, see *Exporting Preferences* on page 12.
>
> - When you import a preference file, it will override all your preferences for the currently selected preference set.

How to import a keyboard shortcut configuration file

1. Do one of the following to open the Keyboard Shortcuts dialog:

   - **Windows or GNU/Linux:**

     - In the top menu, select **Edit > Preferences**.

     - Press Ctrl + U.

   - **macOS:**

     - In the top menu, select **Harmony Advanced > Preferences**.

     - Press ⌘ + U.

2. At the right of the **Preference Set:** drop-down, click on the **Load...** button.

   An open dialog appears.

3. Browse to the directory where your preference file is located.

4. Select the preference file you want to import.

5. Click on **Open**.

   The settings in the selected preference file are loaded into the Preferences dialog, overwriting your current preferences.

Resetting Preferences

You can reset the preferences in Harmony to their default settings.

> **IMPORTANT**
>
> This will permanently undo all the changes you made to your Harmony preferences.

How to reset your keyboard shortcuts configuration

1. Do one of the following to open the Keyboard Shortcuts dialog:

    - **Windows or GNU/Linux:** In the top menu, select **Edit > Keyboard Shortcuts**.

    - **macOS:** In the top menu, select **Harmony Advanced > Keyboard Shortcuts**.

2. In the bottom-left corner of the Preferences dialog, click on **Restore All Defaults**.

    A confirmation prompt appears.

3. If you are sure you want to restore the default preferences for Harmony, click on **Yes**.

    All the preferences in the Preferences dialog are now set to their default setting.

Preferences File Location

After the first time you have launched Harmony, your preferences, along with numerous other options and switches in the user interface, are stored in a hidden directory on your computer. If you are using Harmony Server, they are stored in a directory for your user on the database server.

Depending on your operating system, and whether or not you are using Harmony Stand Alone or Harmony Server, you can find your preference files in the following location:

- **Windows:** C:\Users\[username]\AppData\Roaming\Toon Boom Animation\Toon Boom Harmony Advanced\full-2000-pref

> **NOTE**
>
> On Windows, the AppData folder is hidden. To display it in Explorer, in the top menu, open the **View** pane and check the **Hidden Items** checkbox.

- **macOS:** /Users/[username]/Library/Preferences/Toon Boom Animation/Toon Boom Harmony Advanced/full-2000-pref

> **NOTE**
>
> On macOS, the Library folder is hidden. To display it in Finder, hold down the Alt key.

- **GNU/Linux:** /home/[username]/Toon Boom Animation/Toon Boom Harmony Advanced/full-2000-pref/

When using Harmony Server, preferences are stored in your Harmony Server account's user space on the database server, in the following path:

- /USA_DB/users/[user_name]/Harmony Advanced/full-2000-pref

Preferences Dialog Reference

The following section contains a an article for each tab in the Preferences dialog. Each article contains a list of all the preferences in its tab, as well as a description of the preference. Refer to this section if you want to know more about what a specific preference does or if you want to get familiarized with all of the preferences in Harmony.
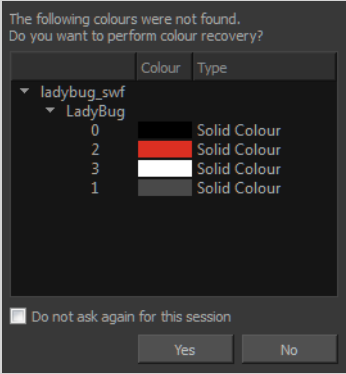
General Preferences
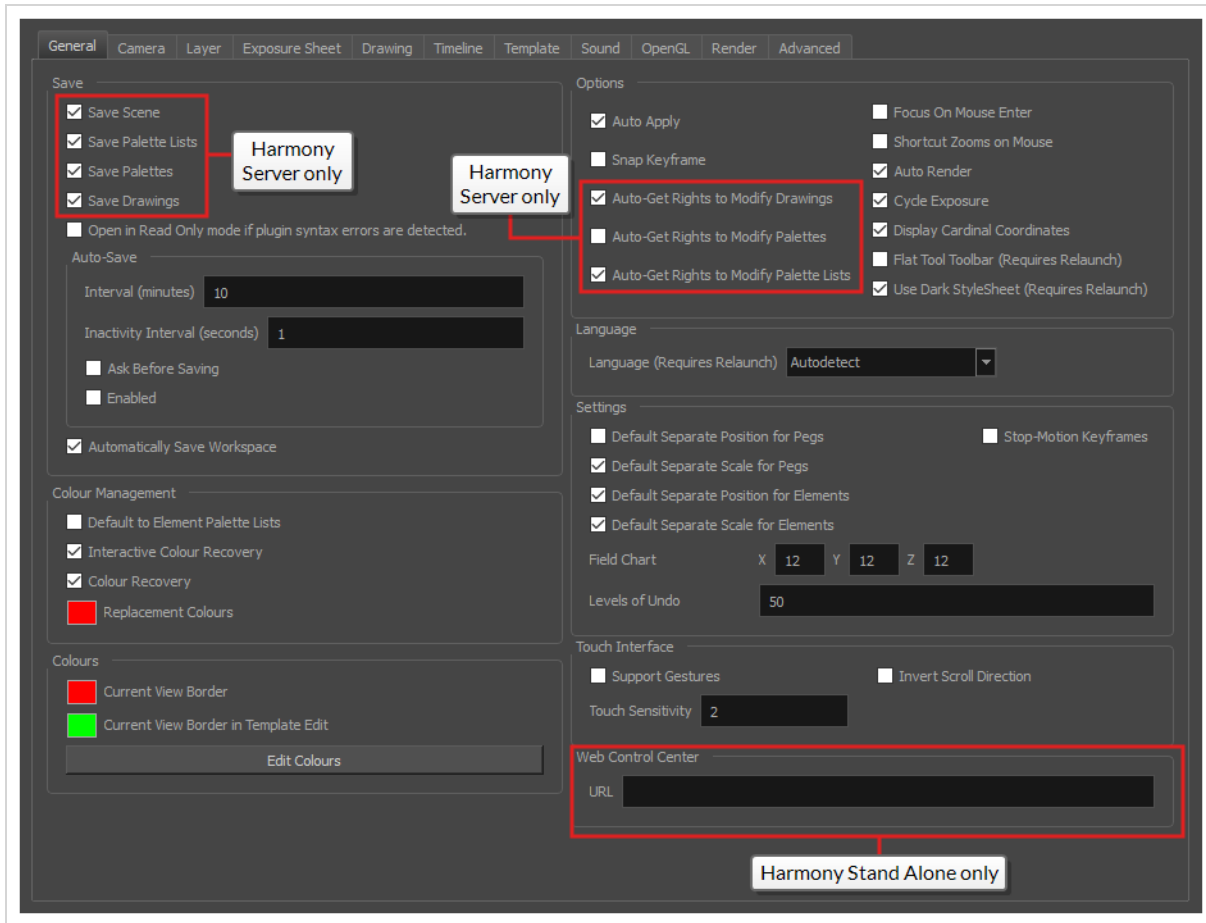
To customize your interface, you will use some of the preferences located in the General tab as well as the Camera tab.

Parameter	Description
Save	In Harmony Server, you can decide which kinds of assets are saved when you use the Save command. This can be useful if you need specific users to only be able to make changes to certain aspects of the scene they're working on, or if you want to prevent yourself from accidentally making undesired changes to important assets. Unchecking any of the following options will prevent you from saving their corresponding type of assets: • **Save Scene:** Save changes to the list of layers, elements, animation, timing, layout, effects, scene properties, etc. • **Save Palette Lists:** Save changes to the list of palettes associated to the scene or to individual elements. • **Save Palettes:** Save changes to the colours and textures contained in palettes.

	• **Save Drawings:** Save changes to existing drawings as well as newly created drawings.

> 💡 **TIP**
>
> If you want to save changes made to a type of asset that for which saving was disabled, you can do so by selecting **File > Advanced Save** from the top menu. In the Advanced Save dialog, assets for which saving is disabled will be unchecked, so you must manually check the assets you want to save.

> ⚠️ **IMPORTANT**
>
> When you close a scene, Harmony will not ask for confirmation to discard changes made to assets for which saving is disabled.

Open in Read Only mode if plugin syntax errors are detected: Opens scenes that contain plugin node errors in read-only mode to prevent you from losing plugin information on subsequent saves.

Auto-Save:

- **Interval (minutes)**: This is the frequency at which the auto-save takes place.

- **Inactivity Interval (seconds)**: **When Auto-save is about to take place, it verifies if you are drawing or doing anything in the application. If so, Auto-save waits this number of seconds before attempting another save.**

- **Ask Before Saving:** Before performing an auto-save, the system will prompt you with a message to confirm if you want to save or not. You can choose to turn off this option.

- **Enabled:** This enables the Auto-save feature. If you do not want the system to automatically save your work, deselect this option. The auto-save is off by default.

Automatically Save Workspace: Changes to your workspace, such as how views and toolbars are laid out, are automatically saved, making sure your workspace remains the same after you close and re-launch Harmony or if you switch between different workspaces. If this option is disabled, you must manually save changes to your workspace by selecting **Windows > Workspace > Save Workspace** from the top menu.

Colour Management	**Default to Element Palette Lists:** When this option is enabled the new, cloned, duplicated, imported and linked palettes will be stored in the Element Palette list instead of the Scene Palette List.
	Interactive Colour Recovery: If a colour palette required to display a drawing

<table>
<tr><td></td><td>is not found because it was moved or deleted from its location, you will be asked if you wish to recover the missing colours into a new temporary palette. If this option is disabled, the colour recovery will happen automatically without your confirmation.

Colour Recovery: By default, if a colour palette required to display a drawing is missing because it has been moved or deleted, Harmony recovers the missing colours into a new temporary palette. If this option is disabled, Harmony will skip this step and display the zones painted with missing colours with the Replacement Colour, which is solid red by default.

Replacement Colour: If certain colours are no longer available, Harmony will display the replacement colour in the zones painted with missing colours.</td></tr>
<tr><td>Colours</td><td>You can select the colours for a lot of coloured elements in the user interface of Harmony.

> **NOTE**
>
> Some changes to colour preferences may not appear until Harmony is restarted or until the affected view is closed and reopened.

Current View Border: Sets the colour of the frame around the workspace view you are currently using, also known as focus. By default, the colour is red. Click on the red colour swatch to select a new colour in the Colour Picker window.

Current View Border in Template Edit: Sets the colour of the frame around the workspace view you are currently using when editing a template from your library view. By default, the colour is green. Click on the green colour swatch to select a new colour in the Colour Picker window.

Edit Colours: The Edit Colours button opens the Colours dialog, which allows you to set the colour for dozens of visual elements in the user interface.</td></tr>
<tr><td>Options</td><td>**Auto Apply**: When enabled, values entered or options selected in node</td></tr>
</table>

editors are automatically applied to elements in your scene. The Apply and OK buttons are hidden in the Layer Properties when this feature is enabled.

Snap Keyframe: If two keyframes have the same value, they will both update to the same new position when the first of the two keyframes is modified. The previous keyframe has to be a Stop-Motion keyframe.

Auto-Get Rights to Modify Drawings: When using Harmony Server, this option will automatically grant you the right to modify a drawing as soon as you attempt to make a change to it. If disabled, you must manually obtain the rights to each drawing you want to make changes to.

Auto-Get Rights to Modify Palettes: When using Harmony Server, this options automatically grants you the right to modify the colour and texture swatches in a palette as soon as you attempt to make such changes. If disabled, you must manually obtain the rights to modify a palette before attempting to make changes to it.

Auto-Get Rights to Modify Palette List: When using Harmony Server, this option automatically allows you to make changes to the palette list. If disabled, you must manually obtain the right to the palette list before adding, removing or reordering palettes.

Focus on Mouse Enter: In Harmony, some keyboard shortcuts, menus or toolbar buttons are intended for specific views in your workspace. To use keyboard shortcuts or other functionalities on a specific view, this view must be focused on. For example, the Centre on Selection shortcut will find the selected element in the Timeline or Camera view, depending on which one is focused on. Harmony draws a red rectangle around the currently focused on view.

By default, to set the focus on a view, you must click on its tab or on anything inside the view itself. The Focus on Mouse Enter preference will make Harmony automatically focus on the view the mouse cursor is over, making it switch the focus on a view and use keyboard shortcuts on it.

> **NOTE**
>
> Some items in the top menu also have functionalities that are specific to the focused on view, but moving the mouse cursor to the top menu might leave the wrong view focused on. To circumvent this problem, it might be necessary to become familiar with keyboard shortcuts, contextual (right-click) menus and the view menus available via the menu ☰ button at the top-left corner of some views.

Shortcut Zooms on Mouse: When enabled, shortcut zooming will centre on the cursor location.

Auto Render:Controls whether the Camera view's Auto Render option is enabled or disabled when launching Harmony. When Auto Render is disabled, if any change is made to the scene while the Camera view is in

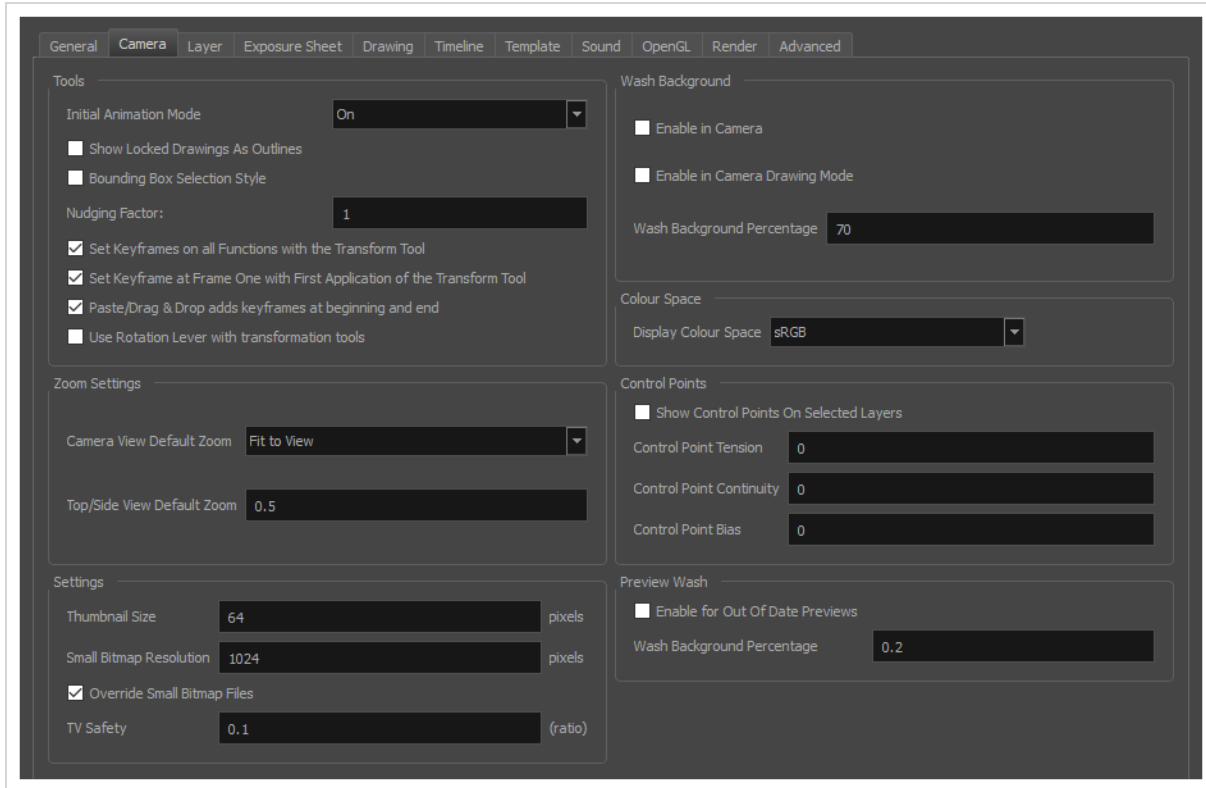|	
	Render Preview mode, it will switch to OpenGL Preview mode. When enabled, it will merely refresh the render preview.
	Cycle Exposure: Make navigation in the Xsheet View wrap-around from the last frame or the last column to the first.
	Display Cardinal Coordinates: When enabled, coordinates displayed in the application are expressed using cardinal points. For example, 1N2E means 1 field to the north and 2 fields to the east. When disabled, coordinates are expressed in scalar notation. For example, 1N2E would be expressed as +1,-2.
	Flat Tool Toolbar (Requires Relaunch): When enabled, the Tools toolbar will display each tool in its own button, instead of grouping certain tools together in pop-up menus. Harmony must be relaunched to apply a change to this preference.
	⚠️ **IMPORTANT** Because not all tools can be displayed simultaneously in a single column, some tools will be hidden from the Tools toolbar by default. You can customize which tools appear in the Tools toolbar by right-clicking on it and selecting **Customize**.
	Use Dark StyleSheet (Requires Relaunch): Application loads a dark skin for the User Interface.
Language	**Language (Requires Relaunch):** The language in which to display the user interface. By default, this is set to **Autodetect**, which means that Harmony will launch in the language of your operating system, if it is one of the supported languages, and will otherwise launch in English.
Settings	**Default Separate Position for Pegs**: New pegs are created with separate position functions. **Default Separate Scale for Pegs**: New pegs are created with separate scale functions. **Default Separate Position for Elements**: New elements are created with separate position functions. **Default Separate Scale for Elements**: New elements are created with separate scale functions. **Stop-Motion Keyframes**: New keyframes are created as stop-motion keyframes. **Field Chart**: • **X:** Default value for the number of units in the X axis (east-west) of

	the field chart used for new scenes. This value should be half the total number of units in the X axis of the field chart. This value will appear by default in the Alignment dialog box. • **Y:** Default value for the number of units in the Y axis (north-south) of the field chart used for new scenes. This value should be half the total number of units in the Y axis of the field chart. This value will appear by default in the Alignment dialog box. • **Z:** Default value for the number of units in the Z axis (front-back) of the field chart used for new scenes. This value will appear by default in the Alignment dialog box. **Levels of Undo**: Determines the number of actions retained by the Undo list. By default, 50 actions are stored in the list. You can alter the number if you want to.
Touch Interface	**Support Gestures**: Enables manipulating views such as the Camera and Drawing views using the following gestures: • To pan the view, drag your two fingers in any direction, keeping both fingers at the same distance from each other. • To zoom in, drag your two fingers away from each other. • To zoom out, drag your two fingers closer to each other.

- To rotate, drag your two fingers in a curve so that they revolve in the same direction.

Invert Scroll Direction: When panning a view by dragging it with your fingers in one direction, this makes the view pan in the opposite direction.

Touch Sensitivity: Control touch sensitivity. On macOS, higher numbers give a slower response to pans. On Windows, higher numbers favour scale/rotates over pans.

Web Control Center	This setting is only available in Harmony Stand Alone. It is made to allow Harmony to connect to a WebCC server. When working on a scene exported from WebCC, you can download changes made to the scene from the database and upload changes you made to the database from Harmony.
	
	URL: The full URL to the WebCC server, including the protocol and port number, as you would type it in a web browser:
	
	`protocol://hostname:portnumber`
	
	For example, to access a server named webcc.mystudio through https via port 8843, you would enter:
	
	`https://webccserver.mystudio:8843`

	NOTE If the URL starts with the name of the server rather than the protocol, http is presumed.

Camera Preferences

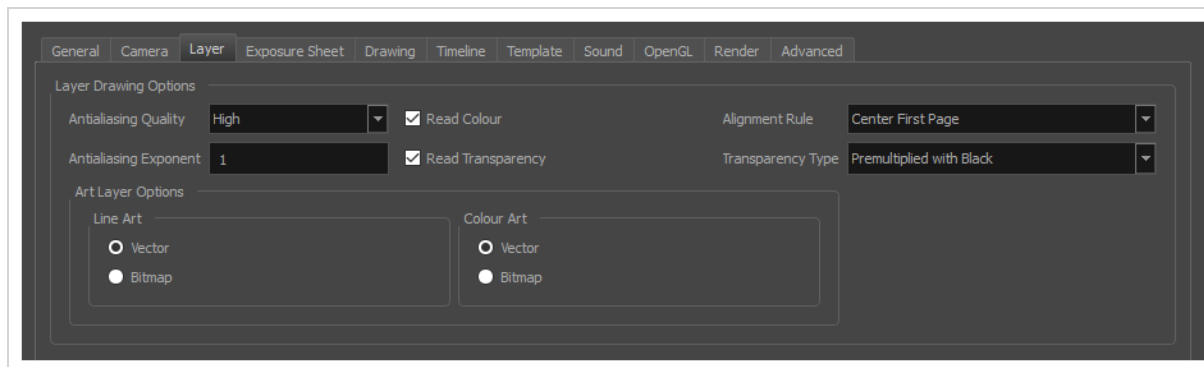| Parameter	Description
Tools	**Initial Animation Mode**: Determines which animation mode is enabled when the scene is opened.

Show Locked Drawings As Outlines: In the Camera view, locked elements are displayed as outlines only.

Bounding Box Selection Style: In the Camera view, selected elements are not highlighted in colour but displayed with the bounding box only.

Nudging Factor: The nudging increment value.

Set Keyframe on All Functions with the Transform Tool: When this option is selected, the Transform tool will create a keyframe for all functions of the selected pegs, including the functions that normally would not be affected by the transformation.

Set Keyframe at Frame One with First Application of the Transform Tool: When this option is selected, wherever you set a keyframe on a layer, a keyframe is added on your frame 1. If this options is deselected, a keyframe is only added to the current frame. If later on, you add a keyframe on your frame 1, it may modify the first keyframe you added.

Paste/Drag&Drop Adds Keyframes at Beginning and End: Select this option to |

	copy and paste a set of frames that includes an interpolated sequence between two keyframes, but only extracts a partial section. Under normal circumstances, cutting and pasting a function without either the start or end keyframe would render the function null. This option caps the partial function with a new keyframe when you perform the paste. **Use Rotation Lever with Transformation Tools**: Lets you see the rotation lever when using the transformation tools. When this option is deselected, hovering your cursor over the corner of an element's bounding box is sufficient to rotate it.
Zoom Settings	**Camera View Default Zoom**: The default zoom value for the Camera view. **Top/Side View Default Zoom**: The default zoom value for the Top/Side views.
Settings	**Thumbnail Size**: The thumbnail size, in pixels, that appears in the Top and Side views. The size, in pixels, of the smaller bitmap version of your image. When you import a bitmap image into a scene, a smaller version of it is created in order to accelerate the compositing and playback processes. **Override Small Bitmap Files**: Enable this option if you want the system to generate new versions of the existing smaller bitmap files, every time you modify the Small Bitmap Resolution value. When the option is disabled, the existing smaller bitmap versions will not be regenerated and will keep the same resolution as when they were created. **TV Safety**: The ratio value for the TV Safety frame in proportion to the regular camera frame.
Wash Background	**Enable in Camera**: Dulls background bitmaps in the Camera view. This allows you to see other elements clearly, such as the ones that have not yet been painted. **Enable in Camera Drawing Mode**: Dulls background bitmaps in Camera view while using the drawing tools. This allows you to see other elements clearly, such as the ones that have not yet been painted. **Wash Background Percentage**: The Wash Percentage value.
Colour Space	**Display Colour Space**: The colour space in which to display the OpenGL preview in the Camera view. In OpenGL View mode, colours in original bitmap images are converted from the colour space selected in their layer properties to the colour space selected in this preference, without getting converted to the project colour space first, and colours in bitmap and vector drawing layers are not converted at all. In Render View mode, this preference is not used. However, this option is also the default colour space selected in the drop-down at the bottom of the Camera view when adding a Camera view to the workspace or when resetting or switching

	your workspace, and the colour space in this drop-down is the one used in Render View mode.
Control Points	**Show Control Points On Selected Layers**: By default, when you select an element with the Transform tool, the motion path related to the object is displayed. **Control Point Tension**: The default Tension value for new keyframes and control points. **Control Point Continuity**: The default Continuity value for new keyframes and control points. **Control Point Bias**: The default Continuity value for new keyframes and control points.
Preview Wash	**Enable For Out of Date Previews**: When you disable the automatic render preview, you must click the Update Preview button in the Rendering toolbar or the Camera view bottom toolbar in order to recalculate and update the preview. When this option is enabled, if the current render preview is out of date and requires you to press the Update Preview button, the Camera view will display the current preview as washed out colours. **Wash Background Percentage**: This is the value, in percentage, by which the outdated preview will be washed out.

Layer Preferences

Parameter	Description
Layer Drawing Options	**Antialiasing Quality**: Smoothness setting applied to colour art. The higher the setting, the greater the amount of antialiasing applied. Higher quality images require more time to render and more system memory. Choose a lower quality if you are rendering a pencil test.
	• **Low**: No antialiasing
	• **Medium Low**: Some antialiasing
	• **Medium**: Medium antialiasing
	• **HighExtensive antialiasing**
	Antialiasing Exponent: Controls the amount of area around the Line and Colour Art edges used in the antialiasing process. A higher value uses less area, resulting in sharper edges, while a lower value uses more area, resulting in softer edges. If the Antialiasing Quality value is set to Low (no antialiasing), this value is ignored.
	Read Colour: Reads colour information from bitmap images. If this node reads 3 or 4-channel bitmaps, this selection determines whether the colour should be read or ignored. If this node reads 1-channel bitmaps, this selection determines whether the channel should be read as colour. When this option is selected with 1-channel images, the resulting image will be a greyscale image.
	Read Transparency: Reads the alpha information from bitmap images. If this node reads a 1 or 3-channel image, this option will create a matte from the colour values in the image. If the node reads a 4-channel image and this option is not selected, the alpha information in the image will be ignored.
	Alignment Rule: The Alignment position for the element node. The new element node will be created following this default rule of alignment.
	Transparency Type:
	• **Premultiplied with Black**: Pixels at the edge of an image are blended with black.

- **Straight**: Pixels at the edge of an image are blended with black, white and greys.

- **Premultiplied with White**: Pixels at the edge of an image are blended with white.

Clamp Colour to Alpha: Select this option when you want to premultiply the colour value with the alpha value. When the colour is clamped to the alpha, the colour value cannot be higher than the alpha value. It calculates the real colour value faster. When the RGB values are multiplied with the alpha value, that is, if you have a pixel of value R=247, G=188, B=29 and the alpha is 50% or the image has a 50% transparency, then the actual RGB values output would be half the amounts listed above**.**
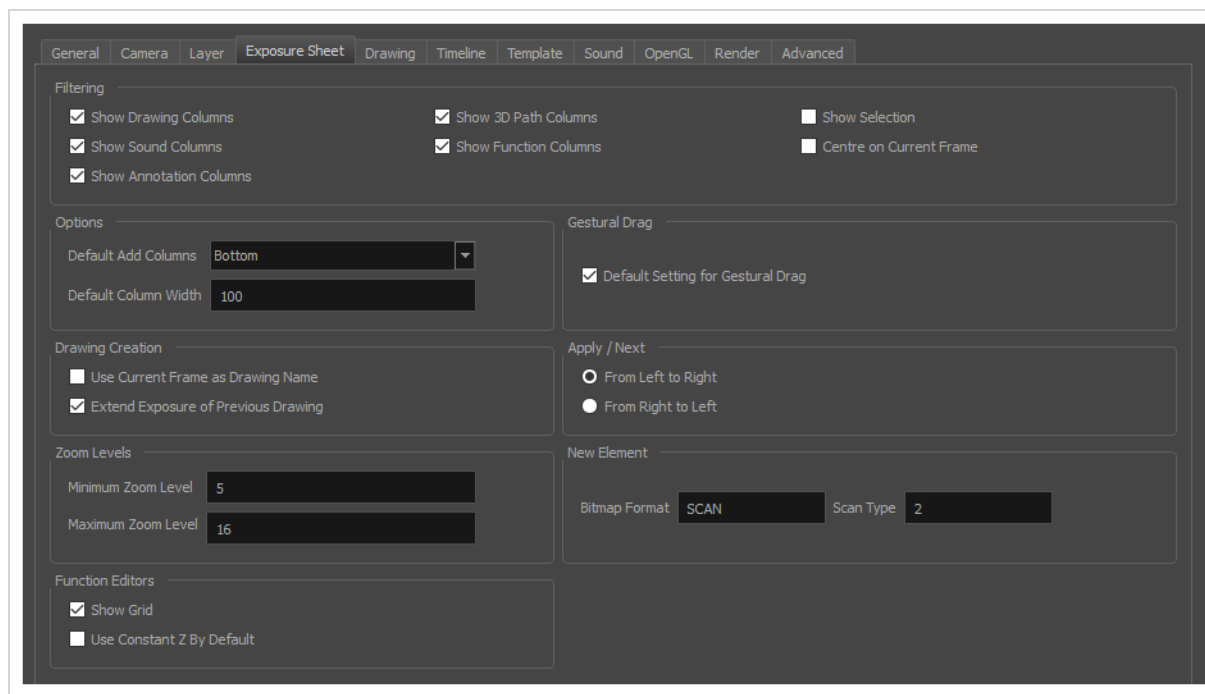
Art Layer Options: Allows you to select the default art type (**Vector** or **Bitmap**) for each type of art layer (**Line Art** and **Colour Art**), when creating a new drawing layer.
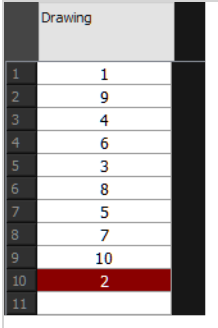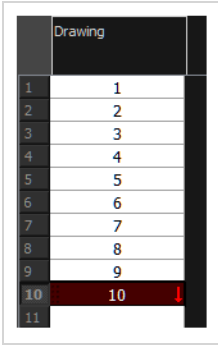
> **NOTE**
>
> If you have the **Support Overlay and Underlay Arts** preference of the **Advanced** tab enabled, you can also select the default art type for those art layers (**Overlay Art** and **Underlay Art**)
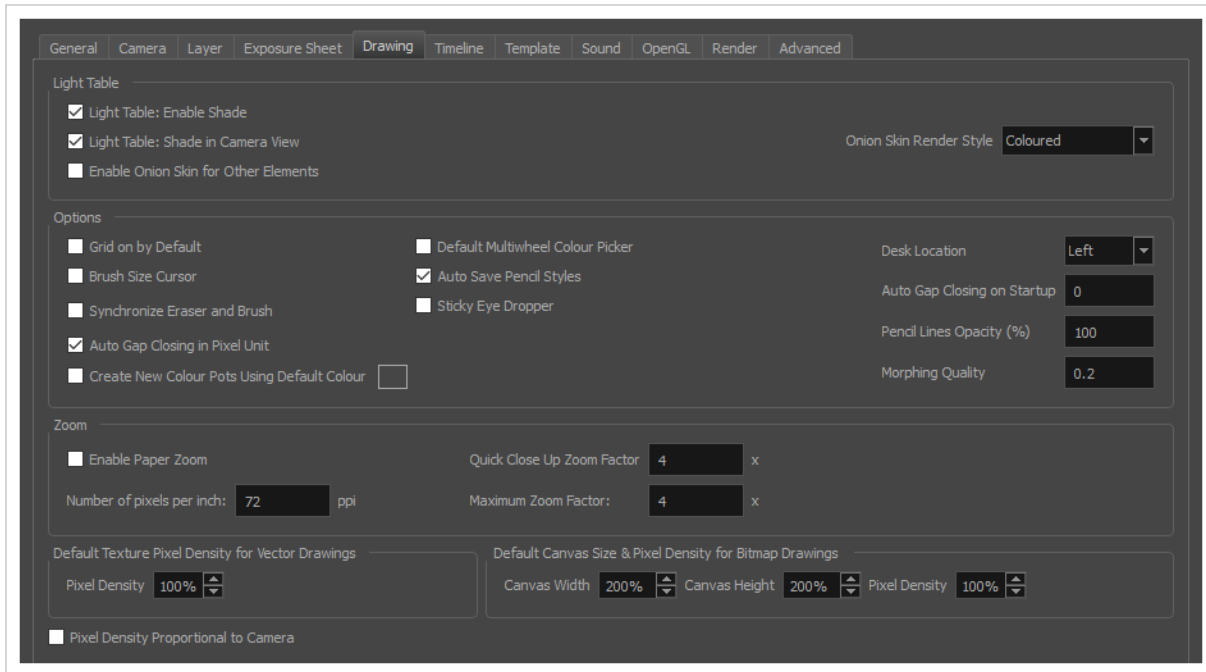
Exposure Sheet Preferences

Parameter	Description
Filtering	These preferences are used to display or hide certain layer types in the Xsheet view. **Show Drawing Columns**: Displays the Drawing layers in the Xsheet view. **Show Sound Columns**: Displays the Sound columns in the Xsheet view. **Show 3D Path Columns**: Displays the 3D Path columns in the Xsheet view. **Show Function Columns:** Displays the Function columns layers in the Xsheet view. **Show Selection:** Sets the Show Selection option On or Off by default in the Xsheet view. **Centre on Current Frame**: Turns auto-centering on or off when playing back a scene. Auto-centering is used during sound breakdown with the ShuttleXpress device.
Options	**Default Add Columns**: The default position where the new column will be added. **Default Column Width**: The default width value for the new column being created.
Drawing Creation	**Use Current Frame as Drawing Name**: Automatically names the drawing

corresponding to the frame position. This avoids numbering conflicts while animating.

For example, using the default preferences, you start with the first drawing on frame 1, this drawing is called 1. You then draw the extreme position drawing on frame 10, this drawing is called 2. Next, the in-between pose is drawn on frame 5, this drawing is called 3 and so on.

At the end, you have a sequence like this: 1-9-4-6-3-8-5-7-10-2.

Instead, using the Use Current Frame as Drawing Name option, each drawing is automatically named by its frame number and the sequence looks like: 1-2-3-4-5-6-7-8-9-10.

Extend Exposure of Previous Drawing: When drawing on a blank frame, a new drawing is created and the timing is extended from the previous exposed drawing.

Zoom Levels	You can set the minimum and maximum zoom levels to view the Xsheet, depending on the number of columns and rows in the project. Once you set a level, close and reopen the Xsheet so the new values take effect. **Minimum Zoom Level**: Lets you set the lowest level of zoom. Choose a value between 1 and 6. **Maximum Zoom Level**: Lets you set the highest level of zoom. Choose a value between 14 and 20.

	NOTE You can set a keyboard shortcut to view the entire Xsheet.
Function Editors	**Show Grid**: When selected, the grid is displayed by default when opening the Function Editor. **Use Constant Z By Default**: When selected, the Constant Z option will be enabled by default in the Function Editor. Constant Z means that even when creating Motion keyframes, the Z function will use Stop-Motion keyframes and will not be interpolated, this can be very useful for cut-out animation. The Constant Z feature only works with 3Dpaths. You can also enable the Constant Z option directly in the Function Editor or Function view for specific functions.
Gestural Drag	**Default Setting for Gestural Drag: This is the default value enabling gestural dragging of cells in the Xsheet view.**
Apply/Next	**From Left to Right**: When clicking the **Apply/Next** button in the Xsheet view Column Properties, the next column to be displayed in the Column Properties will be the one on the right. **From Right to Left**: When clicking the **Apply/Next** button in the Xsheet view Column Properties, the next column to be displayed in the Column Properties will be the one on the left.
New Element	**Bitmap Format:** By default, when you create a new empty bitmap column, it will use the file format indicated in the field as the new column format. The default value is SCAN, which means that it is set for scanned-in drawings.
	Scan Type: By default, the Scan Type is set to 2 which equals vector import. This means that the imported bitmap images will be placed into a Drawing layer. Scan type 1 is bitmap import.

Drawing Preferences

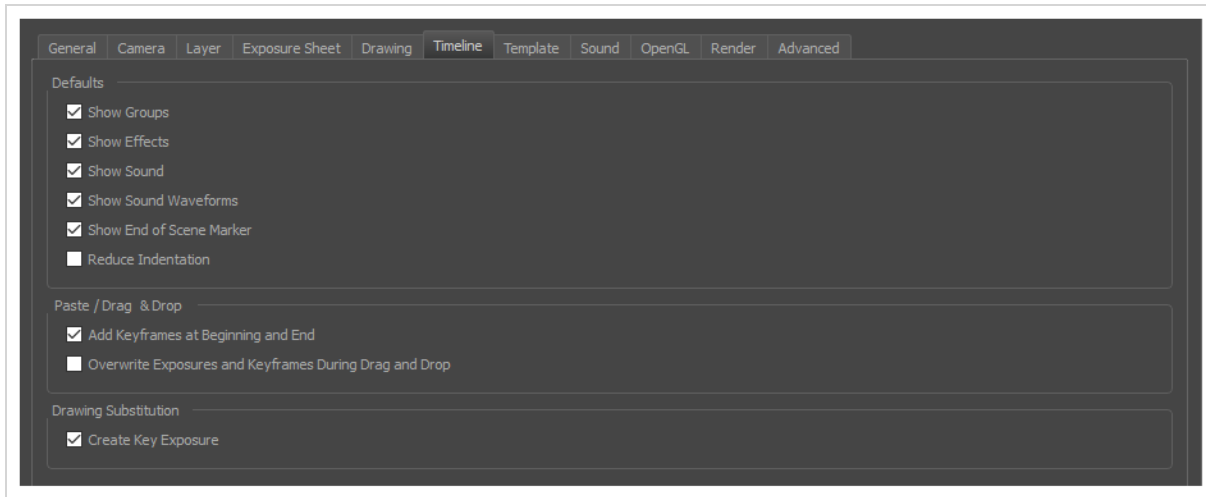| Parameter	Description
Light Table	**Light Table: Enable Shade**: When enabled, the drawings appearing on the Light Table are displayed in washed out colours in the Drawing view. When this option is disabled, the drawings appearing in the Light Table are displayed using normal colours. This option is for the Drawing view only. **Light Table: Shade in Camera View**: When enabled, the drawings appearing on other layers are displayed in washed-out colours in the Camera view. When this option is disabled, the drawings appearing on other layers are displayed using normal colours. This option is for the Camera view only. **Enable Onion Skin for Other Elements:** In the Drawing View, when the Light Table is enabled, making other layers visible alongside the current layer, this will make the Onion Skin for other visible layers appear alongside the Onion Skin for the current layer. Drawings for elements above the current layer will appear in blue, and drawings for elements below will appear in yellow. **NOTE** The drawings from other elements that get displayed in the Onion Skin are the drawings that are exposed at the same time as the drawings displayed in the current layer's Onion Skin. **Onion Skin Render Style**: • **Original Colours**: Drawings displayed in the Onion Skin are rendered

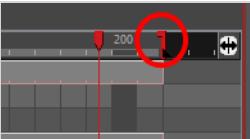|	
	using their real colours.
	• **Coloured:**Drawings displayed in the Onion Skin are displayed in solid red if they are before the current frame, or in solid green if they are after the current frame.
	• **Coloured Outlines**: Drawings displayed in the Onion Skin are displayed in red outlines if they are before the current frame and in green outlines if they are after the current frame.
Options	**Grid On By Default**: When opening the Drawing view, the grid displays automatically.
	Brush Size Cursor: When this option is enabled, the brush tool displays the brush size as a circle around the cursor.
	Synchronize Eraser and Brush: When enabled, changing any of the Brush tool's properties simultaneously changes the corresponding property for the Eraser tool to the same setting, and vice versa. Likewise, selecting a preset for one tool will apply this preset's properties for the other tool.
	Auto Gap Closing in Pixel Units: Disabling this option will cause your gap to be zoom dependent. Zoom dependent means that the more you zoom in, the smaller the gap you can close with the Close Gap tools. By enabling this option, you choose to make the gap display available in pixel units, which is not zoom dependent.
	Default Multiwheel Colour Picker: Displays the Multiwheel Colour Picker window instead of the regular Colour Picker.
	Auto Save Pencil Styles: When this option is enabled, new pens and pen styles are automatically saved.
	Sticky Eye Dropper: Keeps the Colour Picker's Dropper tool active until it is released by clicking on the Dropper icon again.
	Desk Location: Defines the location of the Desk panel in the Drawing view.
	Morphing Quality: Sets the default quality value for the morphing sequences. If you change this value, it will not affect the morphing sequence which was created previously. After a morphing sequence has been created using this default quality value, its quality can be changed manually by using the Morphing Tool Properties.
	Auto Gap Closing on Startup: The values for automatic gap closing while painting drawings are: **0** = Disabled, 1=Small, 2=Medium, 3=Big.
	Pencil Lines Opacity (%): Lets you set the default tranparency of your pencil lines.
	Create New Colour Pots Using Default Colour: Set the default colour for creating a new colour swatch. Enable the option so that this default colour is used each time you add a new colour in your palettes. This option is useful for when you create new colour pots so that a more recognizable colour is created and not just a duplicate of the currently selected colour. Choosing a colour that is the opposite

	of your intended colour palette is recommended, such as grey if your palette will be filled with bright, primary colours.
Zoom	**Enable Paper Zoom**: Enabling this option allows you to set the 100% Zoom level onscreen, in order to physically match the measurements of your paper drawing. **Number of Pixels per Inch**: Enter the PPI for your monitor. To obtain the PPI of your screen, divide the height or width of your monitor's resolution setting by the corresponding physical height or width of your monitor screen (resolution height divided by physical height, or resolution width divided by physical width) in inches. **Quick Close Up Zoom Factor**: Sets the zoom level for the Quick Close up Zoom keyboard shortcut. **Maximum Zoom Factor**: Sets the maximum zoom level for the paper zoom.
Default Texture Pixel Density for Vector Drawings	**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. **NOTE** This setting is applied to your scene's drawing resolution settings when creating a new scene, which is then applied to every new vector drawing created in your scene. Therefore, to apply changes to these settings to an existing scene, they must also be changed in the Drawing Resolution tab of the Scene Settings dialog. To apply changes to these settings to existing drawings, they must be changed using the Change Vector Drawing Brush Resolution dialog available from the Drawing top menu.
Default Canvas for Bitmap Layers	**Canvas Width:** The default width of the canvas when creating drawings in a bitmap drawing layer. The percentage is relative to the width of the scene. Its default value, 200%, makes the width of the canvas twice the width of the stage. **Canvas Height:** The default height of the canvas when creating drawings in a bitmap drawing layer. The percentage is relative to the height of the scene. Its default value, 200%, makes the height of the canvas twice the height of the stage. **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.

<table>
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NOTE

These settings are applied to your scene's drawing resolution settings when creating a new scene, which are then applied to every new bitmap drawing created in your scene. Therefore, to apply changes to these settings to an existing scene, they must also be changed in the Drawing Resolution tab of the Scene Settings dialog. To apply changes to these settings to existing drawings, they must be changed using the Change Bitmap Drawing Resolution dialog available from the Drawing top menu.

</td></tr>
</table>

Pixel Density Proportional to Camera: By default, the pixel density of new drawings is set to the scene's default pixel density. With this option enabled, the pixel density of new drawings is set to the scene's default pixel density multiplied by the camera's zoom factor.

For example, if this option is enabled and you create a new drawing while the camera is zoomed in at 6 fields (200%) and your scene's default pixel density is set to 150%, the new drawing will have a pixel density of 150% x 200% = 300%.

NOTE

The factor by which the pixel density is multiplied is rounded to the nearest power of 2, ie: 25%, 50%, 100%, 200%, 400%, etc. The rounding is done on an exponential curve. This means that, for example, if the scene's default scale factor is set to 100% and the scene is currently zoomed it at 9 fields (150%), a new drawing will have a 100% pixel density, as the multiplier will be rounded down from 150% to 100%. Hence, even if you enable this option, you must set your scene's default pixel density to at least 200% to prevent pixelated drawings.
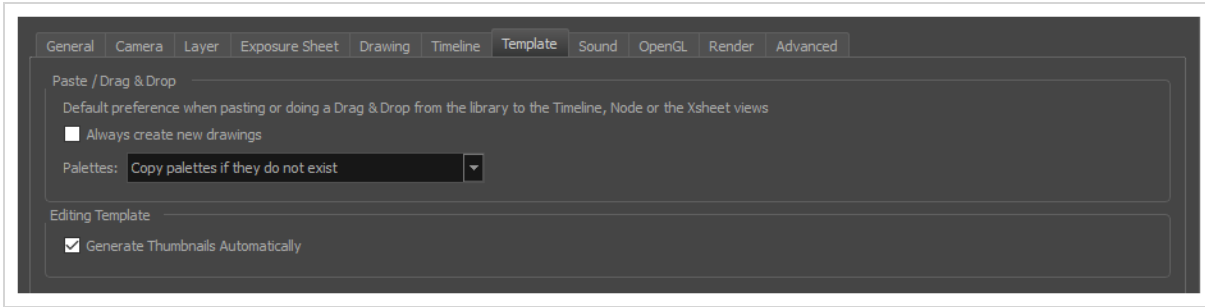
Timeline Preferences

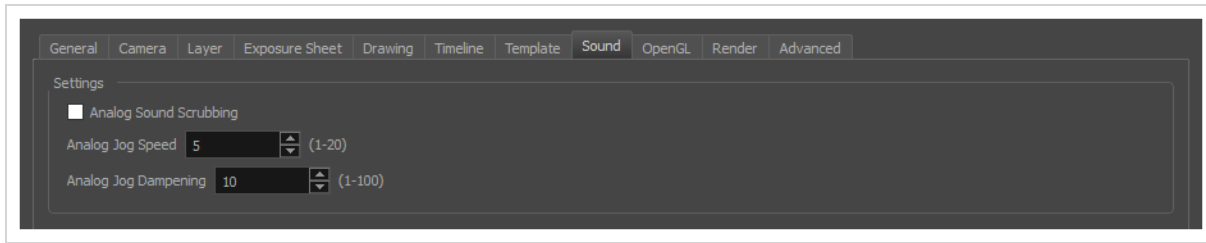| Parameter	Description
Defaults	**Show Groups**: Displays the Group layers in the Timeline.
	Show Effects: Displays the Effect layers in the Timeline.
	Show Sound: Displays the Sound layers in the Timeline.
	Show Sound Waveforms: Displays the imported sounds waveform in the Timeline.
	> **NOTE** You can always toggle the visibility of the waveform in the Timeline view by adding the Show Sound Waveform button from the Toolbar Manager. This button will work whether you have the Show Sound Waveform option enabled or disabled in the Preferences panel.
	Show End of Scene Marker: Displays the red bracket that delineates the end of your scene in the Timeline view. If you know that many different hands will be working on your scene, you may want to deselect this option so the scene length is not increased or decreased by accident.
	Reduce Indentation: When this option is enabled, the horizontal indentation for parented nodes in the Timeline is reduced to optimize the amount of space taken in the Timeline. When you have a cut-out character and there is a long cascade of parented nodes, you can enable this option so the Timeline (left side) does not have expand too wide to see all your nodes.

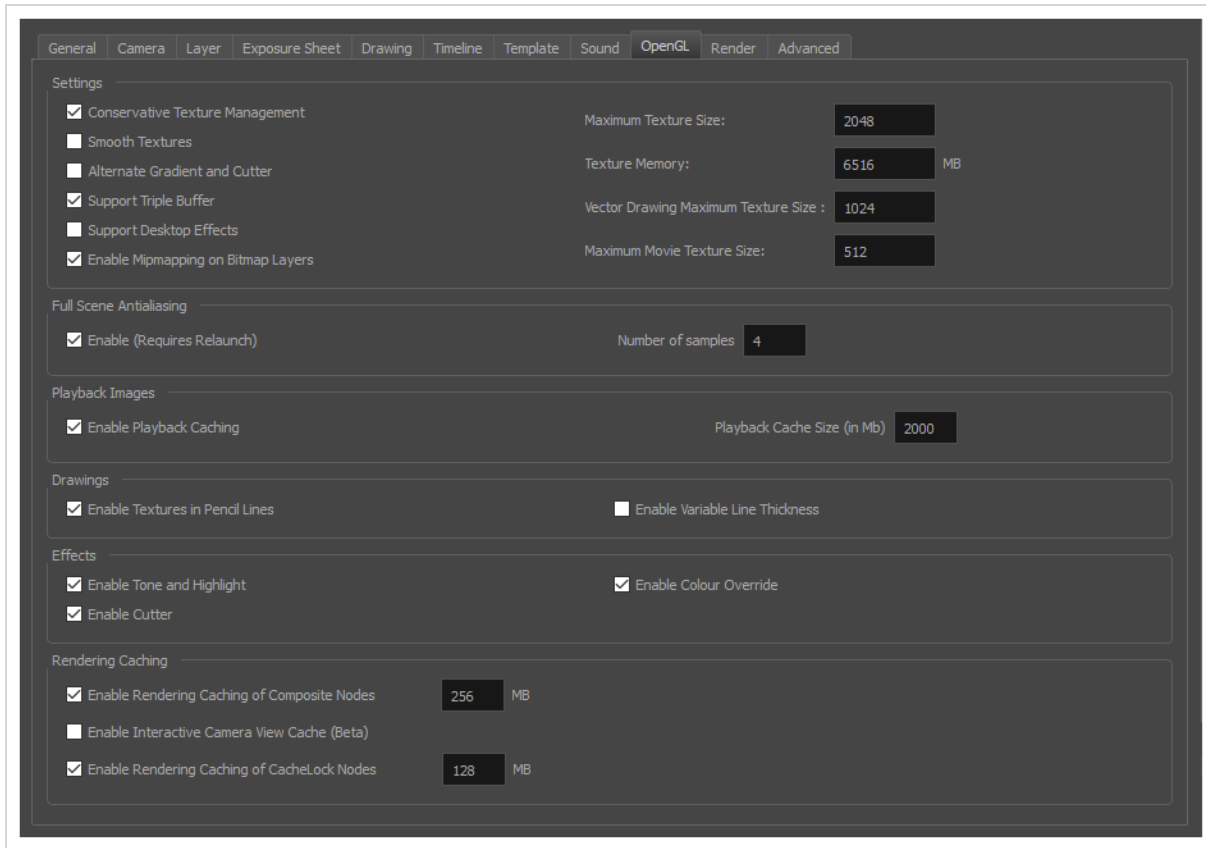|	
Paste/Drag & Drop	**Add Keyframes at Beginning and End**: Copies and pastes a set of frames that includes an interpolated sequence between two keyframes, but only extracts a partial section. Under normal circumstances, cutting and pasting a function without either the start or end keyframe would render the function null. This option caps the partial function with a new keyframe when you perform the paste. **Overwrite exposures and keyframes during drag and drop**:When enabled, dragging and dropping drawings and keyframes in the Timeline view will overwrite the drawings and keyframes between the selection and the destination, as if the selection "wiped" everything on the way to the destination. **NOTE** Whether this option is enabled or not, dragging and dropping a selection of drawings will always overwrite the drawings at the destination with the drawings in the selection. This option only changes what happens with the drawings between the selection and the destination.
Drawing Substitution	**Create Key Exposure:** When enabled, changing the drawing at the current frame using the Drawing Substitution panel of the Library view will always create a key exposure at the current frame, even if the drawing is the same as the drawing in the previous frame. If disabled, a key exposure is only created if the drawing at the current frame is different from the drawing in the previous frame. If the drawing at the current frame is the same as the drawing in the previous frame, the exposure of the drawing in the previous frame is extended over the current frame.

Template Preferences

Parameter	Description
Paste/Drag & Drop	**Always Create New Drawings**: By default, when you import timeline templates in the right section of the Timeline view, to stack them, the system will analyze and create only the non-existing drawings and only expose the existing ones. When enabled, this option automatically creates new drawings for every one of them that is exposed. **Palettes**: • **Ask User**: When dropping a template into a scene, the system will ask if you want to link the palette to the original or create a local copy in the scene. • **Use Original Palette**: The system will automatically link drawing elements to the original palette file. If the original palette is not encountered a local copy will be created. • **Use Copy of Palettes**: The system will automatically create a local copy of the palette in the scene.
Editing Template	**Generate Thumbnails Automatically**: Automatically create thumbnails for the template when you want to see the thumbnails in the Library or when saving a template modification.

Sound Preferences

Parameter	Description
Settings	**Analog Sound Scrubbing**: Switches from digital to analog sound scrubbing. **Analog Jog Speed**: Lets you control the sensitivity of the jog slider or dial. Choose a value between 1 and 20. The higher the jog speed value, the slower you can scrub to have the sound play at an average pace. **Analog Jog Dampening**: Lets you choose a value between 1 and 100 for the Analog Jog Dampening. The higher the value, the less precise Harmony is at responding to the jog's changes in speed. However, the more smooth the play back is using the jog slider or dial.

OpenGL Preferences

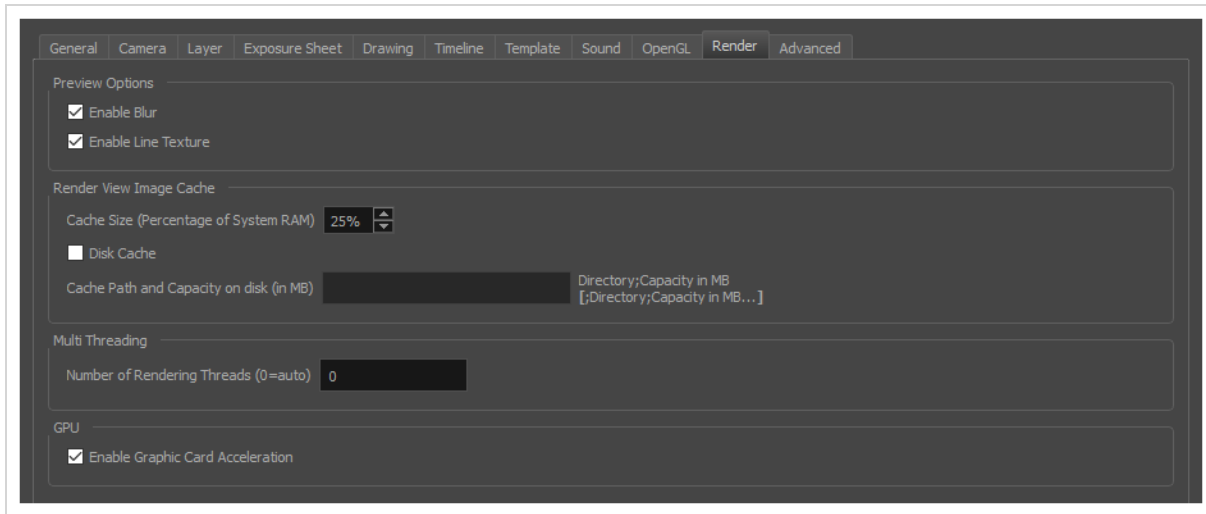| Parameter	Description
Settings	**Conservative Texture Management**: Turns on and off conservative memory management for bitmap texture files. Performance will improve when this is enabled. If disabled, you will have a better on-screen rendering of bitmap files at the expense of slower performance.
	Smooth Textures: Smooths out the pixels of bitmap images when zooming in; this improves bitmap image quality.
	Alternate Gradient and Cutter: This is an alternative way to disable write in the OpenGL Backbuffer, required for some video cards (i.e. GeForce FX5200). Do not enable this option unless you are experiencing problems with gradients and cutters in OpenGL.
	Support Triple Buffer: Enable this option for a better compatibility with Windows Vista if your video card driver does not allow to disable the triple buffering option. Not enabling this option may result in a dashing line when drawing a brush stroke.
	Support Desktop Effects: Enable this option for better compatibility with Windows 7, Windows Vista and Mac OS X desktop effects. This will prevent graphic compositing problems from happening when the full-scene anti-aliasing

	option is enabled. **Enable Mipmapping on Bitmap Layers:** Generate anti-aliased mipmap textures. Disable this option for increased performance when working on Bitmap layers with non-standard graphic cards. **Maximum Texture Size**: The size that the bitmap file will be reduced to when using the Conservative Texture Management. **Texture Memory**: The amount of temporary memory used to store bitmap texture files. **Vector Drawing Maximum Texture Size**: This is the size that the .tvg file will be reduced to for better performance when in OpenGL render mode.
Full Scene Antialiasing	The following options allow you to configure the way drawings are previewed in Harmony. **Enable (Requires Relaunch) :** By default, drawings displayed in Harmony, such as in the Camera or Drawing view, have no antialiasing and display hard pixels at the edge of strokes and lines. If this preference is enabled, antialiasing will be done through the graphic card to enhance the quality of drawings and make a preview that resemble the final render more closely. This may impact application performance negatively. **Number of samples:** The amount of times the OpenGL preview is scaled up before processing it for antialiasing. The higher this value is, the better the antialiasing quality will be but the heavier it will be on the machine's resources. **NOTES** • It may be necessary to restart the application to see the effects after changing either of these settings. • These settings may be overriden by the 3D antialiasing settings of the driver for your graphics card. If changing these settings and restarting the application seems to have no effect, make sure your graphics card supports antialiasing, that antialiasing is enabled and that it is configured to let applications control their antialiasing. • These settings only affect the way drawings are previewed in OpenGL. They have no effect on the final rendered image, or on the way the image looks when setting the Camera view in Render Preview mode.
Playback Images	**Enable Playback Caching**: Enable the caching of OpenGL previews for quick playback. **Playback Cache Size (in Mb)**: The maximum size of the cache used to store cached playback images.

Drawings	**Enable Textures in Pencil Lines**: Controls whether textures applied on pencil lines are rendered for the OpenGL preview. **Enable Variable Line Thickness**: Controls whether lines with a variable width are rendered with their variable width or with a constant width in the OpenGL preview.
Effects	**Enable Tone and Highlight**: Controls whether Tone and Highlight effects are rendered in the OpenGL preview. **Enable Cutter**: Controls whether Cutter effects are processed for the OpenGL preview. **Enable Colour Override**: Controls whether Colour-Override effects are rendered in the OpenGL preview.
Rendering Caching	**Enable Rendering Caching of Composite Nodes:** Controls whether non-passthrough Composite nodes cache their composited image when Harmony generates an OpenGL preview. This is useful when the image generated by a composite is used several times in a scene, for example because a composite's output port is connected to several other nodes. If this preference is disabled, the composite will regenerate the preview for its node system for each of its outgoing connections. When enabled, the composite will generate the preview for its node system once, cache it, and output the cached image to its other outgoing connections. **Composite Cache Capacity (MB):** The maximum amount of cache available to store images cached by Composite nodes. This cache is stored in the graphic card's video memory. If your machine has a lot of video memory, increasing this setting could enhance the performance of Harmony when working with heavy scenes. **Enable Interactive Camera View Cache (Beta):** When enabled, Harmony keeps a cache of the current preview image in the Camera view. This cache is used to regenerate parts of the preview image when moving the mouse cursor around or when manipulating drawing and animation controls in the Camera view. Otherwise, Harmony will regenerate these parts of the preview image, which may impact performance when working on a complex scene. **Enable Rendering Caching of CacheLock Nodes:** Controls whether OpenGL Cache Lock nodes are used to generate the OpenGL preview. Disabling this preference has the same effect as disabling all OpenGL Cache Lock nodes in the scene. **CacheLock Cache Capacity (MB):** The maximum amount of cache available to store preview images cached by OpenGL Cache Lock nodes. This cache is stored in the graphic card's video memory. If your machine has a lot of video memory, increasing this setting could enhance the performance of Harmony when working with heavy scenes.

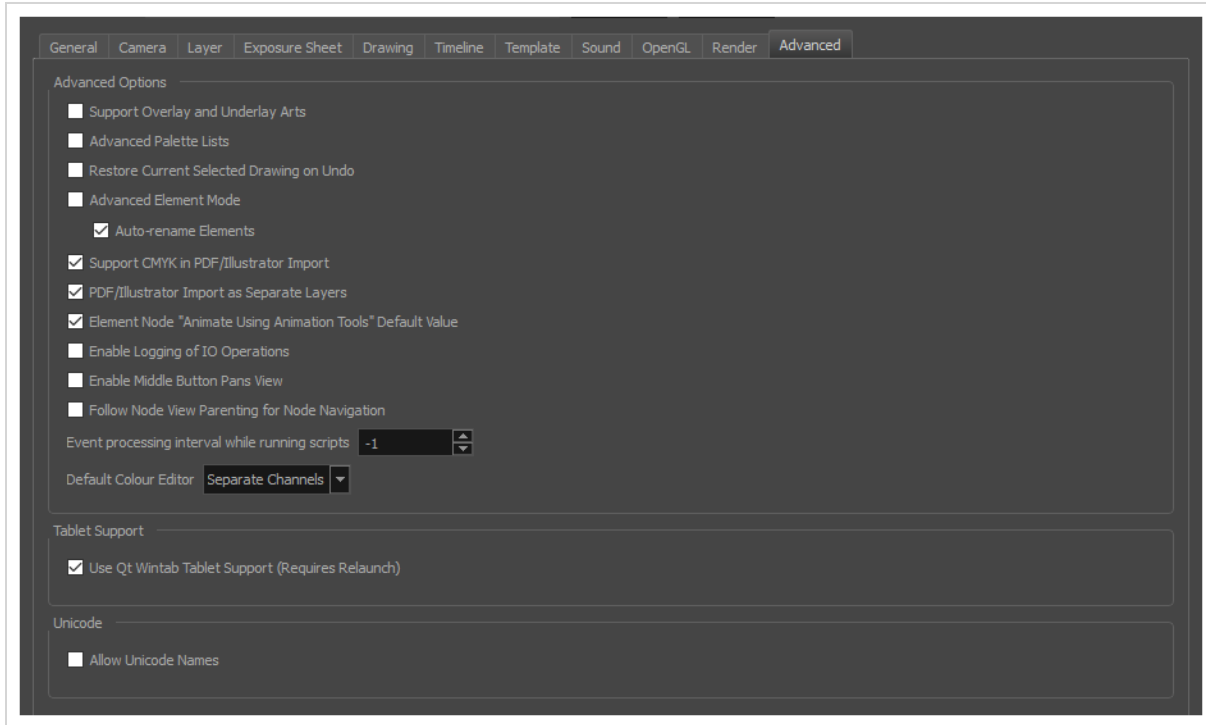|	**NOTE** OpenGL Cache Lock nodes and Composites are only available in Harmony Premium. In Harmony Advanced, each group has a composite node inside it. Otherwise, these settings may be useful if you are using Harmony Advanced to animate a scene created in Harmony Premium.

Render Preferences

Parameter	Description
Preview Options	**Enable Blur**: Renders blur effects derived from the Blur-Directional, Blur-Radial, and Blur-Variable in the Render View window. **Enable Line Texture**: Renders line texture in the Render view.

Render View Image Cache	**Cache Size (Percentage of System RAM)**: The percentage of RAM on your machine to reserve for the Render View cache.
	
	Disk Cache: If enabled, Harmony will also use your machine's storage space to store Render View image cache, increasing its total capacity.
	
	Cache Path and Capacity on Disk (in MB): You can use this field to specify one or several storage location for the Render View disk cache. If you do, you must specify the path and the desired storage limit of each location, in this format:
	
	`Directory path;Capacity (in megabytes)`
	
	If you want to specify several storage spaces, you must specify the path and capacity of each storage space, in this format:
	
	`Directory path 1;Capacity (in megabytes) of directory 1;Directory path 2;Capacity (in megabytes) of directory 2`

	NOTES • This field is only accessible if the **Disk Cache** option is checked, as Harmony will not store a Render View cache on the disk otherwise. • If this field is left empty, Harmony's temporary directory will be used instead, and will not have a storage limit. • The specified directory or directories must already exist. • You can use RAM disks as storage locations.
Multi Threading	This lets you specify the level of parallel processing done during the final image calculation (soft-rendering). Allowing parallel processing speeds up the soft-render process. **Number of Rendering Threads**: Lets you specify the number of parallel processes during the soft-render process. A value of 1 disables the multi-threading process because it specifies that only one rendering thread will be used during the process. The maximum number of threads is 64. The recommended starting value is 2 threads per CPU core, meaning that if you are using a 2 Quad Core CPU, the preferences should initially be set to 16 threads.
GPU	**Enable Graphic Card Acceleration**: Optimizes the rendering blurs by using the GPU's acceleration capabilities. This option is on by default. Not all cards support this acceleration.

Advanced Preferences

Parameter	Description
Advanced Options	**Support Overlay and Underlay Arts**: When enabled, options to manipulate overlay and underlay arts are available. **Advanced Palette Lists**: Lets you switch your palette list to Advanced Palette Lists mode for creating and storing palettes in the Scene or Element Palette List. **Restore Current Selected Drawing on Undo**: If a drawing other than the current one is being affected by an Undo command, the affected drawing is displayed. **Advanced Element Mode**: Displays more options in the Add Column dialog box and the Column Properties dialog box. **Auto-rename Elements**: Controls whether to rename the element whenever the corresponding node name in the Node view or layer name in the Timeline view is changed. **Support CMYK in PDF/Illustrator Import**: Lets you import .pdf and .ai files that were created or exported in CMYK mode. The colours of the resulting imported image may still not look 100% faithful to its CMYK original due to the RGB conversion. It is recommended that you convert these files to RGB images before importing them into Toon Boom Harmony Advanced. Disabling this option will cause all the colours of the imported image to be displayed as red to indicate that the file was not converted to RBG before import. **PDF/Illustrator Import as Separate Layers**: Imports the different groups/elements

of the .pdf or .ai file as separate layers. For Illustrator files, the import will use the top level group as separate layer names. Deselect this option to import pdf or .ai files as a single layer.

Element Node "Animate Using Animation Tools" Default Value: If you know that you prefer to work in the style of version 7.3 or earlier, or if you intend to substitute many drawings throughout your animation, you might wish to deselect this option. This way, you won't have to do it every time (through the Layer Properties) for each new drawing layer that you create.

Enable Logging of IO Operations: When enabled, Harmony will create a log of every file operation it performs in a log file in the `logs` subfolder of the scene folder.

Enable Middle Button Pans View: When enabled, clicking and dragging the Drawing or Camera view with the middle mouse button will pan it.

Event processing interval while running scripts: When a Harmony script is executed, this setting determines at which interval, in milliseconds, Harmony should pause the script to see if the user attempted to do something, and to respond accordingly.

For example, if the setting is set to 1000, and the user starts running a heavy script that takes several seconds to execute, Harmony will pause the execution of the script every second to check if the user pressed any key or clicked on anything, and will respond accordingly, making Harmony responsive despite running a heavy script. This also allows the script debugger to detect if the script has an infinite loop and to interrupt it if needed.

The default value of this setting, which is **-1**, disables the processing of any event while a script is running until the script is fully executed. This means that if a script takes several seconds to execute, Harmony will "hang" until the execution is over. This can cause Harmony to freeze if the script has an infinite loop. However, this has for an advantage that it prevents user action from making any changes or actions that could interfere with the script before it is done running.

> **NOTE**
>
> Disabling event processing during scripts can be critical when using Master Controllers, as they are often scripted to manipulate elements in the scene in response to user input that refreshes several times per second. If the user input refreshes too quickly for Harmony to fully execute the Master Controller script for every user input, this may cause the execution of the script to be paused recursively.

Default Colour Editor: The type of colour editor to use in the Layer Properties of effects that have colour parameters. This setting is applied to new effects added to a scene, but not to existing effects. Harmony supports the following types of colour editors:

- **Separate Channels:** Displays a simple input field and a function button for each of the Red, Green, Blue and Alpha channels, with a preview of the

resulting colour below.
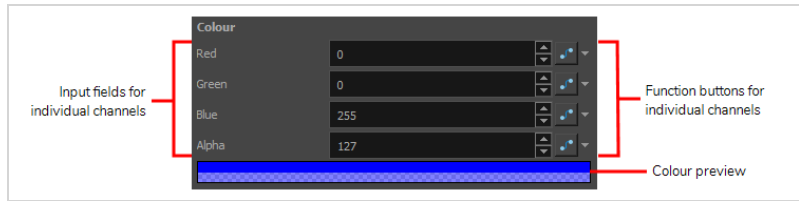
- **Colour Wheel:** Displays compact "click and drag" style input fields for the Alpha, Hue, Saturation, Value, Red, Green and Blue channels. The the input fields can be clicked and dragged left and right to decrease or increase their values, or double-clicked to type their value in. Each channel also has a toggle button allowing you to select one of the channels, and to the right is a visual colour picker which allows you to visually pick the value of that selected channel. To the bottom-left is a control to navigate the existing keyframes of the colour functions, as well as add or remove keyframes at the current frame.
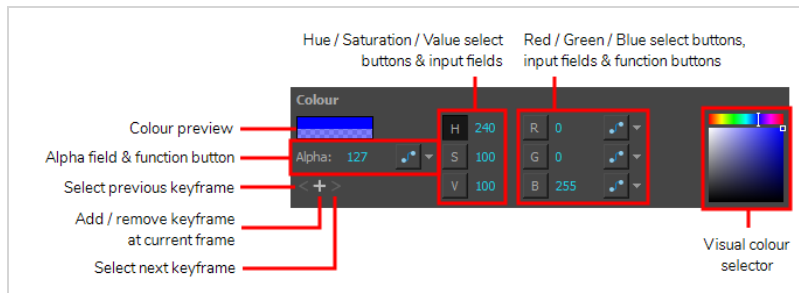
- **Compact:** Displays a single slider control for the Alpha channel of the colour along with a function button for the alpha channel. To the right are buttons to navigate existing keyframes in the alpha function as well as to add or remove keyframes on the alpha function at the current frame. To select the actual colour, you must double-click on the colour preview to open the colour picker. This editor only allows you to animate the alpha value, and hence should not be used if other channels must be animated.
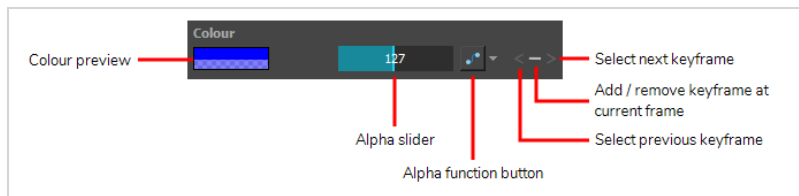
> 💡 **TIP**
>
> In any of the colour editors, you can double-click on the colour preview to open a Colour Picker dialog, giving you access to more convenient visual controls to select a colour.

Tablet Support	**Use Qt Wintab Tablet Support (Requires Relaunch**): If you are using a tablet other than Wacom, deselect this option (and relaunch) if you are having issues with offset or pressure sensitivity.
Unicode	**Allow Unicode Names**: Lets you use up to 120 ASCII characters for names of environments, jobs and scenes. This means you can use characters for languages, such as Japanese, Chinese, French, Spanish, and others, characters for names in your database setup.