

PAIN**T**



Toon Boom Harmony 10.3 Paint User Guide

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Chapter 1: Introduction



What is Toon Boom Harmony?

Toon Boom Harmony is a revolutionary team-based infrastructure for animation production. Its array of cutting-edge features increases productivity and encourages creativity. Developed in conjunction with the leading studios worldwide, Toon Boom Harmony is specifically designed for long-term episodic and feature length projects, providing a true animation pipeline. Several animators can work simultaneously on the same scene while the asset library provides users with easy access to up-to-date media assets.

Toon Boom Harmony is truly scalable; more than 100 staging clients can share animation just as easily as a few can. Whether you are a start-up studio or a large established animation facility, Toon Boom Harmony serves as the animation backbone ensuring sustainable growth.

Toon Boom Harmony is a powerful solution that brings together multiple teams working on the same project, whether in-house or remotely. The Toon Boom Harmony solution offers a robust asset management system that enables users to quickly locate assets, share tasks on complex scenes and centralize all assets in a common repository. Tremendous gains in efficiency and quality are made by the teams, who enjoy a smooth flow between each task, and more time dedicated to their creative assignments.

What is the Harmony Paint Module?

The Harmony Paint module is mainly used in large productions where there is an Ink and Paint or Colour Stylist team. The Harmony Paint module includes the **Drawing** and **Colour** views as well as drawing tools. By using this module the Ink and Paint team does not need to learn the entire application, but can focus on the Ink and Paint process.



The Harmony Paint module can only be used with a connection to the Harmony database, unlike the Toon Boom Harmony application which can be used as a standalone application. To start the ink and paint process, you need to first fill in your scene's exposure sheets and import the drawings that need to be coloured.

Refer to the Harmony Xsheet and Harmony Scan Guides to learn more about the previous steps of the production.



In this guide, the default keyboard shortcuts that are used are the Adobe Flash set.

Topics Covered

- [Getting Started](#) on page 19
- [Interface](#) on page 29
- [Clean Up and Drawing Tools](#) on page 55
- [Colour](#) on page 205

Chapter 2: Getting Started

Once the software is installed and setup, you are ready to launch the application and ink and paint!




Topics Covered

- [Launching Harmony Paint on the next page](#)
- [Loading Drawings and Elements on page 22](#)
- [Extra Commands on page 26](#)

Launching Harmony Paint

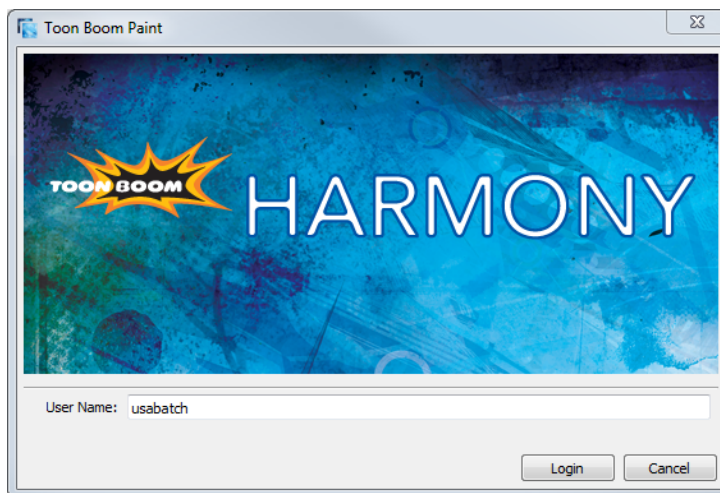
Before using Harmony Paint, you have to start the program. You can run the software on Mac OS X or Windows/Linux operating systems.

To open Harmony Paint, do one of the following:

1. Launch Toon Boom Harmony:
 - ▶ **Mac OS X:** Double-click on the Harmony Paint  icon or select **Applications > Toon Boom Harmony 10.0 > Paint**
 - ▶ **Windows:** Double-click on the Harmony Paint  icon or select **Start > Programs > Toon Boom Harmony 10.0 > Paint**
 - ▶ **Linux:** Double-click on the Harmony Paint  icon or select **Applications > ToonBoom-Harmony_10.0 > Paint**
or type in the command line:-
`cd /usr/local/ToonBoomAnimation/harmony_10.0/lnx86/bin`

Launch Stage -paint:
`./Stage -paint`

Harmony Paint opens, displaying the Login Screen.



2. Enter your Harmony user name to login to the Database. To work on Harmony Paint, you need to be connected to the database to have access to the scenes stored in the central database of Toon Boom Server. You cannot open offline scenes with Harmony Paint.
3. Click on Login. Harmony Paint Opens.

Harmony user names are created via the Control Center. If you do not have a user name, contact your IT department.



Refer to the Control Center and Server Guide to learn how to create Harmony user names.

Related Topics

- [Loading Drawings and Elements](#) on the next page

Loading Drawings and Elements

Once you launch Harmony Paint, you need to load a scene's drawings from the Database Selector, in order to start the ink and paint process. The drawings must have previously gone through the Xsheet and Scanning processes.

There are two ways of loading drawings:

- **Open Drawings**
This option will let you load drawings from one element at a time, for quick ink and paint on a single layer animation.
- **Open Elements**
This option will let you load drawings from several elements at once. This can be useful when an animation is separated in many layers, to insure that they are well aligned and that the painted shapes and lines fit together. A good example of this would be a dialogue with the chin and mouth separated from the rest of the head.

Related Topics

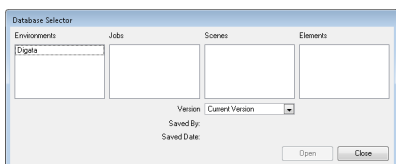
- [Open Drawings below](#)
- [Open Elements on the facing page](#)

Open Drawings

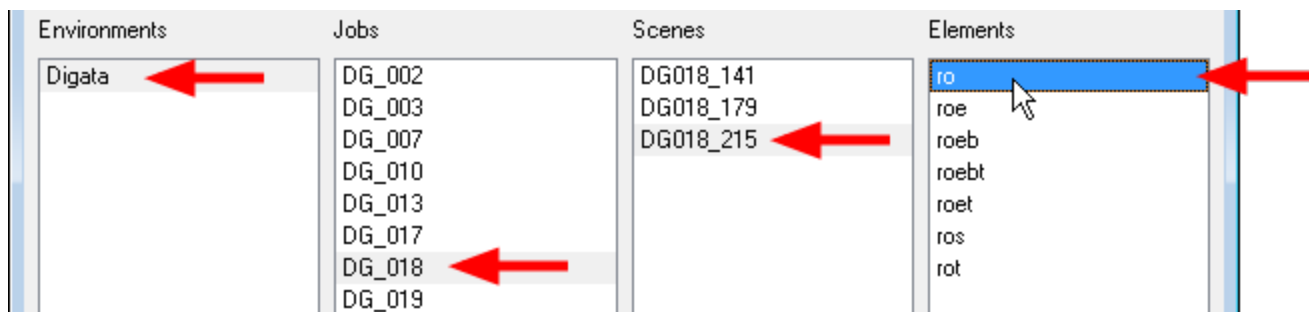
To open drawings in Paint:

1. Once Harmony Paint is launched and you are logged in, select **File > Open Drawings**. The [Ctrl] + [O] (Windows/Linux) or [⌘] + [O] (Mac OS X).

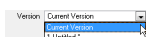
The **Database Selector** opens, displaying the Environments available from the Harmony database.



2. Select the Environment, Job, Scene and Element where the drawings you need to paint are located.



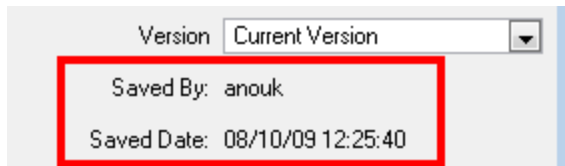
3. Choose the version you want to open from the Version drop-down menu.



- ▶ The **Saved By** and **Saved Date** fields display the user who was the last to save the selected scene and the date of the last save.

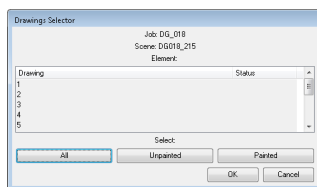


Refer to the Harmony Network to learn more about scene versions.



4. Click on the Open button.

The **Drawings Selector** dialog box opens.



5. Select the desired drawings from the drawings list:
 - Click on a single drawing to select it.
 - You can create a continuous multiple selection by holding the [Shift] key.
 - You can create a multiple selection by holding the [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) key.
 - Click on the All button to select all the drawings that are listed in the **Drawings Selector**.
 - Click on the Unpainted button to select all the drawings whose status appears as **UNPAINTED**.
 - Click on the Painted button to select all the drawings whose status appears as **PAINTED**.
6. Click on the **OK** button.

The selected drawings appear in the **Drawing Thumbnails** view

7. Use the Control panel to navigate between the previous and next drawings. The [F] and [G].



You are now ready to ink and paint!

Related Topics

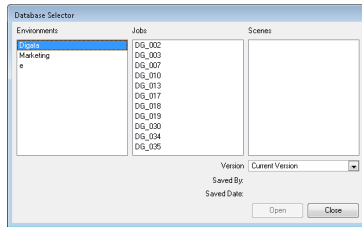
- [Open Elements](#) below

Open Elements

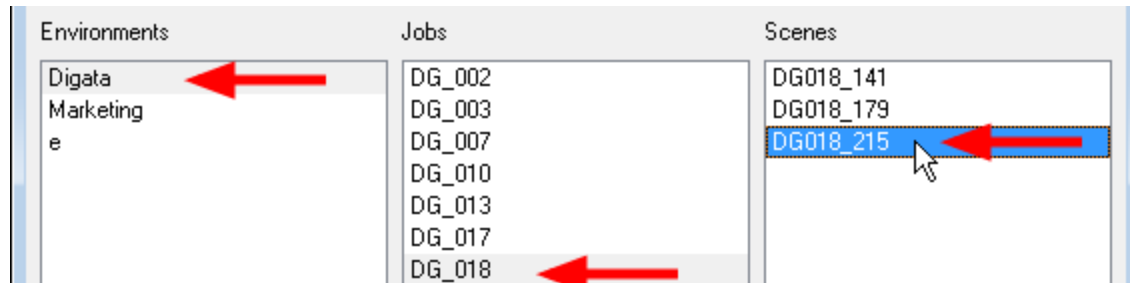
To open elements in Paint:

1. Once Harmony Paint is launched and you are logged in, select **File > Open Elements**. The [Ctrl] + [E] (Windows/Linux) or [⌘] + [E] (Mac OS X).

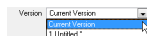
The **Database Selector** opens, displaying the Environments available from the Harmony database.



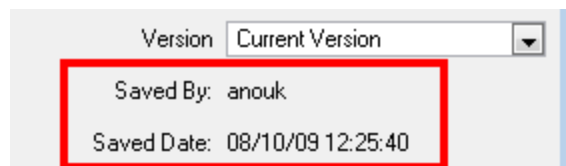
2. Select the Environment, Job and Scene where the elements containing the drawings you need to paint are located.



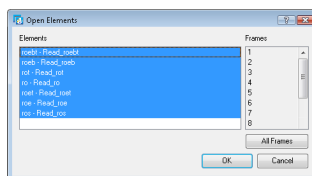
3. Choose the version you want to open from the Version drop-down menu.



- ▶ The Saved By and Saved Date fields display the user who was the last to save the selected scene and the date of the last save.




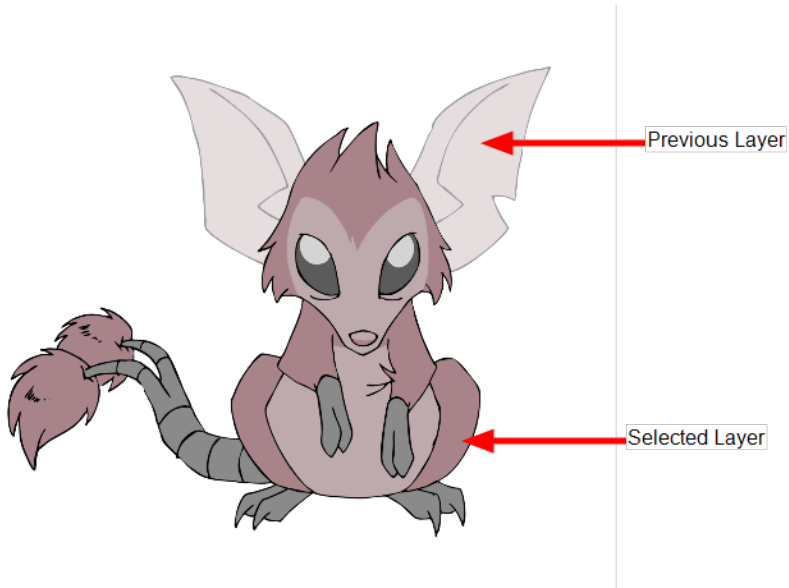
4. Click on the **Open** button.
The **Open Elements** dialog box opens.



5. Select the elements you need to paint from the **Elements** list:
 - You can create a continuous multiple selection by holding the [Shift] key.
 - You can create a multiple selection by holding the [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) key.
6. Select the frames you wish to load from the **Frames** list:
 - You can create a continuous multiple selection by holding the [Shift] key.
 - You can create a multiple selection by holding the [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) key.
 - Click on the All Frames button to load all the frames of the scene.
7. Click on the **OK** button.

The Drawing Thumbnails view will be hidden and your selected elements will be loaded in Harmony Paint.

8. Enable the **Light Table**  option from the Drawing view toolbar to display all the drawing layers.
- The selected layer will be displayed in original colours.
 - The other layers will be displayed as washed out colours.



9. Use the Control Panel to navigate between previous and next layers. The [H] and [J].



10. Use the Control panel to navigate between previous and next drawings. The [F] and [G].



You are now ready to ink and paint!

Related Topics

- [Open Drawings](#) on page 22

Extra Commands

This table lists the most common commands used in Harmony Paint.

Command	Action	Shortcut
File > Add/Revert	Use the Add/Revert command to load new drawings to the already existing selection or to reload drawings to revert the modifications to the last save. This option does not work when several elements are loaded.	
Windows > Colour	Use the Colour command to display the Colour view.	
Windows > Colour Editor	Use the Colour Editor command to display the Colour Editor view.	
Windows > Model	Use the Model command to display the Model view.	
Windows > Tool Properties	Use the Tool Properties command to display the Tool Properties view.	
File > Load Background File	Use the Load Background File command to import a background image in Paint to compare your drawing's colours with it.	
File > Move Background	Use the Move Background command to move the background image in the stage.	
File > Open Drawings	Use the Open Drawings command to open the Database Selector dialog box to select a set of drawings.	The [Ctrl] + [O] (Windows/Linux) or [⌘] + [O] (Mac OS X).
File > Open Elements	Use the Open Elements command to open the Open Elements window and select a series of drawing elements and a frame range to work on.	The [Ctrl] + [E] (Windows/Linux) or [⌘] + [E] (Mac OS X).
Options > Play by Frame	Use the Play by Frame command to flip between the frames instead of the drawings. If a drawing is exposed on two	

Command	Action	Shortcut
	frames, you will have to flip twice before moving on to the next drawing.	
File > Reset Background Position	Use the Reset Background Position command to restore the background image original size and position.	
File > Scale Background Down	Use the Scale Background Down command to scale down the size of the background image.	
File > Scale Background Up	Use the Scale Background Up command to scale up the size of the background image.	
File > Unload Background	Use the Unload Background File command to remove the background image from Paint.	

Chapter 3: Interface



Knowing how to manage the Paint module interface helps you to work efficiently and organize your workspace conveniently. There are a series of views and toolbars you can use as you perform different operations. Each user has a preferred way of working in the interface and which views and toolbars they will use. In this chapter, you will learn about the main elements of the interface and how to manage them.

Topics Covered

- [User Interface on the next page](#)
- [Managing the Views on page 47](#)
- [Managing the Toolbars](#)
- [Interface Navigation on page 49](#)
- [Preferences on page 50](#)

User Interface

This section takes you through the most common elements of the user interface. Throughout the user guide, you will learn about each view and toolbar and how and when to use them.

Related Topics

- [Views and Toolbars](#) below
- [Interface Highlights](#) below
- [Extra Views](#) on page 44

Views and Toolbars

Harmony Paint has different views and toolbars. The top toolbars are available at the top of the interface and the View toolbars are in individual windows. View toolbars are only shown if the particular view is displayed in the workspace.

This is a complete list of the views and toolbars which are available in Harmony Paint.

Views

- Colour view
- Colour Editor view
- Drawing Thumbnails view
- Drawing view
- Model view
- Tool Properties view

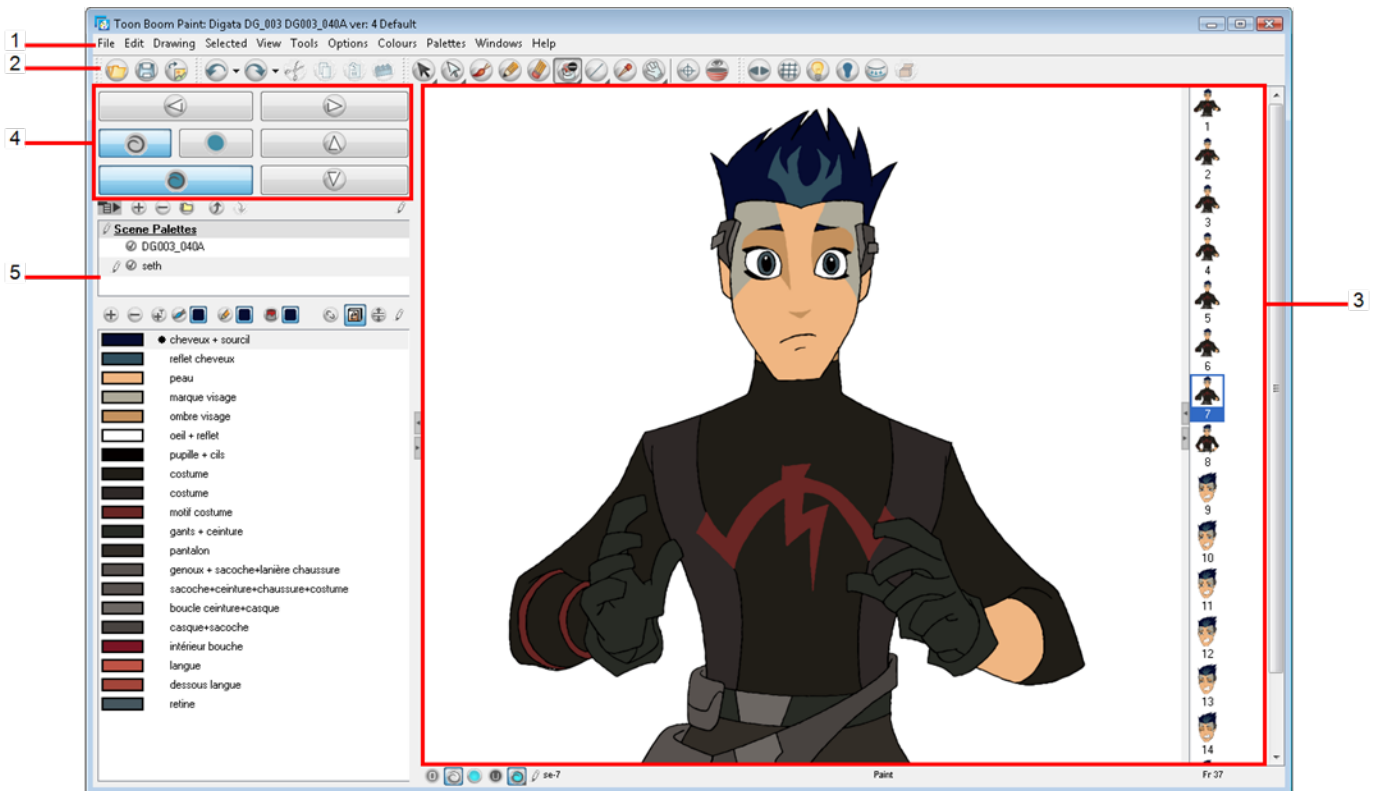
Toolbars

- Drawing View Toolbar
- Edit Toolbar
- File Toolbar
- Tools Toolbar

Interface Highlights

It's important that you become familiar with the following elements of the user interface, this will help you to start using Harmony Paint. You can learn more about the highlights described here, and how to use them in a production context, throughout this guide.

This is Harmony Paint's default workspace, it is restored every time you launch a session.



1. [Menus below](#)
2. [Toolbars on the next page](#)
3. [Drawing and Drawing Thumbnails Views on page 33](#)
4. [Controls on page 35](#)
5. [Colour View on page 40](#)
 - [Extra Views on page 44](#)

Menus

You can access the commands from the following menus:

- Top Menu
- Quick Access Menu

Top Menu

File Edit Drawing Selected View Tools Options Colours Palettes Windows Help

Stage File Edit Drawing Selected View Tools Options Colours Palettes Windows Help

The top menu contains most of the commands. This menu is always located at the very top of the user interface.

The top menu contains the following categories:

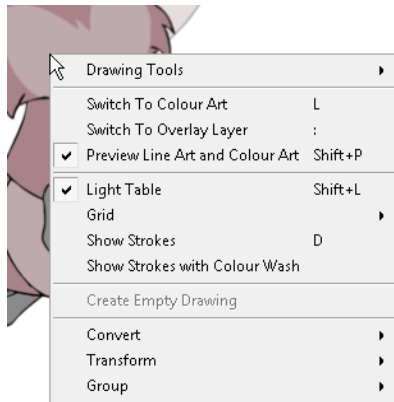
- File
- Edit

- Drawing
- Selected
- View
- Tools
- Options
- Colours
- Palettes
- Windows
- Help

In the Mac OS X version, there is a Stage category containing the following commands:

- Preferences
- About
- Quit

Quick Access Menu



Each view has a Quick Access Menu containing recurring actions. This menu is accessed by right-clicking anywhere in the view.

Toolbars

Here are the main toolbars in Harmony Paint:

- **Drawing View Toolbar**
- Tools Toolbar

Drawing View Toolbar



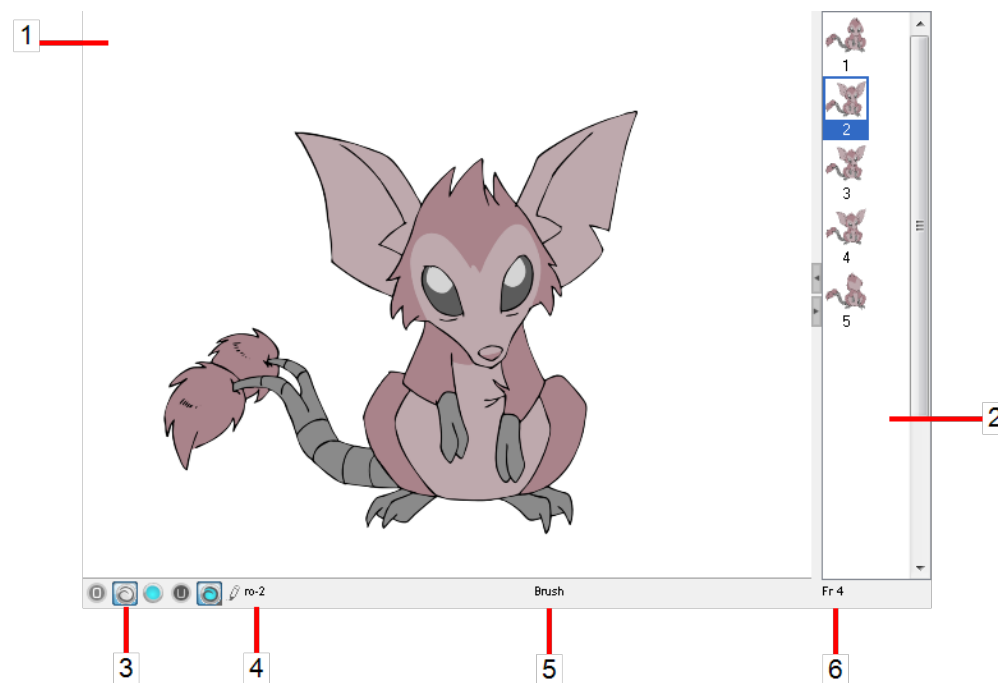
The **Drawing View** toolbar contains the main options and features you will use while working in Harmony Paint. You can customize this toolbar to display the features you use the most. Refer to the [Managing the Toolbars on page 1](#) to learn how.

Tools Toolbar



The **Tools** toolbar contains all of the main tools you will use while working in Harmony Paint.

Drawing and Drawing Thumbnails Views



1. Drawing Area
2. Drawing Thumbnails View
3. Overlay, Line Art, Colour Art, Underlay and Preview Modes
4. Drawing Name
5. Tool Name
6. Frame Number

Drawing Area

This is the **Drawing** view's main space, it is where you draw, and where the drawings are displayed.

Drawing Thumbnails View

The **Drawing Thumbnails** view display a list with thumbnails of the loaded drawings. The highlighted drawing is the one displayed in the drawing area. You can select the drawing you want to paint directly from this list.

Overlay, Line Art, Colour Art, Underlay and Preview Modes

Overlay

Click on this button to switch to the drawing's **Overlay** layer. This layer is located above the **Line Art** layer. The shortcut is [:].

Line Art

Click on this button to switch to the **Line Art** layer of the drawing. The shortcut is [L].

Colour Art

Click on this button to switch to the **Colour Art** layer of the drawing. The shortcut is [L].

Underlay

Click on this button to switch to the drawing's **Underlay** layer. This layer is located under the **Colour Art** layer. The shortcut is [:].

Preview mode

Click on this button to switch to **Preview** mode. This lets you see both **Line Art** and **Colour Art** layers simultaneously. The shortcut is [Shift] + [P]. Hold the **Preview** mode button to display a drop-down list in which you can enable the **Underlay** or **Overlay** layers to include them in the preview.

Drawing Name

The **Drawing Name** field displays the name of the selected drawing as well as the layer containing it. If the cell does not contain any drawings, an **Empty Cell** text is shown in the field.

Tool Name

The **Tool Name** field displays the name of the selected tool. If you override a tool using an overriding keyboard shortcut, the tool's name will be highlighted in red letters.



Refer to the [Override Tool](#) on page 197 to learn how to temporarily override a tool.

Frame Number

The **Frame Number** field displays the number of the current frame.

Controls

The controls are used to quickly have access to common commands:



Previous and Next Drawing



These buttons let you switch to the previous or next drawings. The shortcuts are [F] and [G].

Previous and Next Layer



These buttons are used to switch to the previous or next layer when you have different layers loaded. The shortcuts are [H] and [J].

Line Art, Colour Art, Preview Mode



Use these buttons to switch from **Line Art** to **Colour Art**. The shortcut is [L]. You can also enable or disable the **Preview** mode. The shortcuts are [Shift] + [P].

Extra Views

There are three extra views, that are not part of the workspace when the Harmony Paint module is launched:

- [Tool Properties View](#) on page 44
- [Model View](#) on page 46
- [Colour Editor View](#) on page 46

Related Topics

- [Open Elements](#) on page 23
- [Drawing and Drawing Thumbnails Views](#) on page 38
- [Interface Navigation](#) on page 49

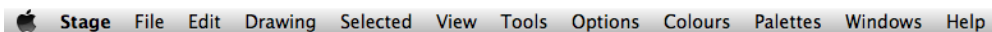
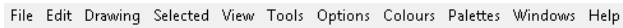
- [Managing the Views on page 47](#)

Menus

You can access the commands from the following menus:

- Top Menu
- Quick Access Menu

Top Menu



The top menu contains most of the commands. This menu is always located at the very top of the user interface.

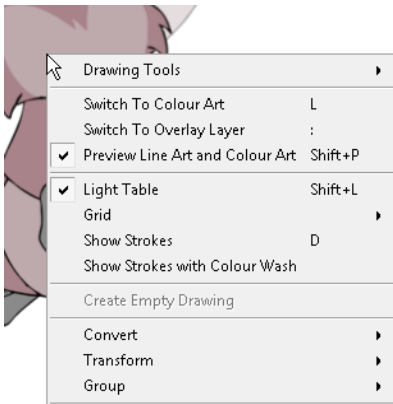
The top menu contains the following categories:

- File
- Edit
- Drawing
- Selected
- View
- Tools
- Options
- Colours
- Palettes
- Windows
- Help

In the Mac OS X version, there is a Stage category containing the following commands:

- Preferences
- About
- Quit

Quick Access Menu



Each view has a Quick Access Menu containing recurring actions. This menu is accessed by right-clicking anywhere in the view.

Toolbars

Here are the main toolbars in Harmony Paint:

- Drawing View Toolbar
- Tools Toolbar

Drawing View Toolbar



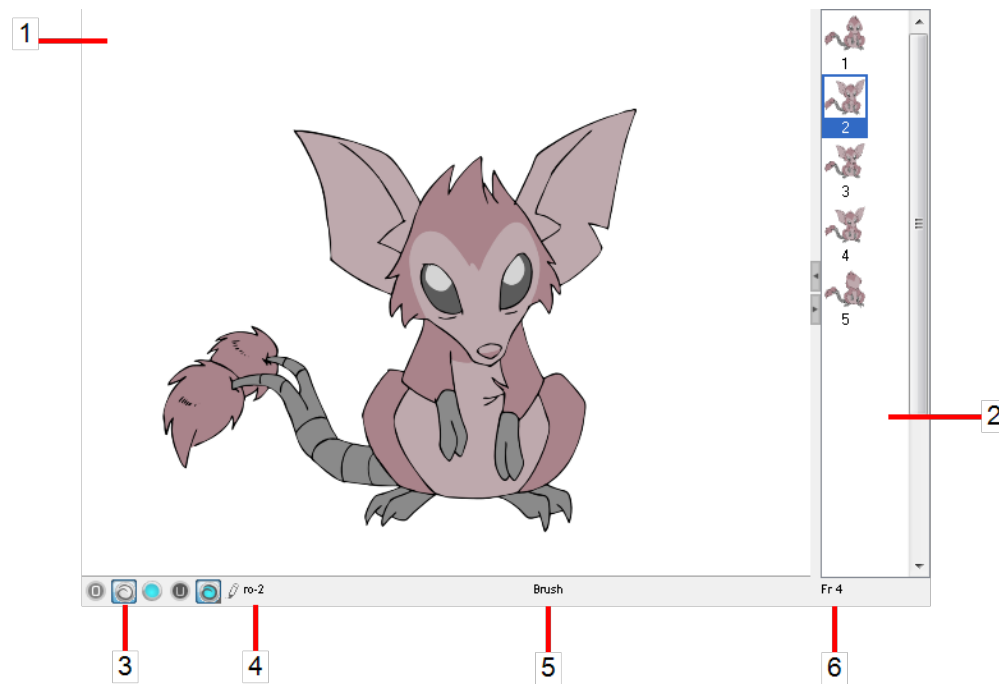
The **Drawing View** toolbar contains the main options and features you will use while working in Harmony Paint. You can customize this toolbar to display the features you use the most. Refer to the [Managing the Toolbars on page 1](#) to learn how.

Tools Toolbar



The **Tools** toolbar contains all of the main tools you will use while working in Harmony Paint.

Drawing and Drawing Thumbnails Views



1. Drawing Area
2. Drawing Thumbnails View
3. Overlay, Line Art, Colour Art, Underlay and Preview Modes
4. Drawing Name
5. Tool Name
6. Frame Number

Drawing Area

This is the **Drawing** view's main space, it is where you draw, and where the drawings are displayed.

Drawing Thumbnails View

The **Drawing Thumbnails** view display a list with thumbnails of the loaded drawings. The highlighted drawing is the one displayed in the drawing area. You can select the drawing you want to paint directly from this list.

Overlay, Line Art, Colour Art, Underlay and Preview Modes

Overlay:

Click on this button to switch to the drawing's **Overlay** layer. This layer is located above the **Line Art** layer. The [:].

Line Art:

Click on this button to switch to the **Line Art** layer of the drawing. The [L].

Colour Art:

Click on this button to switch to the **Colour Art** layer of the drawing. The [L].

Underlay:

Click on this button to switch to the drawing's **Underlay** layer. This layer is located under the **Colour Art** layer. The [:].

Preview mode:

Click on this button to switch to **Preview** mode, this will let you see both **Line Art** and **Colour Art** layers simultaneously. The [Shift] + [P]. Hold the **Preview** mode button to display a drop-down list in which you can enable the **Underlay** or **Overlay** layers to include them in the preview.

Drawing Name

The **Drawing Name** field displays the name of the selected drawing as well as the layer containing it. If the cell does not contain any drawings, an **Empty Cell** text is shown in the field.

Tool Name

The **Tool Name** field displays the name of the selected tool. If you override a tool using an overriding keyboard shortcut, the tool's name will be highlighted in red letters.



Refer to the [Override Tool on page 197](#) to learn how to temporarily override a tool.

Frame Number

The **Frame Number** field displays the number of the current frame.

Controls

The controls are used to quickly have access to common commands:



Previous and Next Drawing



These buttons are used to switch to the previous or next drawings. The [F] and [G].

Previous and Next Layer



These buttons are used to switch to the previous or next layer when you have different layers loaded. The [H] and [J].

Line Art, Colour Art, Preview Mode

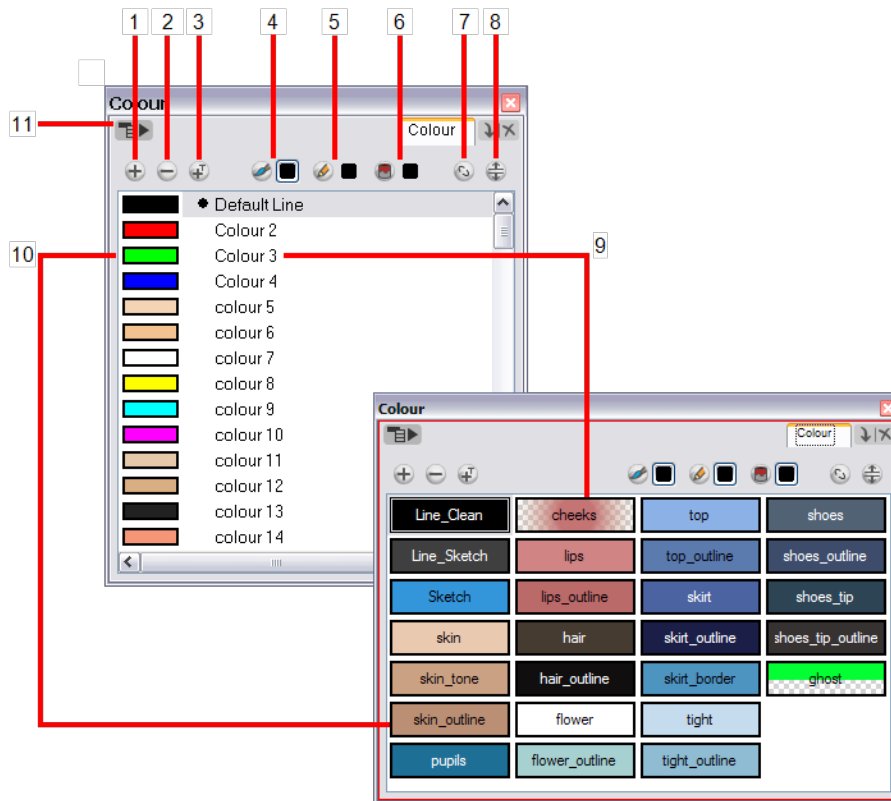


Use these buttons to switch from **Line Art** to **Colour Art**. The [L]. You can also enable or disable the **Preview** mode. The [Shift] + [P].

Related Topics

- [Open Elements](#) on page 23
- [Drawing and Drawing Thumbnails Views](#) on page 38

Colour View



1. [Add Colour](#) on the facing page
2. [Remove Colour](#) on the facing page
3. [Add Texture](#) on page 42
4. [Set Current Brush Colour](#) on page 42
5. [Set Current Pencil Colour](#) on page 42
6. [Set Current Paint Colour](#) on page 42
7. [Link/Unlink Three Colours](#) on page 42
8. [Show/Hide Palette List View](#) on page 43

9. [Colour Swatch Name](#) on page 43
10. [Colour Swatch](#) on page 43
11. [Colour View Menu](#) on page 44

The Colour View is where you create colours and palettes and import existing palettes into your project. The Colour View is also necessary for drawing, painting and creating colour styling.


The Colour View has two display modes:

- List Mode
- Swatch Mode


To toggle between the display modes:

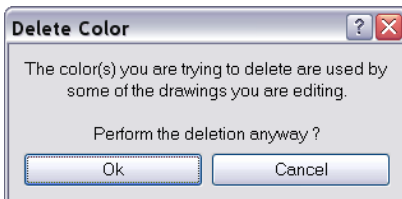
1. In the Colour View menu, select **Colours > Swatch Mode**.
 - Enable the option to display the swatches.
 - Disable the option to display the colour list.

Add Colour

The Add Colour  button is used to add a colour swatch to your palette. Click on the Add Colour button to add a new swatch to the bottom of your colour list.

Remove Colour

The Remove Colour  button is used to delete the currently selected colour swatches. If the colour swatch is used in your project, the Delete Colour dialog box will pop and will ask you to confirm the operation.

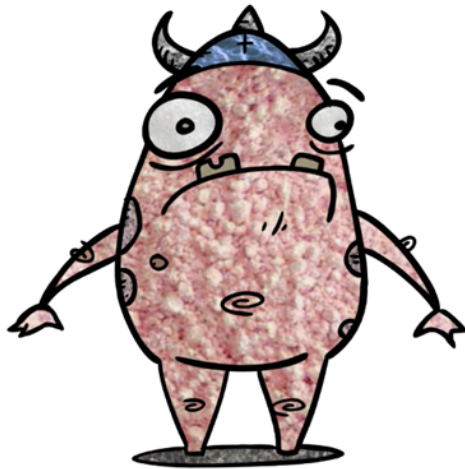



- Click **OK** to confirm the operation or **Cancel** to cancel it.

Zones painted with colour swatches which have been deleted will turn red, easily identifying them so you can repaint them with another colour swatch.





Add Texture









The Add Texture  button is used to add a bitmap colour swatch to your palette. Use this to load photos and textures and paint your drawings with it. The bitmap image must be a TGA or PSD file format.



Set Current Brush Colour

The Set Current Brush Colour  button is used to set the currently selected colour swatch as the colour used by the Brush  tool. If you select a new colour in the Colour view while using the Brush tool, the Set Current Brush Colour swatch will be updated.

Set Current Pencil Colour


The Set Current Pencil Colour  button is used to set the currently selected colour swatch as the colour used by the Pencil , Polyline , Ellipse , Rectangle  and Line  tools. If you select a new colour in the Colour view while using any of these tools, the Set Current Pencil Colour swatch will be updated.

Set Current Paint Colour

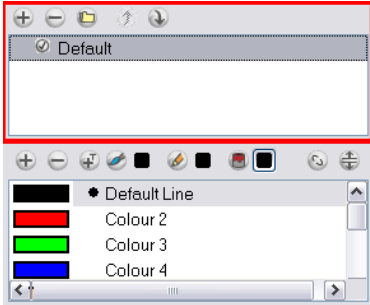
The Set Current Paint Colour  button is used to set the currently selected colour swatch as the colour used by the Brush  tool. If you select a new colour in the Colour view while using the Paint tool, the Set Current Paint Colour swatch will be updated.


Link/Unlink Three Colours



The Link/Unlink Three Colours  button is used to link the Set Current Brush Colour, Set Current Pencil Colour and Set Current Paint Colour swatches to the currently selected colour swatches in the Colour view.

Show/Hide Palette List View



The Show/Hide Palette List View  button is used to display the Palette List view in the Colour view. This option is for the advanced user who wants to create colour palettes for their props and characters.

Colour Swatch Name

	Skin
	Teeth
	Horns
	Helmet

Each colour swatch available in the Colour view can have its own name, making it easy to identify which colour is used to paint what part of your character or background.




Two colours can have the same name.

Colour Swatch


	Colour 2
	Colour 3
	Colour 4
	colour 5
	colour 6
	colour 7

A colour swatch is a specific colour used to paint a certain zone of a character or background. Colour palettes are composed of colour swatches. They can also be called colour pots. When you paint a zone with a colour swatch, the zone is linked to the swatch. So if you update the swatch's tint, the zone will be updated along with it. This allows you to modify your animation colours even after it is completely painted.

Colour View Menu

The Colour View  menu allows you to access commands that are specifically related to the Colour view such as creating new palettes, adding new colour swatches and displaying the Tint panel. The commands listed in the Colour View menu can also be found following a similar path from the top menu categories Colours and Palettes.

Edit Palette Mode

In Network mode, to avoid accidentally modifying the palette, the palette files can be locked. Enable the Edit Palette Mode  to get the rights to modify the palette.

Related Topics

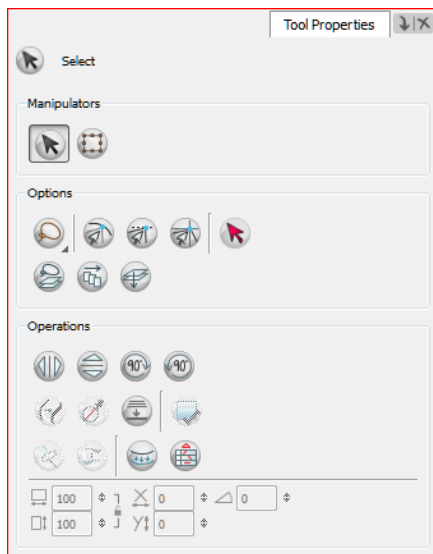
- [Colours on page 208](#)

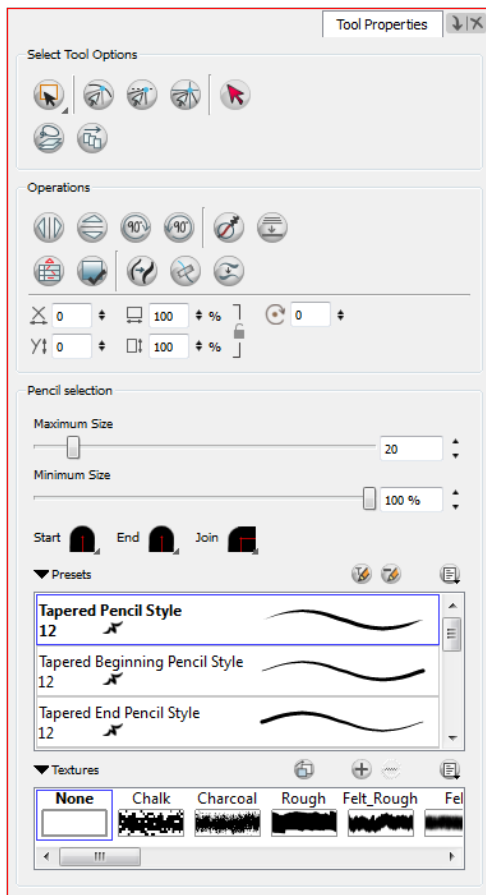
Extra Views

There are three extra views, that are not part of the workspace when the Harmony Paint module is launched:


- [Tool Properties View below](#)
- [Model View on page 46](#)
- [Colour Editor View on page 46](#)

Tool Properties View





The contextual Tool Properties view contains the most common options and operations related to the currently selected tool. As soon as you select a tool from the Tools toolbar, the Tool Properties view will be updated.

For example, if you choose the Select  tool in the Tools toolbar, the Tool Properties view will display the options and operations related to the Select tool such as Snap to Contour, Apply to All Drawings, Flip Horizontal and Flatten.

To open the Tool Properties view:

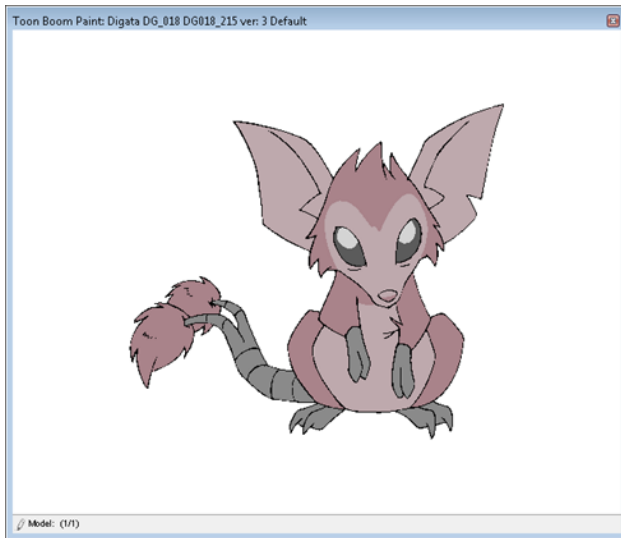
- ▶ Select **Windows > Tool Properties**.



The content of the Tool Properties view is explained in detail in the following chapters:

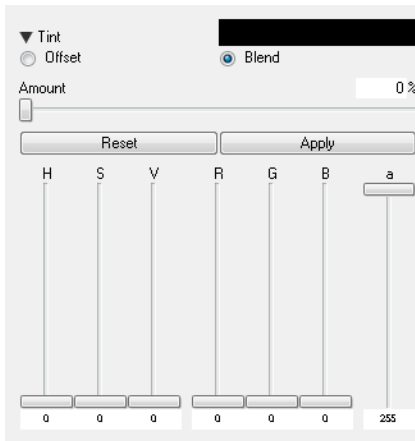
- [Drawing](#)
- [Traditional Animation](#)
- [Colour on page 205](#)
- [Scene Setup](#)
- [Cut-out Animation](#)

Model View



You can load a colour model in the Model view to have a quick reference when doing ink and paint. You can also pick the colour directly from the Model view instead of from the Colour view. See [Colour Model](#) on page 288.

Colour Editor View



You can use the **Colour Editor** view to modify the tint of selected colours from a palette.

Related Topics

- [Mixing the Colours](#) on page 281

Managing the Views

The Harmony Paint user interface is composed of different views, each one designed for a specific purpose.

This section explains how you can modify your workspace by adding or closing views, as well as resizing or temporarily hiding a view.



Refer to *Managing the Views* in the [Managing the Views](#) section in the Harmony Stage User Guide to learn how to manage views.

Managing the Toolbars

The Toon Boom Harmony user interface contains toolbars which, by default, are located at the top of the interface. Some of the workspace's views also have their own toolbars. These toolbars can be moved around. You can reposition the toolbars to suit your work style or hide unused ones.



Refer to *Managing the Views* in the [Managing the Views](#) section in the Harmony Stage User Guide to learn how to manage views.

Interface Navigation

Toon Boom Harmony supports zoom in, zoom out, rotate, pan and reset view position for easy interface navigation.

- **Zoom In:** Zooms into the view. From the top menu, select **View > Zoom In** or press [2].
- **Zoom Out:** Zooms out of the view. From the top menu, select **View > Zoom Out** or press [1].
- To zoom in and zoom out, hold down [Spacebar] and your middle mouse button while moving the mouse up or down.
- To pan the view, hold down the keyboard shortcut [Spacebar] and drag your mouse in the direction you want to pan the view.
- **To Recentre the view:** recentres the view on your mouse cursor or press [N].
- **Reset View:** Resets the view to its default position. From the top menu, select **View > Reset View** or press [Shift] + [M].
- **Reset Rotation:** Resets the view's rotation to its default position. From the top menu, select **View > Reset Rotation** or press [Shift] + [X].
- **Reset Pan:** Resets the view's pan to its default position. From the top menu, select **View > Reset Pan** or press [Shift] + [N].
- **Reset Zoom:** Resets the view's zoom to its default position. From the top menu, select **View > Reset Zoom**.
- **Toggle Full Screen:** Enlarges the selected view to full screen. The full screen process is done in three stages. From the top menu, select **View > Toggle Full Screen** or press [Ctrl] + [F] (Windows/Linux) or [⌘] + [F] (Mac OS X).
 - First, the selected view enlarges to the maximum width or height, but keeps the tool views such as Colour or Tool Properties view.
 - Second, the view enlarges to full screen.
 - Third, the view returns to its original size.
- **Rotate 90 CW:** Rotates the Camera view 90 degrees clockwise, like an animation table. From the top menu, select **View > Rotate View CW**.
- **Rotate 90 CCW:** Rotates the Camera view 90 degrees counter-clockwise, like an animation table. From the top menu, select **View > Rotate View CCW**.

Related Topics

- [Zoom](#)

Preferences

An important feature of Harmony Paint is the **Preferences** panel. From here you can customize your interface, tool behaviour and shortcuts. Throughout this guide, you are often required to go to the **Preferences** panel to set parameters and options.

To access the Preferences panel:

- ▶ In the top menu, select **Edit > Preferences (Windows/Linux)** or **Stage > Preferences (Mac OS X)**. The [Ctrl] + [U] (Windows/Linux) or [⌘] + [U] (Mac OS X).

The **Preferences** panel is divided into the following tabbed sections:

- [Shortcuts Tab](#) below
- [General Tab](#) below



Some preferences require you to exit and restart the application or to close a view and reopen it.

Shortcuts Tab

To speed up your work, all of Harmony Paint's keyboard shortcuts can be customized and you can even choose other software keyboard shortcut sets.

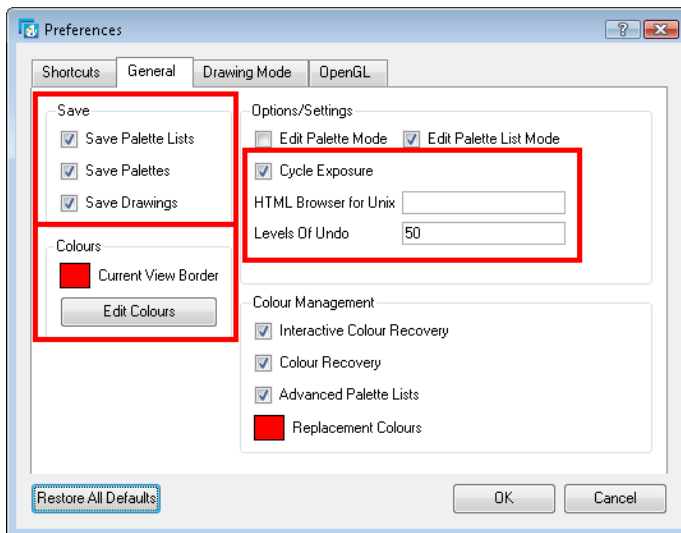


Refer to the following sections in the Harmony Stage User Guide.

- [Selecting a Keyboard Shortcut Set](#)
 - [Customizing a Keyboard Shortcut](#)
-

General Tab

Use the **General** tab to set general software behaviour and user interface.



Save

The Save preferences are used to specify if you want the following elements to be saved or not when using the Save command:

- Save Palette Lists**
 When this option is enabled, the Palettes Lists will be save when saving your work with the Save command. Disabling this option prevents the Palette Lists from being saved without specifically using the Save Palette Lists command from the Colour view.
- Save Palettes**
 When this option is enabled, the Palettes will be save when saving your work with the Save command. Disabling this option prevents the Palettes from being saved without specifically using the Save Palette command from the Colour view.
- Save Drawings**
 When this option is enabled, the drawings will be save when saving your work with the Save command. Disabling this option prevents the drawings from being saved.

Options/Settings

Cycle Exposure

This option makes the navigation wrap-around from the last cell or column to the first.

HTML Browser for Unix

This option is used to view the online help on Linux machines. Enter the command to launch the browser, including the path if necessary.

Level of Undo

The Levels Of Undo preference determines the number of actions retained by the Undo List. By default, the system stores 50 actions in the list. You can alter the number if you want to.

Colours

The Colours preference allows you to modify the colours of the different User Interface views and elements. For example, you can change the Drawing view's background colour from white to any other colour. This can be useful to easily and quickly distinguish details that are painted white which would not show on a white background, for example a character's white eyeballs.

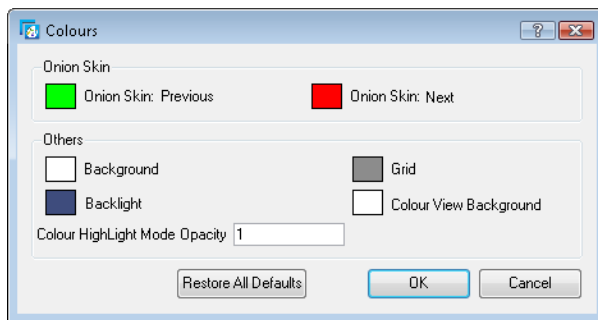
Altering these preferences require you to restart the application or to close a view and reopen it for the modifications to be applied.

Current View Border

The Current View Border preference 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.

Edit Colours Button

Click on the Edit Colours button to open the **Colours** window.



In the **Colours** window, you can modify any of the colours from the list. Most of the modifications will require you to restart the application or close the view and reopen it to see them.

Click on any of the colour swatches and select a new colour from the **Colour Picker** window.

Onion Skin

- **Onion Skin After**
Changes the colour display of the next drawing when using the **Onion Skin** feature.
- **Onion Skin Before**
Changes the colour display of the previous drawing when using the **Onion Skin** feature.

Others

- **Background**
Changes the background colour of the **Drawing** and **Model** view.
- **Backlight**
Changes the display colour of the **Backlight** option.
- **Grid**
Changes the display colour of the grid when using the **Show Grid** option.

- **Colour View Background**
Changes the background colour of the colour list area of the **Colour** view.
- **Colour Highlight Mode Opacity**
Changes the opacity value of the washed out art when using the **Highlight Selected Colour** option.

To restore all of the default interface's colours, click on the **Restore All Defaults** button.

Clean Up and Drawing Tools



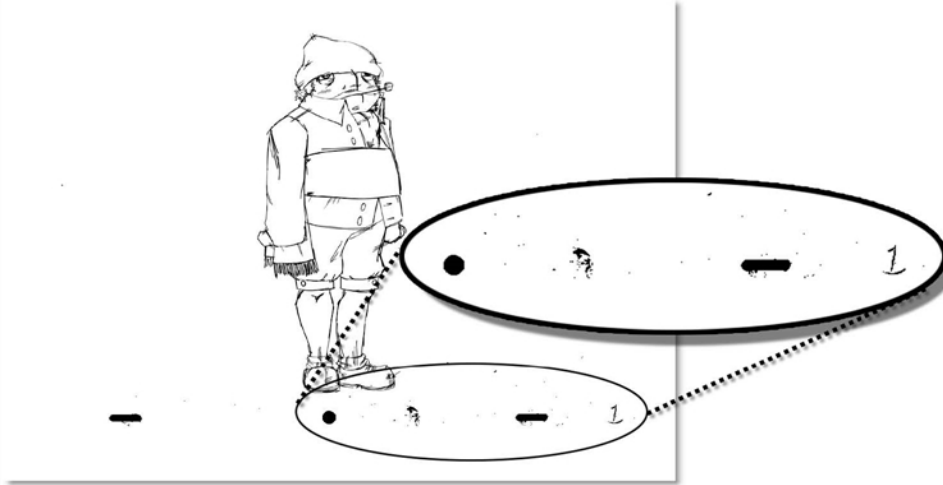
In Toon Boom Harmony, many powerful tools, views and features are available so you can design, draw and animate with ease. This chapter explains the main assets needed when drawing and animating in the software as well as tips on how to start and use these tools efficiently.

Topics Covered

- [How to Draw](#) on page 61
- [Tool Properties View](#) on page 63
- [Drawing View](#) on page 65
- [Drawing with the Brush or the Pencil](#) on page 68
- [Viewing the Final Lines as you Draw](#) on page 70
- [Drawing Using the Pencil Tool](#) on page 73
- [Drawing with the Brush Tool](#) on page 101
- [Drawing with Line Texture](#) on page 115
- [Selecting Drawing Objects](#) on page 127
- [Erasing Parts of a Drawing](#) on page 144
- [Reshaping a Drawing Using the Contour Editor Tool](#) on page 149
- [Reshaping Pencil Lines with the Pencil Editor Tool](#) on page 155
- [Drawing with Shapes](#) on page 162
- [Drawing with the Polyline Tool](#) on page 170

- [Drawing Using Invisible Lines](#) on page 176
- [Deforming a Drawing Using the Perspective Tool](#) on page 180
- [Cutting Drawing Parts](#) on page 184
- [Smoothing Lines](#) on page 188
- [Working With Text](#) on page 192
- [Override Tool](#) on page 197
- [More Drawing Tools](#) on page 198

Cleaning Scanned Drawings



As paper drawings are passed through a scanner they may pick up dirt, hairs or dust. These foreign bodies register as part of the drawing and will appear as unwanted marks on the scanned drawing. These marks need to be cleaned. Toon Boom Harmony provides different features to remove them quickly.

Each of the removal features are described in the following sections:

- [Remove Dirt](#) below
- [Remove Art Outside Selection](#) on the next page
- [Remove Art Inside Selection](#) on page 59
- [Remove Hair](#) on page 60

Remove Dirt



The Remove Dirt tool selects small dots and hairs on the drawing. Increasing the Remove Dirt level selects larger dots for removal, but be careful not to lose small details like pupils and nostrils. Once the removal level is chosen, you can apply it to either the current drawing or to the whole animation sequence.

This is a fast way to get rid of most dirt and dust.

To use the Remove Dirt tool:

1. In the Timeline or Xsheet view, select the drawing to clean.

2. In the top menu, select **Drawing > Clean Up > Remove Dirt** or press [Shift] + [D].
In *Harmony Paint*, select **Drawing > Remove Dirt**.

The Remove Dirt dialog box opens.

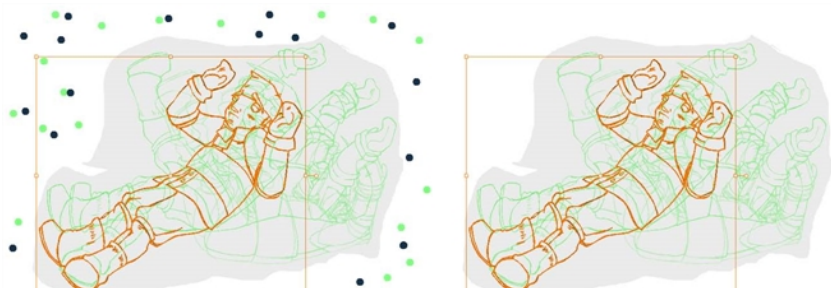


3. Increase the Remove Dirt value by moving the slider to the right. As you increase the tolerance, larger speckles will become highlighted to indicate that they have been included in the selection.
4. Enable the **Apply to All Drawings** option if you want to apply the operation to all the drawings in the layer.
5. Click on the **OK** button.

Remove Art Outside Selection




The Remove Art Outside Selection option is used to delete any art existing outside a selection. If you have an accumulation in your Colour Art, it can result in large output files, especially if you work in high definition resolution. Simultaneously apply this operation to all of your drawings in the layer by using the Remove Art Outside Selection On All Drawings command.

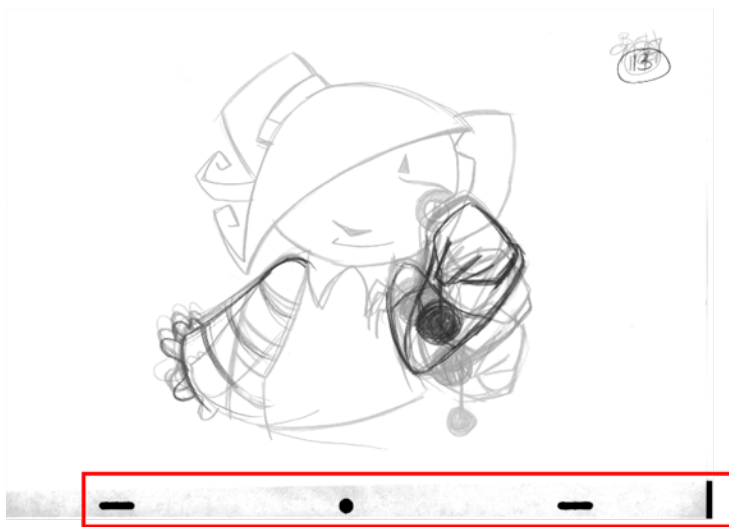


To clean dirt with the Remove Art Outside Selection:

1. In the Tools toolbar, select the **Select**  tool or press [Alt] + [S].

2. If you want to apply the action to your entire animation, enable the **Permanent Selection**  option in the Tool Properties view.
3. In the Camera or Drawing view, draw a selection around the animation. (Make the area large enough to include the whole animation sequence).
4. In the top menu, select **Drawing > Clean up > Remove Art Outside Selection** option to delete artwork outside your selection on one single drawing.
*In Harmony Paint, select **Selected > Remove Art Outside Selection**.*
 - To apply the action to all the drawings contained in the layer, select the **Drawing > Clean up > Remove Art Outside Selection on All Drawings** option from the top menu.
*In Harmony Paint, select **Selected > Remove Art Outside Selection On All Drawings**.*

Remove Art Inside Selection





The Remove Art Inside Selection option is used to delete any art inside a selection.

We recommend that you clean your Colour Art level as well. If you have an accumulation of strokes (almost invisible, accidental or leftover marks) in your Colour Art, it can result in large output files, especially if you work in high definition resolutions.

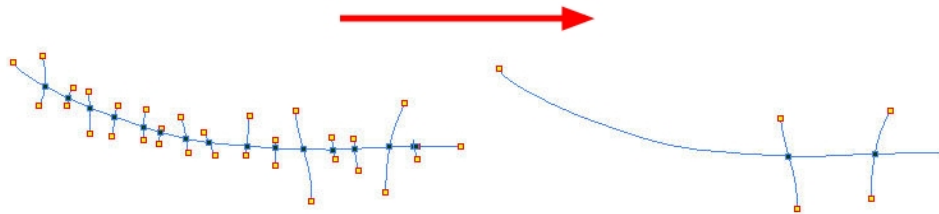
You can simultaneously apply this operation to all of your drawings in the layer by using the Remove Art Inside Selection On All Drawings command.

To clean dirt with Remove Art Inside Selection:

1. In the Tools toolbar, select the **Select**  tool or press [Alt] + [S].
2. If you want to apply the action to your entire animation, in the Tool Properties view, enable the **Permanent Selection**  option in the Tool Properties view.
3. In the Camera or Drawing view, draw a selection around the animation. (Make sure to make the area large enough to include all the zones to be cleaned up on all drawings).
4. In the top menu, select **Drawing > Clean up > Remove Art Inside Selection** option to delete artwork inside your selection on one single drawing.
*In Harmony Paint, select **Selected > Remove Art Inside Selection**.*

- ▶ To apply the action on all your drawings contained in the layer, in the top menu, select **Drawing > Clean up > Remove Art Inside Selection on All Drawings** option to delete artwork inside your selection on all the drawings.
*In Harmony Paint, select **Selected > Remove Art Inside Selection on All Drawings**.*

Remove Hair



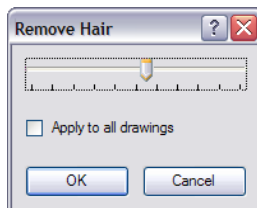
The Remove Hair command is used to remove any small strokes created in the Colour Art from very thick lines or filled zones.

Increasing the Remove Hair level value will select larger strokes for removal from the drawing. You can also select the **Apply to All Drawings** option to remove them on all drawings.

To use the Remove Hair tool:

1. In the Timeline or Xsheet view, select the drawing containing the drawing to clean.
2. In the top menu, select **View > Show > Show Strokes** to display the invisible lines or press [K].
3. In the top menu, select **Drawing > Clean Up > Remove Hair**.
*In Harmony Paint, select **Drawing > Remove Hair**.*

The Remove Hair dialog box opens.



4. Move the **Hair Selection** slider to the right to increase the number and length of hairs to be selected.
5. Enable the **Apply to All Drawings** option if you want to apply the operation to all the drawings in the layer.
6. Click on the **OK** button.


Related Topics

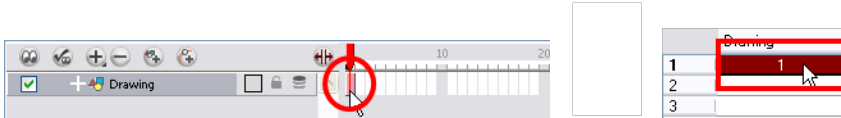
- [Scanning Images](#)

How to Draw

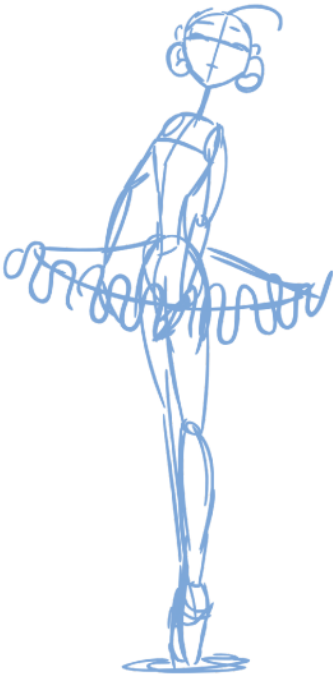
As soon as Toon Boom Harmony is started, you can start to draw straight away using the default drawing layer.

How to draw:

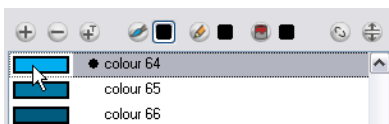
1. In the Tools toolbar, select the Brush  tool or press [Alt] + [B].
2. In the Timeline or Xsheet view, click in the first cell of the drawing layer.
In Harmony Paint, select a drawing in the Drawing panel.



3. In the Drawing or Camera view, start drawing.



4. To select a different colour, in the Colour view, select the a different colour swatch. Double-click on the colour swatch to open the Colour Picker window and modify the colour. Remember that anything already painted with that colour swatch will update to the new colour.



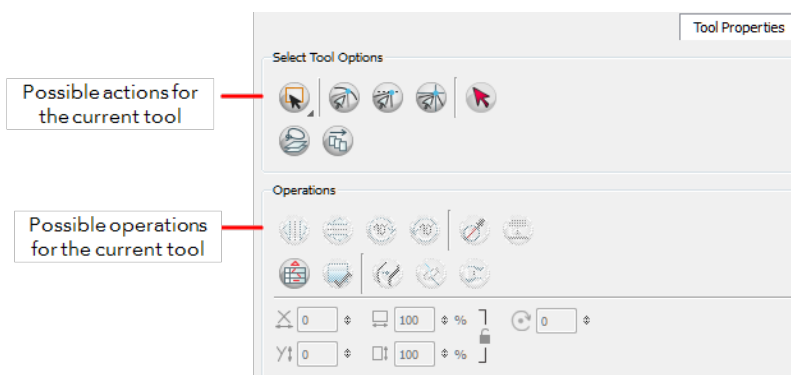
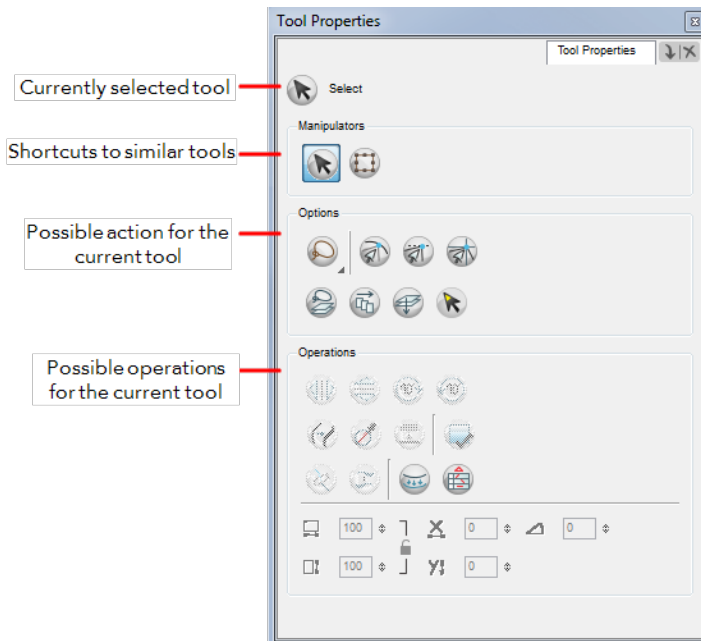
If you are working in Database mode, refer to [Locking Drawings](#) to learn how to lock and unlock drawings.

Related Topics

- [Adding a Colour Swatch](#) on page 210
- [Adding New Drawing Layers](#) on page 1
- [Tool Properties View](#) on the facing page

Tool Properties View

The **Tool Properties** view is where you can customize the currently selected tool. The options and operations displayed changes according to each tool you select.



Manipulators

Manipulators are buttons which let you switch quickly between similar tools such as the Select tool and the Transform tool or the Line, Rectangle and Ellipse tools.

Options

Options are different modes you can apply to a selected tool to modify its behaviour to fit the current task's needs.

Operations

Operations are actual actions you can perform while using the selected tool.

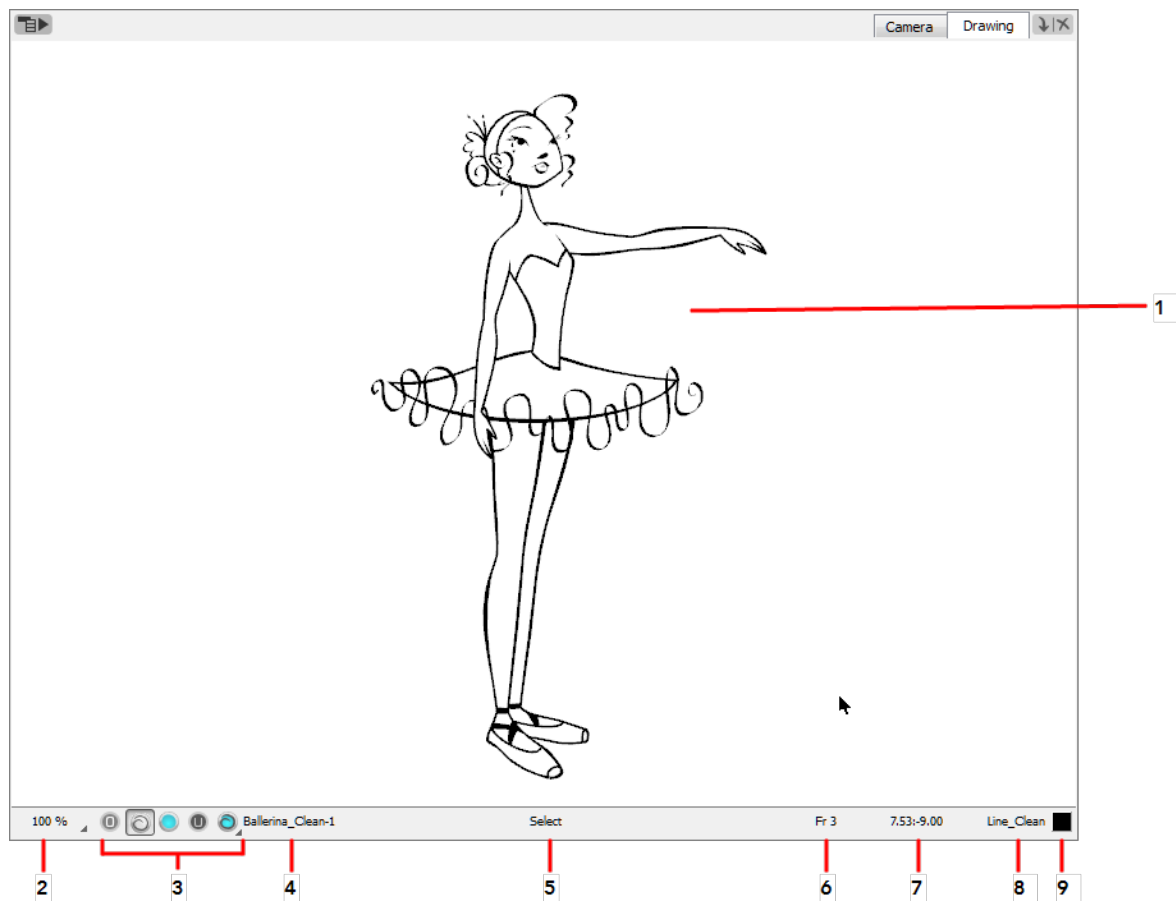
Related Topics

- [How to Draw](#) on page 61

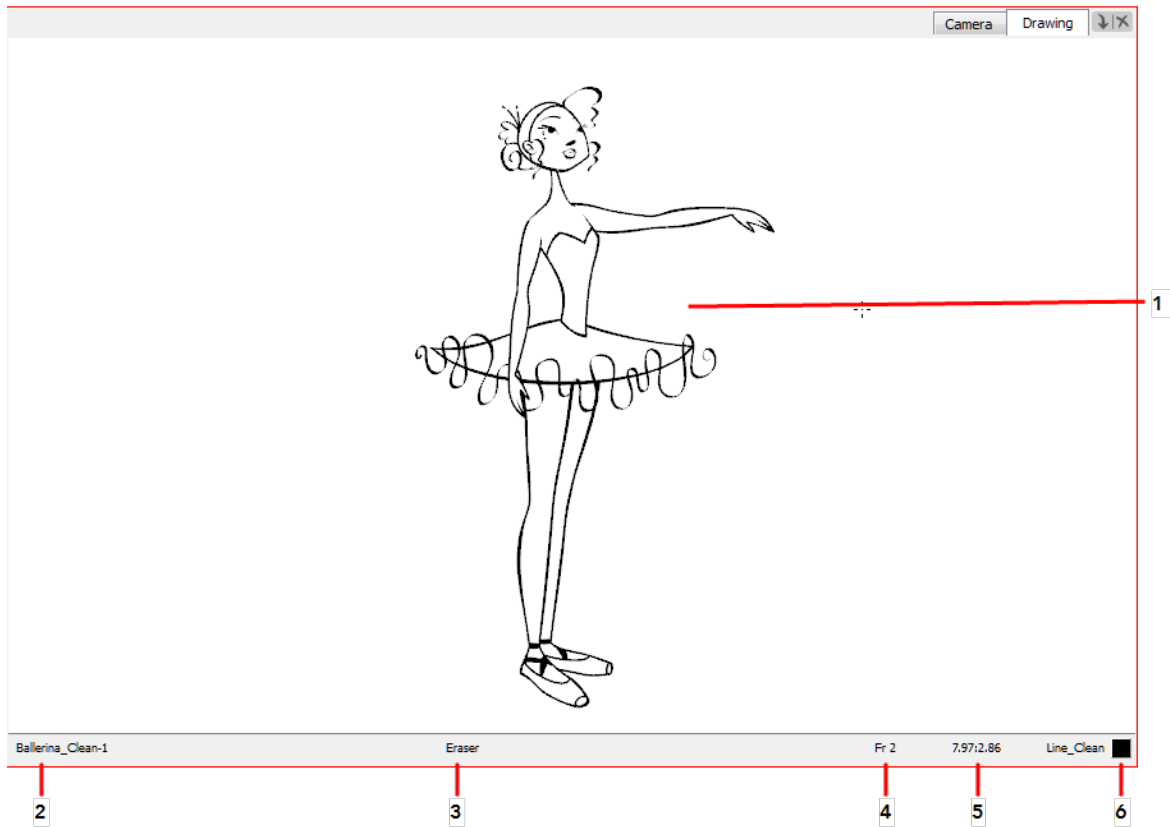
Drawing View

In Toon Boom Harmony, you can draw in the Drawing or Camera view. Although the two views are similar, when it comes to drawing, there are some differences.

Only the selected drawing is displayed by default in the Drawing view. You can use features, such as the light table to display the current frame drawing of all the enabled layers of your scene in washed-out colours, or the Onion Skin to display the previous and next drawings of the currently selected drawing layer.



1. [Drawing Area](#) on the next page
2. [Zoom Drop-down Menu](#) on the next page
3. [Drawing View](#) above
4. [Drawing Name](#) on page 67
5. [Tool Name](#) on page 67
6. [Current Frame](#) on page 67
7. [Cursor Coordinates](#) on page 67
8. [Colour Picker](#) on page 67



1. [Drawing Area](#) below
2. [Drawing Name](#) on the facing page
3. [Tool Name](#) on the facing page
4. [Current Frame](#) on the facing page
5. [Cursor Coordinates](#) on the facing page
6. [Colour Picker](#) on the facing page

Drawing Area

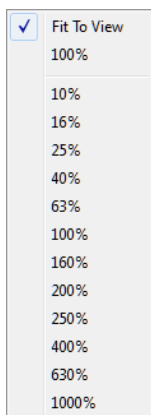
This is the Drawing view's main space, it is where you draw, and where the drawings are displayed.

Zoom Drop-down Menu

The Zoom menu lets you enlarge or reduce the Camera or Drawing view display.



To make the camera frame size always match the size of your view, select the **Fit to View** option. Click the drop-down arrow and select a zoom level or press [1] and [2].



Drawing Name

The Drawing Name field displays the name of the selected drawing, as well as the layer containing it. If the cell does not contain any drawing, an **Empty Cell** text is shown in the field.

Tool Name

The Tool Name field displays the name of the selected tool. If you override a tool using an overriding keyboard shortcut, the tool's name will be highlighted in red letters—see [Override Tool on page 197](#) to learn how to temporarily override a tool.

Current Frame

This field displays the current frame of the animation you are working on.

Cursor Coordinates

This indicates the position of your mouse cursor in the drawing area.

Drawing Name

Displays the name of the currently selected drawing.

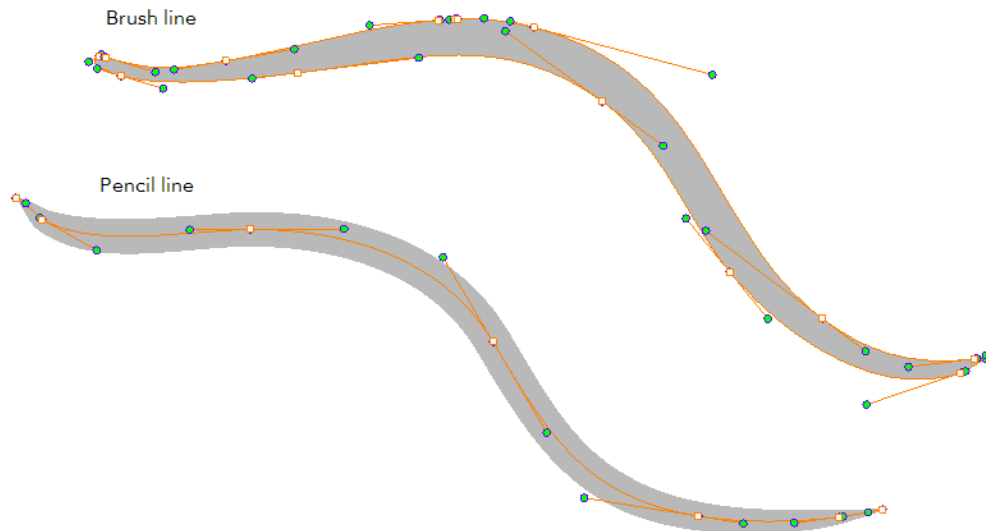
Colour Picker



The Colour Picker allows you to select a colour to draw with.




Related Topics

- [Camera View](#)

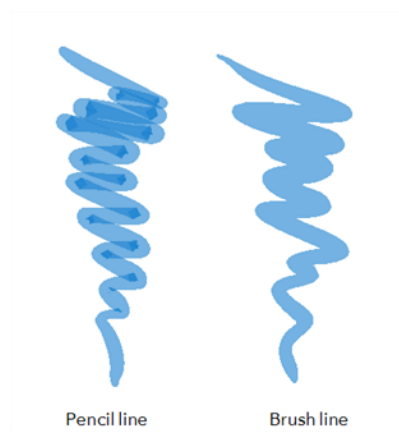
Drawing with the Brush or the Pencil



The Brush  and Pencil  tools are used to draw and sketch with. Both tools support pressure sensitivity, allowing you to create lines with variable thickness. The Pencil and shape tools produce central vector lines. The Brush tool produces contour vector lines. This means that a pencil line's control points (used to deform its shape) are located along the length of the central spine and the Brush line's control points are located along the contour.

- If you draw with the **Pencil** tool and want to modify the thickness variation, use the **Pencil Editor**  tool.
- If you draw with the **Brush** tool and want to modify the thickness, use the **Contour Editor**  tool.
- You can also convert a brush zone into a pencil line with the **Brush Stroke to Pencil Line**  option.

If you sketch a drawing using a semi-transparent colour to get a paper-like feel, you should use the **Brush** tool as it produces a more realistic and natural feel. The pencil line is very useful for tracing, clean or final drawings.

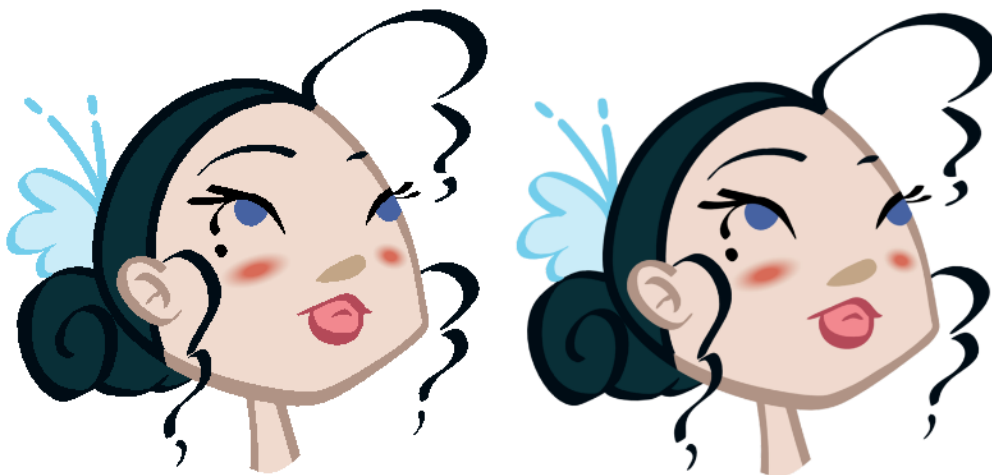


Also, it is recommended to use brush lines when designing cut-out puppets' articulations which use patches.

Related Topics

- [Drawing Using the Pencil Tool](#) on page 73
- [Drawing with the Brush Tool](#) on page 101
- [Reshaping a Drawing Using the Contour Editor Tool](#) on page 149
- [Drawing with Shapes](#) on page 162
- [Patch Articulation](#) on page 1
- [How to Draw](#) on page 61

Viewing the Final Lines as you Draw



Everything you draw in Toon Boom Harmony is vector-based. Although, when you draw in the Camera or Drawing view, you will notice that your lines may be jagged, this is caused by the fast real-time display called OpenGL.

If you prefer to see smooth lines as you draw, you can enable the antialiasing. There are two types of antialiasing in Toon Boom Harmony:

- [Full Scene Antialiasing](#) below
- [Real-Time Antialiasing](#) on the facing page

Full Scene Antialiasing

Not available in Harmony Paint.

The Full Scene Antialiasing is generated by your computer's graphics card. This antialiasing will not only antialias your drawings, but all your different views in the interface.

Full Scene Antialiasing is a preference you can turn on and off. By default, the Full Scene Antialiasing preference is disabled.



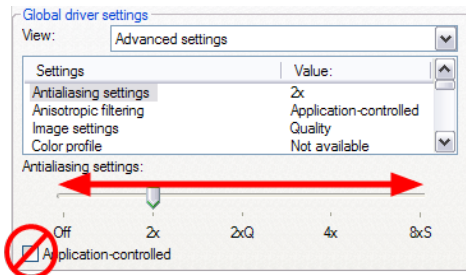
Full Scene Antialiasing parameters are only valid while you work in your scene. The scene will be rendered out to 100% of its resolution regardless of your settings in the preferences or graphic card panel.

To customize the full scene antialiasing parameters:

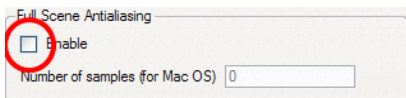


This procedure requires that if you have a Mac OS you must restart the Harmony after you have changed the parameters.

1. If you are using Windows or Linux, you must enable your graphic card's antialiasing parameter. Refer to your graphics card manufacturers user guide to learn how to do so. For example, the parameters for an NVIDIA GeForce card may look like this:



2. In the Harmony, do one of the following:
 - ▶ Windows/Linux: Select **Edit > Preferences**.
 - ▶ Mac OS X: **Stage > Preferences**.
 - ▶ Press [Ctrl] + [U] (Windows/Linux) or [⌘] + [U] (Mac OS X).
 The Preferences dialog box opens.
3. In the OpenGL tab, go to the **Full Scene Antialiasing** section.



- ▶ **Enable:** Select this option to enable/disable the **Full Scene Antialiasing**.
 - ▶ **Number or samples (For Mac OS):** If you are using a Mac OS X computer, enter the number of samples you want to be used for the antialiasing process. The number of samples is basically equivalent to the amount of time a pixel will be enlarged to calculate the antialiasing. This technique is called *supersampling*. The higher the number of samples, the better the antialiasing quality will be, but the longer it will take to calculate.
4. Restart the Harmony.

Real-Time Antialiasing



It is highly recommended that you use **Full Scene Antialiasing**. The **Real-Time Antialiasing** method is **NOT RECOMMENDED** as it is heavier to run than the **Full Scene Antialiasing**.

Real-Time Antialiasing is generated by . This means that when you draw your lines, the preview becomes antialiased as you go. If you zoom in more than 100% in the **Camera** view, pixels will start to appear. Your

elements are still fully vector based. Only the preview becomes pixelated. Your drawings are antialiased to the scene's resolution.

Antialiasing is a preference you can turn on and off. By default, the **Real-Time Antialiasing** preference is disabled.

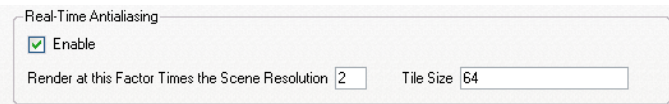
This option lets you see the final result of your scene as you draw. You can change the value of the antialiasing through the **Preferences** dialog box, to fit to the current zoom level used in the **Camera** or **Drawing** view or to disable it.



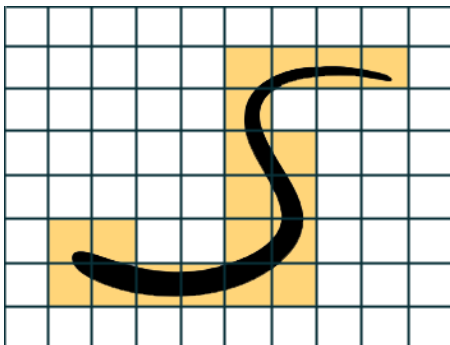
Real-Time Antialiasing parameters are only valid while you work in your scene. The scene will be rendered out to 100% of its resolution regardless of your settings in the **Preferences** panel.

To customize the antialiasing parameters:

1. Select **Edit > Preferences** (Windows/Linux) or **Stage > Preferences** (Mac OS X).
The [Ctrl] + [U] (Windows/Linux) or [⌘] + [U] (Mac OS X).
The **Preferences** dialog box opens.
2. In the **OpenGL** tab, go to the **Real-Time Antialiasing** section.

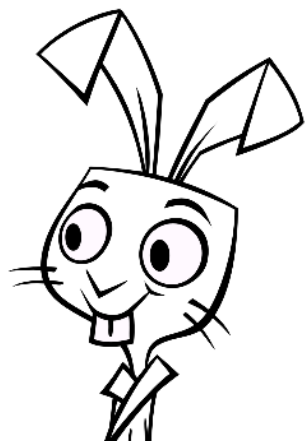


- ▶ **Enable** check box: Click on the **Enable** check box to enable or disable the **Real-Time Antialiasing**. The [Ctrl] + [Alt] + [A] (Windows/Linux) or [⌘] + [Alt] + [A] (Mac OS X).
- ▶ **Render at this Factor Times the Scene Resolution**: The default value is 1. This value corresponds to how many times larger than the scene's resolution you want your drawings to be antialiased. If you zoom into your drawings to 200% you should set the value to 2.
- ▶ **Tile Size**: When the drawing is antialiased, the whole is broken into small tiles to make the process faster. Only the tiles with artwork on are rendered out. When you modify a zone on your drawing, only the modified tiles are updated.



- Making the tiles too small results in sending more tiles to be rendered out, which makes the process longer.
- Making the tiles too large results in sending bigger tiles out to be rendered out which is more of a strain on the video card. Since the tiles are larger, they get updated more often because the artwork you modify may be one of these tiles.

Drawing Using the Pencil Tool

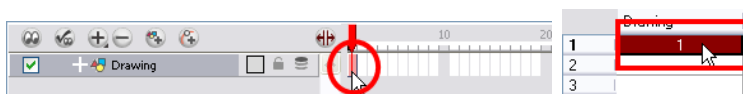



The **Pencil**  tool creates a centreline shape. Pencil lines now support pressure sensitivity and texture.

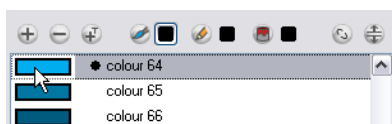
To draw with the **Pencil** tool:

In the **Timeline** or **Xsheet** view, select the cell on which you want to draw.

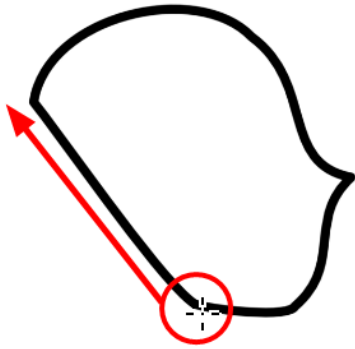
*In Harmony Paint, select a drawing in the **Drawing** panel.*



1. In the Tools toolbar, select the **Pencil**  tool or press [Alt] + [/].
2. In the Colour view, click a colour swatch to select a colour.




3. In the **Drawing** or **Camera** view, start drawing.
 - ▶ When you get close to an existing pencil line, hold [Alt] to draw connect your stroke to the existing one. Pencil lines are central vector lines and you might think your line is connected, but in fact, only the contour is touching the other one. Also, make sure the central vector crosses the other one. You can use the [Alt] key to connect the start of your stroke or the end of it by holding it when you start drawing or when you finish your line.
 - ▶ To draw a straight line, press [Shift] + [Alt] as you draw.

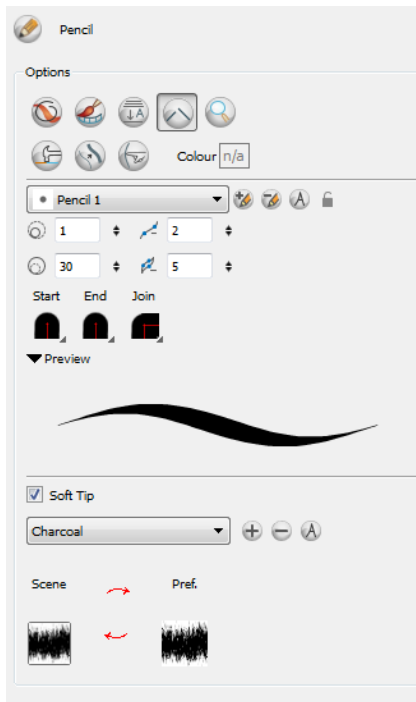


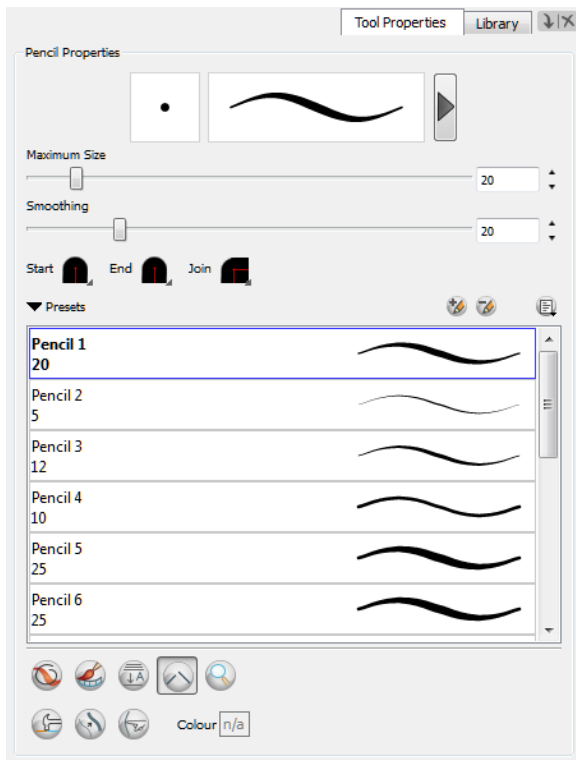
Related Topics

- [Pencil Tool Options](#) below
- [Drawing with the Brush or the Pencil](#) on page 68
- [Drawing with Shapes](#) on page 162

Pencil Tool Options

When you select the **Pencil**  tool, its properties and options appears in the **Tool Properties** view.





These are the options available for the Pencil tool:

- [Draw Behind](#) on the next page
- [Create Colour Art Automatically](#) on the next page
- [Auto-Flatten Mode](#) on the next page
- [Auto-Close Gap](#) on page 77
- [Line Building Mode](#) on page 77
- [Auto Adjust Thickness](#) on page 78
- [Line Pushing Mode](#) on page 79
- [Thickness Stencils](#) on page 79
- [Minimum and Maximum Size](#) on page 79
- [Central Line Smoothness](#) on page 80
- [Contour Optimization](#) on page 80
- [Changing the Line Shape](#) on page 80
- [Previewing the Stroke](#) on page 81
- [Pencil Line Texture](#) on page 81

Draw Behind

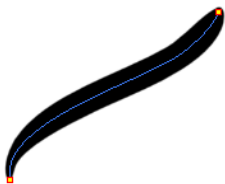


When drawing on vector layers, the Draw Behind mode lets you paint behind existing art. By default, strokes will appear over your work until you release the tool. If you want to have live preview of your stroke in draw behind mode, you must activate the Realistic Preview option.

To activate Realistic Preview:

- From the top menu, select **View > Realistic Preview**.

Create Colour Art Automatically



As you draw in the **Line Art** layer, the **Create Colour Art Automatically**  automatically creates the corresponding strokes in the **Colour Art** layer.

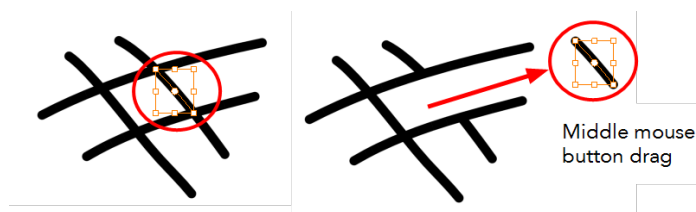
Auto-Flatten Mode

When drawing on vector layers, lines do not usually become one object. The Auto-Flatten mode automatically merges lines created with the existing ones into one single object as you draw.

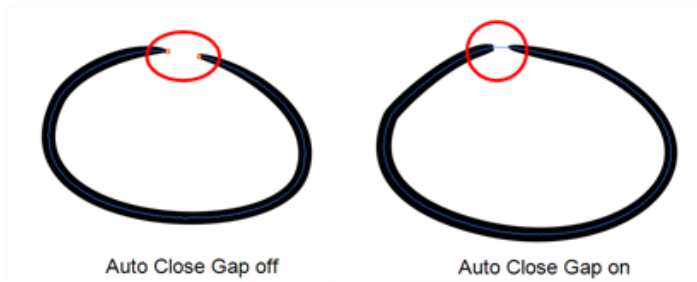
When drawing on a bitmap layer, you are laying down the bare pixels, so they are always flattened. You can no longer access the individual stroke after you draw it.



Using the Select tool, you can use the middle mouse button to select a segment of a flattened pencil line to create a nice finish on the lines and corners of your artwork.



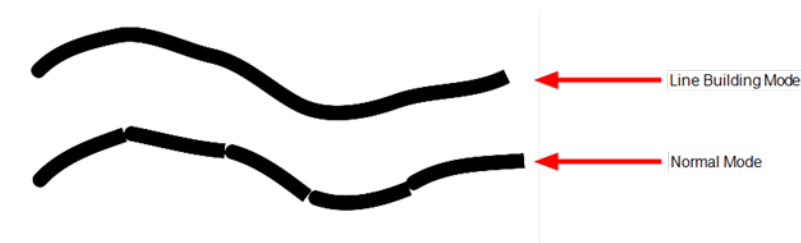
Auto-Close Gap



When using the pencil tool, you can automatically close strokes with an invisible stroke.

It is recommended to keep this option enabled when drawing with the Pencil tool.

Line Building Mode



The **Line Building**  mode is very useful when drawing long lines and curves in small increments with pencil

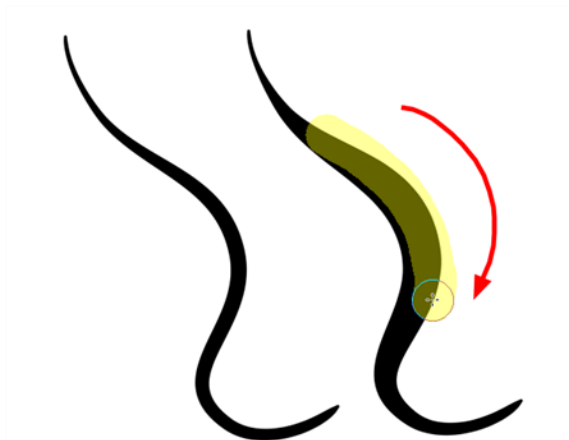
lines. As the pencil lines are central vector lines and it may be difficult to align the line tips perfectly to create a uniform stroke and close all gaps.


In this mode, you can draw lines in small increments and the tips merge into one single stroke.



This mode only works with pencil lines.



Auto Adjust Thickness

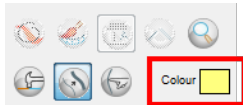


The **Auto Adjust Thickness**  tool is useful when you want to render a portion of a line thicker. When tracing a drawing on paper, you will often go back to a section of a curve to make it thicker to add dynamism to the line. Using the Auto Adjust Thickness tool, you can draw highlight strokes over the section to make thicker. Once you release the pen or the mouse, the line gets thicker following the shape and curve of the original stroke. This way is much faster and smoother than using the Pencil Editor tool. You do not have to add extra points and adjust the position and Bezier handles.

The default overlay colour is light yellow. If this colour is difficult to see because of your background or drawing colour, you can adjust the colour.

To change the Auto Adjust Thickness Colour:

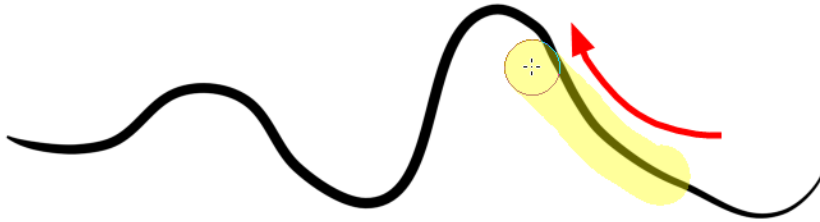
1. In the Tools toolbar, select the **Pencil**  tool.
2. In the Tool Properties view, select the **Auto Adjust Thickness**  button.
3. Click the colour swatch.




The Colour Picker window opens.

4. In the Colour Picker window, select a new colour.



Line Pushing Mode

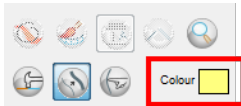


The **Line Pushing Mode**  option lets you draw highlight strokes over your existing pencil lines. You can reshape the curves. Depending how you draw the pushing stroke over your line, the highlighted section will be reshaped in one direction or the other.

The default overlay colour is light yellow. If this colour is difficult to see because of your background or drawing colour, you can adjust the colour.

To change the Line Pushing Mode colour:

1. In the Tools toolbar, select the **Pencil**  tool.
2. In the Tool Properties view, select the **Line Pushing Mode**  button.
3. Click the colour swatch.



The Colour Picker window opens.

4. In the Colour Picker window, select a new colour.

Thickness Stencils

Toon Boom Harmony provides a variety of thickness stencils 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.

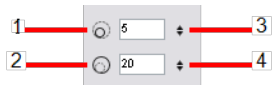
A thickness stencil saves a preset of how the thickness information looks across the length of the line. When drawing with a thickness stencil, the pressure sensitivity of the tablet is discarded in order to apply the thickness stencil.

A thickness stencil can be used while drawing, or applied afterwards.

You also have the possibility to apply different textures to your lines by either using the preset ones or importing your own—see [Working with Templates Thickness Stencils on page 81](#)


Minimum and Maximum Size

This is where you set the minimum and maximum sizes of your drawing tool which will produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.



1. **Minimum Size** field: Type a value in this field to set the minimum width of the line.
2. **Maximum Size** field: Type a value in this field to set the maximum width of the line.
3. **Up/Down arrows**: Use the up and down arrows to set the minimum size value.
4. **Up/Down arrows**: Use the up and down arrows to set the maximum size value.

Central Line Smoothness

You can modify the **Central Line Smoothness**  of your line using this option. This parameter smoothes the initial movement of your line. Increasing the value will result in a smoother line with fewer control points.

Contour Optimization

You can optimize the **Contour Line Smoothness** of you line using this option. This parameter will smooth the contour of your line once the line has been traced, the higher the value the less control points will compose your line.



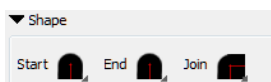
1. **Smoothness** field: Type a value to set the smoothness of the line.
2. **Contour Optimization** field: Type a value to set the contour optimization of the line.
3. **Up/Down arrows**: Use the up and down arrows to set smoothness value.
4. **Up/Down arrows**: Use the up and down arrows to set the contour optimization value.

Changing the Line Shape

There are several line shape to choose from. You can select how the start, end, and joints in the pencil line are drawn.

To change the line shape:

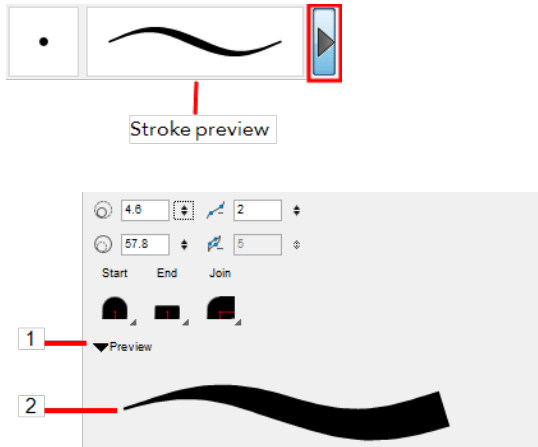
In the Pencil Properties window, click a line shape in the Shape section and select a shape from the menu.



- **Start**: Make the beginning of the line round or flat.
- **End**: Make the end of the line round or flat.
- **Join**: Make joints round, mitred, or bevelled.

Previewing the Stroke

The Preview area lets you see a preview of the stroke that will be produced after you customize the different parameters in the Tool Properties view.



1. The **Arrow** button lets you show or hide the **Preview** area.
2. The **Preview** field is where the brush line is displayed.

Pencil Line Texture

You can apply a bitmap texture on your pencil line and adjust it as needed—see [Pencil Line Texture on page 86](#)

Related Topics

- [Drawing with Line Texture on page 115](#)
- [Pencil Line Texture on page 86](#)
- [Working with TemplatesThickness Stencils below](#)
- [Drawing Using the Pencil Tool on page 73](#)

Working with TemplatesThickness Stencils



A templathickness stencil is a preset that already set with specific properties. There are two types of thickness stencils.

A template allows Regular thickness stencils allow you to set the size and smoothing of the line or shape. As you draw, the thickness of the line varies according the amount of pressure you use with a pen and tablet.

Thickness stencils that are indicated with this icon ✎ are also set with specific properties but disregards the pressure you use with your pen and tablet. The line thickness varies





You can access template thickness stencils from the list of preset on the Tool Properties view, or create your own.

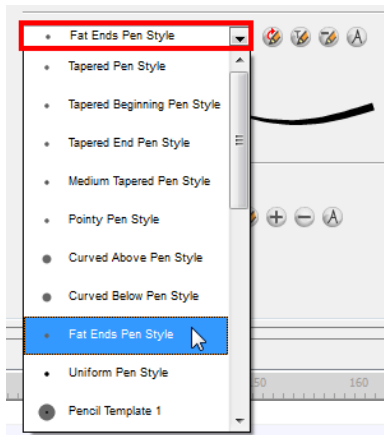
- [Selecting a Pencil Template Thickness Stencil](#) below
- [Creating a Pencil Template Thickness Stencil](#) on the facing page
- [Creating a Pencil Template Thickness Stencil with the Select Tool](#) on the facing page
- [Renaming a Pencil Template Thickness Stencil](#) on page 84
- [Deleting a Pencil Template Thickness Stencil](#) on page 84
- [Locking a Pencil Template Thickness Stencil](#) on page 85
- [Applying a Pencil Template](#) on page 85

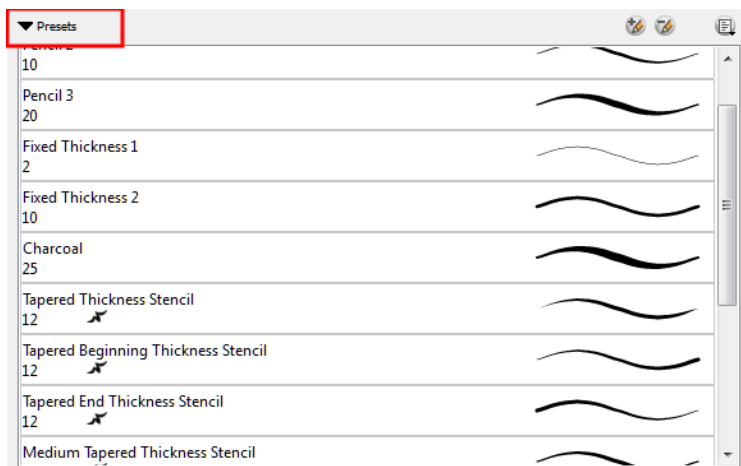
Selecting a Pencil Template Thickness Stencil

Using the drop-down menu, you can select an existing pencil template thickness stencil.

To select a pencil template thickness stencil:

1. In the Tools toolbar, select the **Pencil** , **Line** , **Ellipse** , or **Rectangle**  tool.
2. In the **Tool Properties** view, in the **Pencil Template Presets** drop-down menu, select the template thickness stencil you want to use.





3. In the Drawing or Camera view, draw your pencil line or shape.



Creating a Pencil Template Thickness Stencil

To create a pencil template thickness stencil:


1. In the Tools toolbar, select the **Pencil** , **Line** , **Ellipse** , or **Rectangle**  tool.
2. In the Tool Properties view, click the **New Pencil** or **New Brush**  button.

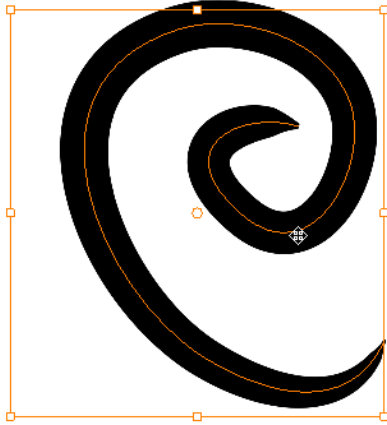
A new pencil template is added to the end of the list in the Pencil Template drop-down menu.
The New Preset dialog box opens.


3. Enter a name for your new pencil thickness stencil and click OK.
4. Start drawing in the Camera or Drawing view.

Creating a Pencil Template Thickness Stencil with the Select Tool


To create a pencil template thickness stencil with the Select tool:

1. In the Tools toolbar, select the **Select**  tool.
2. In the Camera view, select the pencil line or shape you want to take the style from.








3. In the Tool Properties view, click the **New Preset**  button.

A new pencil template thickness stencil is added to the end of the list in the Presets drop-down menu.

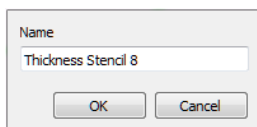
4. In the Tool Properties view, click the **Apply Pencil Template**  button to apply to the style to your selection.
5. In the Presets drop-down menu, select your new pencil template thickness stencil and click on a line or shape in the Camera view to apply the pencil template thickness stencil you created.

Renaming a Pencil Template Thickness Stencil

To rename a pencil template thickness stencil:

1. In the Tools toolbar, select the **Pencil** , **Line** , **Ellipse** , or **Rectangle**  tool.
2. In the Presets drop-down menu, select the pencil template thickness stencil you want to rename.
3. Click the **Rename Pencil**  button. From the Brush menu, select **Rename Pencil** or **Rename Brush**, depending on the tool you selected.



The Rename Preset dialog box opens.




4. In the Name field, type in a name for the selected pencil template thickness stencil you are renaming.

Deleting a Pencil Template Thickness Stencil

To delete a pencil template thickness stencil:


1. In the Tools toolbar, select the **Pencil**  tool.
2. In the Presets drop-down menu, select the pencil template thickness stencil to delete.
3. Click the **Delete Preset**  button.

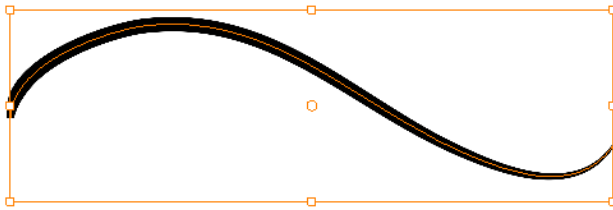
Locking a Pencil Template Thickness Stencil

To avoid modifying your pencil template thickness stencil inadvertently, you can lock them by enabling the **Lock Pen**  option.

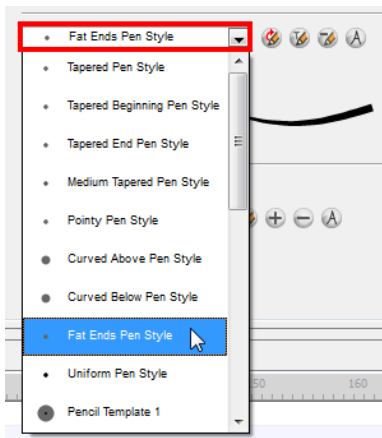
Applying a Pencil Template

To apply a pencil template to a pencil line:

1. In the Tools toolbar, select the **Select**  tool.
2. In the Camera or Drawing view, select the pencil line on which you want to apply a style.




3. In the Tool Properties view, select the style you want to apply from the **Pencil** drop-down menu.

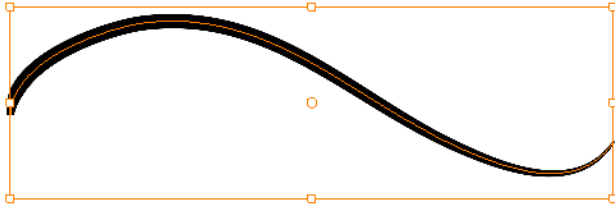


4. In the Tool Properties view, click the **Apply Pencil Template**  button to apply to the style to your selection.

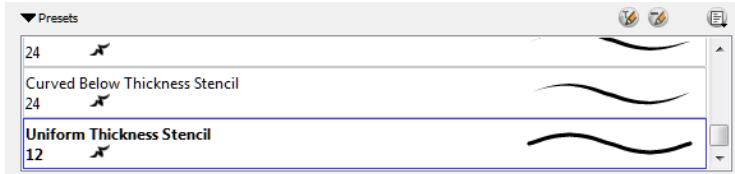


To apply a thickness stencil to a pencil line or shape:

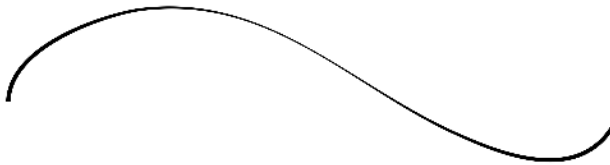
1. In the Tools toolbar, select the **Select**  tool.
2. In the Camera or Drawing view, select the pencil line or shape on which you want to apply a style.



3. In the Tool Properties view, select the style you want to apply from the **Presets** list.



The style you selected is applied to your selection.



Related Topics

- [Pencil Tool Options](#) on page 74
- [Shape Tool Options](#) on page 163
- [Select Tool Properties](#) on page 130

Pencil Line Texture


You can apply a texture on a pencil line.

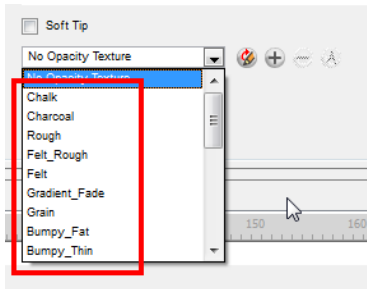
- [Applying Texture to a Pencil Line](#) below
- [Creating a Pencil Texture Template with the Pencil Tool](#) on page 88
- [Adding a Texture to the Preferences](#) on page 91
- [Applying a Preset Texture to a Pencil Line](#) on page 92
- [Creating a Pencil Texture Template with the Select Tool](#) on page 89

Applying Texture to a Pencil Line

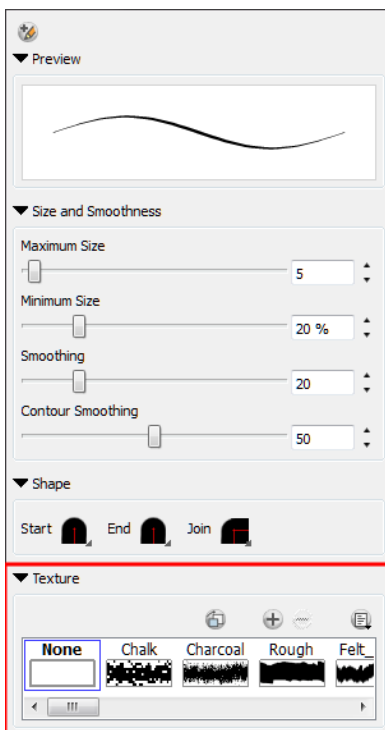
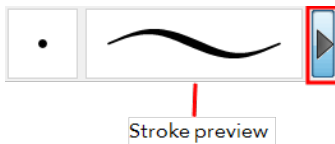
Pencil lines support texture. Before drawing, you can select or import a texture and apply it to your lines. You can also change it afterwards using the Select tool. Textures are independent from pencil templates.

To apply a preset texture to a pencil line:

1. In the Tools toolbar, select the **Pencil**  tool.
2. In the Tool Properties view, in the **Texture** drop-down menu, select a texture.



3. In the Tool Properties view, the preview area displays the stroke that will be produced after you customize the different parameters in the Tool Properties view. Click the arrow button.



In the Pencil Properties property editor displays.

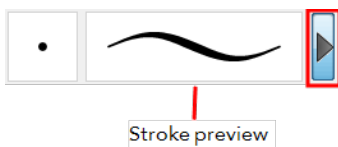
4. If you want your lines to have soft tips instead of hard ends, select the **Soft Tip** option.
5. In the Texture section, select a texture for your pencil.
6. In the Camera or Drawing view, draw your pencil line.





Creating a Pencil Texture Template with the Pencil Tool

To create a pencil texture template with the Pencil tool:

1. In the Tools toolbar, select the **Pencil**  tool.
2. In the Tool Properties view, click the arrow button beside the stroke preview area.

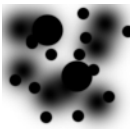


3. In the Tool Properties view Pencil Properties property editor, click the **New Texture**  button or select **New Texture** from the Texture menu.
 - To delete a preset style, click the **Delete Texture**  button.
4. Browse for your bitmap texture file.

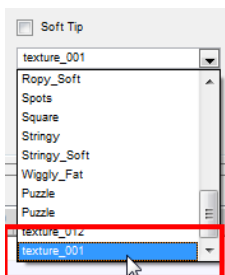


The file must be a TGA or PSD. Your texture **MUST HAVE** an alpha channel.

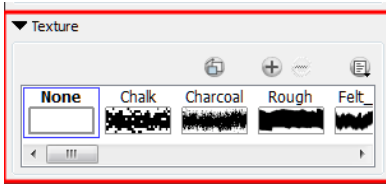
5. Click **Open**.
The imported texture is saved in your scene texture list.




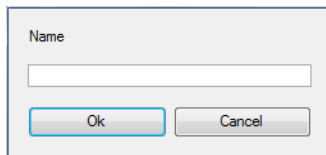
6. In the Tool Properties view, in the **Texture** drop-down menu, select your new texture template.



- In the Pencil Properties property editor, select your new texture.



- In the Tool Properties view, click the **Rename Texture**  button.
- In the Tool Properties view, click the Texture menu and select **Rename Texture**.
The Rename Opacity Texture dialog box opens.






- In the **Name** field, type the template name and click OK.
- If you want your lines to have soft tips instead of hard ends, select the **Soft Tip** option.
- In the Camera or Drawing view, draw your pencil lines.



Creating a Pencil Texture Template with the Select Tool

To create a pencil texture template with the Select tool:

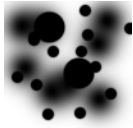
- In the Tools toolbar, select the **Select**  tool.
- In the Camera view, select a pencil line on which to apply a texture.
- In the Tool Properties viewPencil Properties property editor, click the **New Texture**  button or select **New Texture** from the Texture menu.
 - To delete a preset style, click on the **Delete Texture**  button. Note that you cannot delete the textures stored in your preferences.
- Browse for a bitmap texture file.



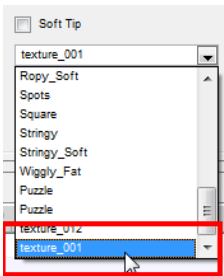
The file must be a TGA or PSD. Your texture **MUST HAVE** an alpha channel.

5. Click **Open**.

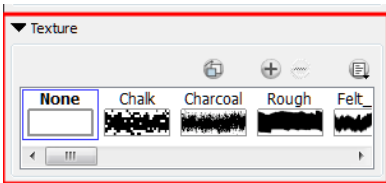
The imported texture is saved in your scene texture list.



6. In the Tool Properties view, in the **Texture** drop-down menu, select your new texture template.



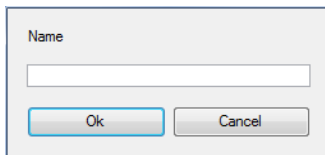
7. In the Pencil Properties property editor, select your new texture template.



8. In the Tool Properties view, click the **Rename Texture**  button.

9. In the Tool Properties view, click the Texture menu and select **Rename Texture**.

The Rename Opacity Texture dialog box opens.



10. In the **Name** field, type the template name and click OK.

11. If you want your lines to have soft tips instead of hard ends, select the **Soft Tip** option.

12. In the Tool Properties view, click the **Apply Texture**  button to apply to the texture to your selection.

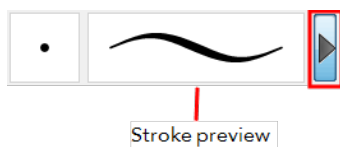



Adding a Texture to the Preferences

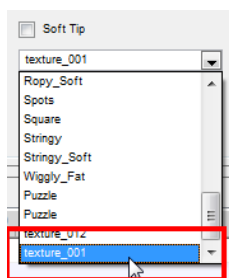
When you import a texture in your pencil styles, it is saved in your scene. If you want to add that texture to a bank that you will be able to reuse in different scenes, you can add that texture to your preferences.

To add a texture to your preferences:

1. In the Tools toolbar, select the **Pencil**  tool.
2. In the Tool Properties view, click the arrow button beside the stroke preview area.



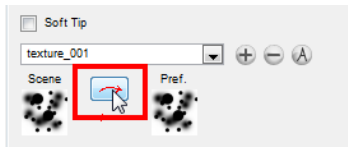
3. In the Pencil Properties property editor, select a texture from the Textures area to add to your preferences.
4. Click the **Copy to Preference**  button.
5. In the Tool Properties view, in the **Texture** drop-down menu, select the texture you want to add to your preferences.



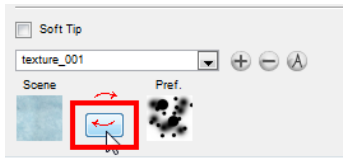
The selected texture appears in the **Scene** preview. If the texture is already saved in your preferences, you will see the texture in both the **Scene** and the **Pref.** previews.



6. To save the texture in your preferences, click the **Copy Current Texture into Preference** arrow. You can save the texture as a new one or, if there is already a texture saved in the preference, you can override it.




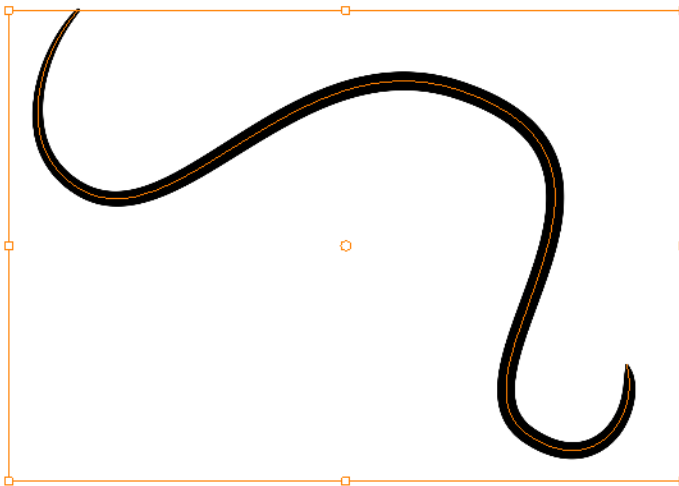
7. You might receive a scene from someone else or import a texture over your existing one by mistake. If you want to override the **Scene** texture with the corresponding one available in your preferences, you can click on the **Copy Preference Texture into Current** arrow.



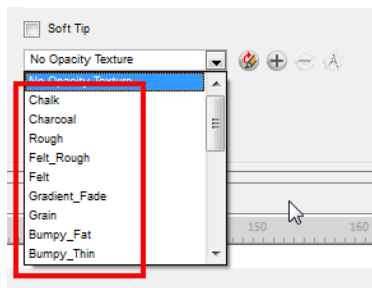
Applying a Preset Texture to a Pencil Line

To apply a preset texture to a pencil line:

1. In the Tools toolbar, select the **Select**  tool.
2. In the Camera view, select a pencil line.

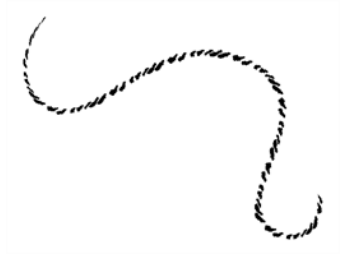


3. In the Tool Properties view of the Select tool, select a texture from the **Texture** drop-down menu.



4. In the Tool Properties view, select a texture from the Textures area to apply to the selected stroke.
5. If you want the selected lines to have soft tips instead of hard ends, select the **Soft Tip** option.

6. In the Tool Properties view, click the **Apply Texture**  button to apply to the texture to your selection.



Related Topics

- [Pencil Tool Options on page 74](#)
- [Select Tool Properties on page 130](#)
- [Drawing with Line Texture on page 115](#)

More Drawing Tools





Harmony offers a wide variety of useful tools to optimize your drawings and work more efficiently; tools such as Group, Arrange, and the animation disk to rotate your workspace.

Related Topics

- [Arrange below](#)
- [Convert Brush Strokes to Pencil Lines](#) on the facing page
- [Pencil Lines to Brush Strokes](#) on the facing page
- [Strokes to Pencil Lines](#) on the facing page
- [Optimize](#) on page 96
- [Remove Extra Strokes](#) on page 96
- [Reduce Drawing Texture Resolution](#) on page 96
- [Crop Brush Textures](#) on page 97
- [Create Contour Stroke](#) on page 98
- [Remove Contour Stroke](#) on page 98
- [Grid](#) on page 98
- [Group/Ungroup](#) on page 99
- [Hand](#) on page 99
- [Rotate View](#) on page 99


Arrange

Use the different **Arrange** options to reorder drawing objects inside a single layer in the **Drawing** or **Camera** view.

-  **Bring to Front** button or select **Drawing > Arrange > Bring to Front** or press [Ctrl] + [Shift] + [PgUp] (Windows/Linux) or [⌘] + [Shift] + [PgUp] (Mac OS X).
The selected art is moved to the top.
-  **Bring Forward** button or select **Drawing > Arrange > Bring Forward** or press [Ctrl] + [PgUp] (Windows/Linux) or [⌘] + [PgUp] (Mac OS X).
The selected art is moved one level higher.
-  **Send Backward** button or select **Drawing > Arrange > Send Backward** or press [Ctrl] + [PgDown] (Windows/Linux) or [⌘] + [PgDown] (Mac OS X).
The selected art is moved one level lower.
-  **Send to Back** button or select **Drawing > Arrange > Send to Back** or press [Ctrl] + [Shift] + [PgDown] (Windows/Linux) or [⌘] + [Shift] + [PgDown] (Mac OS X).
The selected art is moved to the bottom.

Convert Brush Strokes to Pencil Lines



The **Brushes Strokes to Pencil Lines**  operation converts the selected contour strokes into centreline pencil strokes. This command is only available from the top menu.


To convert brush strokes to pencil lines:

- Select **Drawing > Convert > Brush Strokes to Pencil Lines** or press [^].

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Pencil Lines to Brush Strokes



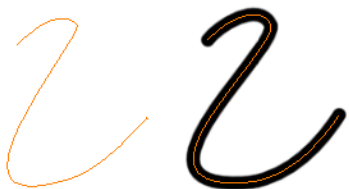
The **Pencil Lines to Brush Strokes**  operation converts the selected centreline pencil strokes into contour strokes brush lines.

To convert pencil lines to brush strokes:

- From the top menu, select **Drawing > Convert > Pencil Lines to Brush Strokes** or press [&].

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Strokes to Pencil Lines



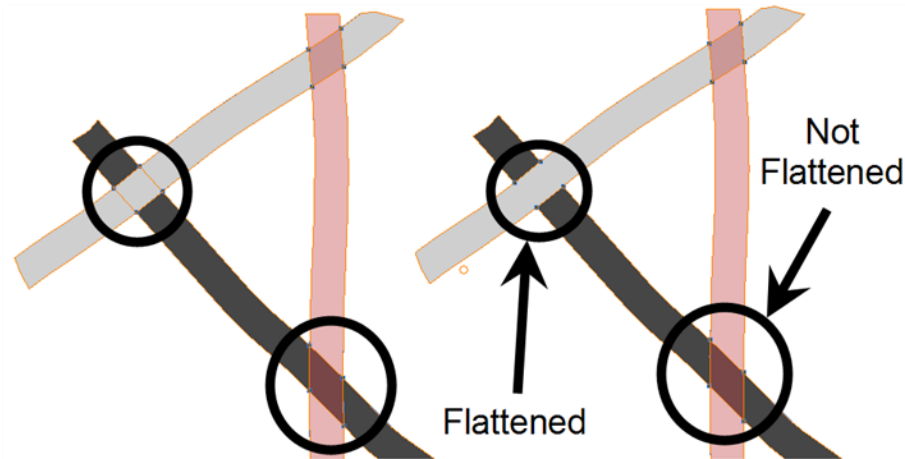
The **Strokes to Pencil Lines**  operation converts the selected invisible line to a pencil line.

To convert strokes to pencil lines:

- Select **Drawing > Convert > Strokes to Pencil Lines**. or press [Shift] + [F12] (Windows/Linux only).

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Optimize



The **Optimize** command reduces the number of layers, such as overlapping brush strokes, in the selected drawing objects. Drawing objects will only be flattened and optimized if the selected objects will not change the appearance of the final image when they are merged.

For example, if you have selected a number of partially transparent objects, which you layered to create an additive colour effect, the selected transparent drawing objects will not be merged. This is because merging the transparent drawing objects will cause them to lose the effect of the layered transparent colours.

- Use the **Select** tool to select the drawing objects you want to optimize.
- Select **Drawing > Optimize > Optimize**.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Remove Extra Strokes

The **Remove Extra Strokes** option is used to remove the invisible lines in your selection.

- Use the **Select** tool to select the drawing objects you want to remove invisible lines from.
- Select **Drawing > Optimize > Remove Extra Strokes**.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

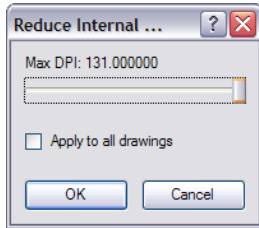
Reduce Drawing Texture Resolution

If you import and vectorize as texture (colour) a high resolution image, the size of your drawing can be heavy. This option is used to reduce the size and resolution of the textures in your drawing. When you import and vectorize drawings using the grey or colour preset styles, you don't have control on the size of the bitmap texture. This tool allows you to reduce that bitmap texture.

To reduce the drawing texture resolution:

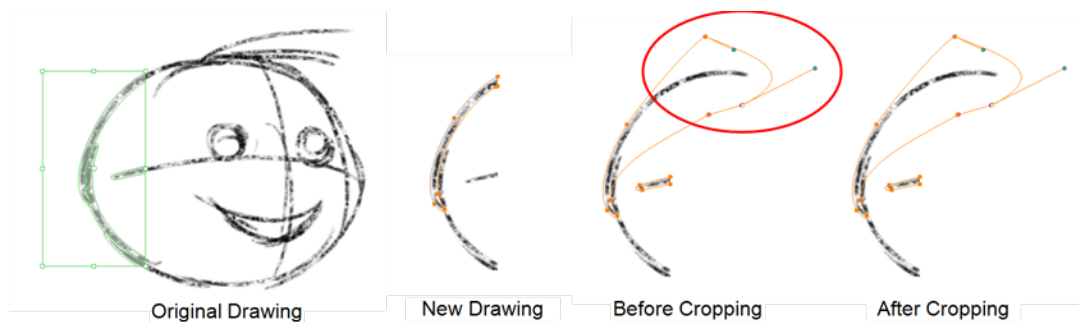
- In the **Timeline** or **Xsheet** view, **Select** tool to select the drawing objects you want to reduce the texture resolution for.remove invisible lines from.
- Select **Drawing > Optimize > Reduce Drawing Texture Resolution**.

In *Harmony Paint*, this option is found in the **Selected** menu rather than the **Drawing** menu.



1. In the dialog box, drag the slider toward the left to reduce the texture resolution.
2. Enable the **Apply to All Drawings** option if you want the modification to be applied to all the drawings in your layer.
3. Click OK.

Crop Brush Textures



The **Crop Brush Textures** option is used to crop an unnecessarily large texture bitmap that lies, unseen, beneath the vector contour of a textured line. This often occurs when you cut and paste textured lines from one drawing into another. If you cut a portion from a textured line and paste it into a different drawing, Toon Boom Harmony pastes the entire unseen texture bitmap from the source drawing into the new one, even if you only took a small portion of the source drawing. Using the **Crop Brush Texture** command will crop away extraneous texture that does not touch the vector area. If there are many textured lines in your scene, this will greatly reduce the file size.



In the example shown above, a textured line is cut from a drawing and pasted into a new drawing. At first glance, it appears as if only a cropped section of the underlying texture bitmap was cut and pasted as well. However, using the **Contour Editor** tool to expand the vector envelope of the textured line, it is revealed that more texture bitmap exists beyond the cropped boundary. If you use the **Crop Brush Texture** command the bitmap texture is cropped to the boundaries of the textured line's vector contour (as seen in the fourth image where the vector envelope has been pulled out to reveal empty space).


To crop the brush texture:

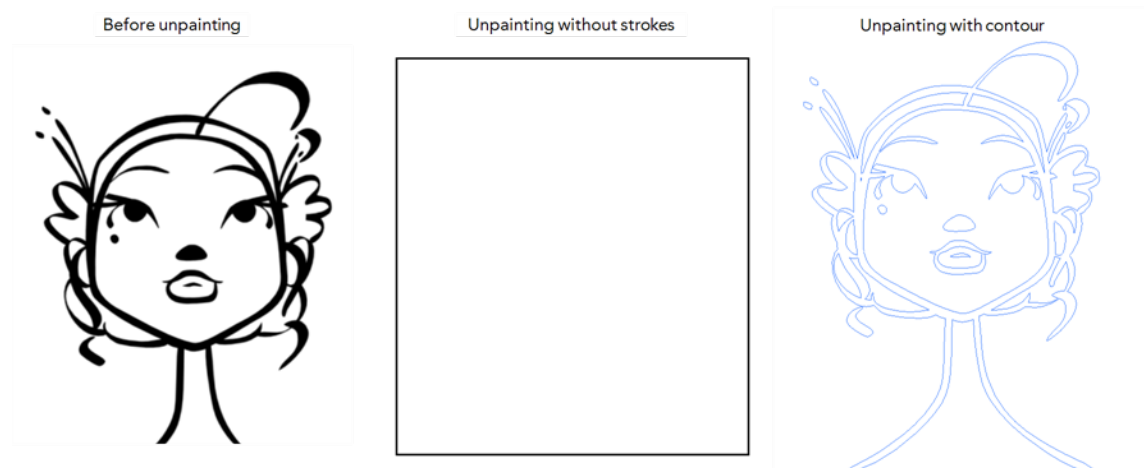
1. In the **Timeline** or **Xsheet** view, select the drawing you want to crop the texture for.
2. Select **Drawing > Optimize > Crop Brush Textures**.

In *Harmony Paint*, this option is found in the **Selected** menu rather than the **Drawing** menu.

Create Contour Stroke

The **Create Contour Stroke**  option is used to add a permanent invisible line around a shape that was drawn directly in the application. This allows you to unpaint your lines with the **Paint**  tool but to maintain the shape of the lines should you need to repaint later.

This command is useful when inking and painting and using the **Apply to All Drawings in Layer**  option.



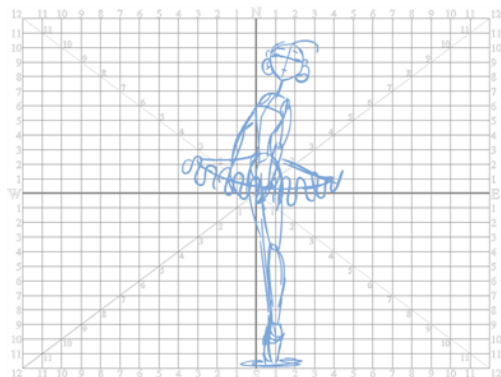
*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Remove Contour Stroke







The **Remove Contour Stroke** option is used to remove any permanently invisible lines that were either created while scanning and vectorizing drawings or manually adding contour strokes. This is useful if you want to remove the intersection triangles created during vectorization.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*


Grid



Use the **Show Grid** option to display a grid in the **Drawing** or **Camera** view.

-  Select **View > Grid > Show Grid**. The [Ctrl] + ['] (Windows/Linux) or [⌘] + ['] (Mac OS X).
-  Select **View > Grid > Square** to display a standard square grid.
-  Select **View > Grid > 12 Field Grid** to display a 12 field size grid.
-  Select **View > Grid > 16 Field Grid** to display a 16 field size grid.
-  Select **View > Grid > Underlay** to display the grid behind the drawing elements.
-  Select **View > Grid > Overlay** to display the grid over the drawing elements.

Group/Ungroup


Use the **Group**  option to group the selected drawing objects. This can help in the selection, repositioning, re-scaling and other transformations to be applied to multiple objects of a drawing.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*


- Select **Edit > Group > Group** or **Edit > Group > Ungroup**.
- Press [Ctrl] + [G] and [Ctrl] + [Shift] + [G] (Windows/Linux) or [⌘] + [G] and [⌘] + [Shift] + [G] (Mac OS X).

Hand

Use the **Hand** tool to pan through the **Drawing** and **Camera** view.

- In the **Tools** toolbar, select the **Hand**  tool, click in the **Drawing** or **Camera** view and drag your cursor.
- You can also Hold down the keyboard shortcut [Spacebar], click in the **Drawing** or **Camera** view and move your mouse in the direction you want to pan the view.

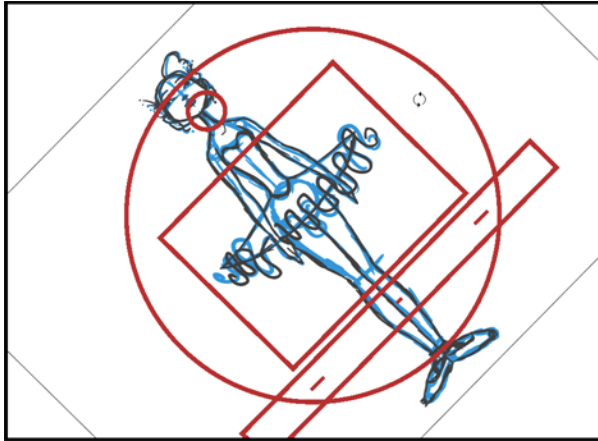
Rotate View

Use the **Rotate View**  tool to rotate the **Drawing** or **Camera** view, the same way as you would do with a real animation disc.

- Select **Drawing > Tools > Rotate View**.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

- Press [Ctrl] + [Alt] (Windows/Linux) or [⌘] + [Alt] (Mac OS X).




This tool can also be used in the **Perspective** view.

Related Topics

- [How to Draw on page 61](#)

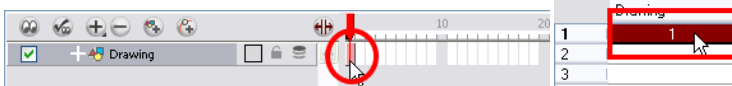
Drawing with the Brush Tool




The **Brush**  tool is pressure sensitive and can create a contour shape which gives a thick and thin line effect, as if the drawing was made with a brush.


To draw with the Brush tool:

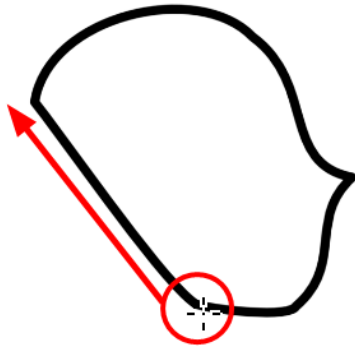
1. In the **Timeline** or **Xsheet** view, select the cell on which you want to draw.
*In Harmony Paint, select a drawing in the **Drawing** panel.*



2. In the Tools toolbar, select the **Brush**  tool or press [Alt] + [B].
3. In the Colour view, click a colour swatch to select a colour.



4. 
5. In the Drawing or Camera view, start drawing.
 - ▶ Hold [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) to force a line to join the end and start of your shape while drawing.




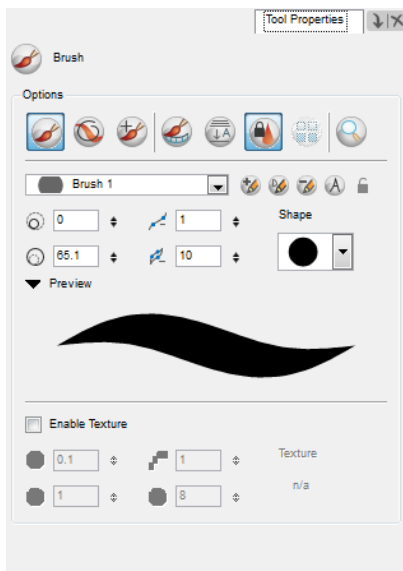
The last colour you select while using the **Brush** tool is recalled the next time you select the **Brush** tool.

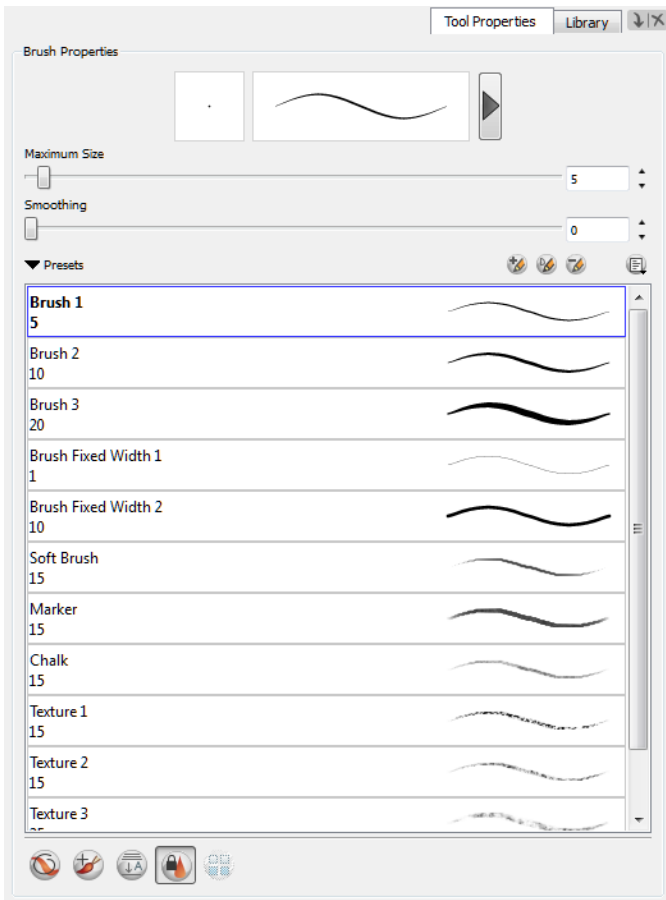
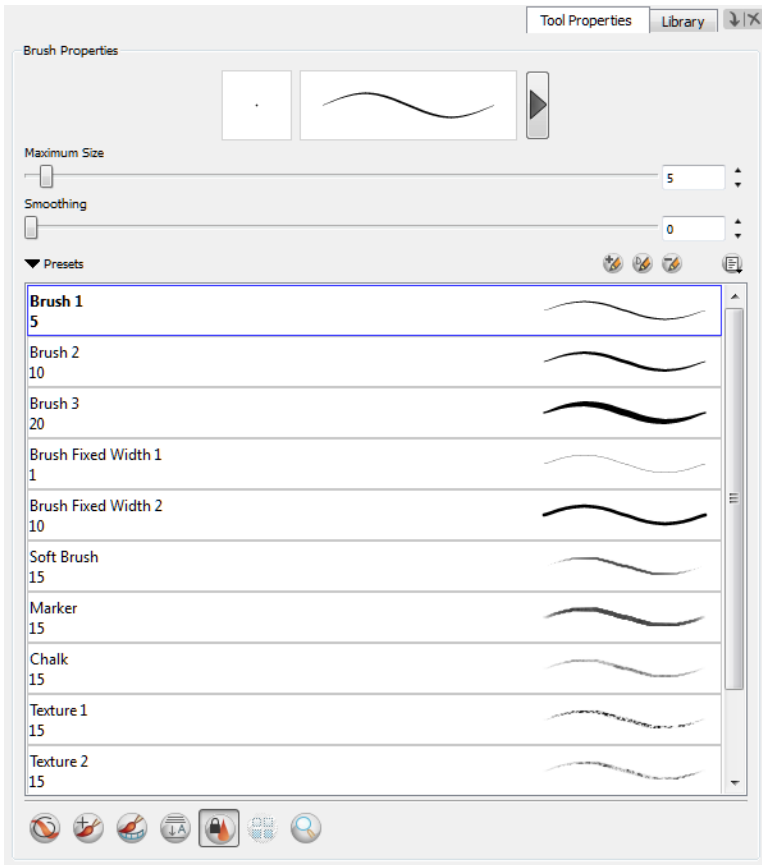
Related Topics

- [Brush Tool Options](#) below

Brush Tool Options

When you select the **Brush**  tool, its properties and options appear in the **Tool Properties** view.






These are the options available for the Brush tool:

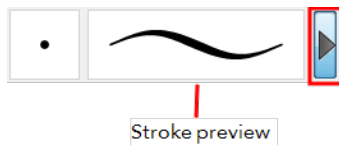
- [Normal Brush Mode](#) below
- [Draw Behind](#) on the facing page
- [Repaint Brush Mode](#) on the facing page
- [Create Colour Art Automatically](#) on the facing page
- [Auto-Flatten Mode](#) on page 106
- [Respect Protected Colour](#) on page 106
- [Use Stored Colour Gradient](#) on page 106
- [Drawing Magnifier](#) on page 106
- [Brush Styles](#) on page 107
- [Dynamic Brush](#) on page 107
- [Minimum and Maximum Size](#) on page 107
- [Central Line Smoothness](#) on page 107
- [Contour Optimization](#) on page 108
- [Brush Tips](#) on page 108
- [Preview](#) on page 108
- [Line Texture](#) on page 108

Normal Brush Mode

The **Normal Brush Mode**  creates contour lines as you draw, adding each brush lines on top of the last ones.

Previewing the Stroke

The Preview area lets you see a preview of the stroke that will be produced after you customize the different parameters in the Tool Properties view.



Maximum Size and Smoothing

This is where you set the minimum and maximum sizes of your drawing tool which will produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.


- **Maximum and Minimum Size:** Defines the maximum width of the stroke.
- **Smoothing:** Defines the number of control points added to the centre line.

Brush Presets

Brush presets are created by saving the properties of the current brush to a new preset, which you can reuse for repeated tasks. You can create as many brush presets as you need.


Draw Behind



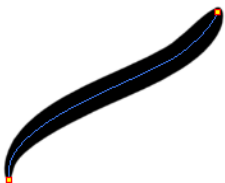
When the **Draw Behind**  mode is enabled, the lines you draw will appear behind the art that already exists.

Repaint Brush Mode



The **Repaint Brush**  is used to repaint zones that have already been painted, it will not affect empty zones or pencil lines. It also automatically flattens each of its brush lines so it does not add new brush lines on top of existing ones. You can use this mode to paint tones or highlights onto your character.

Create Colour Art Automatically




As you draw in the **Line Art** layer, the **Create Colour Art Automatically**  automatically creates the corresponding strokes in the **Colour Art** layer.

Auto-Flatten Mode

When enabled, the **Auto-Flatten** mode automatically flattens the new lines created with the existing artwork as you draw in the Drawing or Camera view. Brush strokes will flatten with brush strokes and pencil lines will flatten with pencil lines.


Respect Protected Colour

The **Respect Protected Colour**  option prevent the colours you marked as protected in the **Colour** view to be repainted using the **Repaint Brush** mode or any of the painting tools.



Refer to [Protecting Colours](#) on page 250 to learn how to use the **Protect Colour** feature.

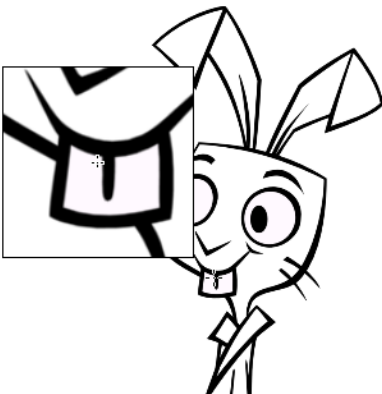
Use Stored Colour Gradient


The **Use Stored Colour Gradient**  option makes your tool use the previously stored gradient position. This way, every new brush line or colour fill will use the stored gradient position.



Refer to [Storing Your Favourite Gradient or Texture Settings](#) on page 245 to learn how to use the Store Colour Gradient option.

Drawing Magnifier



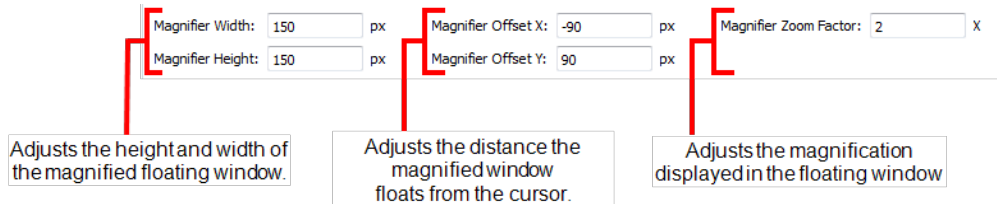
The **Drawing Magnifier**  tool allows you to magnify portions of your drawing. When this option is enabled, you can hover over your drawings to see a close up of your lines in the **Magnifier** box.



This feature only works in the **Drawing** view.

To adjust the settings for the Drawing Magnifier:


1. In the top menu, select **Edit > Preferences > Drawing**.
2. Adjust the **Magnifier** window **Width**, **Height**, **X-Axis Offset**, **Y-Axis Offset**, and **Zoom Factor**.



Brush Styles

A variety of brush styles are provided allowing you to create and save your own. This way you can create brushes with precise sizes and parameters and save them so you can draw and design—see [Brush Styles on page 109](#)

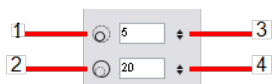
Dynamic Brush

A **Dynamic Brush**  can be created to allow you to draw using patterns created from your artwork—see

[Dynamic Brush on page 112](#)


Minimum and Maximum Size

This is where you set the minimum and maximum sizes of your drawing tool which will produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.



1. **Minimum Size** field: Type a value in this field to set the minimum width of the line.
2. **Maximum Size** field: Type a value in this field to set the maximum width of the line.
3. **Up/Down arrows**: Use the up and down arrows to set the minimum size value.
4. **Up/Down arrows**: Use the up and down arrows to set the maximum size value.

Central Line Smoothness

You can modify the **Central Line Smoothness**  of your line using this option. This parameter smoothes the initial movement of your line. Increasing the value will result in a smoother line with fewer control points.

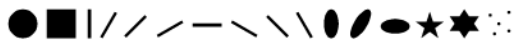
Contour Optimization

You can optimize the **Contour Line Smoothness** of your line using this option. This parameter will smooth the contour of your line once the line has been traced, the higher the value the less control points will compose your line.



1. **Smoothness field:** Type a value to set the smoothness of the line.
2. **Contour Optimization field:** Type a value to set the contour optimization of the line.
3. **Up/Down arrows:** Use the up and down arrows to set smoothness value.
4. **Up/Down arrows:** Use the up and down arrows to set the contour optimization value.

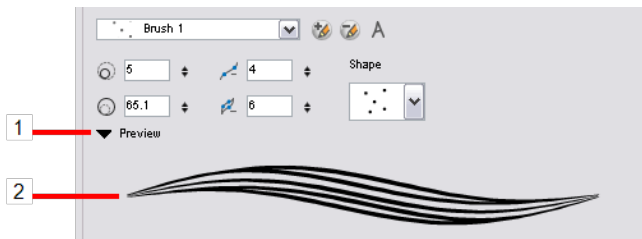
Brush Tips



In this drop-down menu, you can find a variety of tip shapes from round and square ones to star shaped, select the one you need.

Preview

The Preview field lets you see a preview of the style that will be produced after you customize the different parameters in the Tool Properties view.



1. The **Arrow** button lets you show or hide the **Preview** area.
2. The **Preview** field is where the brush line is displayed.

Line Texture

In Toon Boom Harmony, you can draw with a textured line. Textured lines are a mixed bitmap image contained in a vector frame. This allows you to sketch as if you are drawing on paper.



Refer to the [Drawing with Line Texture](#) on page 115 topic to learn everything about line texture and its parameters.

Related Topics

- [How to Draw](#) on page 61
- [Drawing with the Brush Tool](#) on page 101
- [Drawing with Line Texture](#) on page 115
- [Working with TemplatesThickness Stencils](#)

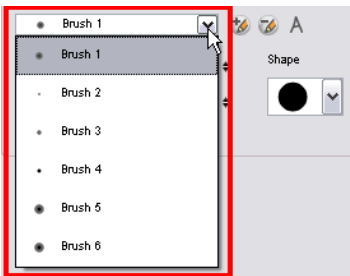
Brush Styles

You can create your own brush styles.

- [Selecting a Brush Style](#) below
- [Adding a Brush Style](#) on the next page
- [Renaming a Brush Style](#) on page 111
- [Deleting a Brush Style](#) on page 111
- [Locking a Brush Style](#) on page 112

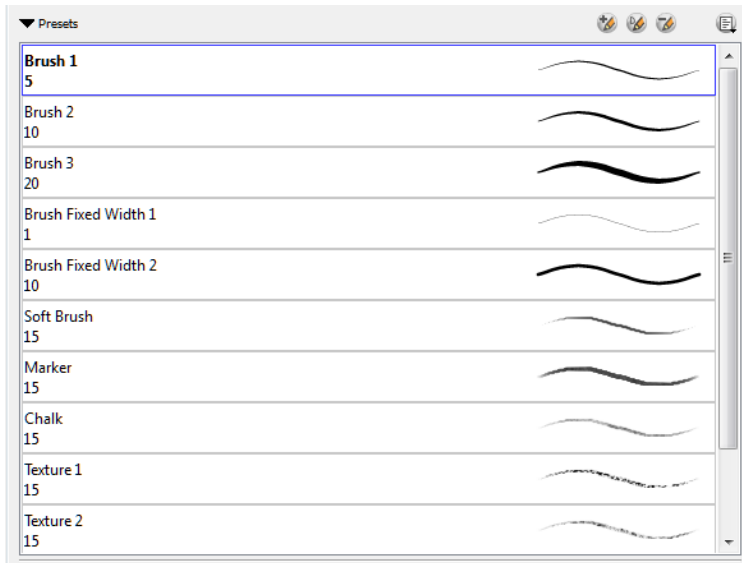
Selecting a Brush Style

A variety of brush styles are provided allowing you to create and save your own. This way you can create brushes with precise sizes and parameters and save them so you can draw and design.



To select a brush style:

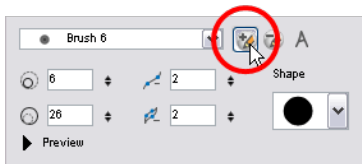
1. Click the arrow button to get the **Brush Style** drop-down menu.
2. Select a brush style from the list.



To select a brush style:

- In the Tool Properties, select a brush style from the Brush Presets section.

Adding a Brush Style



To create a brush style:

- ▶ Click the Add Brush Style  button.




The new brush style appears at the end of the Brush Styles drop-down menu list.

To create a brush preset:



Make sure your current brush has the settings you would like in your preset.

3. Do one of the following:

- ▶ In the Brush view, click the New Brush  button.
- ▶ From the Brush  menu, select **New Brush Preset**.
- ▶ In the Properties window of the tool you are using, click the  button in the upper-left corner—see [Viewing Tool Properties on page 1](#).

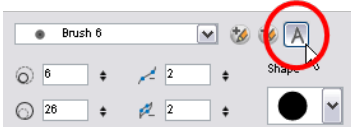
4. In the New Preset window, type a name for your new brush preset.

The new brush is added to the end of the list of brush preset.




Brush presets cannot be updated. However you can select a preset, which applies those properties to the current brush. Then you can modify the properties, and create a new preset with the new properties. If desired, you can delete the old preset.

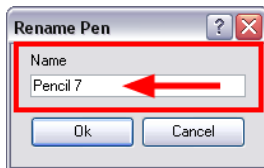
Renaming a Brush Style



To rename a brush style:

1. Click the arrow button of the **Brush Style** drop-down menu.
2. Select the brush style you want to rename.
3. Click the **Rename Brush Style**  button.


The Rename Pen dialog box opens.



4. Type in a name for the selected brush style and click OK.

Renaming a brush can make it easier to identify and access the brushes you use most frequently.

To rename a brush:

1. In the Tool Properties view, select a brush to rename.
2. From the Brush  menu, select **Rename Brush**.
3. Type in a new name for the brush.



Deleting a Brush Style

To delete a brush style:


1. In the Tools toolbar, select the **Brush** tool.
2. In the Tool Properties view, in the **Brush Style** drop-down menu, select the brush style you want to delete from the **Brush Style** list.
3. Click the **Delete Brush Style**  button.

To delete a brush preset:

1. Select the brush preset you want to delete.
2. Do one of the following:

- ▶ In the Brush Preset view, click the Delete Brush  button.
- ▶ From the Brush Preset  menu , select **Delete Brush**.


Locking a Brush Style

To avoid modifying your brush style inadvertently, you can lock them by clicking the **Lock Brush Settings**  button.

Related Topics

- [Brush Tool Options on page 102](#)


Dynamic Brush

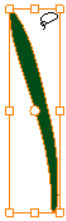
A **Dynamic Brush**  can be created to allow you to draw using patterns created from your artwork. Create a new **Dynamic Brush** to copy a pattern you have drawn to reproduce it quickly. You can create dynamic brushed using either a single pattern or a multiple one that will automatically switch through the patterns as you draw.




To create a new dynamic brush:

1. In the Tools toolbar, select a drawing tool.
2. In the Drawing or Camera view, draw the pattern you want to use as your **Dynamic Brush** stamp.



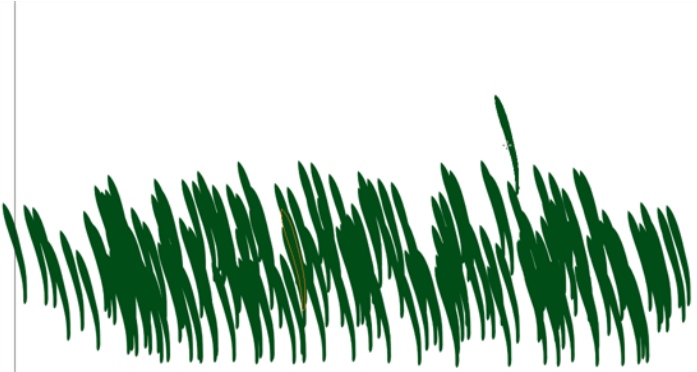
3. In the Tools toolbar, click the **Select**  tool and select the parts of the drawing you want to repeat.



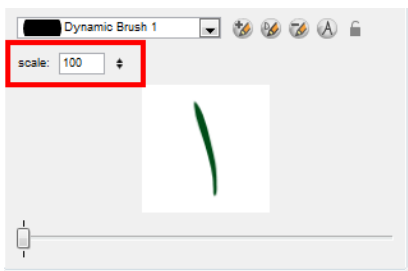
4. In the Tools toolbar, select the **Brush**  tool.
5. In the Tool Properties view, click the **Add Dynamic Brush**  button to add your selection as a new dynamic brush preset.
6. Click the **Rename Brush Style**  button. From the Brush menu, select **Rename Brush**.

The Rename Pencil Rename Preset dialog box opens.


7. Type in a name for the new dynamic brush and click OK.
8. In the Camera or Drawing view, start drawing with your dynamic brush to quickly repeat a pattern.

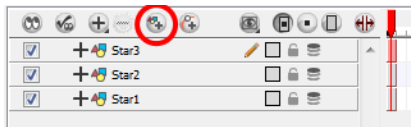


9. To adjust the scale of your pattern to make it bigger or smaller as you stamp it, you can change the Scale value in the Tool Properties view.

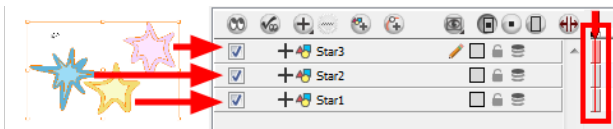


To create a dynamic brush with multiple drawings:

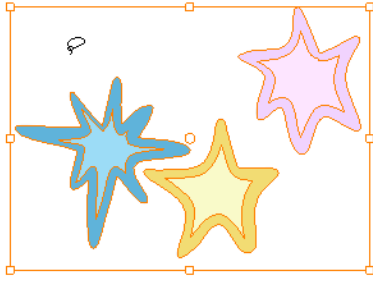
1. In the Timeline view, click the **Add Drawing Layers**  button to create as many layers as patterns you want in your dynamic brush. It is recommended to rename your layers.





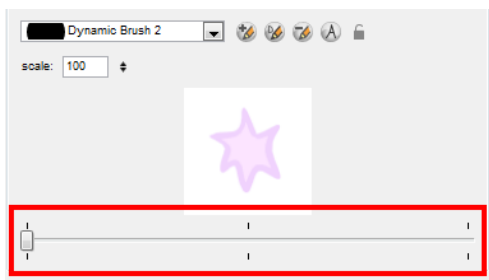
2. In the Camera view, draw your individual pattern on a separated layer.




3. In the Tools toolbar, select the **Select**  tool.
4. In the Camera view, select all the drawings you want to add to your new dynamic brush.



5. In the Tools toolbar, select the **Brush**  tool.
6. Click the **Add Dynamic Brush**  button to add your selection as a new Dynamic Brush preset.



7. Click the **Rename Brush Style**  button. From the Brush menu, select **Rename Brush**.

The Rename Pencil Rename Preset dialog box opens.

8. Type in a name for the new dynamic brush and click OK.
9. In the Camera or Drawing view, start drawing with your dynamic brush to quickly repeat a pattern. When you use this brush, you will cycle through the drawings.




Related Topics

- [Brush Tool Options on page 102](#)

Drawing with Line Texture



In Toon Boom Harmony, you can use the **Brush**  tool to draw with bitmap textured lines.

In the Brush Tool Properties view, you will find a series of default textured brushes but you can also create your own collection by importing either PSD or TGA files in the **Pen** list.



The textured brush only work with the Brush tool. It does not work with the Pencil, Line, Ellipse, Polyline or Rectangle tools.

Related Topics

- [How to Draw with Texture](#) below
- [Adjusting the Line Texture Parameters](#) on page 118
- [Creating Texture Brushes](#) on page 120
- [Erasing Textured Lines](#) on page 122
- [Hiding the Line Texture](#) on page 124
- [Adjusting the Line Texture Opacity](#) on page 125

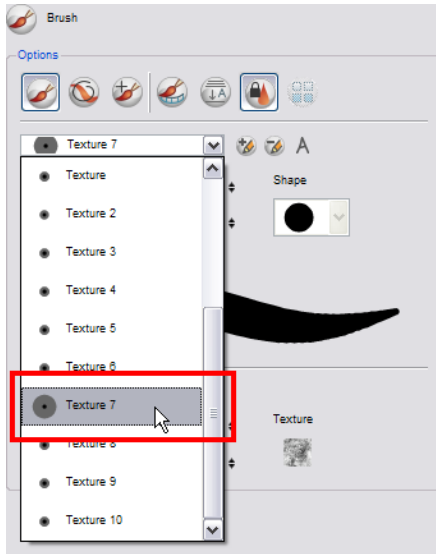
How to Draw with Texture

To draw with textured lines, use the **Brush** tool and the correct pen in the list. You can also draw with pencil line texture—see [Pencil Line Texture](#) on page 86

To draw with textured lines:

1. In the **Tool** toolbar, select the **Brush**  tool or press [Alt] + [B].


2. In the Tool Properties view, select a textured brush from the **Pen** drop-down list.



3. In the Camera or Drawing view, start drawing.

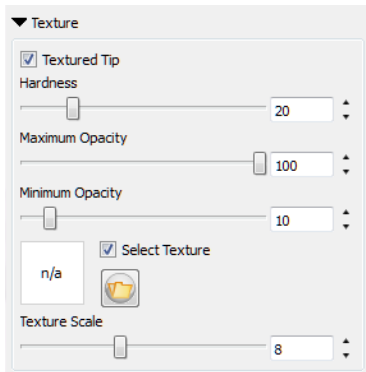


To draw with textured lines:

1. In the Tools toolbar, select the Brush  tool or press [Alt]+[B].
2. In the Tool Properties view, select a brush and click the Arrow button to open the Brush Properties view.



3. In the Texture section, select the **Select Texture** option.



4. Set the following parameters:

- ▶ **Hardness:** The hardness value corresponds to the smoothness of the line edge. The lower the value, the more blurry and smooth the line edge will be. The higher the value, the sharper the line edge will be.



- ▶ **Minimum Opacity:** This value corresponds to the transparency of the brush when the pressure is very light. Values closer to 0 produce a more transparent line.



- ▶ **Maximum Opacity:** This value corresponds to the transparency of the brush when the pressure is heavy. Values closer to 1 produce a more opaque line.
- ▶ **Select Texture:** Lets you use and select a texture for your brush. The thumbnail displays the texture currently in use. You can also browse for a texture file to import. Browsing for a texture file in a brush already using texture will replace the file currently in use, although it will not replace the texture in the lines already drawn.



- ▶ **Texture Scale:** Changes the size of the texture in the lines you draw. If you are using a plaid texture, the squares will be larger if you increase the value and smaller if you decrease it.



5. In the Camera or Drawing view, start drawing.

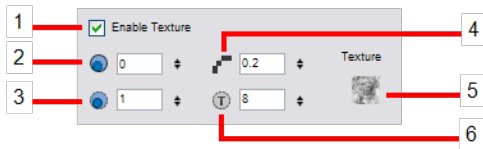


Related Topics

- [Drawing with the Brush Tool on page 101](#)
- [Pencil Line Texture on page 86](#)

Adjusting the Line Texture Parameters

In the Brush Tool Properties view, there are a number of parameters you can use to adjust the look and feel of your textured brush.



1. Enable Texture: When selected, allows your brush to draw with texture. When deselected, the brush will trace fully vector based lines.

2. Minimum Opacity: This value corresponds to the opacity of the brush when the pressure is very light. The closer to zero the value is, the more transparent the line will be.



3. Maximum Opacity: This value corresponds to the opacity of the brush when the pressure is heavy. The closer to 1 the value is the more opaque the line will be.

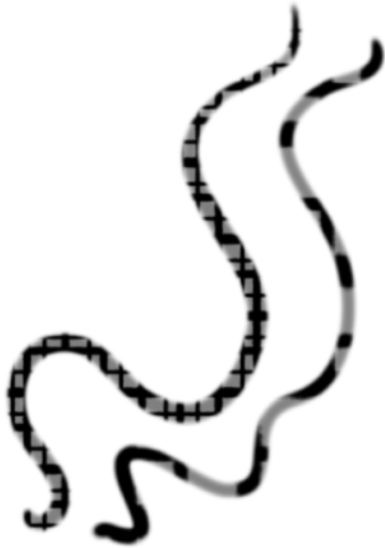
4. Hardness: The hardness value corresponds to the smoothness of the line edge. The lower the value, the more blurry and smooth the line edge will be. The higher the value, the sharper the line edge will be.



5. Texture File: The Texture File button displays the texture currently in use or allows you to browse for a texture file to import. Browsing for a texture file in a brush already using texture will replace the file currently in use, although it will not replace the texture in the lines already drawn.



6. Texture Scale: This value changes the size of the texture file in the line. If you are using a plaid texture, the squares will be larger if you increase the value and smaller if you decrease it.



Related Topics

- [Drawing with Line Texture](#) on page 115

Creating Texture Brushes

To create your own texture brush, you must prepare your texture file in a third-party software, such as Adobe Photoshop. If your image has transparency in it, it will be supported. The texture file must be either a PSD or TGA file.



It is recommended that you maintain your texture resolution between 100 x 100 pixels and 400 x 400 pixels.

To create your own texture brush:

1. In the Tools toolbar, select the **Brush**  tool or press [Alt] + [B].
2. In the Tool Properties view, click the **New Brush**  button to add a new brush to your list.

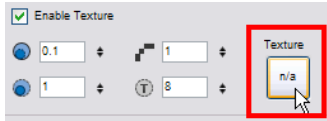
In the Texture section, select the **Enable Texture** option.



3. Click the **Texture File** button and browse for your bitmap texture file.



The image colour will not be used, only the pattern in it.




4. In the Camera view, draw some lines and adjust the parameters to fit the style you are looking for. Note: your pen list will be automatically saved.

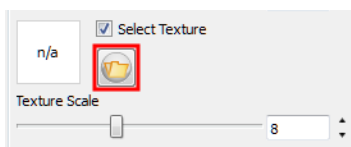
To create your own texture brush, you must prepare your tiled texture file in a third-party software, such as Adobe Photoshop. If your image has transparency in it, it will be supported. The texture file must be either a .PSD or .TGA file.



It is recommended that you maintain your texture resolution between 100 x 100 pixels and 400 x 400 pixels.

To create a texture brush:

1. In the Tools toolbar, select the Brush  tool or press [Alt]+[B].
2. In the Texture section, do one of the following:
 - On a bitmap layer, select the **Textured Tip** option and then select the **Select Texture** option.
 - On a vector layer, select the **Select Texture** option.
3. In the Texture section, select the **Select Texture** option.
4. Click the Folder button and browse for a bitmap texture file.



5. In the Tool Properties view, click the New Brush  button to add a new brush to your list.



The colour of your texture will not be used. Instead, the dark and light areas will be used to determine the alpha in your texture. The current colour swatch will be used in conjunction with the pattern and alpha in your texture.

6. In the StageCamera or Drawing view, draw some lines and adjust the parameters to fit the style you are looking for.


Related Topics

- [Drawing with Line Texture](#) on page 115

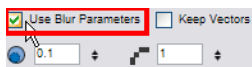
Erasing Textured Lines

When you use the **Eraser** tool to erase a portion of a textured line, the vector frame is cut straight and you lose the feather created while drawing with the **Brush** tool. In Toon Boom Harmony, a special option in the **Eraser** tool lets you create a soft edge on your textured lines. You can also cut or keep the vector frame as is.

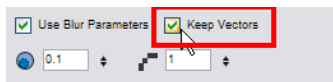
To erase textured lines:

1. In the Tools toolbar, select the **Eraser**  tool, press [Alt] + [E].

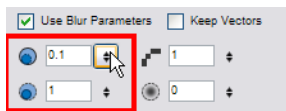
2. In the Tool Properties view, select the **Use Blur Parameters** option.



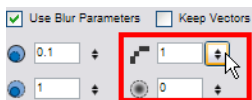
3. While erasing, select the **Keep Vectors** option to keep your vector frames and not cut them.



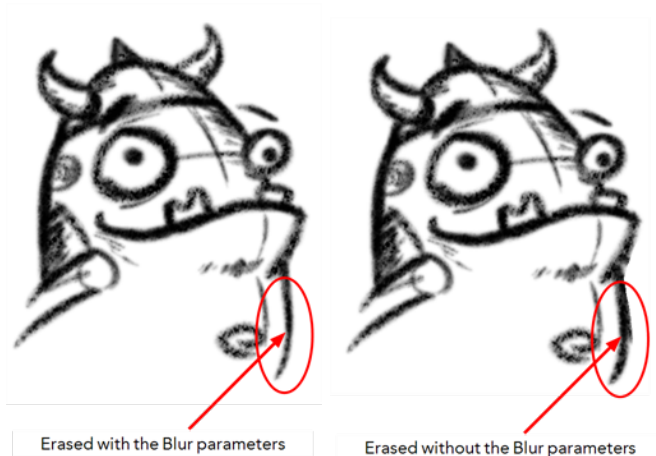
4. Adjust **Minimum Opacity** and **Maximum Opacity** parameters of the eraser to change the transparency of the erasing trail as you press harder on the pen tablet.



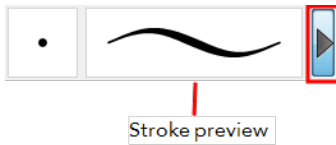
5. Adjust the **Hardness** and **Eraser Saturation** parameters of the eraser to control the amount of smoothness and the size of the feather edge.



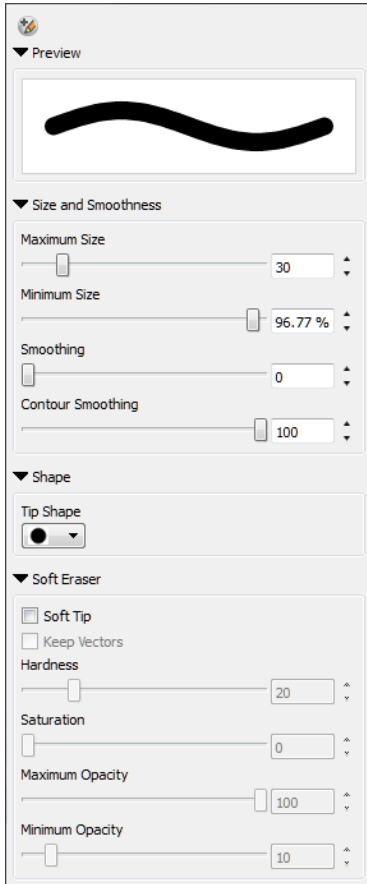
6. In the Camera or Drawing view, erase your textures lines.



7. In the Tool Properties view, click the arrow button.

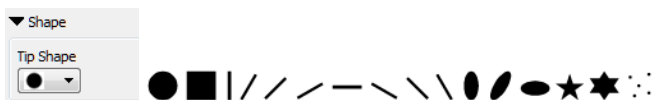


The Brush Properties panel opens.



8. Adjust the following:

- ▶ **Maximum/Minimum Size:** Defines the minimum and maximum width of the stroke.
- ▶ **Smoothing:** Defines the number of control points added to the centre line.
- ▶ **Contour Smoothing:** Defines the number of control points added to the contour boundaries (around the line). Lower values mean that the line will appear as you draw it (with more control points added along the centre line). Higher values mean that the line will be smoothed out (removing control points from the centre line).
- ▶ **Tip Shape:** Lets you select a shape for the tip of the eraser. There are a variety of tips to choose from: round, square, oval, star-shaped and more.



- ▶ **Soft Tip:** Gives the tip of your stroke a soft edge.
- ▶ **Keep Vectors:** Keeps your vector frames and does not cut them.
- ▶ **Hardness:** The hardness value corresponds to the smoothness of the line edge. The lower the value, the more blurry and smooth the line edge will be. The higher the value, the sharper the line edge will be.

- **Saturation:** Corresponds to the intensity of line color.
 - **Maximum Opacity:** Corresponds to the transparency of the brush when the pressure is heavy. Values closer to 1 produce a more opaque line.
 - **Minimum Opacity:** Corresponds to the transparency of the brush when the pressure is very light. Values closer to 0 produce a more transparent line.
9. In the Camera or Drawing view, erase your textures lines.

Related Topics

- [Drawing with Line Texture](#) on page 115

Hiding the Line Texture



Sometimes you need to hide the line texture to see the complete vector frame around your lines. This is useful to help you see any dirt floating around your drawing.




To hide the line texture, you must deselect the **Real-Time Antialiasing** option. In the top menu, select **Edit > Preferences** (Windows/Linux) or **Stage > Preferences** (Mac OS X) and in the OpenGL tab, deselect the **Enable** option in the **Real-Time Antialiasing** section. The default shortcut is [Ctrl] + [Alt] + [A] (Windows/Linux) or [⌘] + [Alt] + [A] (Mac OS X).



To hide the line texture in the **Camera** view, you must enable the **Show Drawing on Top** option. In the top menu, select **View > Show > Current Drawing on Top**. Refer to the [Show Current Drawing on Top on page 1](#) section to learn more about this option.

To hide the line texture:

1. Make sure the real-time antialiasing is deselected. If you are in the Camera view, select the **Show Current Drawing on Top** option.

- In the Camera or Drawing View  menu, select **View > Show > Hide Line Texture** or press [Ctrl] + [Shift] + [H] (Windows/Linux) or [⌘] + [Shift] + [H] (Mac OS X).

Related Topics

- [Drawing with Line Texture on page 115](#)

Adjusting the Line Texture Opacity



At some point, you may want to modify the look of a textured drawing. Maybe you find that your line is too smooth or too faint. You can adjust those parameters by using the **Adjust Line Texture Opacity** command.



To adjust the line texture, you must deselect the **Real-Time Antialiasing** option. In the top menu, select **Edit > Preferences** (Windows/Linux) or **Stage > Preferences** (Mac OS X) and in the **OpenGL** tab, deselect the **Enable** option in the **Real-Time Antialiasing** section. The default shortcut is [Ctrl] + [Alt] + [A] (Windows/Linux) or [⌘] + [Alt] + [A] (Mac OS X).

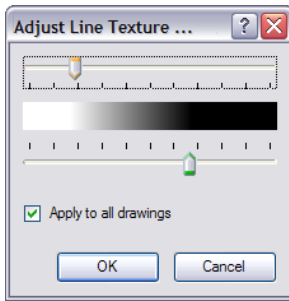


To be able to adjust the line texture in the **Camera** view, you must select the **Show Drawing on Top** option. In the top menu, select **View > Show > Current Drawing on Top**.

Refer to the [Show Current Drawing on Top on page 1](#) section to learn more about this option.

To adjust the line texture opacity:

- Make sure that real-time antialiasing is deselected. If you are in **Camera** view, select the **Show Current Drawing on Top** option.
- In the Timeline or Xsheet view, select the drawing whose opacity you want to adjust.
- In the Camera or Drawing view menu, select **Drawing > Adjust Line Texture Opacity**.
The Adjust Line Texture Opacity dialog box opens.

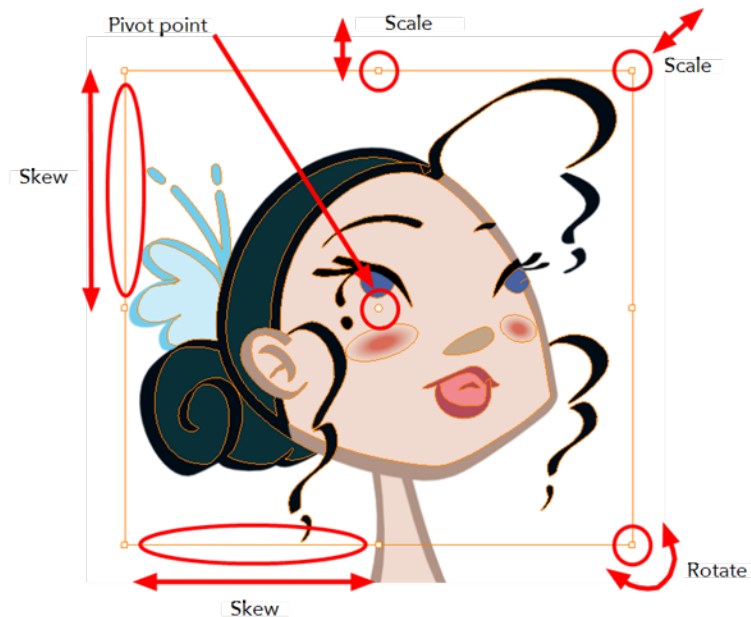



4. Drag the sliders toward the middle to increase the contrast and opacity of the textured lines.
5. If you want to apply the changes to all drawings exposed on the layer, select the **Apply to All Drawings** option and click OK.

Related Topics


- [Drawing with Line Texture](#) on page 115

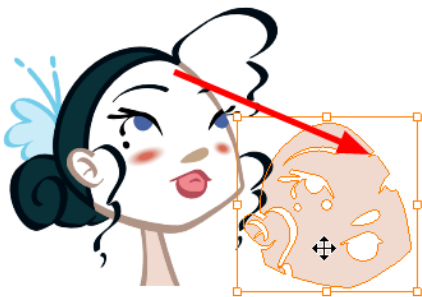
Selecting Drawing Objects



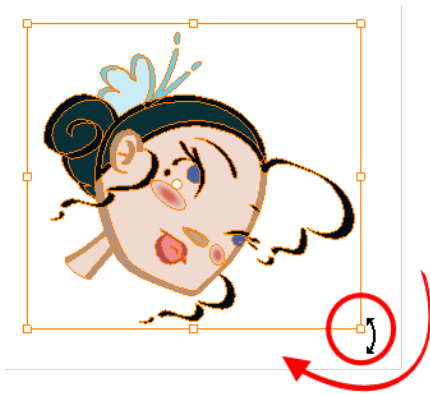
The **Select**  tool is used to select drawing strokes in both the Drawing and Camera views, and apply basic transformations, such as repositioning, rotating, scaling or skewing, using the different handles of the bounding box.

To select with the Select tool:

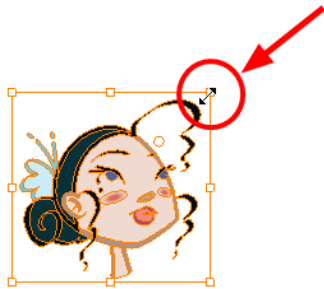
1. In the Timeline view, select the cell on which you want to select drawing objects.
*In Harmony Paint, select a drawing in the **Drawing** panel.*
2. In the Tools toolbar, select the **Select**  tool or press [Alt] + [S].
3. In the **Camera** or **Drawing** view, select the drawing objects.
 - You can select all the drawing objects in a drawing by using the **Select All** command or press [Ctrl] + [A] (Windows/Linux) or [⌘] + [A] (Mac OS X).
4. To deform or reposition a selection:
 - To **reposition**, click on the selected drawing object and drag the selection to a new area.



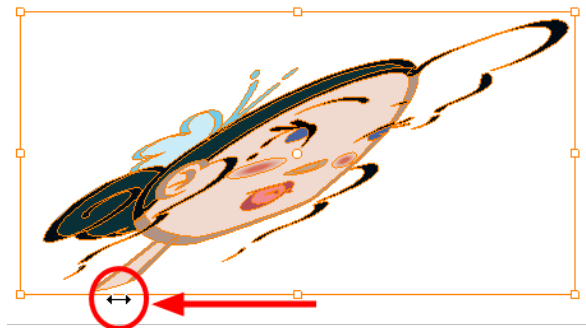
- To **rotate**, grab the selection box handle and rotate it.



- ▶ To **scale**, pull or push either on the top, side, bottom or corner control point. Hold down [Shift] to lock the selection's ratio.



- ▶ To **skew**, drag sideways or up and down the sides or top and bottom segments, between the control points.



Inverting a Selection

Not available in Harmony Paint.

Sometimes, when you want to select multiple objects, while leaving one unselected, it can be handy to select only the stroke, or line, that you do not want included in your selection. Then, you can invert that selection so that everything else becomes selected. This can be quite a time saver.

To invert a selection:

1. From the top menu, select **Edit > Invert Selection** or press [Ctrl] + [Shift] + [I] (Windows/Linux) or [⌘] + [Shift] + [I] (Mac OS X).




You can also find the **Invert Selection** option in the **Camera View** or **Drawing View** menu by selecting **Edit > Invert Selection**.

Related Topics

- [Repositioning a Pivot Point](#) below
- [Selection on Single or Multiple Layers](#) on the next page
- [Select Tool Properties](#) on the next page

Repositioning a Pivot Point

Some of the transformations such as rotation, scale, skew and flip, are done relative to the position of the pivot point. You can temporarily reposition this pivot point for a transformation using the **Select**  tool.

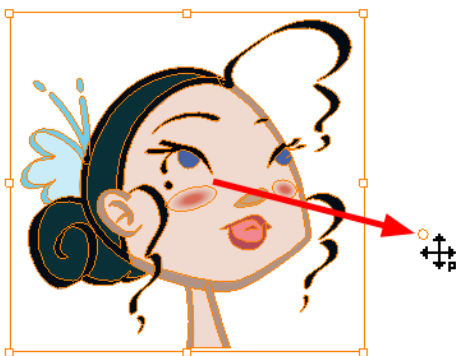
To temporarily reposition the pivot point:

1. In the Camera or Drawing view, select the drawing object you want to transform.
The pivot point appears in the middle of your selection.



2. Click the pivot point and drag it to a new position.

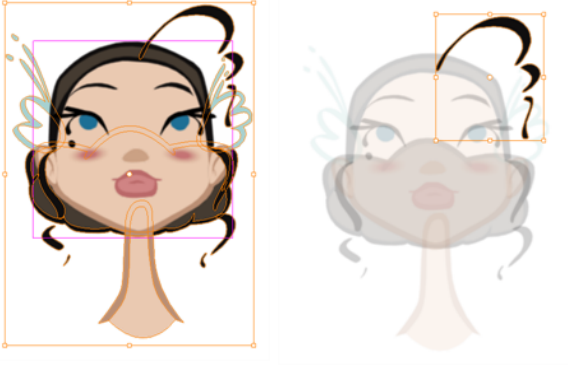
This becomes the new position of the pivot point for the current transformation and will remain there until you make a new selection.



Related Topics


- [Selecting Drawing Objects on page 127](#)
- [Select Tool Properties below](#)

Selection on Single or Multiple Layers



By default, when you draw a selection box in the Camera view, the Select tool will select all the drawing strokes and symbols in its path. If you would prefer the Select tool to only select the current drawing and not the other visible drawings, you can enable the Select Tool Works on Single Drawing preference.

To enable the Select Tool Works on Single Drawing preference:

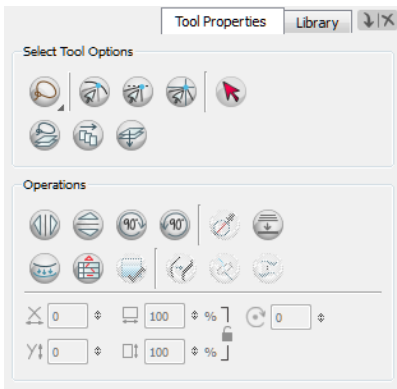
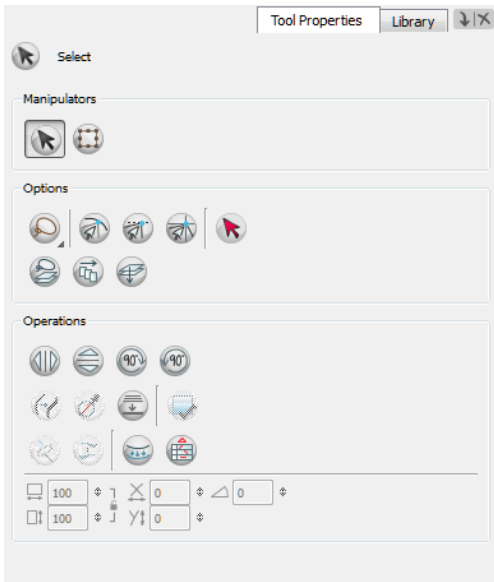
1. In the top menu, select **Edit > Preferences** (Windows/Linux) or **Stage > Preferences** (Mac OS X). The Preferences dialog box opens.
2. In the Camera tab, go to the **Tools** section and select the **Select Tool Works on Single Drawing** preference and click OK.
3. In the Tools toolbar, select the **Select**  tool or select [Alt] + [S].
4. In the Camera view, select your drawing.

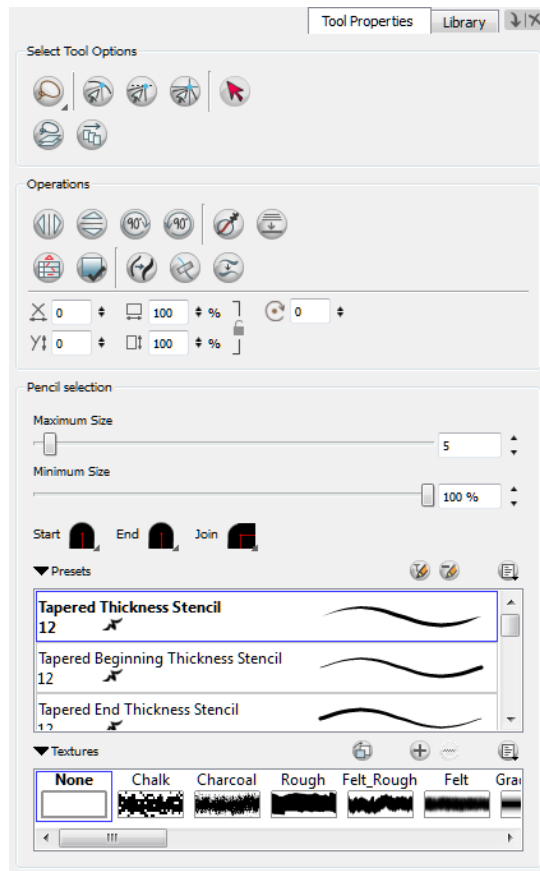
Related Topics

- [Selecting Drawing Objects on page 127](#)
- [Select Tool Properties below](#)

Select Tool Properties

When you choose the **Select**  tool, its properties and options appear in the Tool Properties view.





Related Topics

- [Manipulators](#) on the facing page
- [Lasso and Marquee](#) on the facing page
- [Snap Options](#) on the facing page
- [Permanent Selection](#) on page 134
- [Apply to All Drawings in Layer](#) on page 135
- [Apply to All Visible Drawings](#) on page 135
- [Apply to Line and Colour Art](#) on page 135
- [Select by Colour](#) on page 136
- [Flip Horizontal and Vertical](#) on page 136
- [Rotate 90 Degrees CW and CCW](#) on page 137
- [Pencil to Brush](#) on page 137
- [Smooth](#) on page 137
- [Flatten](#) on page 138
- [Store Colour Gradient](#) on page 138
- [Merge Pencil Lines](#) on page 138
- [Reverse Pencil Thickness](#) on page 139

- [Create Colour Art from Line Art](#) on page 139
- [Distribute to Layers](#) on page 140
- [Width and Height](#) on page 140
- [Offset X and Y](#) on page 141
- [Angle](#) on page 141
- [Adjusting the Pencil Line Thickness](#) on page 141
- [Adjusting the Pencil Line Style](#) on page 141
- [Pencil Stencils](#) on page 142
- [Adding Texture to a Pencil Line](#) on page 142
- [Adjusting the Text Selection](#) on page 142

Manipulators

Choose between the **Select** tool and the **Transform** tool. This is a fast way to switch between the **Select** tool and **Transform** tool selection mode.




Lasso and Marquee

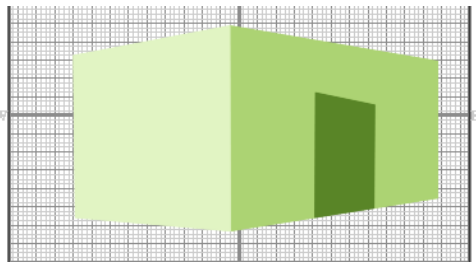
Choose between the **Lasso**  and **Marquee**  options to change the selection style of the tool.

- Click and hold [Alt] to temporarily switch from the current mode to the other.



Snap Options

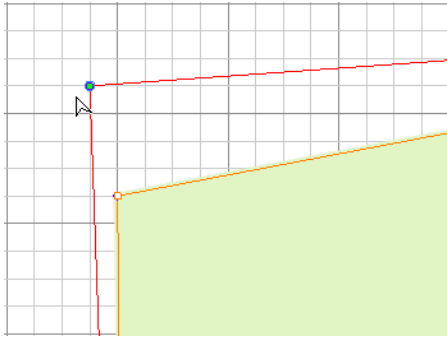
You can enable different snapping modes to help you when repositioning your drawings using the **Select** tool.

-  **Snap to Contour:** Snaps your selection or point to any line you position it on. As soon as you move it close enough to another line, your point or selection will snap to it.
-  **Snap and Align:** 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.
-  **Snap to Grid:** Snaps your selection following the currently enabled grid.



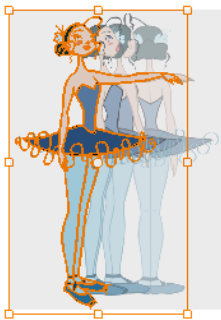
To snap to grid:


- Select **View > Grid > Show Grid** to display the grid in the **Camera** or **Drawing** view or press [Ctrl] + ['] (Windows/Linux) or [⌘] + ['] (Mac OS X).
 - Select **View > Grid > Square Grid, 12 Field Grid** or **16 Field Grid** for your current needs.
1. In the Tools toolbar, select the **Contour Editor**  tool or press [Alt] + [Q].
 2. In the Contour Editor Tool Properties view, click the **Snap to Grid**  button.
 3. In the Camera or Drawing view, click on an anchor point you want to snap following the grid, and drag it to the desired position and release.



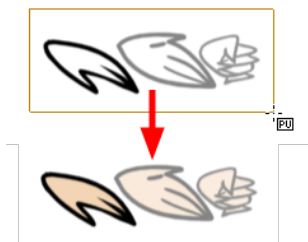
Refer to the [Grid on page 202](#) topic to learn more about the **Grid** feature.


Permanent Selection



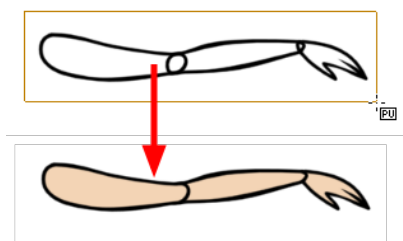
The **Permanent Selection**  option is used to maintain a selection over multiple drawings. Once this option is enabled, the selection zone made using the **Select** tool will remain as you navigate through drawings from a layer and drawings from other drawing layers. This option can be used to simultaneously delete artwork inside or outside of the selection on several drawings when combined with the **Apply to Multiple Drawings** option.


Apply to All Drawings in Layer




The **Apply to All Drawings in Layer**  option is used to perform an action on all the drawings contained in a layer. For example, you could enable the option to paint a section on all the drawings simultaneously. The **Apply Tool to All Drawings** option must be activated before performing the action and will stay enabled only for the next action.

Apply to All Visible Drawings



The **Apply to All Visible Drawings**  option is used to perform an action on all the visible drawings in the Camera view. This option is not available in the Drawing view.

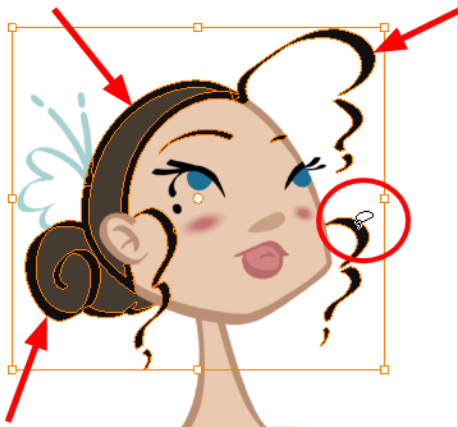
Apply to Line and Colour Art

The **Apply to Line and Colour Art**  option uses the concept of Line Art and Colour Art layers. Use this option to apply an action such as selecting or resizing a drawing on both Line Art and Colour Art layers, as well as the Overlay and Underlay layers.



To access the Apply to Line and Colour Art option, you must be in the Advanced Art mode—see [Drawing View on page 65](#).

Select by Colour





The **Select by Colour** mode lets you select all the zones in your drawing painted with the same colour.




Only the zones painted with the **SAME** colour swatch will be selected. If another zone is coloured with the exact same RGB value (same colour), but not painted with the same colour swatch, it will not be selected.

To select areas by colour:

1. In the Tools toolbar, select the **Select**  tool or press [Alt] + [S].
2. In the Tool Properties view, click the **Select by Colour**  button.
3. In the view, click on any zone in your drawing.
All zones of the same colour are selected.
4. Click the Select tool again to return to the regular Select mode.

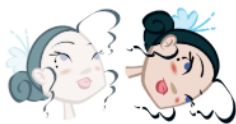
Flip Horizontal and Vertical



The **Flip Horizontal**  and **Flip Vertical**  operations flip the current selection horizontally or vertically.

From the top menu, select **Drawing > Transform > Flip Horizontal** and **Flip Vertical**.

Rotate 90 Degrees CW and CCW




The **Rotate 90 Degrees CW**  and **Rotate 90 Degrees CCW**  operations rotate the current selection 90 degrees clockwise or counter-clockwise.

From the top menu, select **Drawing > Transform > Rotate 90 Degrees CW** and **Rotate 90 Degrees CCW**.

Or press [Ctrl] + [7] and [Ctrl] + [9] (Windows/Linux) or [⌘] + [7] and [⌘] + [9] (Mac OS X).

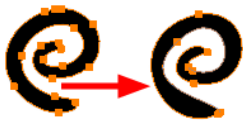
Pencil to Brush




The **Pencil to Brush**  operation converts the selected centreline pencil strokes into contour strokes brush lines.

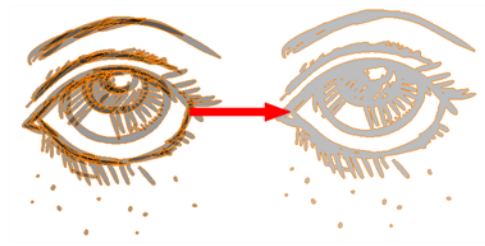
From the top menu, select **Drawing > Convert > Pencil Lines to Brush** or press [&].


Smooth



The **Smooth**  operation lets you smooth out selected drawing strokes and remove extra points. You can also access this feature through the top menu, by selecting **Drawing > Optimize > Smooth** or press [Alt] + [Shift] + [S].



Flatten



The **Flatten**  operation is used to merge drawing objects and brush strokes into a single layer. If you draw new lines to fix a drawing or a 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 repainting the lines or modifying their shape, it will be easier if they are flattened.

You can also access this feature through the top menu, by selecting **Drawing > Optimize > Flatten**. The [Alt] + [Shift] + [F].

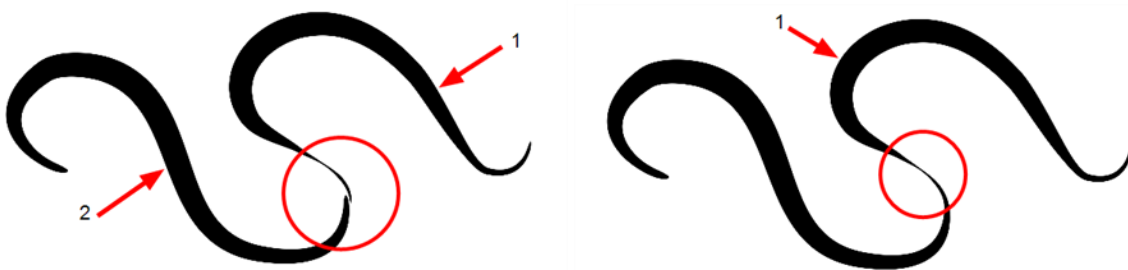
Store Colour Gradient


Use the **Store Colour Gradient**  operation to record the selected gradient's position. This reuses the stored position of the gradient when drawing new brush lines or painting colour zones. Enable the **Use Stored Colour Gradient**  option in the **Paint** or **Brush Tool Properties** view to do this.



Refer to [Drawing with the Brush Tool on page 101](#) or [Painting Using the Paint Tool on page 223](#) to learn how to use the **Use Stored Colour Gradient** option.

Merge Pencil Lines

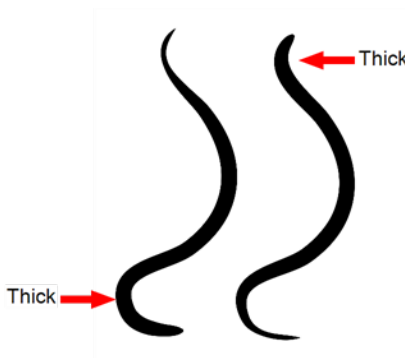



Pencil lines are central vector lines and it might be difficult to match pencil line's tips properly to align them and make it look like it is one single line. With the **Select** tool, you can select several pencil lines and merge them as one single object using the **Merge Pencil Lines**  option. It will take your lines and adjust the ends to form one single line.



Points have to be close enough to be merge. If there is a big gap between the lines, they will not be merged.

Reverse Pencil Thickness



The **Reverse Pencil Thickness**  option will invert the thick and thin section on a selected pencil line. This option will take the thickest size on the line and apply it to the thinnest, and it will apply the thinnest to the thickest.

Create Colour Art from Line Art

You can configure the **Create Colour Art from Line Art** option to suit your requirements.

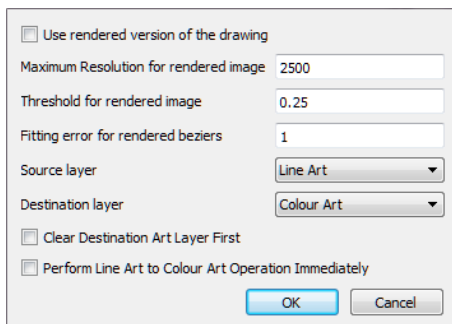


To access this option, you must be in the Advanced Art mode—see [Drawing View on page 65](#).

To configure the **Create Colour Art from Line Art** option:

1. In the Select tool Tool Properties view, [Shift] + click the **Create Colour Art from Line Art**  button.

The Configure Line Art to Colour Art dialog box opens.






- **Use rendered version of the drawing:** This option will render the drawing and vectorize it to calculate the position of the centreline that will produce the colour art stroke.

- ▶ **Maximum Resolution for rendered image:** The size of the rendered image.
- ▶ **Threshold for rendered image:** The value of grey processed to create the rendered vectorized arts.
- ▶ **Fitting error for rendered beziers:** This value represents how precise the fitting of the colour art zone in relation to the line art will be.
- ▶ **Source layer:** Select the layer (**Line Art**, **Colour Art**, **Underlay** or **Overlay**) you want the colour art to be created from.
- ▶ **Destination layer:** Select the layer (**Line Art**, **Colour Art**, **Underlay** or **Overlay**) you want the colour art to be created on.
- ▶ **Clear Destination Art Layer First:** Enable this option if you already have artwork on the destination layer and you want the content to be deleted before the colour art is added into it.
- ▶ **Perform Line Art to Colour Art Operation Immediately:** Enable this option to perform the **Create Colour Art from Line Art** command when you click OK.



Refer to [Line Art and Colour Art Layers](#) on page 253 to learn more about the **Line Art** and **Colour Art** concept.

Distribute to Layers

The **Distribute to Layers**  option is used to separate the selected art strokes and send them to new drawing layers. In the Camera view, once you have drawn your artwork, you can select the strokes you want to distribute using the **Select**  tool and click on the **Distribute to Layer**  button, you can also select **Drawing >**

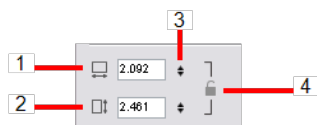
Distribute to Layer. It will automatically take every stroke from the drawing selection made in the **Camera** view and separate them into a different layer for each. If an artwork is composed of several strokes, you must group them using **Edit > Group > Group** before using the **Distribute to Layer** option. This option cannot be done from the **Drawing** view.



Refer to [Break Down: Distribute to Layers](#) to learn more about the **Distribute to Layer** option.

Width and Height

Use the **Width** and **Height** operation fields to enter specific values to resize the selected shape with precision.

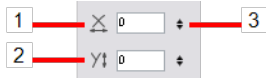


1. **Width:** Type a width value in this field to resize the width of your selection.
2. **Height:** Type a height value in this field to resize the height of your selection.
3. **Up/Down arrows:** Use the up and down arrows to modify the value contained in either the Width or Height value field.

4. **Lock icon:** Click on the lock icon to lock or unlock the ratio between the width and height values.

Offset X and Y

Use the **Offset X** and **Offset Y** operation fields to enter specific values and precisely reposition the selected shape.



1. **X:** Type an offset value in this field to reposition your selection along the X-axis.
2. **Y:** Type an offset value in this field to reposition your selection along the Y-axis.
3. **Up/Down arrows:** Use the up and down arrows to modify the value contained in either the X or Y value field.

Angle

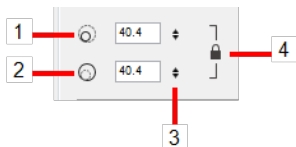
Use the **Angle** operation fields to enter specific values and accurately rotate the selected shape.



1. **Angle:** Type a degree value in this field to rotate your selection.
2. **Up/Down arrows:** Use the up and down arrows to modify the value contained in the **Angle** value field.

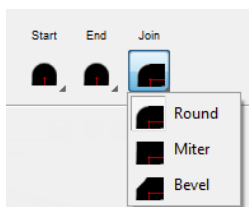
Adjusting the Pencil Line Thickness

Use the **Adjusting the Pencil Line Thickness** operation field to resize the selected centreline strokes. This operation is not permitted on contour line shapes, such as brush strokes or shape fills.



1. **Minimum Size:** Type a value in this field to set the minimum thickness of the selected centreline stroke.
2. **Maximum Size:** Type a value in this field to set the maximum thickness of the selected centreline stroke.
3. **Up/Down arrows:** Use the up and down arrows to modify the value contained in the Thickness value field.
4. **Lock Proportions:** Enable the Lock option for the minimum and maximum size to increase and decrease in proportion.

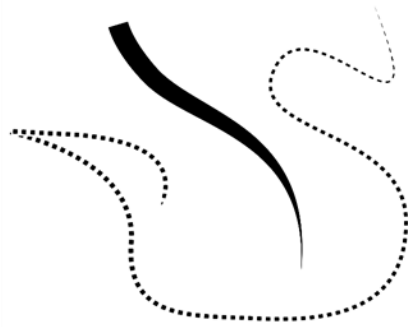
Adjusting the Pencil Line Style



You can adjust the start, end, and joint style of a selected pencil line.

- **Start:** Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.
- **End:** Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.
- **Join:** 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.

Pencil Stencils



Toon Boom Harmony gives you the flexibility to change the style and thickness of your pencil lines even after they are drawn. You can apply preset pencil stencils or create your own.



Refer to [Working with TemplatesThickness Stencils on page 81](#), [Creating a Pencil TemplateThickness Stencil with the Select Tool on page 83](#) and [Working with TemplatesThickness Stencils on page 81](#).

Adding Texture to a Pencil Line

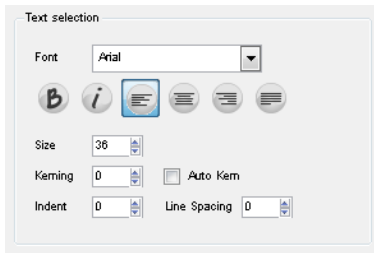
Pencil lines support texture. Once a pencil line is drawn, you can apply a preset texture or load your own. Textures are independent from pencil stencils.



Refer to [Pencil Line Texture on page 86](#), [Applying a Preset Texture to a Pencil Line on page 92](#) and [Creating a Pencil Texture Template with the Select Tool on page 89](#).

Adjusting the Text Selection

When you select text with the Select tool, the tool properties will display the Text tool options on the bottom of the view. You can also press [Alt] + [9] to display only the Text properties in the Tool Properties view.

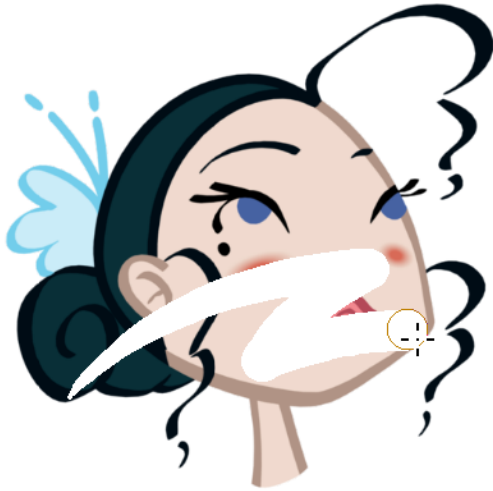


Refer to [Formatting the Text](#) on page 192 to learn more about the **Text** tool **Tool Properties**.

Related Topics

- [Drawing Using the Pencil Tool](#) on page 73
- [Pencil Tool Options](#) on page 74
- [Working with Templates Thickness Stencils](#) on page 81
- [Pencil Line Texture](#) on page 86

Erasing Parts of a Drawing




The **Eraser** tool is pressure sensitive, like the Brush tool, giving you more precision when erasing parts of a drawing.

To erase with the Eraser tool:

1. In the Timeline or Xsheet view, select the cell where you want to erase.
*In Harmony Paint, select a drawing in the **Drawing** panel.*



2. In the Tools toolbar, select the **Eraser**  tool or press [Alt] + [E].
3. In the Camera or Drawing view, start erasing.



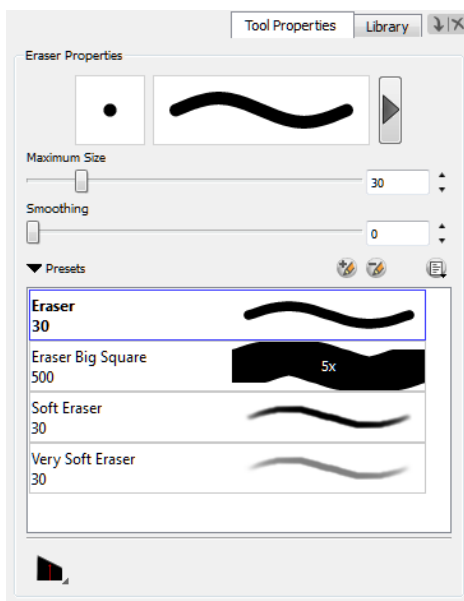
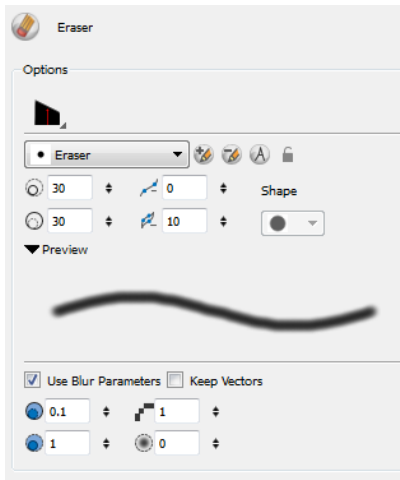
You can also use the Select tool to select drawing objects and delete them instead of erasing.

Related Topics

- [Eraser Tool Options](#) below
- [Selecting Drawing Objects](#) on page 127

Eraser Tool Options

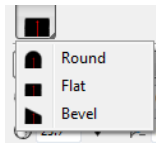
When you select the **Eraser**  tool, its properties and options appear in the Tool Properties view.



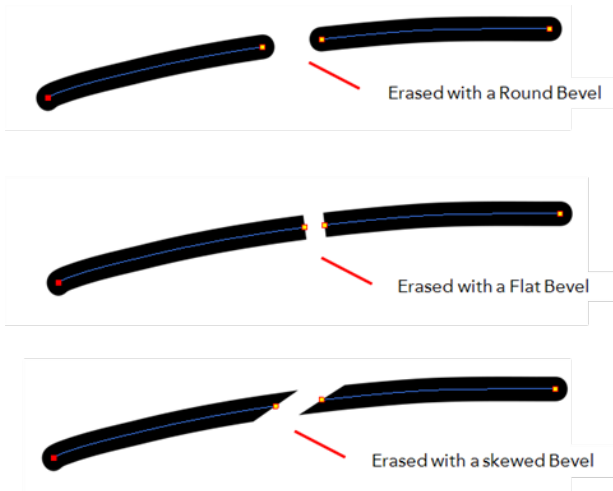
Related Topics

- [Tip Style](#) on the next page
- [Minimum and Maximum Size](#) on the next page
- [Central Line Smoothness](#) on the next page
- [Contour Optimization](#) on the next page
- [Eraser Tips](#) on page 147
- [Preview](#) on page 147
- [Eraser Styles](#) on page 148
- [Eraser Blur Parameters](#) on page 148

Tip Style

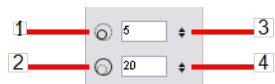


The Tip Style option affects the erased tip of pencil lines made with the Pencil, Ellipse, Rectangle, Line, and Polyline tools.




Minimum and Maximum Size

This is where you set the minimum and maximum sizes of your drawing tool which will produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.



1. **Minimum Size** field: Type a value in this field to set the minimum width of the line.
2. **Maximum Size** field: Type a value in this field to set the maximum width of the line.
3. **Up/Down arrows**: Use the up and down arrows to set the minimum size value.
4. **Up/Down arrows**: Use the up and down arrows to set the maximum size value.

Central Line Smoothness

You can modify the **Central Line Smoothness**  of your line using this option. This parameter smoothes the initial movement of your line. Increasing the value will result in a smoother line with fewer control points.

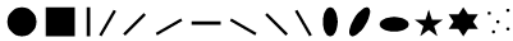
Contour Optimization

You can optimize the **Contour Line Smoothness** of you line using this option. This parameter will smooth the contour of your line once the line has been traced, the higher the value the less control points will compose your line.



1. **Smoothness** field: Type a value to set the smoothness of the line.
2. **Contour Optimization** field: Type a value to set the contour optimization of the line.
3. **Up/Down arrows**: Use the up and down arrows to set smoothness value.
4. **Up/Down arrows**: Use the up and down arrows to set the contour optimization value.

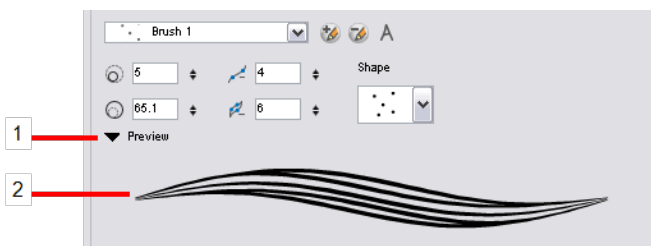
Eraser Tips



In this drop-down menu, you can find a variety of tip shapes from round and square ones to star shaped, select the one you need.

Preview

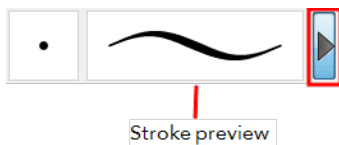
The Preview field lets you see a preview of the style that will be produced after you customize the different parameters in the Tool Properties view.



1. The **Arrow** button lets you show or hide the **Preview** area.
2. The **Preview** field is where the brush line is displayed.

Previewing the Stroke

The Preview area lets you see a preview of the stroke that will be produced after you customize the different parameters in the Tool Properties view.

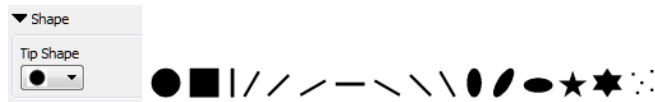


Maximum Size and Smoothing

This is where you set the minimum and maximum sizes of your drawing tool which will produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.

- ▶ **Maximum/Minimum Size**: Defines the minimum and maximum width of the stroke.
- ▶ **Smoothing**: Defines the number of control points added to the centre line.

- ▶ **Contour Smoothing:** Defines the number of control points added to the contour boundaries (around the line). Lower values mean that the line will appear as you draw it (with more control points added along the centre line). Higher values mean that the line will be smoothed out (removing control points from the centre line).
- ▶ **Tip Shape:** Lets you select a shape for the tip of the eraser. There are a variety of tips to choose from: round, square, oval, star-shaped and more.



- ▶ **Soft Tip:** Gives the tip of your stroke a soft edge.
- ▶ **Keep Vectors:** Keeps your vector frames and does not cut them.
- ▶ **Hardness:** The hardness value corresponds to the smoothness of the line edge. The lower the value, the more blurry and smooth the line edge will be. The higher the value, the sharper the line edge will be.
- ▶ **Saturation:** Corresponds to the intensity of line color.
- ▶ **Maximum Opacity:** Corresponds to the transparency of the brush when the pressure is heavy. Values closer to 1 produce a more opaque line.
- ▶ **Minimum Opacity:** Corresponds to the transparency of the brush when the pressure is very light. Values closer to 0 produce a more transparent line.

Brush Presets

Brush presets are created by saving the properties of the current brush to a new preset, which you can reuse for repeated tasks. You can create as many brush presets as you need.

Eraser Styles

The Eraser tool uses the same Brush Styles as the Brush tool. Toon Boom Harmony provides a variety of eraser styles and allows you to create and save your own. It is a good idea to create and save eraser brushes with precise sizes and parameters to draw and design—see [Brush Styles on page 109](#)

Eraser Blur Parameters

Since Toon Boom Harmony lets you draw with textured lines and create feathered edges on them, you may also want to erase with smooth edges instead of the solid vector based eraser. The Eraser Blur Parameters allow you to adjust the smoothness of your eraser for the textured lines—see [Erasing Textured Lines on page 122](#)

Reshaping a Drawing Using the Contour Editor Tool








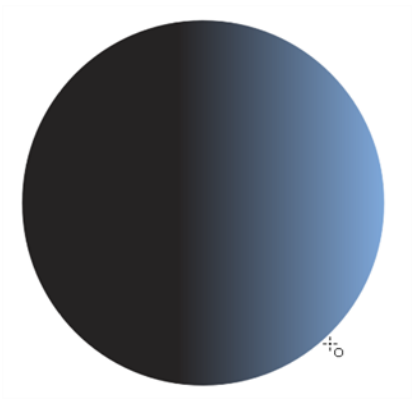
When drawing on vector layers, the Contour Editor Tool is powerful. It allows you to add, remove or modify points on a vector line and to control them with Bezier handles. It is used to correct line shapes and to modify a single part of a colour zone. If a line is too thin or has a gap in it, you can modify and correct it with the Contour Editor tool. This tool can also be used to create elaborate shapes.


The **Contour Editor** tool is powerful, it allows you to add, remove or modify points on a vector line and to control them with Bezier handles. It is used to correct line shapes and to modify a single part of a colour zone. If a line is too thin or has a gap in it, you can modify and correct it with the **Contour Editor** tool. This tool can also be used to create elaborate shapes.

The Contour Editor displays vector points around a shape and the central vector points in a pencil line. Pulling or pushing on these points adjusts the brush's line thickness. Points can be selected and deleted. Each point has two Bezier handles used to correct the curves between two points. Shapes can be modified by pulling and pushing directly on the segment between the points. You can use it to perfect a central shape pencil line, a contour shape brush line or even create an elaborate shape from a basic ellipse, or square.

To reshape with the Contour Editor tool:

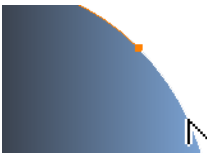
1. In the Timeline or Xsheet view, select the cell in which you want to draw. In the Timeline or Thumbnails view, select the cell and layer into which you want to draw.
*In Harmony Paint, select a drawing in the **Drawing** panel.*
2. In the Tools toolbar, select a shape    tool.
3. In the Tool Properties view, click the Ellipse  button, click the Auto Fill  button and set the pencil size to 0.
4. In the Drawing or Camera view, draw a circle.
5. In the Stage view, draw a circle.



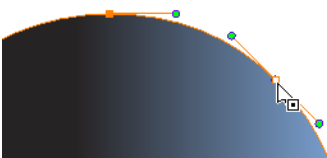
6. In the **Tools** toolbar, select the Contour Editor  tool.

7. In the Drawing or Camera view, click the line to reshape it.

8. In the Stage view, click the line to reshape it.



9. Select one or several points by clicking on them or circling around.

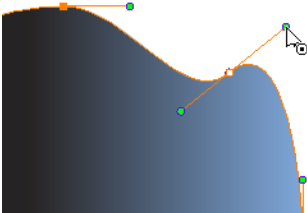


10. Press [Delete] to delete a selected point.

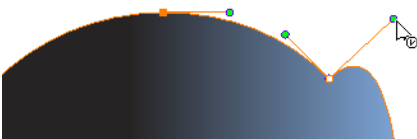
Press [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) and click on the contour to add a new point to adjust the contour.

11. To modify the shape, you can:

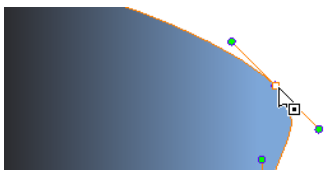
- ▶ Pull on the Bezier handle. Both point's handles will move as one.



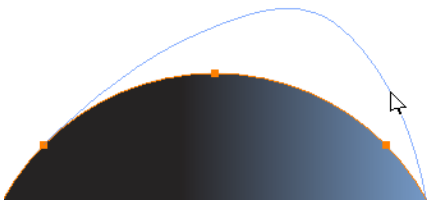
- ▶ Hold down the [Alt] key and pull on one of the Bézier handles. The point's handle will move independently from the other one.



- ▶ Move the selected points to a new area.



- ▶ Pull directly on the line between two points. No selection is necessary. Holding down the [Shift] key will limit the contour modification to the curve between the two first points.



- ▶ If an anchor point has no visible Bezier, hold down the [Alt] key to get them.



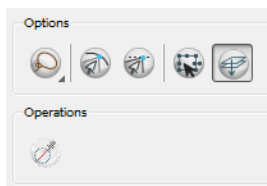
To add control points, press [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) and click the line.
To remove control points, select the control point and press [Delete].

Related Topics

- [Contour Editor Tool Properties](#) below

Contour Editor Tool Properties

When you select the **Contour Editor**  tool, its properties and options appear in the Tool Properties view.



These are the options available for the Contour Editor tool:

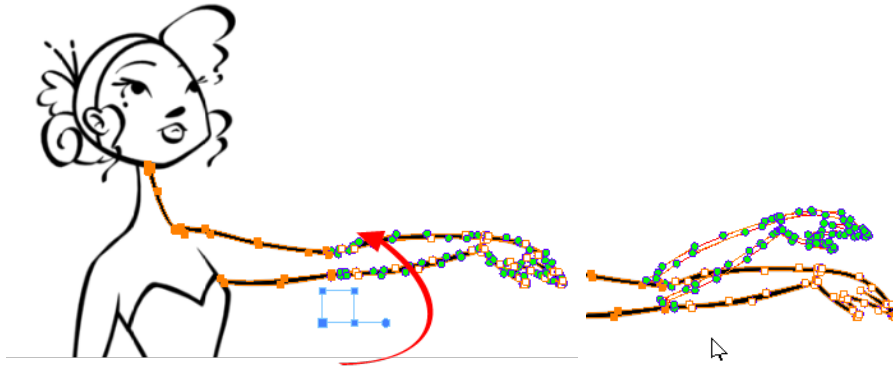
- [Lasso and Marquee](#) on the next page
- [Show Contour Editor Controls](#) on the next page
- [Apply to Line and Colour Art](#) on the next page
- [Snap to Contour](#) on the next page
- [Snap and Align](#) on page 153
- [Smooth Selection](#) on page 154


Lasso and Marquee

Choose between the **Lasso**  and **Marquee**  options to change the selection style of the tool.


- Click and hold [Alt] to temporarily switch from the current mode to the other.

Show Contour Editor Controls



Use the **Show Contour Editor Controls**  option to show the contour editor controls. You can use these controls to scale, reposition and rotate the selected anchor points.

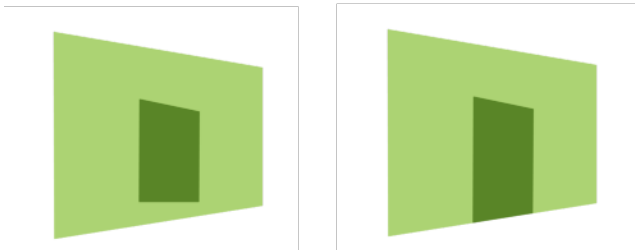
Apply to Line and Colour Art


The **Apply to Line and Colour Art**  option uses the concept of Line Art and Colour Art layers. Use this option to apply an action such as selecting or resizing a drawing on both Line Art and Colour Art layers, as well as the Overlay and Underlay layers.





To access this option, you must be in the Advanced Art mode—see [Drawing View on page 65](#).

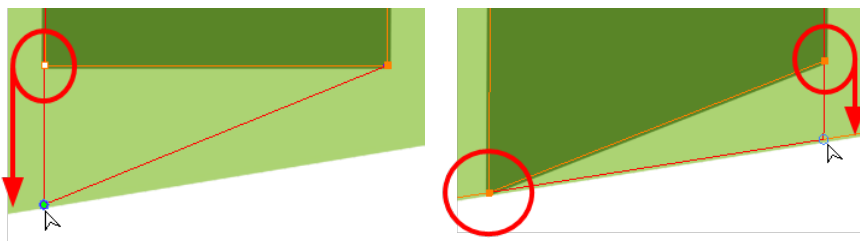
Snap to Contour



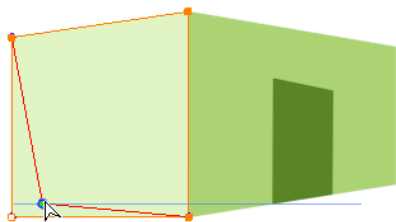
The **Snap to Contour**  option will snap the selected anchor point to any line you position it on.


To snap two shapes together:

1. In the Tools toolbar, select the **Contour Editor**  tool or press [Alt] + [Q].
2. In the Tool Properties view, click the **Snap to Contour**  button.
3. In the Camera or Drawing view, click on an anchor point you want to snap to the other shape, drag it on top of the contour line area and release it.





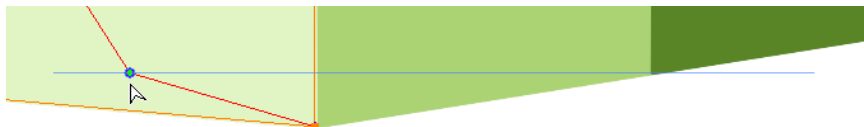
Snap and Align



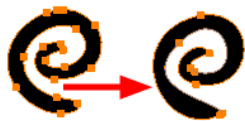
The **Snap and Align**  option lets you snap the selected anchor point to any existing line while displaying temporary rulers as a guide that you can also snap your anchor point to.


To snap and align:

1. In the Tools toolbar, select the **Contour Editor**  tool or press [Alt] + [Q].
2. In the Tool Properties view, click the **Snap and Align**  button.
3. In the Camera or Drawing view, click on an anchor point you want to snap, drag it until a ruler is displayed, position it on the ruler or on the contour line and release.



Smooth Selection

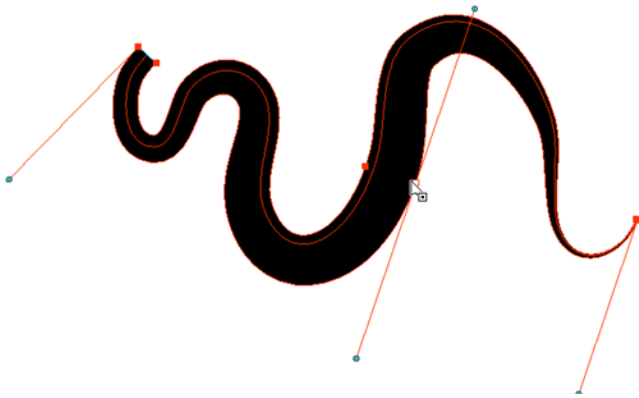



The **Smooth**  operation lets you smooth out selected drawing strokes and remove extra points. You can also access this feature through the top menu, by selecting **Drawing > Optimize > Smooth** or press [Alt] + [Shift] + [S].

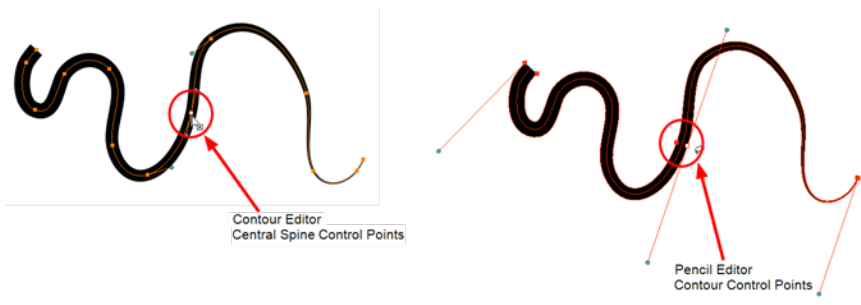
Related Topics

- [Reshaping a Drawing Using the Contour Editor Tool on page 149](#)


Reshaping Pencil Lines with the Pencil Editor Tool

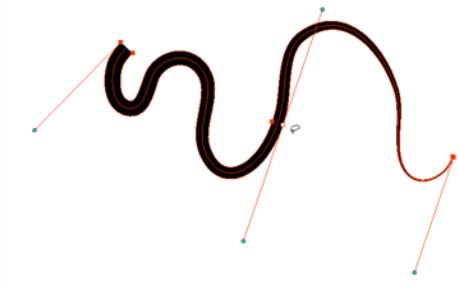


The **Pencil Editor**  tool is used to modify the thick and thin contour of a pencil line. A pencil line is a central vector shape. The shape control points are located all along the central spine allowing to adjust the stroke curve and position. When using the **Contour Editor** tool, you will be able to reposition the spine of the stroke. When using the **Pencil Editor** tool, you will be able to adjust the thick and thin areas of the line.

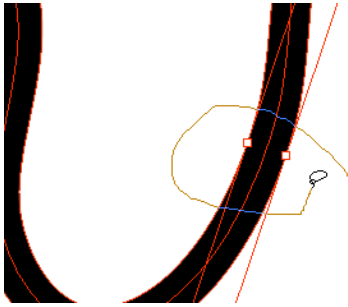


To use the Pencil Editor tool:

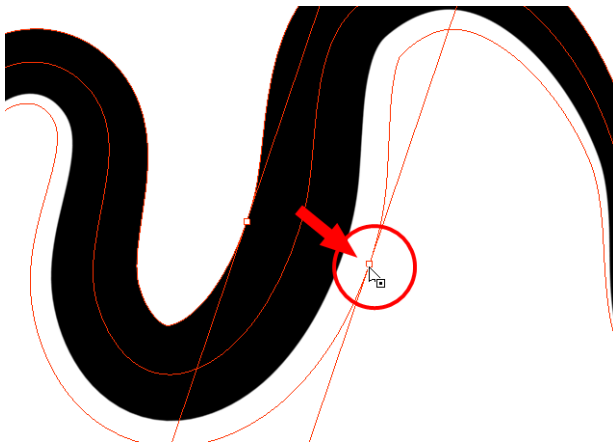
1. In the Tools toolbar, select the **Pencil Editor**  tool located in the **Contour Editor** drop-down menu or press [Alt] + [W].
2. In the Camera or Drawing view, select a pencil line and click the line to reshape it.



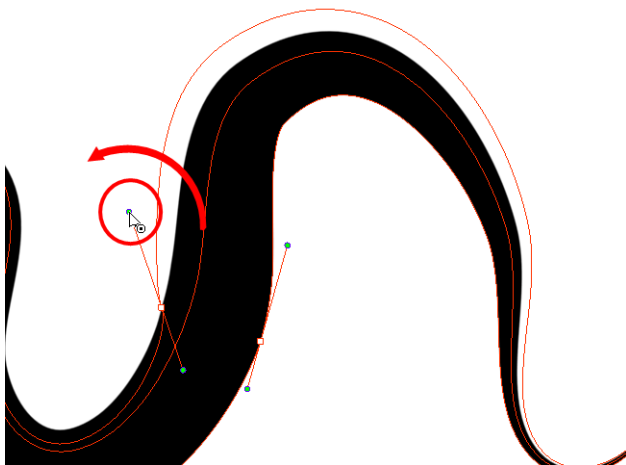
3. Select one or several points by clicking them or circling around.



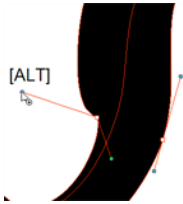
4. Press [Delete] to delete a selected point.
5. Press [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) and click the central spine to add a set of points to adjust the contour.
6. To modify the shape, you can:
 - Move the selected points to a new area. If you select matching points on each side of the line, holding the Shift key will move them both. This way you can thicken or thin a line from both side at the same time.



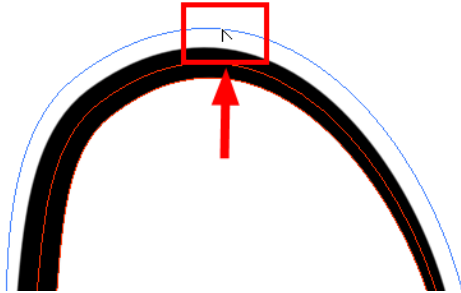
- Pull on the Bezier handle. Both points' handles will move as one.



- Hold [Alt] down and pull on one of the Bezier handles. The point's handle will move independently from the other one.



- ▶ Pull directly on the line in-between two points. No selection is necessary. Holding down the [Shift] key will limit the contour modification to the curve between the two first points.



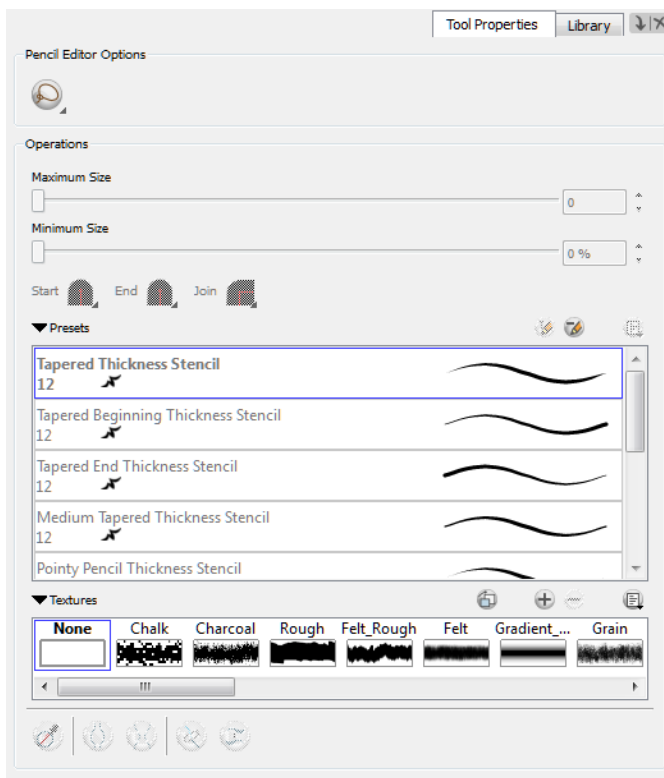
- ▶ If an anchor point has no visible Bezier, hold down the [Alt] key to get them.

Related Topics

- [Pencil Editor Properties](#) below

Pencil Editor Properties

When you select the **Pencil Editor** tool, its properties and options appear in the Tool Properties view.



These are the options available for the Pencil Editor tool:

- [Lasso and Marquee below](#)
- [Smooth below](#)
- [Pump Pencil Pressure below](#)
- [Deflate Pencil Pressure on the facing page](#)
- [Merge Pencil Lines on the facing page](#)
- [Reverse Pencil Thickness on the facing page](#)
- [Adjusting the Pencil Line Thickness on page 160](#)
- [Adjusting the Pencil Line Style on page 160](#)
- [Working with Templates Thickness Stencils on page 81](#)
- [Adding Texture to a Pencil Line on page 161](#)


Lasso and Marquee

Choose between the **Lasso**  and **Marquee**  options to change the selection style of the tool.

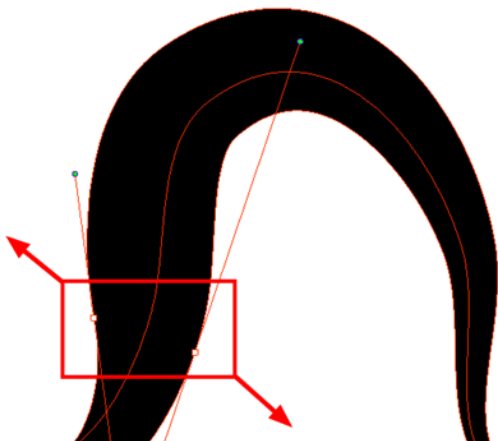
- Click and hold [Alt] to temporarily switch from the current mode to the other.


Smooth



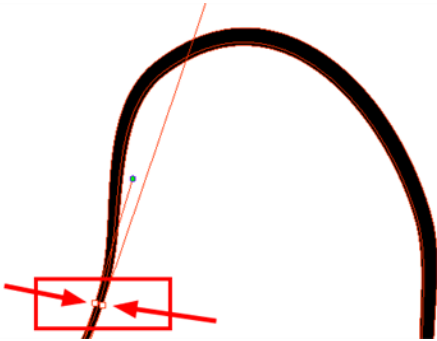
The **Smooth**  operation lets you smooth out selected drawing strokes and remove extra points. You can also access this feature through the top menu, by selecting **Drawing > Optimize > Smooth** or press [Alt] + [Shift] + [S].


Pump Pencil Pressure



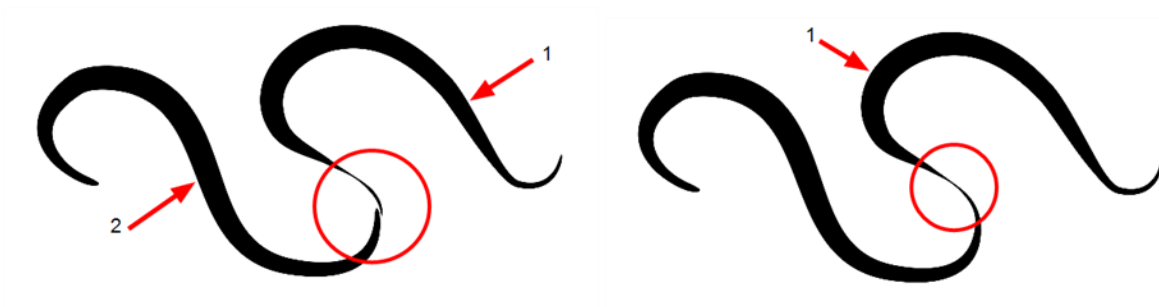
The **Pump Pencil Pressure**  option is used to increase the line thickness of a selected area on a pencil line.


Deflate Pencil Pressure



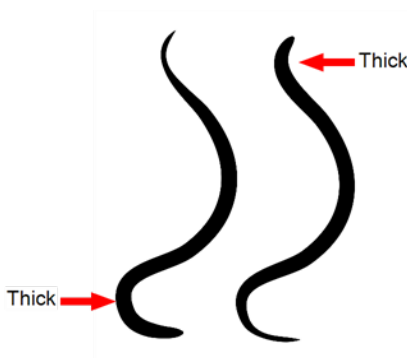
The **Deflate Pencil Pressure**  option is used to decrease the line thickness of a selected area on a pencil line.


Merge Pencil Lines



Pencil lines are central vector lines and it might be difficult to match pencil line's tips properly to align them and make it look like it is one single line. With the **Select** tool, you can select several pencil lines and merge them as one single object using the **Merge Pencil Lines**  option. It will take your lines and adjust the ends to form one single line.

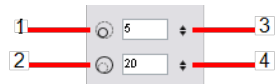
Reverse Pencil Thickness



The **Reverse Pencil Thickness**  option will invert the thick and thin section on a selected pencil line. This option will take the thickest size on the line and apply it to the thinnest, and it will apply the thinnest to the thickest.

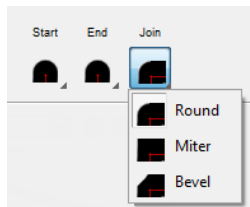
Adjusting the Pencil Line Thickness

This is where you set the minimum and maximum sizes of your drawing tool which will produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.



1. **Minimum Size** field: Type a value in this field to set the minimum width of the line.
2. **Maximum Size** field: Type a value in this field to set the maximum width of the line.
3. **Up/Down arrows**: Use the up and down arrows to set the minimum size value.
4. **Up/Down arrows**: Use the up and down arrows to set the maximum size value.

Adjusting the Pencil Line Style



You can adjust the start, end, and joint style of a selected pencil line.

- **Start**: Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.
- **End**: Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.
- **Join**: 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.

Pencil Templates Thickness Stencils



Toon Boom Harmony gives you the flexibility to change the style and thickness of your lines even after they are drawn. You can apply preset templatesthickness stencils or create your own.



Refer to [Working with TemplatesThickness Stencils on page 81](#), [Creating a Pencil TemplateThickness Stencil with the Select Tool on page 83](#) and [Working with TemplatesThickness Stencils on page 81](#).

Adding Texture to a Pencil Line

Pencil lines support texture. Once a pencil line is drawn, you can apply a preset texture or load your own. Textures are independent from Pencil templatesthickness stencils.



Refer to [Pencil Line Texture on page 86](#), [Applying a Preset Texture to a Pencil Line on page 92](#) and [Creating a Pencil Texture Template with the Select Tool on page 89](#).

Related Topics

- [Reshaping Pencil Lines with the Pencil Editor Tool on page 155](#)

Drawing with Shapes








In Toon Boom Harmony, you can use the shape tools to draw with circles, lines and squares. You can also easily reshape a square or circle into a much more complex drawing such as these butterfly wings.

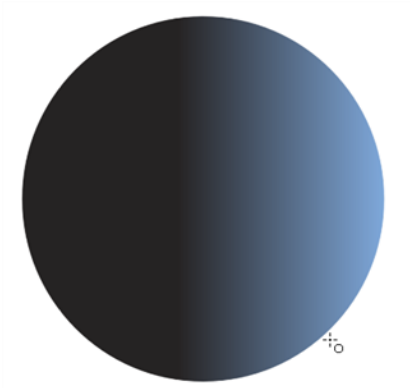
The Shape tools are used to draw rectangles, ellipses and lines. You can use them on both vector and bitmap layers. You can also easily reshape a square or circle into a much more complex drawing such as these butterfly wings.




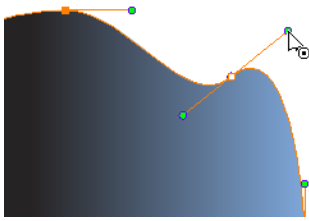
Refer to [Reshaping a Drawing Using the Contour Editor Tool on page 149](#) and [Reshaping Pencil Lines with the Pencil Editor Tool on page 155](#) topics to learn more about the Contour Editor and Pencil Editor tools.

To draw with a Shape tool:

1. In the Timeline or Xsheet view, select the cell where you want to draw.
1. In the Timeline or Thumbnails view, select the panel and layer on which you want to draw. *In Harmony Paint, select a drawing in the **Drawing** panel.*
2. In the Tools toolbar, select a shape    tool.
3. In the Tool Properties view, you can switch between the different shapes mode. In the Shape Tool Properties view, you can switch between the different shapes mode. Select either the **Ellipse**  or **Rectangle**  tool.
4. In the CameraStage view, click and drag your mouse to draw the shape.



- ▶ Hold down [Shift] to lock the rectangle or the ellipse ratio to 1:1.
 - ▶ Hold down [Alt] to draw the rectangle or ellipse from its centre.
 - ▶ Hold down [Shift] to snap the line every 15 degrees.
 - ▶ Hold down [Alt] to snap the starting or end point of the line to a close by stroke.
5. Use the **Contour Editor**  tool to deform your shape and create your drawing.

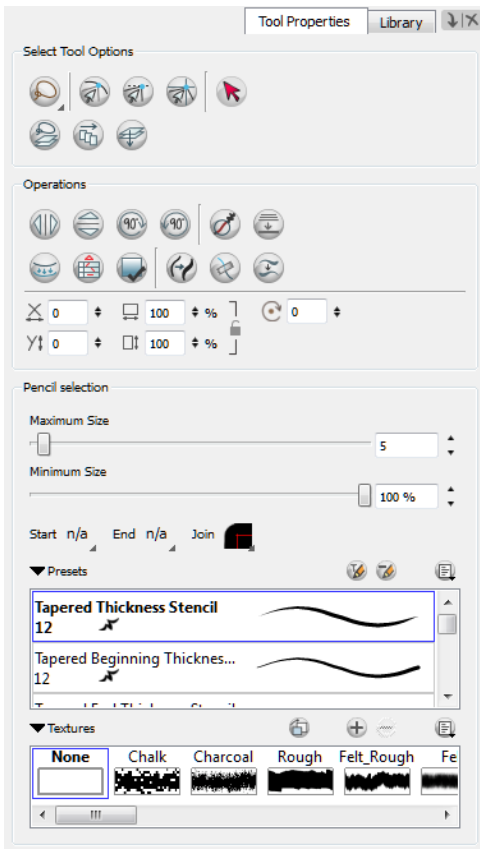
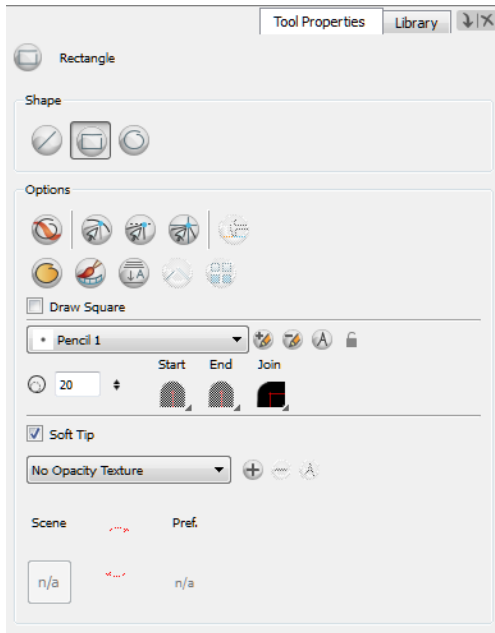


Related Topics

- [Shape Tool Options below](#)

Shape Tool Options

When you select a shape tool, its properties and options appear in the Tool Properties view.




These are the options available for the shape tools:

- [Line, Rectangle and Ellipse](#) on the facing page
- [Draw Behind](#) on the facing page
- [Snap Options](#) on the facing page
- [Line Building Mode](#) on page 166

- [Automatic Filling on the next page](#)
- [Create Colour Art Automatically on page 167](#)
- [Auto-Flatten Mode on page 167](#)
- [Auto-Close Gap on page 168](#)
- [Use Stored Colour Gradient on page 168](#)
- [Keep Proportion on page 168](#)
- [Pencil Templates on page 168](#)
- [Thickness Adjustment on page 169](#)
- [Adjusting the Pencil Line Style on page 169](#)
- [Applying Texture to a Pencil Line on page 169](#)

Line, Rectangle and Ellipse




Click on the  button corresponding to the shape you want. Click and drag your mouse to draw the selected shape. The shape tools create centre lines.

Using the **Ellipse** or **Rectangle** option, press [Shift] to create a perfect round or a perfect square and press [Alt] to create the shape from its centre.

Using the **Line** tool, press [Shift] to create a line which snaps-to every 15 degrees and then press [Alt] to connect the start or end point of that line to another nearby line. To create a curve in the line as you draw, hold down [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) and drag to create a bend in the line.




Draw Behind



When the **Draw Behind**  mode is enabled, the lines you draw will appear behind the art that already exists.

Snap Options

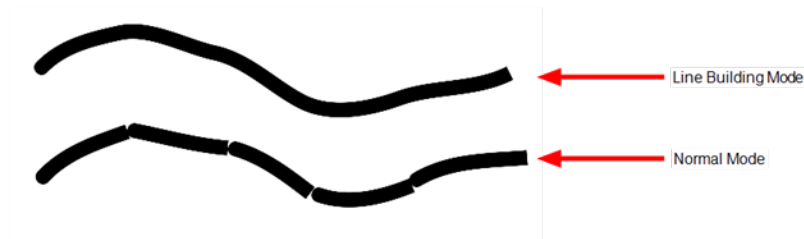
When drawing a shape, you can enable different snap modes to help you create your shape.


- The **Snap to Contour**  option snaps your shape to any line you position it on.
- The **Snap and Align**  option 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.
- The **Snap to Grid**  snaps your shape to the currently enabled grid.



Refer to the topic to learn more about the Grid feature.

Line Building Mode



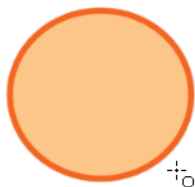
The **Line Building**  mode is very useful when drawing long lines and curves in small increments with pencil lines. As the pencil lines are central vector lines and it may be difficult to align the line tips perfectly to create a uniform stroke and close all gaps.


In this mode, you can draw lines in small increments and the tips merge into one single stroke.



This mode only works with pencil lines.

Automatic Filling

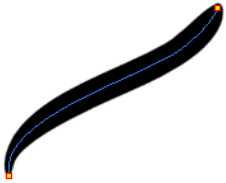


Use the **Automatic Filling**  option to automatically fill your shape with the selected colour as you draw. By default, the Shape tool creates the contour of an empty shape that you can later fill using the Paint tool.



Refer to [Selecting the Current Colour of a Tool](#) on page 221 to learn more about selecting a fill colour.

Create Colour Art Automatically



As you draw in the **Line Art** layer, the **Create Colour Art Automatically**  automatically creates the corresponding strokes in the **Colour Art** layer.

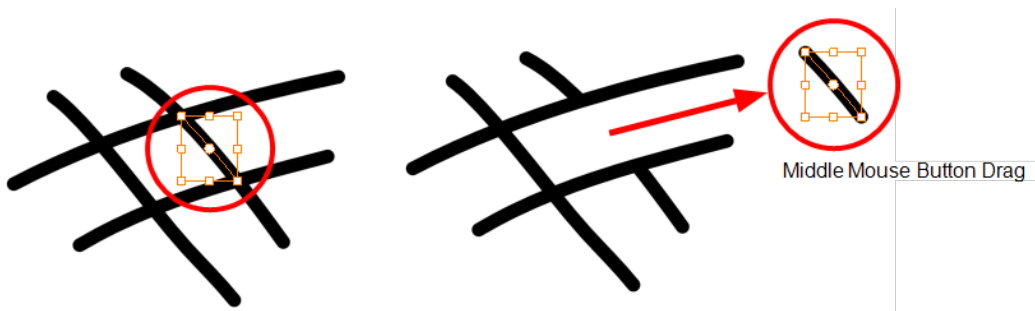


To access this option, you must be in the Advanced Art mode—see [Drawing View](#) on page 65.

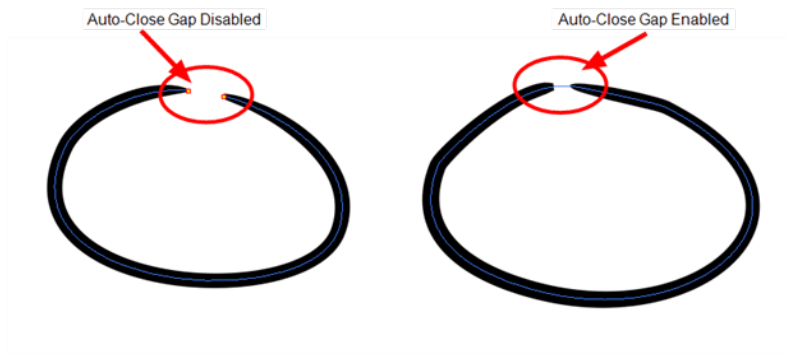
Auto-Flatten Mode


When enabled, the **Auto-Flatten** mode automatically flattens the new lines created with the existing artwork as you draw in the Drawing or Camera view. Brush strokes will flatten with brush strokes and pencil lines will flatten with pencil lines.

Using the **Select** tool, you can use the **middle** mouse button to select a segment of flattened pencil line. Use this technique to create a nice finish to lines and corners in your artwork.



Auto-Close Gap




When enabled, the **Auto-Close Gap**  mode automatically connects, with an invisible stroke, the pencil lines you draw close to each other in the Camera or Drawing view.

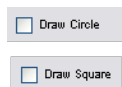


It is recommended to leave this option **ENABLED** when drawing with the Pencil tool.

Use Stored Colour Gradient

The **Use Stored Colour Gradient**  option makes your tool use the previously stored gradient position. This way, every new brush line or colour fill will use the stored gradient position.

Keep Proportion



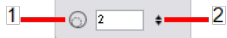
When the **Ellipse** or **Rectangle** mode is enabled in the **Tool Properties** view, the **Draw Circle** or **Draw Square** option appears. When selecting these options, the shape produced will either be a circle or a square. Holding down the [Shift] key as you create your shape will maintain proportion.

Pencil Templates

Toon Boom Harmony provides a variety of pencil templates 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.

You also have the possibility to apply different textures to your lines by either using the preset ones or importing your own—see [Working with Templates Thickness Stencils on page 81](#)

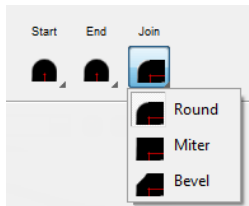
Thickness Adjustment



Use the **Size Adjustment** field to set the thickness of the shape's line.

1. **Size:** Type a value in this field to set the shape's line thickness.
2. **Up/Down arrows:** Use the up and down arrows to modify the value contained in the **Thickness** value field.

Adjusting the Pencil Line Style



You can adjust the start, end, and joint style of a selected pencil line.

- **Start:** Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.
- **End:** Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.
- **Join:** 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.

Applying Texture to a Pencil Line

Pencil lines support texture. Once a pencil line is drawn, you can apply a preset texture or load your own. Textures are independent from Pencil templates.

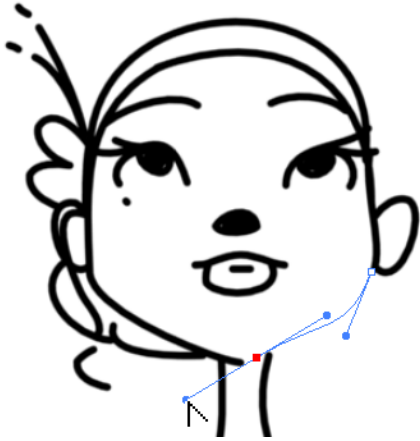


Refer to [Pencil Line Texture](#) on page 86, [Applying a Preset Texture to a Pencil Line](#) on page 92 and [Creating a Pencil Texture Template with the Select Tool](#) on page 89.

Related Topics


- [Working with Templates Thickness Stencils](#)

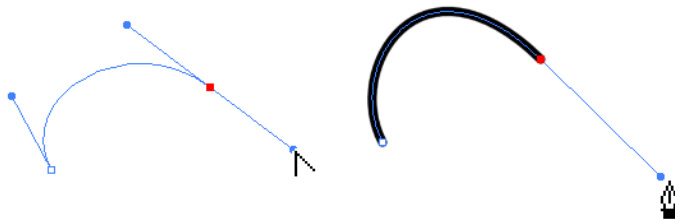
Drawing with the Polyline Tool



The **Polyline** tool is used to draw shapes. It is a central vector type of line. To form a shape, you click to add a point and then, without releasing the mouse, pull the handle in the desired direction before adding the next point and repeat the operation. To edit the shape, you can use the Contour Editor tool.

To draw with the Polyline tool:

1. In the Timeline view, select the cell where you want to draw.
*In Harmony Paint, select a drawing in the **Drawing** panel.*
2. In the Tools toolbar, select the **Polyline**  tool or press [Alt] + [L].
3. In the Camera view, click and drag your mouse to create a point and a Bezier handle to shape your line.
 - Press [Alt] to pull only one handle, instead of two.
 - Press [Shift] to snap the handles to 45, 90, or 180 degrees.
4. Click again into a new area and drag the mouse to create a second point and Bezier handle.



5. Repeat the previous step until your shape is completed.
6. Press [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) and click to release the Polyline tool from the current path or shape that it is creating. Continue to use the tool to make multiple, independent paths or shapes.
7. If necessary, reshape the lines using the **Contour Editor**  tool.



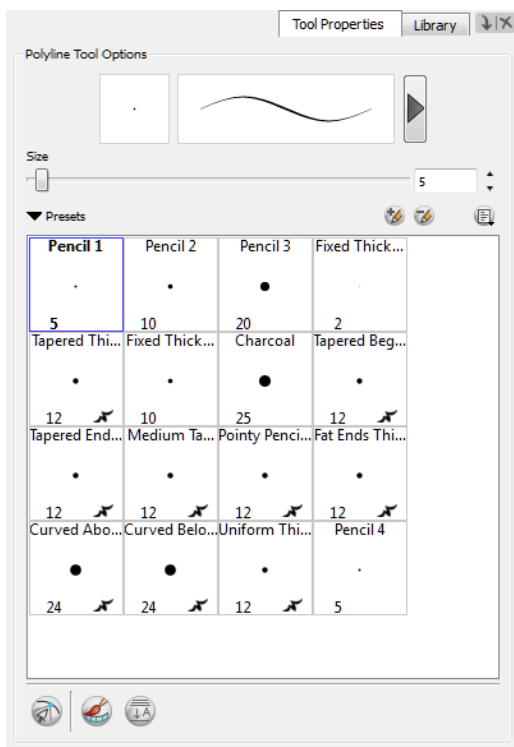
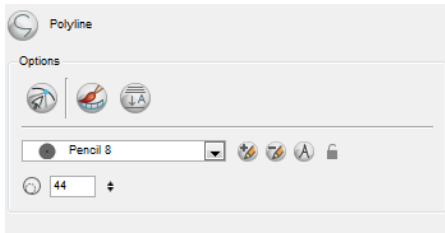
Refer to [Reshaping a Drawing Using the Contour Editor Tool](#) on page 149 to learn more about the **Contour Editor** tool.

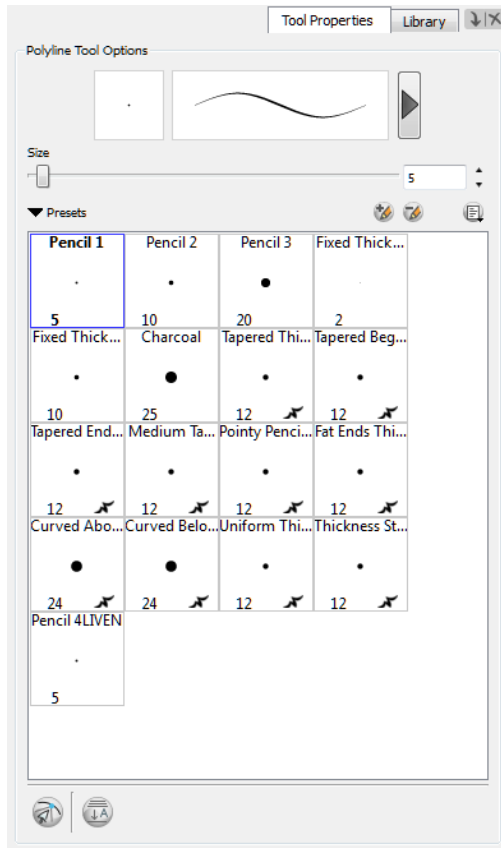
Related Topics

- [Polyline Tool Options](#) below

Polyline Tool Options

When you select the **Polyline** tool, its properties and options appear in the Tool Properties view.



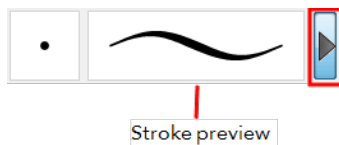


These are the options available for the Polyline tool:

- [Snap to Contour](#) on the facing page
- [Create Colour Art Automatically](#) on page 174
- [Auto-Flatten Mode](#) on page 174
- [Pencil Templates](#) on page 174
- [Thickness Adjustment](#) on page 175

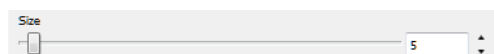
Previewing the Stroke

The Preview area lets you see a preview of the stroke that will be produced after you customize the different parameters in the Tool Properties view.



Size

The Size parameter lets you set the size of the polyline that you will draw.



Polyline Presets

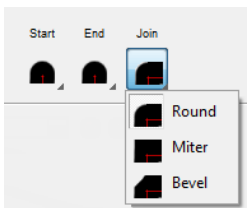
Polyline presets are created by saving the properties of the current tool to a new preset, which you can reuse for repeated tasks. You can create as many presets as you need.

Size and Smoothness

This is where you set the minimum and maximum sizes of your drawing tool which will produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.

- ▶ **Maximum/Minimum Size:** Defines the minimum and maximum width of the stroke.
- ▶ **Smoothing:** Defines the number of control points added to the centre line.
- ▶ **Contour Smoothing:** Defines the number of control points added to the contour boundaries (around the line). Lower values mean that the line will appear as you draw it (with more control points added along the centre line). Higher values mean that the line will be smoothed out (removing control points from the centre line).

Adjusting Polyline Style




You can adjust the start, end, and joint style of a selected pencil line.

- **Start:** Lets you select the style of the start tip, which is the first tip you drew. You can choose between Round or Flat style.
- **End:** Lets you select the style of the end tip, which is the last tip you drew. You can choose between Round or Flat style.
- **Join:** 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.

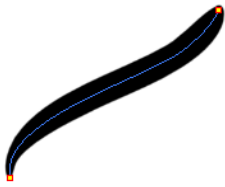
Working with Line Textures

Like pencil lines, polylines support texture. Before drawing, you can select or import a texture and apply it to your lines. You can also change it afterwards using the Select tool. Textures are independent from pencil templates—see [Pencil Line Texture on page 86](#).

Snap to Contour

The **Snap to Contour**  option will snap your selection to any line you position it on.

Create Colour Art Automatically



As you draw in the **Line Art** layer, the **Create Colour Art Automatically**  automatically creates the corresponding strokes in the **Colour Art** layer.



To access this option, you must be in the Advanced Art mode—see [Drawing View on page 65](#).

Auto-Flatten Mode

When enabled, the **Auto-Flatten** mode automatically flattens the new lines created with the existing artwork as you draw in the Drawing or Camera view. Brush strokes will flatten with brush strokes and pencil lines will flatten with pencil lines.

Pencil Templates



Toon Boom Harmony gives you the flexibility to change the style and thickness of your pencil lines even after they are drawn. You can apply preset templates or create your own.



Refer to [Working with Templates Thickness Stencils on page 81](#), [Creating a Pencil Template Thickness Stencil with the Select Tool on page 83](#) and [Applying a Pencil Template on page 85](#).

Thickness Adjustment



Use the **Size Adjustment** field to set the thickness of the shape's line.

1. **Size:** Type a value in this field to set the shape's line thickness.
2. **Up/Down arrows:** Use the up and down arrows to modify the value contained in the **Thickness** value field.

Related Topics

- [Drawing with the Polyline Tool on page 170](#)

Drawing Using Invisible Lines





There are two different ways to draw invisible lines:

- [Pencil Tool](#) below
- [Stroke Tool](#) on the facing page

Pencil Tool

Using the **Pencil** tool, you can draw as strokes only, meaning that the line will be invisible. This can be useful to draw tones and highlights directly on the character.

To draw invisible lines with the Pencil tool:

1. In the Timeline or Xsheet view, select the cell where you want to draw.
*In Harmony Paint, select a drawing in the **Drawing** panel.*
2. In the Tools toolbar, select the **Pencil**  tool or press [Alt] + [/].
3. In the top menu, select **View > Drawing > Show Strokes**  or press [K].

*In Harmony Paint, select **View > Show Strokes**.*

4. In the Tool Properties view, set the Pen Style size to 0. You can also adjust the smoothness.
5. In the Camera or Drawing view, start drawing.


If you forgot to enable the **Show Strokes** option before drawing, as soon as you draw a first stroke, a Message dialog box opens.





Select the **Don't Show This Message Again** option if you do not want the dialog box to notify you about the Show Strokes option. Click OK.

6. You can modify the stroke shape with the **Contour Editor**  tool.

Stroke Tool

The **Stroke**  tool draws invisible lines only. You cannot add thickness to the line.


To draw invisible lines with the **Stroke Pencil** tool:

1. In the Timeline or Xsheet view, select the cell where you want to draw.
*In Harmony Paint, select a drawing in the **Drawing** panel.*
2. In the Tools toolbar, select the **Stroke**  tool or press [Alt] + [V].
3. In the top menu, select **View > Show Drawing > Show Strokes**  or press [K].
*In Harmony Paint, select a drawing in the **Drawing** panel.*
4. In the Tool Properties view, you can adjust the smoothness.
5. In the Camera or Drawing view, start drawing.

If you forgot to enable the **Show Strokes** option before drawing, as soon as you draw a first stroke, a Message dialog box opens.



Select the **Don't Show This Message Again** option if you do not want the dialog box to notify you about the Show Strokes option. Click OK.

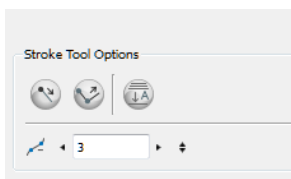
6. You can modify the stroke shape with the **Contour Editor**  tool.

Related Topics

- [Stroke Tool Options](#) below
- [Show Strokes as Washed-out Colours](#) on the next page

Stroke Tool Options

When you select the **Stroke** tool, its properties and options appears in the Tool Properties view.




Here are the options available for the Stroke tool:


- [Draw Stroke as Straight Lines](#) on the next page
- [Connect Line Ends](#) on the next page
- [Auto-Flatten Mode](#) on the next page

- [Central Line Smoothness](#) below

Draw Stroke as Straight Lines

Enable the **Draw Stroke as Straight Lines**  option if you want the new strokes that you will draw to be a perfect straight line. Disable the option if you want the stroke to follow the mouse gesture.


Connect Line Ends

Enable the **Connect Line Ends**  option if you want the start or end point of your new stroke to connect to your existing strokes to make sure no gaps are left in your drawing.

Auto-Flatten Mode

When enabled, the **Auto-Flatten** mode automatically flattens the new lines created with the existing artwork as you draw in the Drawing or Camera view. Brush strokes will flatten with brush strokes and pencil lines will flatten with pencil lines.

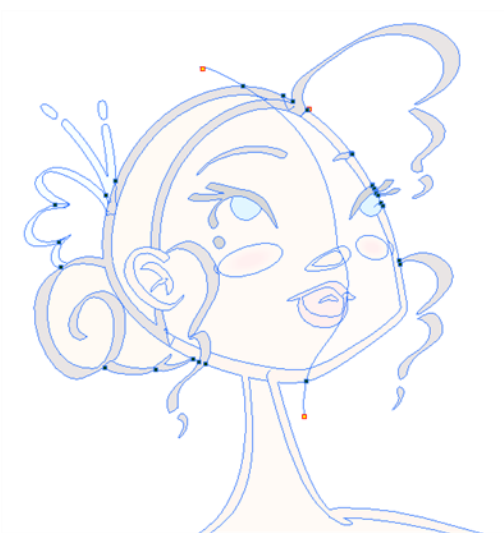
Central Line Smoothness

You can modify the **Central Line Smoothness**  of your line using this option. This parameter smoothes the initial movement of your line. Increasing the value will result in a smoother line with fewer control points.

Related Topics

- [Drawing Using Invisible Lines](#) on page 176
- [Show Strokes as Washed-out Colours](#) below

Show Strokes as Washed-out Colours



Sometimes, it may be difficult to see your strokes, especially if your colours are similar to the blue stroke colour. In Harmony, you can display the strokes and washed-out the colours of your drawings so that the invisible lines stand out.

To show the strokes with washed-out colours:

- In the top menu, select **View > Show > Show Stroke With Colour Wash**.

Related Topics

- [Drawing Using Invisible Lines](#) on page 176

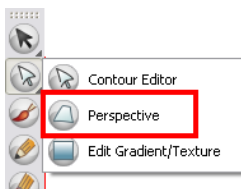
Deforming a Drawing Using the Perspective Tool



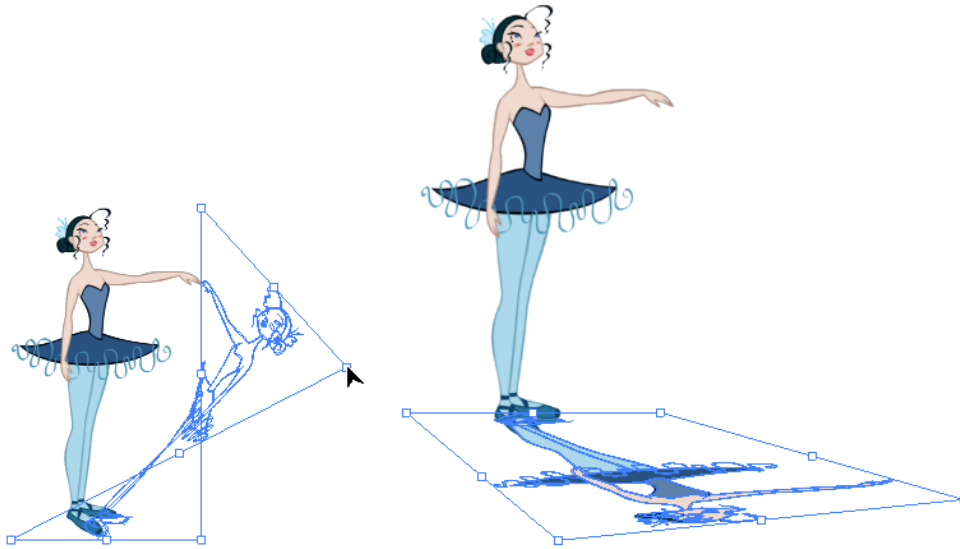
The Perspective tool lets you deform a drawing selection and alter its perspective.

To deform a drawing with the Perspective tool:

1. In the Tools toolbar, select the **Perspective**  tool or press [Alt] + [0].



2. In the Camera or Drawing view, select the drawing you want to deform.
3. Click and drag the different anchor points to deform the shape.

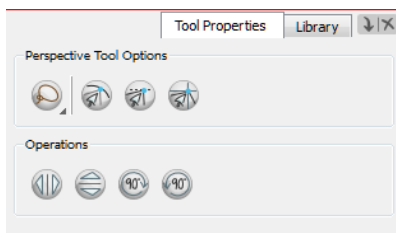
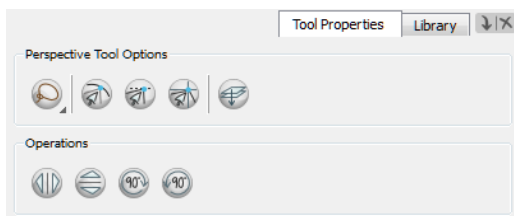
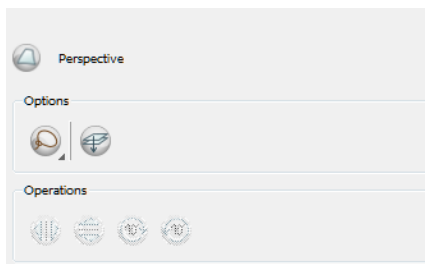


Related Topics

- [Perspective Tool Properties](#) below

Perspective Tool Properties

Selecting the Perspective tool displays its properties and options in the **Tool Properties** view.



- [Lasso and Marquee](#) on the next page
- [Apply to Line and Colour Art](#) on the next page


- [Flip Horizontal and Vertical](#) on the facing page
- [Rotate 90 Degrees CW and CCW](#) on the facing page

Lasso and Marquee


Choose between the **Lasso**  and **Marquee**  options to change the selection style of the tool.

- Click and hold [Alt] to temporarily switch from the current mode to the other.

Snap to Contour

The **Snap to Contour**  option will snap the selected anchor point to any line you position it on—see [Contour Editor Tool Properties](#) on page 151.


Snap and Align

The **Snap and Align**  option lets you snap the selected anchor point to any existing line while displaying temporary rulers as a guide that you can also snap your anchor point to—see [Contour Editor Tool Properties](#) on page 151.

Snap to Grid

The **Snap to Grid**  option snaps your selection according to the currently enabled grid.

Apply to Line and Colour Art



The **Apply to Line and Colour Art**  option uses the concept of Line Art and Colour Art layers. Use this option to apply an action such as selecting or resizing a drawing on both Line Art and Colour Art layers, as well as the Overlay and Underlay layers.



To access this option, you must be in the Advanced Art mode—see [Drawing View](#) on page 65.

Flip Horizontal and Vertical



The **Flip Horizontal**  and **Flip Vertical**  operations flip the current selection horizontally or vertically.

From the top menu, select **Drawing > Transform > Flip Horizontal** and **Flip Vertical**.

Rotate 90 Degrees CW and CCW



The **Rotate 90 Degrees CW**  and **Rotate 90 Degrees CCW**  operations rotate the current selection 90 degrees clockwise or counter-clockwise.

From the top menu, select **Drawing > Transform > Rotate 90 Degrees CW** and **Rotate 90 Degrees CCW**.

Or press [Ctrl] + [7] and [Ctrl] + [9] (Windows/Linux) or [⌘] + [7] and [⌘] + [9] (Mac OS X).

Related Topics


- [Deforming a Drawing Using the Perspective Tool](#) on page 180

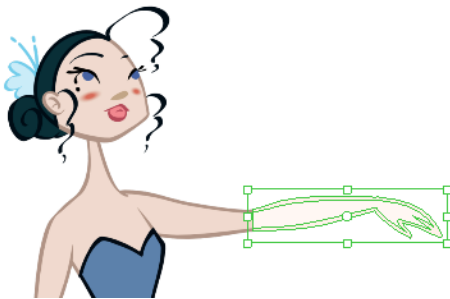
Cutting Drawing Parts



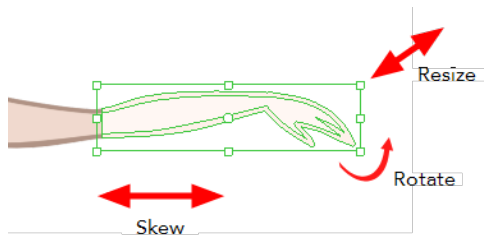
The Cutter tool is used to cut a drawing area to move, copy, cut or delete it.

To cut with the Cutter tool:

1. In the Tools toolbar, select the **Cutter**  tool or press [Alt] + [T].
2. In the Camera view, trace a selection around the part to cut away.




- ▶ To delete the selected zone, press[Delete].
- ▶ To move the selection, click the selection and drag it to a new area.
- ▶ Use the bounding box controls to scale, skew, or rotate the cut piece.

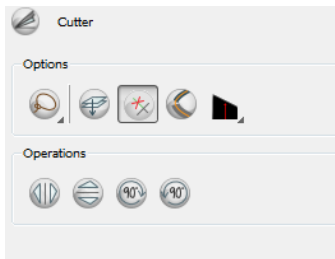


Related Topics

- [Cutter Tool Options on the facing page](#)

Cutter Tool Options

When you select the **Cutter**  tool, its properties and options appear in the **Tool Properties** view.



Here are the options available for the **Cutter** tool:


- [Lasso and Marquee below](#)
- [Apply to Line and Colour Art below](#)
- [Use Mouse Gesture below](#)
- [Use Mouse Gesture Breaker Mode on the next page](#)
- [Tip Style on the next page](#)
- [Flip Horizontal and Vertical on page 187](#)
- [Rotate 90 Degrees CW and CCW on page 187](#)

Lasso and Marquee

Choose between the **Lasso**  and **Marquee**  options to change the selection style of the tool.

- Click and hold [Alt] to temporarily switch from the current mode to the other.



Apply to Line and Colour Art

The **Apply to Line and Colour Art**  option uses the concept of Line Art and Colour Art layers. Use this option to apply an action such as selecting or resizing a drawing on both Line Art and Colour Art layers, as well as the Overlay and Underlay layers.



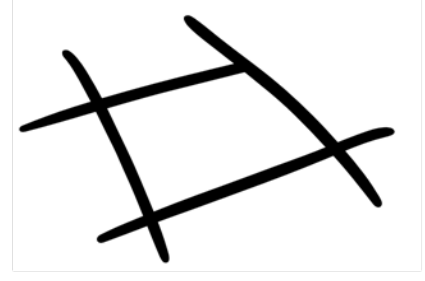
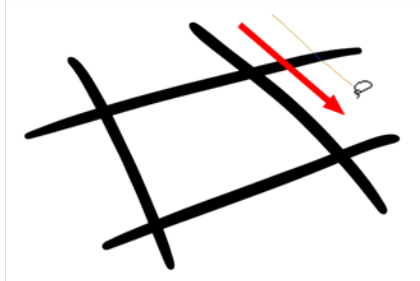
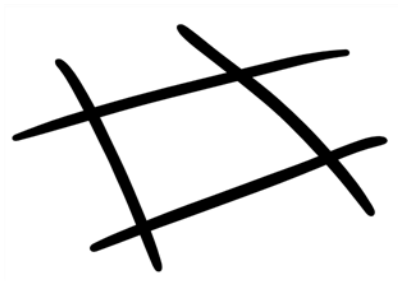
To access this option, you must be in the Advanced Art mode—see [Drawing View on page 65](#).

Use Mouse Gesture



When using the **Lasso**  selection type, the **Use Mouse Gesture**  option lets you automatically delete any extra sections of line in your artwork by simply dragging your mouse over it.

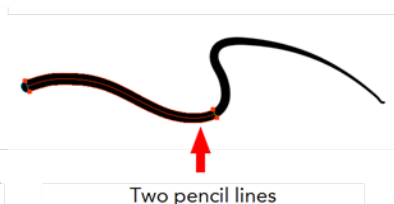
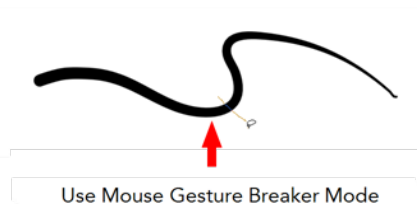
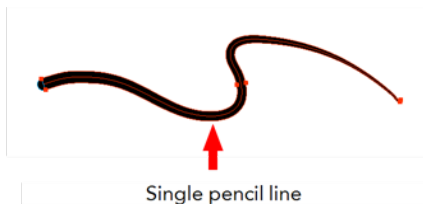


For this operation to work, you lines **CANNOT** be flattened.



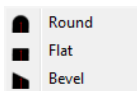
Use Mouse Gesture Breaker Mode

When using the **Lasso**  selection type, the **Use Mouse Gesture Breaker Mode**  option lets you draw an invisible stroke on a pencil line to cut it in two individual objects. Once a pencil line is cut with this option, you will be able to select the two portions independently with either the **Cutter** tool, **Pencil Editor** tool or **Select** tool.



This option only works with pencil lines.

Tip Style



Use the **Tip Style** option to customize the tip of the pencil line you are cutting.

Flip Horizontal and Vertical



The **Flip Horizontal**  and **Flip Vertical**  operations flip the current selection horizontally or vertically.

From the top menu, select **Drawing > Transform > Flip Horizontal** and **Flip Vertical**.

Rotate 90 Degrees CW and CCW



The **Rotate 90 Degrees CW**  and **Rotate 90 Degrees CCW**  operations rotate the current selection 90 degrees clockwise or counter-clockwise.

From the top menu, select **Drawing > Transform > Rotate 90 Degrees CW** and **Rotate 90 Degrees CCW**.

Or press [Ctrl] + [7] and [Ctrl] + [9] (Windows/Linux) or [⌘] + [7] and [⌘] + [9] (Mac OS X).


Related Topics

- [Cutting Drawing Parts on page 184](#)

Smoothing Lines



When drawing in a digital application, it is not like drawing on a sheet of paper, sometimes the lines you draw may look as if they were drawn with an unsteady hand. When this occurs, you may need to correct the look of your lines.

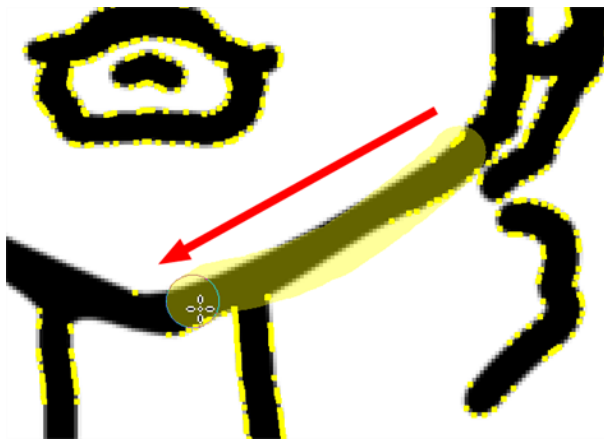
Toon Boom Harmony has a very powerful tool you can use to optimize contours and reduce the number of points on the lines, the Smooth Editor  tool.

To optimize lines with the Smooth tool:

1. In the Tools toolbar, select the **Smooth Editor**  tool or select **Drawing > Tools > Smooth Editor**.

*In Harmony Paint, select **Tools > Smooth Editor**.*

2. In the Camera or Drawing view, place your pointer over the lines to smooth. You may need to pass over the same line several times to remove more points and make the line smoother.

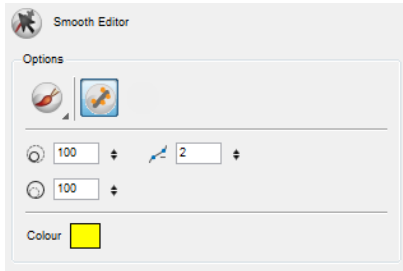


Related Topics

- [Smooth Editor Tool Options](#) on the facing page

Smooth Editor Tool Options

When you select the Smooth Editor tool, its properties and options appear in the Tool Properties view.

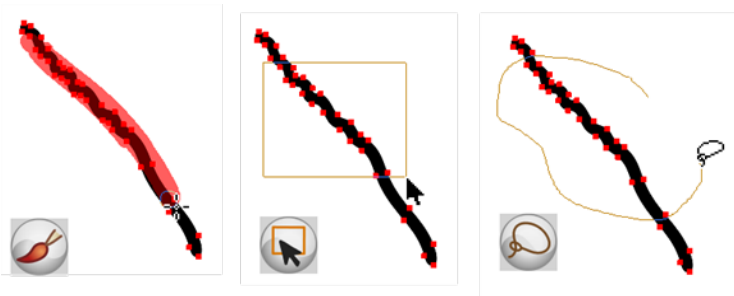


Here are the options available for the **Smooth Editor** tool:

- [Brush, Marquee and Lasso Smoothing Style](#) below
- [Show Control Points](#) below
- [Minimum Size and Maximum Size](#) below
- [Smoothness](#) on the next page
- [Colour](#) on the next page

Brush, Marquee and Lasso Smoothing Style

The Smoothing Style options allows you to smooth a portion of your drawing either by tracing a smoothing stroke over the zone to optimize or by selecting an area of the drawing with the Marquee or the Lasso.



Show Control Points

The **Show Control Points**  option allows you to show or hide the Bezier points around your lines. When the


Bezier points are displayed, you can see the result of your smoothing and the number of points left on your curve. When it is turned off, you will only see the original artwork.

Minimum Size and Maximum Size


This is where you set the minimum and maximum sizes of your drawing tool which will produce the thick and thin effect on your stroke. This works with the pressure sensitivity of a pen tablet.



1. **Minimum Size** field: Type a value in this field to set the minimum width of the line.
2. **Maximum Size** field: Type a value in this field to set the maximum width of the line.
3. **Up/Down arrows**: Use the up and down arrows to set the minimum size value.
4. **Up/Down arrows**: Use the up and down arrows to set the maximum size value.

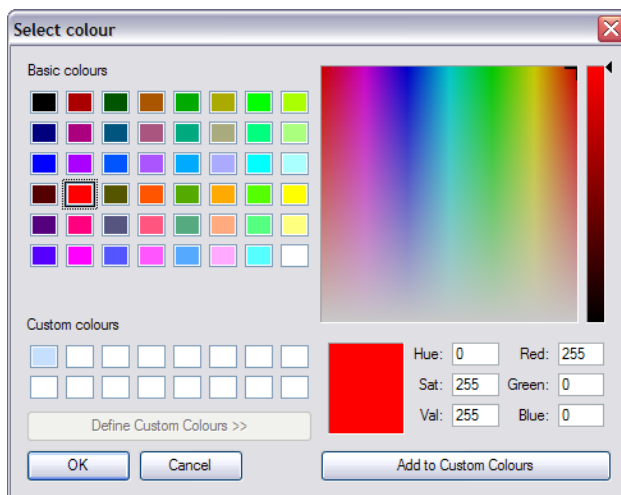
This options is available while using the **Brush Smoothing**  style.

Smoothness

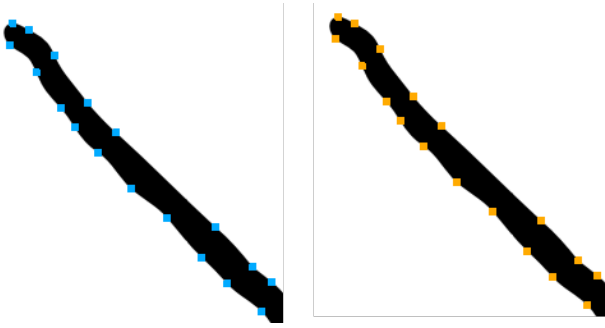
The **Smoothness**  impacts the strength of the smoothing result. The higher the value, the more points are removed and the smoother the curve is. The Smoothness range is from 0 to 100; the default value is 20.



Colour



You can modify the colour of the control points displayed on the artwork while working with the **Smooth Editor** tool by double-clicking on the colour swatch.




Related Topics

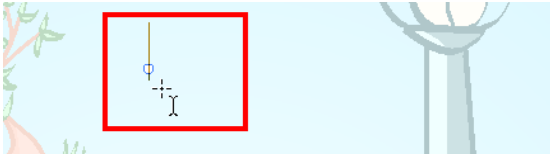
- [Smoothing Lines](#) on page 188

Working With Text

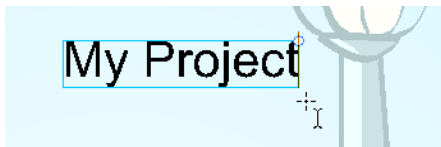
With the Text tool, you can type text in your project, using various fonts and text attributes. Text objects are part of a drawing, so you can manipulate them the same way.


To add text to your drawings:

1. Do one of the following:
 - ▶ In the Tools toolbar, select the **Text**  tool.
 - ▶ Select **Drawing > Tools > Text**.
 - ▶ Press [Alt] + [9].
*In Harmony Paint, select a **Tools > Text**.*
2. In the Timeline view, select the cell containing the drawing you want to add text to.
3. In the Drawing or Camera view, click on the location you want your text to begin.



4. You can use the **Tool Properties** view to select the font, font size and format the text you will type—see [Formatting the Text](#) below.
5. Type in the desired text.



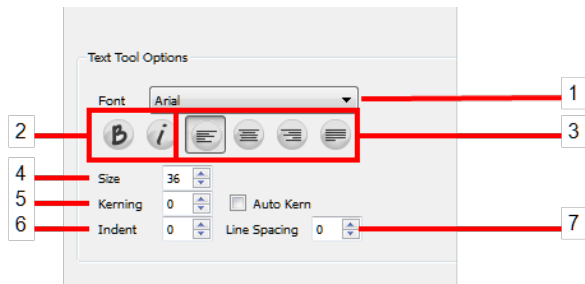
6. Click outside the text box to exit the typing mode.
If you want to create another text object, click outside the currently active text box. You can always return to edit the text by selecting the **Text**  tool and clicking in the text.

Related Topics

- [Formatting the Text](#) below

Formatting the Text

Use the Text tool Tool Properties view to select the font type and other formatting options you want to apply to the text.



1. [Font Type](#) below
 2. [Font Style](#) below
 3. [Alignment](#) on the next page
 4. [Font Size](#) on the next page
 5. [Kerning](#) on the next page
 6. [Indent](#) on page 195
 7. [Line Spacing](#) on page 195
- [Resizing the Text Box](#) on page 195
 - [Converting Text into Separate Objects](#) on page 196



If you already wrote your text, you must first use the Text tool and select the text portion you want to format.

Font Type

Use this drop-down menu to select the desired font, from the list of fonts available in your system.

Vivaldi Font

Copperplate Gothic Light



Font Style

Use these buttons to select a desired style for your text:

-  Bold






-  Italic

My Project

Alignment

Use these buttons to align the paragraph.

 Left 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.	 Centred 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.
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Font Size

Type the desired size for the text in this field. You can also use the up and down arrow buttons to set the desired value.

small text **big text**

Kerning

Use the kerning field to modify the spacing between letters and characters. You can select the **Auto Kern** option to set the kerning automatically, based on the font's predefined standard. A negative value decreases spacing between each character creating a letter overlap and a positive value increases it.

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Indent

Enter a value in the **Indent** field to increase or decrease the indentation on the first line of your text. A positive value sets the first line of your paragraph farther to the right and a negative value sets it farther to the left.

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Line Spacing

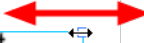
Enter a value in the **Line Spacing** field to decrease or increase the space between each line of text.

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Resizing the Text Box

You can resize the text box by selecting your text box with the **Text**  tool and moving the anchor point right or left.




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Using the **Select** tool will distort and scale your text itself rather than changing the width and height of your text box.

Converting Text into Separate Objects

Text contained in a text field is treated as a single drawing object. You can easily separate the text so that each character becomes an individual drawing object that you can select and modify independently.

To break a text object:

1. In the **Tools** toolbar, click on the **Select**  tool or press [Alt] + [S].
2. In the **Drawing** or **Camera** view, select the text object you want to break.

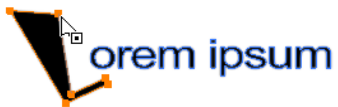


3. Select **Drawing > Convert > Break Apart Text Layers**.
*In Harmony Paint, select **Selected > Convert > Break Apart Text Layers**.*



Each character is now surrounded by its own bounding box that you can modify, they remain text objects that you can edit.

4. If you want to convert your independent letter to a complete vector object that you can deform, using the **Select** tool, select the letters to convert.
5. Select **Drawing > Convert > Break Apart Text Layers** to break the selection into a regular drawing object, with no more text attributes.
*In Harmony Paint, select **Selected > Convert > Break Apart Text Layers**.*



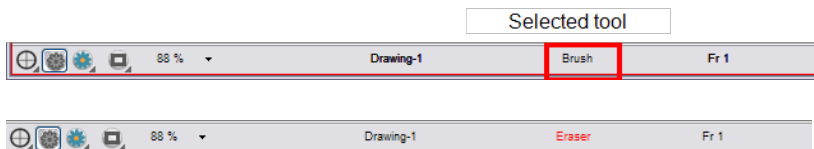
Related Topics

- [Working With Text](#) on page 192

Override Tool

The Override Tool lets you increase productivity by rapidly switching between tools used for short tasks and your previous tool. Most drawing tool shortcuts are accessed using the [Alt] key followed by another key, such as the Eraser tool which is accessed by pressing [Alt] + [E].

If you are drawing with the Brush tool and need to briefly switch to the Eraser before continuing, hold down the [E] key while you are erasing. Once done, release [E] to return to the previous tool, in this case, the Brush tool. You can do the same for most drawing tools that have a shortcut composed of [Alt] followed by another key.



Related Topics

- [Keyboard Shortcuts](#)
- [Tools Toolbar](#)

More Drawing Tools





Harmony offers a wide variety of useful tools to optimize your drawings and work more efficiently; tools such as Group, Arrange, and the animation disk to rotate your workspace.

Related Topics

- [Arrange below](#)
- [Convert Brush Strokes to Pencil Lines](#) on the facing page
- [Pencil Lines to Brush Strokes](#) on the facing page
- [Strokes to Pencil Lines](#) on the facing page
- [Optimize](#) on page 200
- [Remove Extra Strokes](#) on page 200
- [Reduce Drawing Texture Resolution](#) on page 200
- [Crop Brush Textures](#) on page 201
- [Create Contour Stroke](#) on page 202
- [Remove Contour Stroke](#) on page 202
- [Grid](#) on page 202
- [Group/Ungroup](#) on page 203
- [Hand](#) on page 203
- [Rotate View](#) on page 203


Arrange

Use the different **Arrange** options to reorder drawing objects inside a single layer in the **Drawing** or **Camera** view.

-  **Bring to Front** button or select **Drawing > Arrange > Bring to Front** or press [Ctrl] + [Shift] + [PgUp] (Windows/Linux) or [⌘] + [Shift] + [PgUp] (Mac OS X).
The selected art is moved to the top.
-  **Bring Forward** button or select **Drawing > Arrange > Bring Forward** or press [Ctrl] + [PgUp] (Windows/Linux) or [⌘] + [PgUp] (Mac OS X).
The selected art is moved one level higher.
-  **Send Backward** button or select **Drawing > Arrange > Send Backward** or press [Ctrl] + [PgDown] (Windows/Linux) or [⌘] + [PgDown] (Mac OS X).
The selected art is moved one level lower.
-  **Send to Back** button or select **Drawing > Arrange > Send to Back** or press [Ctrl] + [Shift] + [PgDown] (Windows/Linux) or [⌘] + [Shift] + [PgDown] (Mac OS X).
The selected art is moved to the bottom.

Convert Brush Strokes to Pencil Lines



The **Brushes Strokes to Pencil Lines**  operation converts the selected contour strokes into centreline pencil strokes. This command is only available from the top menu.


To convert brush strokes to pencil lines:

- Select **Drawing > Convert > Brush Strokes to Pencil Lines** or press [^].

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Pencil Lines to Brush Strokes



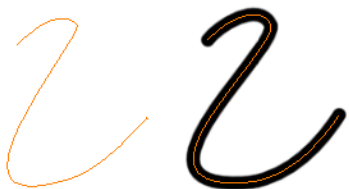
The **Pencil Lines to Brush Strokes**  operation converts the selected centreline pencil strokes into contour strokes brush lines.

To convert pencil lines to brush strokes:

- From the top menu, select **Drawing > Convert > Pencil Lines to Brush Strokes** or press [&].

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Strokes to Pencil Lines



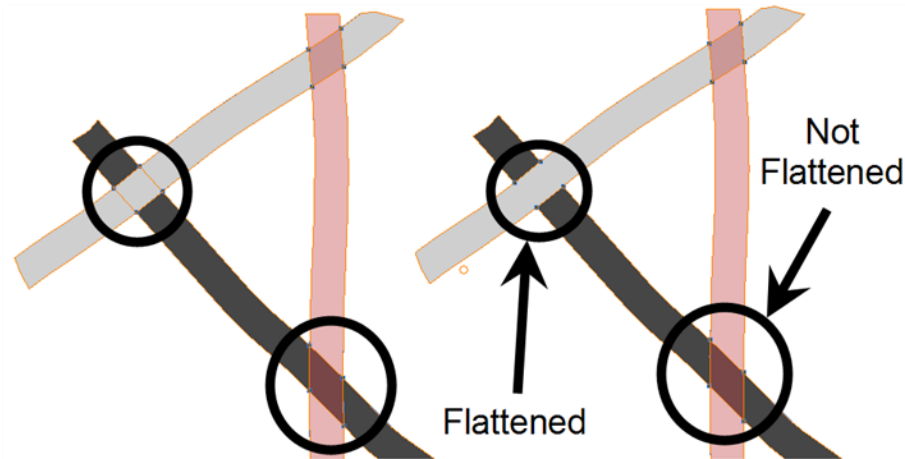
The **Strokes to Pencil Lines**  operation converts the selected invisible line to a pencil line.

To convert strokes to pencil lines:

- Select **Drawing > Convert > Strokes to Pencil Lines**. or press [Shift] + [F12] (Windows/Linux only).

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Optimize



The **Optimize** command reduces the number of layers, such as overlapping brush strokes, in the selected drawing objects. Drawing objects will only be flattened and optimized if the selected objects will not change the appearance of the final image when they are merged.

For example, if you have selected a number of partially transparent objects, which you layered to create an additive colour effect, the selected transparent drawing objects will not be merged. This is because merging the transparent drawing objects will cause them to lose the effect of the layered transparent colours.

- Use the **Select** tool to select the drawing objects you want to optimize.
- Select **Drawing > Optimize > Optimize**.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

Remove Extra Strokes

The **Remove Extra Strokes** option is used to remove the invisible lines in your selection.

- Use the **Select** tool to select the drawing objects you want to remove invisible lines from.
- Select **Drawing > Optimize > Remove Extra Strokes**.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

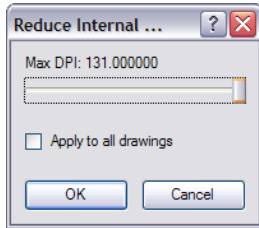
Reduce Drawing Texture Resolution

If you import and vectorize as texture (colour) a high resolution image, the size of your drawing can be heavy. This option is used to reduce the size and resolution of the textures in your drawing. When you import and vectorize drawings using the grey or colour preset styles, you don't have control on the size of the bitmap texture. This tool allows you to reduce that bitmap texture.

To reduce the drawing texture resolution:

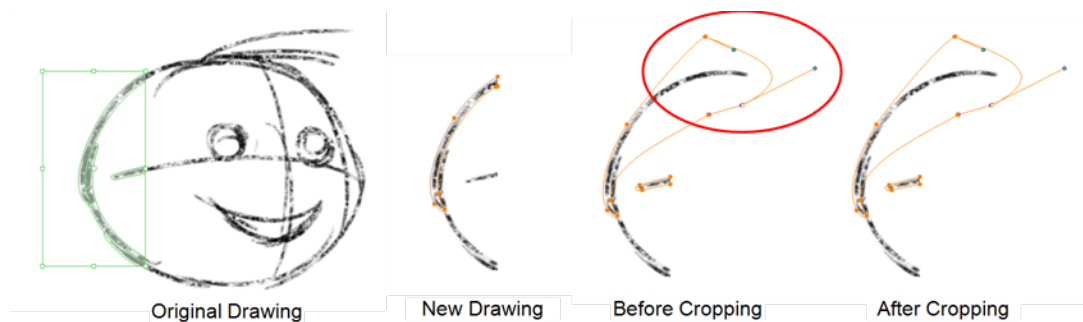
- In the **Timeline** or **Xsheet** view, **Select** tool to select the drawing objects you want to reduce the texture resolution for. remove invisible lines from.
- Select **Drawing > Optimize > Reduce Drawing Texture Resolution**.

In *Harmony Paint*, this option is found in the **Selected** menu rather than the **Drawing** menu.



1. In the dialog box, drag the slider toward the left to reduce the texture resolution.
2. Enable the **Apply to All Drawings** option if you want the modification to be applied to all the drawings in your layer.
3. Click OK.

Crop Brush Textures



The **Crop Brush Textures** option is used to crop an unnecessarily large texture bitmap that lies, unseen, beneath the vector contour of a textured line. This often occurs when you cut and paste textured lines from one drawing into another. If you cut a portion from a textured line and paste it into a different drawing, Toon Boom Harmony pastes the entire unseen texture bitmap from the source drawing into the new one, even if you only took a small portion of the source drawing. Using the **Crop Brush Texture** command will crop away extraneous texture that does not touch the vector area. If there are many textured lines in your scene, this will greatly reduce the file size.



In the example shown above, a textured line is cut from a drawing and pasted into a new drawing. At first glance, it appears as if only a cropped section of the underlying texture bitmap was cut and pasted as well. However, using the **Contour Editor** tool to expand the vector envelope of the textured line, it is revealed that more texture bitmap exists beyond the cropped boundary. If you use the **Crop Brush Texture** command the bitmap texture is cropped to the boundaries of the textured line's vector contour (as seen in the fourth image where the vector envelope has been pulled out to reveal empty space).


To crop the brush texture:

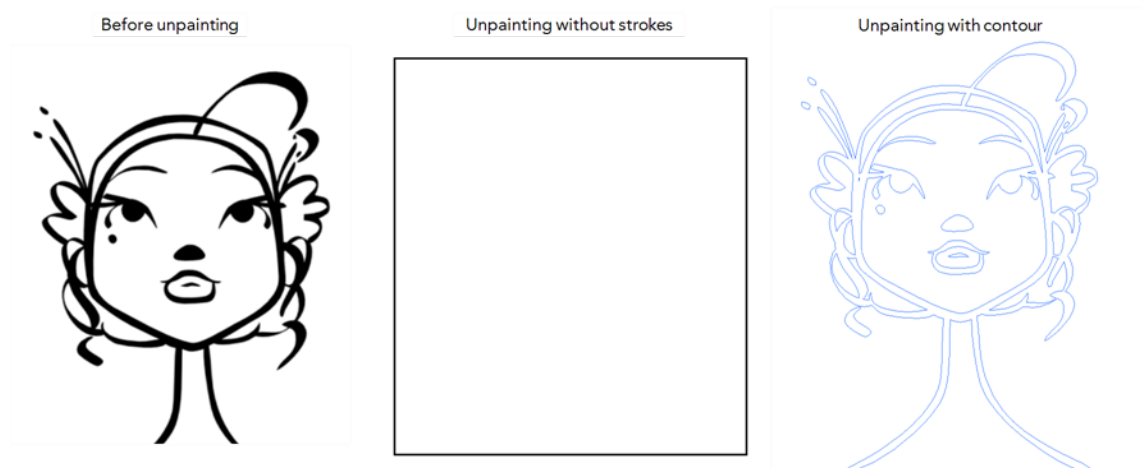
1. In the **Timeline** or **Xsheet** view, select the drawing you want to crop the texture for.
2. Select **Drawing > Optimize > Crop Brush Textures**.

In *Harmony Paint*, this option is found in the **Selected** menu rather than the **Drawing** menu.

Create Contour Stroke

The **Create Contour Stroke**  option is used to add a permanent invisible line around a shape that was drawn directly in the application. This allows you to unpaint your lines with the **Paint**  tool but to maintain the shape of the lines should you need to repaint later.

This command is useful when inking and painting and using the **Apply to All Drawings in Layer**  option.



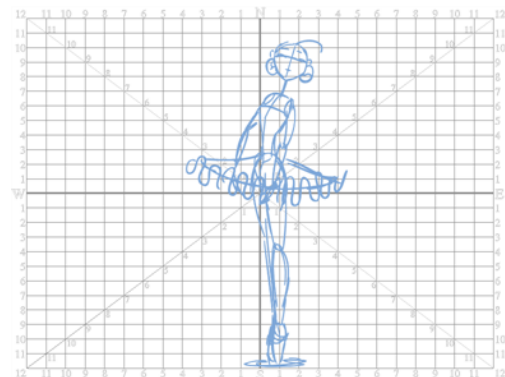
In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.

Remove Contour Stroke







The **Remove Contour Stroke** option is used to remove any permanently invisible lines that were either created while scanning and vectorizing drawings or manually adding contour strokes. This is useful if you want to remove the intersection triangles created during vectorization.

In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.


Grid



Use the **Show Grid** option to display a grid in the **Drawing** or **Camera** view.

-  Select **View > Grid > Show Grid**. The [Ctrl] + ['] (Windows/Linux) or [⌘] + ['] (Mac OS X).
-  Select **View > Grid > Square** to display a standard square grid.
-  Select **View > Grid > 12 Field Grid** to display a 12 field size grid.
-  Select **View > Grid > 16 Field Grid** to display a 16 field size grid.
-  Select **View > Grid > Underlay** to display the grid behind the drawing elements.
-  Select **View > Grid > Overlay** to display the grid over the drawing elements.

Group/Ungroup


Use the **Group**  option to group the selected drawing objects. This can help in the selection, repositioning, re-scaling and other transformations to be applied to multiple objects of a drawing.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

- Select **Edit > Group > Group** or **Edit > Group > Ungroup**.
- Press [Ctrl] + [G] and [Ctrl] + [Shift] + [G] (Windows/Linux) or [⌘] + [G] and [⌘] + [Shift] + [G] (Mac OS X).

Hand

Use the **Hand** tool to pan through the **Drawing** and **Camera** view.

- In the **Tools** toolbar, select the **Hand**  tool, click in the **Drawing** or **Camera** view and drag your cursor.
- You can also Hold down the keyboard shortcut [Spacebar], click in the **Drawing** or **Camera** view and move your mouse in the direction you want to pan the view.

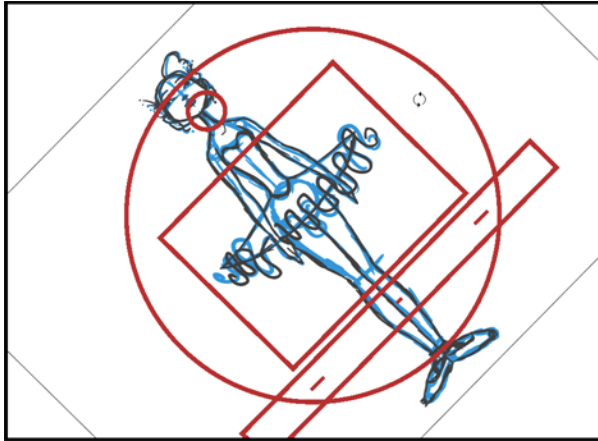
Rotate View

Use the **Rotate View**  tool to rotate the **Drawing** or **Camera** view, the same way as you would do with a real animation disc.

- Select **Drawing > Tools > Rotate View**.

*In Harmony Paint, this option is found in the **Selected** menu rather than the **Drawing** menu.*

- Press [Ctrl] + [Alt] (Windows/Linux) or [⌘] + [Alt] (Mac OS X).



This tool can also be used in the **Perspective** view.

Related Topics

- [How to Draw on page 61](#)

Chapter 5: Colour



With Toon Boom Harmony, you can add colour to your projects and even create sets of colours for your characters. With Toon Boom Harmony's colour palette concept, painting and colour styling has never been easier!


Topics Covered

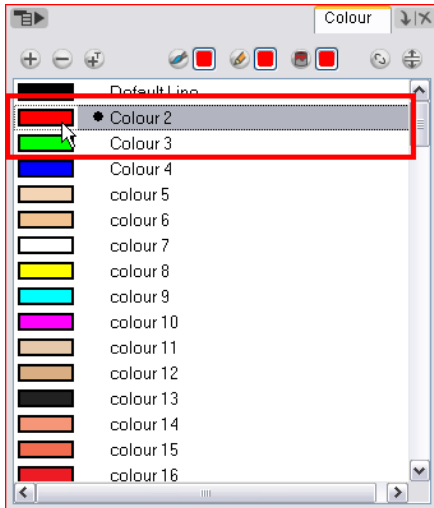
- [How to Paint on the next page](#)
- [Colours on page 208](#)
- [Colour Display Modes on page 219](#)
- [Selecting the Current Colour of a Tool on page 221](#)
- [Painting Using the Paint Tool on page 223](#)
- [Painting Pencil Lines with the Ink Tool on page 231](#)
- [Selecting a Colour in a Drawing on page 239](#)
- [Editing Gradients and Textures on page 241](#)
- [Closing Gaps Manually on page 247](#)
- [Protecting Colours on page 250](#)
- [Highlighting the Selected Colour on page 251](#)
- [Line Art and Colour Art Layers on page 253](#)
- [Verifying Zones are Painted on page 258](#)
- [Palettes on page 259](#)
- [Colour Model on page 288](#)
- [Colour Preferences on page 293](#)

How to Paint

Learn how to paint your drawings by following these instructions.

To paint your drawings:

1. In the Tools toolbar, select the Paint  tool or press [Alt] + [I].
2. In the Colour view, select a colour from the palette.
 - Double-click on a colour swatch to open the Colour Picker window and modify the colour.



The colour palette will only appear in the Colour view once a drawing element has been selected.

3. In the Camera or Drawing view, start painting the colours on your drawing.



Related Topics

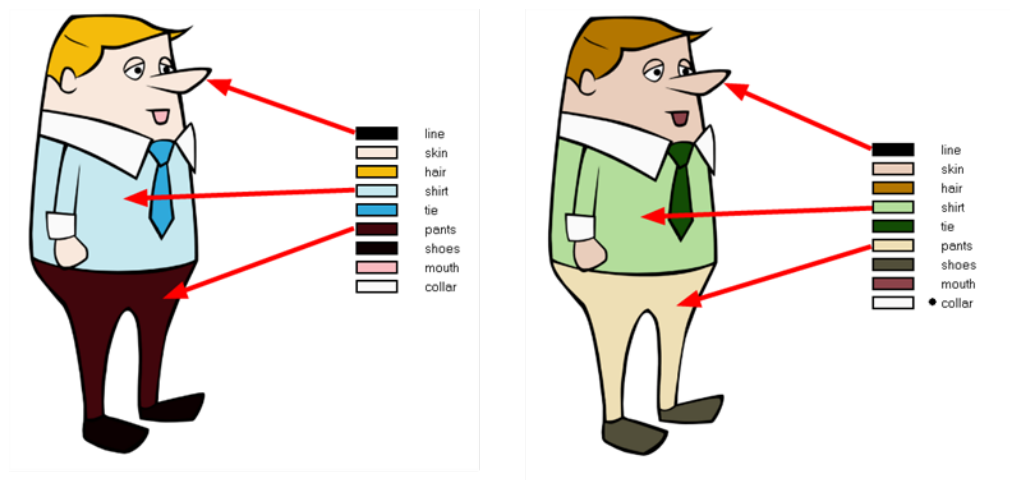
- [Colours](#) on the next page
- [Colour View](#) on page 40

Colours

Toon Boom Harmony has some very powerful colouring features when it comes to painting. To paint your drawings you will use different colour swatches, unlike some paint programs where you modify one swatch each time you want to paint with a different colour.



In the Colour view, you choose a different colour swatch for each colour you want to paint in your drawing. You can add as many swatches as you want. You can also rename them and modify existing ones.



When you modify the colour of an existing swatch it automatically updates all the zones painted with this swatch throughout the entire project. The colour swatch has a unique ID number that associates it with the painted zones. This way, you can change the look of your character at anytime without having to repaint it!

Related Topics

- [Adding a Colour Swatch](#) on page 210
- [Deleting a Colour Swatch](#) on page 217

Palette Lists and Palettes Lock

Edit Palette List Mode

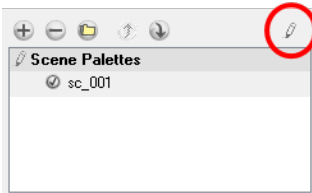
Every drawing element has a palette list. The scene also has a palette list. A palette list is a file containing all of the links to the original palette files. For example, a drawing element can use three different palettes stored in three different locations, while another drawing element can use two of these palettes plus another one coming from another scene. The palette list keep tracks of the location of the palettes.

To prevent users accidentally removing a link to a palette, the palette lists are locked. To add a new link to a palette, the user must first unlock the palette list.

To enable and disable the Edit Palette List Mode:

1. Select **Edit > Edit Drawing Mode** or **Edit Palette List Mode**. When the option is enabled, a check mark appears beside it.

When in **Edit Palette Lists Mode**, a grey pencil appears on the top corner of the **Colour** view palette list to indicate that it can be modified.



Before you can add, remove or modify colours from a palette, you need to have the right to edit palettes.

Edit Palette Mode

A colour palette is an actual file that can be found on the hard drive. These palette files can be stored in a different location on the server machine. They can be stored in the **Environment**, **Job**, **Scene** or **Element** folder and linked to any palette list. This means that if the original palette file is modified, it will update in every drawing element the palette is linked to. To avoid accidentally modifying the palette, the palette files can be locked. The user must get the rights to modify them.

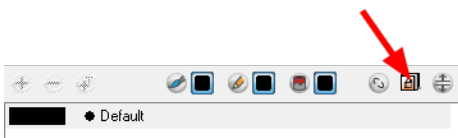
To enable and disable the Edit Palette Mode:

1. In the **Colour** view, click on the **Edit Palette Mode** button.

When pushed in, the mode is enabled, a grey pencil icon appears in the top corner



When pushed out, the mode is disabled.



Related Topics

- [Connecting to the Database](#) on page 1
- [Global Lock](#) on page 1
- [Locking Drawings](#) on page 1

Adding a Colour Swatch


You can use three different types of colour swatches, these are described in the following sections:

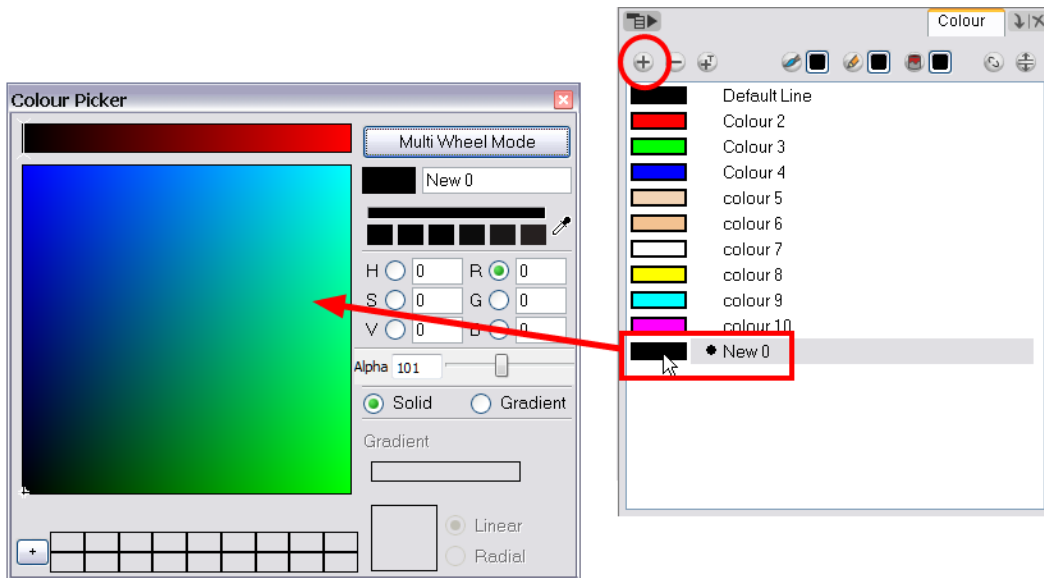
- [Solid Colour Swatch](#) below
- [Default Colour Swatch](#) on page 213
- [Gradient Colour Swatch](#) on page 214
- [Bitmap Texture Swatch](#) on page 215

Solid Colour Swatch



To add or modify a solid colour swatch:

1. In the Colour view, click on the **New Colour**  button.
2. In the Colour View menu, select **Colours > Edit**. You can also double-click on the colour pot. The Colour Picker window opens.



3. To set your colour:


- ▶ In the colour wheel, select the desired colour.

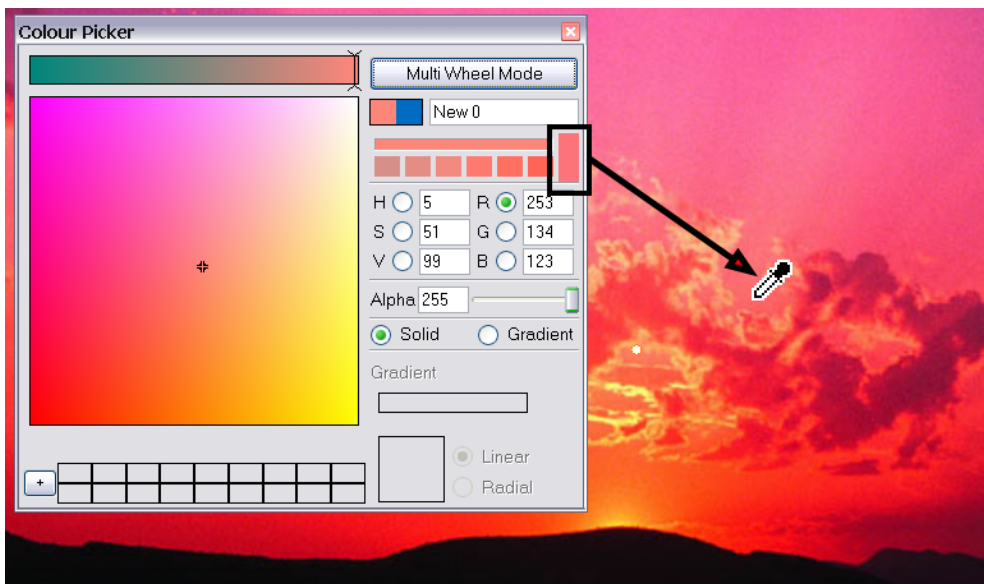
OR

- ▶ Type in the HSV or RGB values in the corresponding fields. Click on the **R,G,B,H,S** or **V** radio buttons to change the look of the colour picking area.

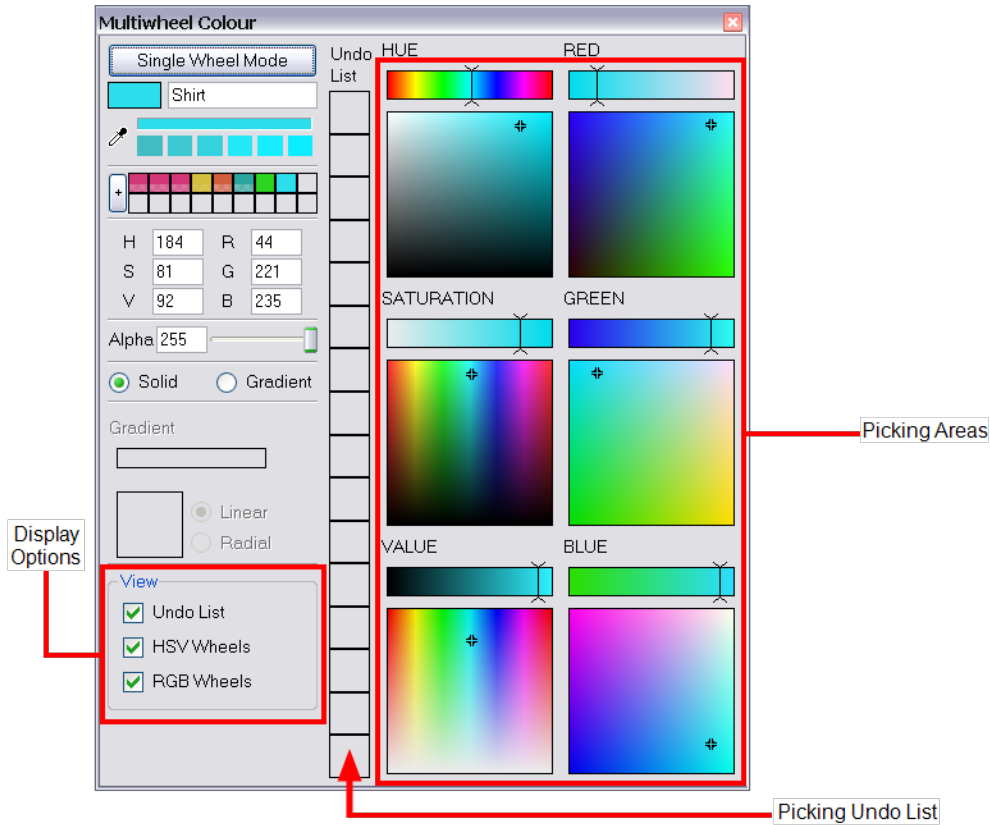
H	<input type="radio"/>	207	R	<input checked="" type="radio"/>	0
S	<input type="radio"/>	100	G	<input type="radio"/>	107
V	<input type="radio"/>	76	B	<input type="radio"/>	194

OR

- ▶ Click on the **Dropper**  button to select any colour on your screen. It can be from the Toon Boom Harmony's interface, your Operating System or any other open application.



You can also click on the **Multi Wheel Mode** button to open the Multiwheel Colour dialog box. This displays all the picking area styles together and also contains a picking undo list. Click on the **Single Wheel Mode** button to go back to the regular Colour Picker window.



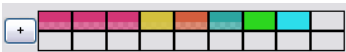
4. If needed, click on the **Shade Scale**'s swatches to modify the shade of the selected colour.



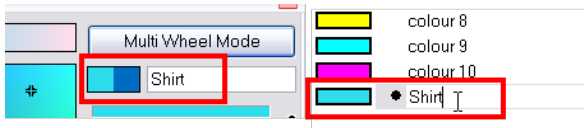
5. If necessary, adjust the desired level of transparency with the Alpha slider, or type the value directly in the Alpha field.



6. If necessary, click on the **Add** button to add the current selected colour to the Colour Storage Library, so you can quickly access it later.



7. You can rename the colour swatch in the Colour Picker window or directly in the colour list by double-clicking on its name.



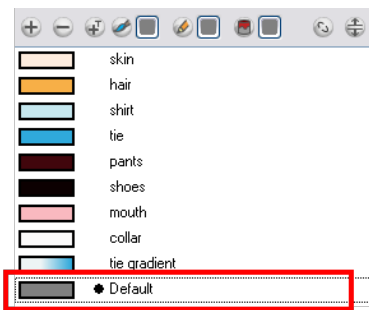
Default Colour Swatch

In Toon Boom Harmony, when you click on the **Add Colour**  button, a new colour swatch is created using the colour of the currently selected swatch from your palette. However, you can set a Default colour to be used every time you create a new colour in your colour palette. This might be useful if you want to create different shades of the same basic colour.

To change the default swatch colour for all your colour palettes:

1. In the top menu, go to **Edit > Preferences** (Windows/Linux) or **Stage > Preferences** (Mac OS X).
2. In the Preferences panel, under the Drawing tab, enable the **Create New Colour Pot Using the Default Colour** option. In addition, You can click on the colour swatch, located just beside, to change the Default colour.

The default colour is also the colour used when you choose to vectorize images that you are scanning into your scene, however you add the Default colour swatch to your palette in a different way, so that it is unique. It has a unique ID number that makes it recognizable from all the other colours in your colour palettes. Being able to change this colour allows you to change the basic colour of all scanned drawings. This can be useful on more than just an aesthetic level as sometimes when you go to NTSC or PAL, pure colours, such as pure black, can create problems.



To add a new colour swatch using the default colour:

1. In the Colour View menu, select **Colours > New**.
A new swatch will be added to your palette using the default colour pot colour. The new swatch created with the New command will be named **New 0**.



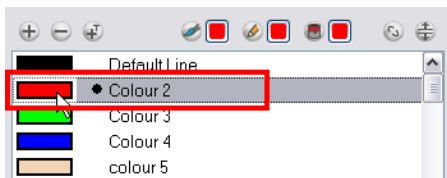
Refer to [Colour Preferences](#) on page 293 to learn more on the Create New Colour Pot Using The Default Colour preference and how to customize the default colour pot colour.

Gradient Colour Swatch

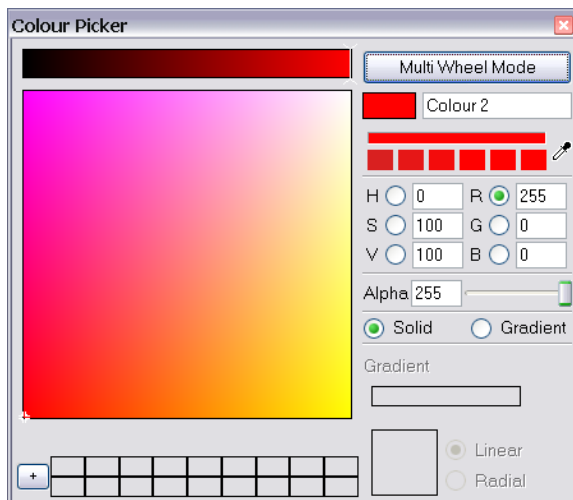


To create a gradient colour swatch:

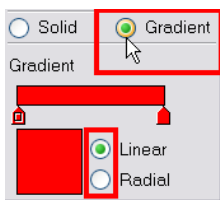
1. In the Colour view, select the colour to be modified.



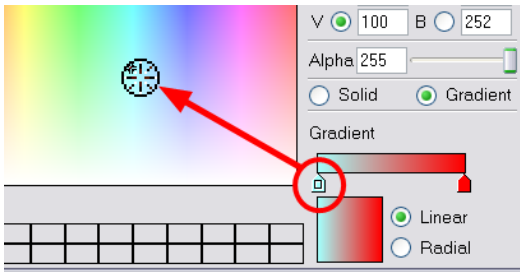
2. In the Colour View menu, select **Colours > Edit**. You can also double-click on the colour pot. The Colour Picker window opens.



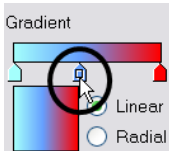
3. Enable the **Gradient** option.



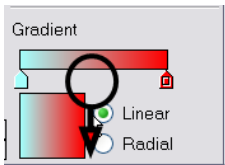
4. Select the **Linear** or **Radial** option.
5. Select the **Gradient** arrows to modify the colours.



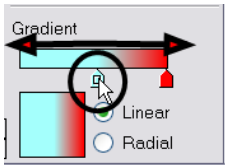
- ▶ Click between the arrows to add extra colours.



- ▶ Pull down the arrows to remove them.



- ▶ Move the arrows left and right to modify the gradient distance.



Refer to the [Editing Gradients and Textures](#) on page 241 topic to learn how to reposition your gradient zones in your drawings.

Bitmap Texture Swatch

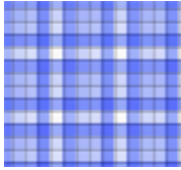


To create a texture colour:

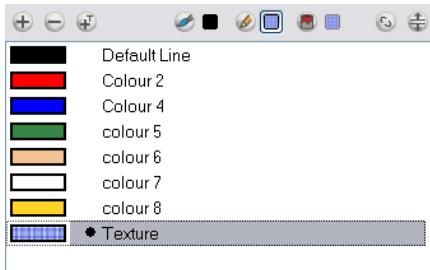
1. In the Colour View menu, select **Colours > New Texture** or click on the **New Texture**  button.

The Browser window opens.

2. Browse for a PSD or TGA bitmap file created in a third party software.

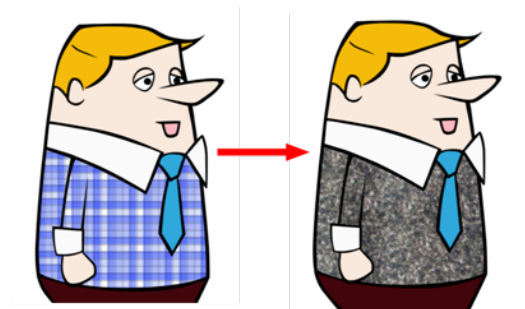


3. Click on the **Open** button to create the colour swatch.

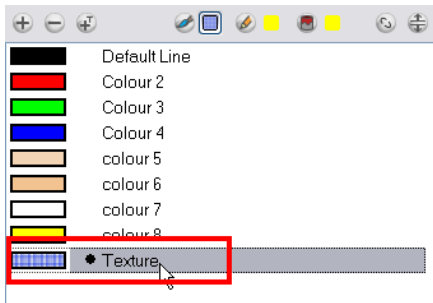


Refer to the [Editing Gradients and Textures on page 241](#) topic to learn how to reposition your textured zones in your drawings.

You can also replace a texture once it is painted. If you decide to make the character's shirt wool instead of plaid, just update the texture file in the swatch and the entire project updates. Any transformation previously applied to the texture's position in your drawings will be kept.

**To replace a texture swatch:**

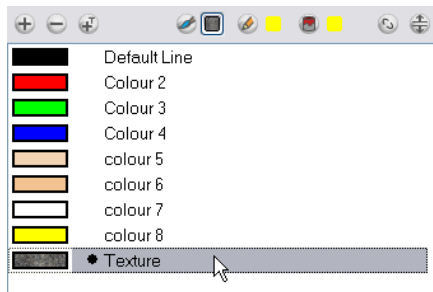
1. In the Colour view, select the texture swatch you want to change the embedded bitmap texture file in.



2. In the Colour View menu, select **Colours > Edit Texture**. You can also double-click on the swatch. The Browser window opens.
3. Browse for the new PSD or TGA bitmap file created in a third party software.



4. Click on the **Open** button to update the colour swatch.



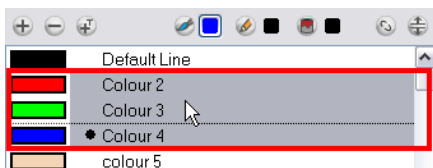
Related Topics


- [How to Paint on page 206](#)
- [Deleting a Colour Swatch below](#)

Deleting a Colour Swatch

To delete a colour swatch:

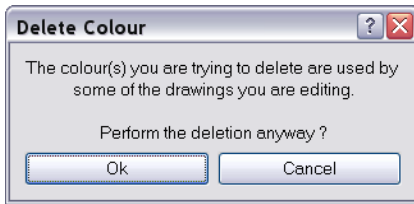
1. In the Colour view, select the colour swatches to delete.



2. In the Colour View menu, select **Colours > Delete**. You can also click on the **Delete Colour**  button.

The default keyboard shortcut is [Delete].

If the colour swatch is used in a drawing, the Delete Colour dialog box opens.



3. Click **OK** to delete the colours or click **Cancel** to abort the operation.
 - If you delete colour swatches already in use, the zones painted with them turn red so you can easily identify them.



Related Topics

- [Adding a Colour Swatch](#) on page 210

Colour Display Modes

This section describes the colour modes.

- [Switching Between Thumbnails and List Display modes](#) below
- [Displaying Colour Values](#) below

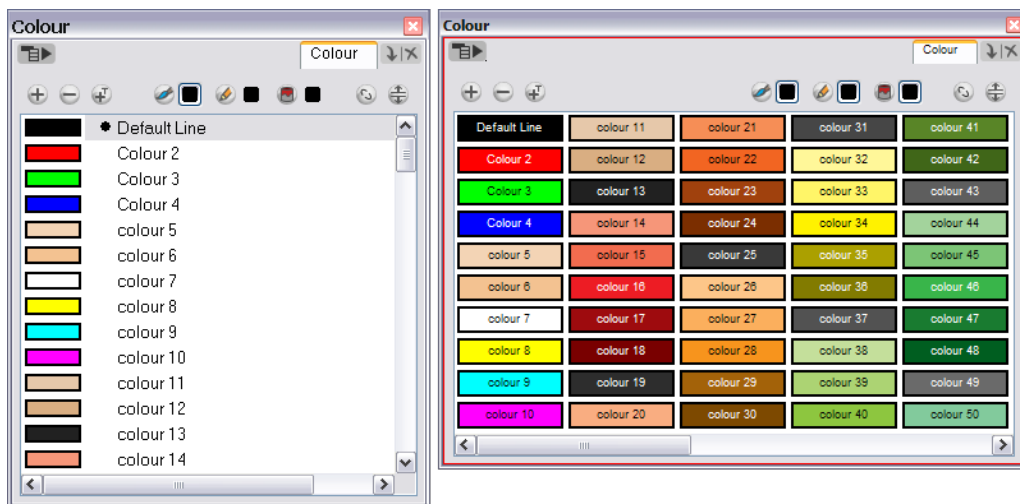
Switching Between Thumbnails and List Display modes

The Colour view has two display modes:

- List Mode
- Swatch Mode

To toggle between the display modes:

1. In the Colour View menu, select **Colours > Swatch Mode**.
 - Enable the option to display the swatches.
 - Disable the option to display the colour list.

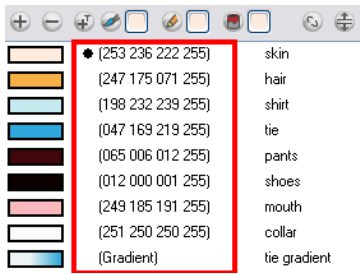


Displaying Colour Values

When using Toon Boom Harmony, you can display the RGB values and names of your solid colour swatches.



This option is not available when displaying the colours in Swatch mode.



To display the swatch colour values:

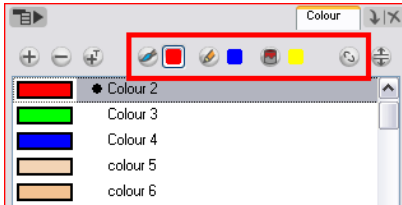
- ▶ In the Colour View menu, select **Palettes > Display Colour Values**.

The solid colour swatches' RGB values will be displayed between the colour swatch and its name. The gradient colour swatches will be identified as (gradient).

Related Topics




- [Colour View on page 40](#)

Selecting the Current Colour of a Tool



While drawing and painting, you can let Harmony retain the last colour you selected for each one of the following tools:

- Brush
- Paint
- Pencil, Ellipse, Line, Rectangle, Polyline

The Colour view has three swatches where you can set a colour for the Brush , Paint  and Pencil  tools.

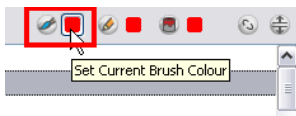
To unlink the storage swatches:


1. In the Colour view, if the storage swatches are linked, click on the **Linking**  button to unlink them.

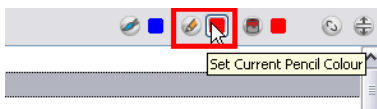



S

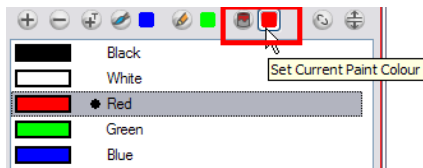
2. Click on the **Brush**  storage swatch.



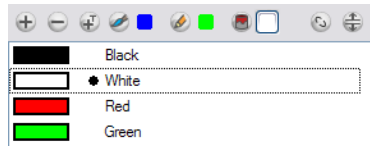
3. In the Colour list, select the desired colour.
4. Click on the **Pencil**  storage swatch.



5. In the Colour list, select the desired colour.
6. Click on the **Paint**  storage swatch.










7. In the Colour list, select the desired colour.




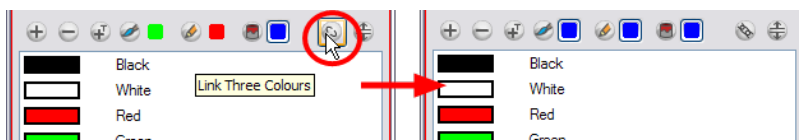
If you prefer not to use this behaviour and have Toon Boom Harmony use the same colour swatches regardless of the selected tool, you can link the three swatches together.

To link the storage swatches:

1. In the Tools toolbar, select one of the following tool:

- ▶  Brush tool
- ▶  Paint tool
- ▶ Pencil tools:
 -  Pencil tool
 -  Polyline tool
 -  Line tool
 -  Ellipse tool
 -  Rectangle tool

2. In the Colour view, if the storage swatches are linked, click on the **Linking**  button to link them.

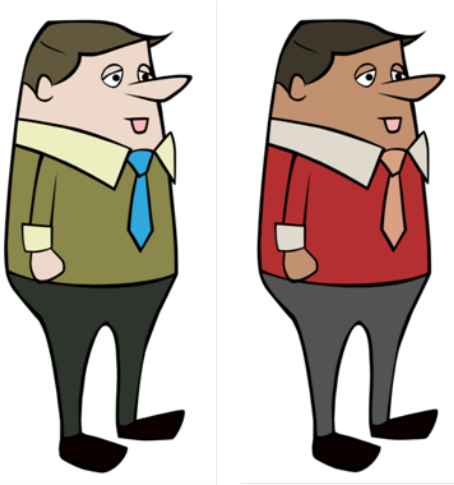



Each time you select a new colour for your current tool, all the storage swatches are updated.

Related Topics

- [How to Paint on page 206](#)

Painting Using the Paint Tool

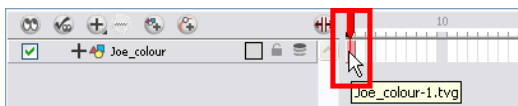



The main tool you will use to paint your drawings with is the Paint  tool. The Paint tool can be used in several different modes, these can be customized in the Tool Properties view.

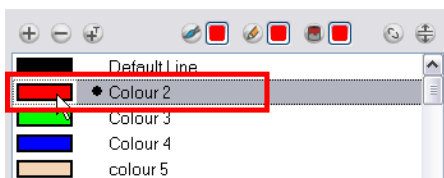
The Paint tool paints closed zones, this includes brush strokes, as well as pencil lines. If you have gaps in the lines defining a zone, you will have to close them using either the Brush, Pencil, Close Gap tools or the Automatic Close Gap option.

To paint with the Paint tool:

1. In the Timeline or Xsheet view, select the cell where you want to paint.



2. In the Tools toolbar, click on the **Paint**  tool or press [Alt] + [I]. You can also select the Paint tool in the top menu under **Drawing > Tools > Paint**.
3. In the Colour view, select a colour.



4. In the Camera view, start painting. You can click on a zone or pencil line to paint it, or you can trace a lasso or marquee selection to paint several zones or pencil lines at once.



The last colour you select while using the Paint tool will be remembered the next time you select the Paint tool.

Related Topics

- [Paint Tool Properties](#) on the facing page

Create Breaking Triangles to Paint Brush Strokes

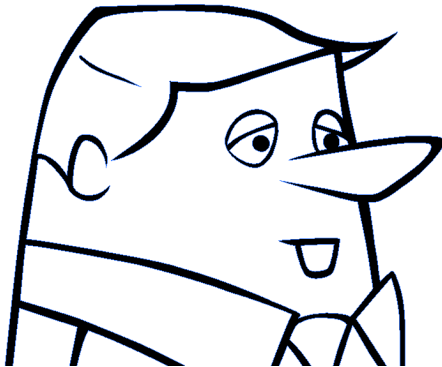
Not available in Harmony Paint.

The Brush tool is often the most intuitive and rapid tool for creating rough sketches and clean lines. A single colour, such as black, is often used when tracing a clean version of a rough sketch. However, when it comes time to soft trace the lines in different colours, the flattened or unflattened clean brush strokes can suddenly become time consuming to ink.

Toon Boom Harmony provides a solution by creating triangular breaks at natural line intersections. These intersections are the probable locations of where colour line breaks may occur, such as where a sleeve meets a hand.


To create breaking triangles on a drawing:

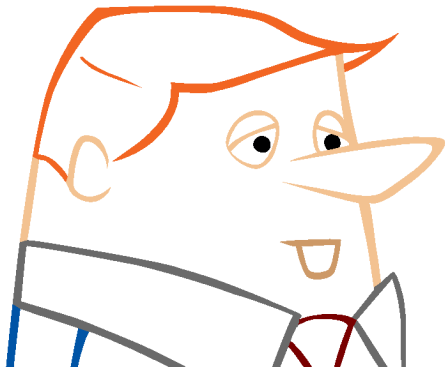
1. In the Camera or Drawing view, use the Select tool to select part or all of the drawing to be broken.



2. In the top menu, select **Drawing > Create Breaking Triangles**. If your brush strokes are not flattened, they will be flattened automatically before the breaking occurs.

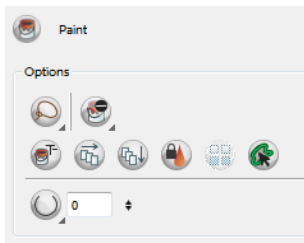


3. Use the Repaint tool  to paint the outline of different colour zones with different colours.



Paint Tool Properties



When you select the Paint tool, its properties and options appears in the Tools Properties view.



- [Lasso and Marquee](#) below
- [Painting Mode](#) on the next page
- [Automatic Close Gap](#) on page 227
- [Paint and Remove Texture](#) on page 228
- [Apply to Multiple Drawings](#) on page 228
- [Apply to All Visible Drawings](#) on page 229
- [Respect Protected Colour](#) on page 229
- [Use Stored Colour Gradient](#) on page 230
- [Select Newly Painted/Repainted/Unpainted Contours/Lines](#) on page 230

Lasso and Marquee

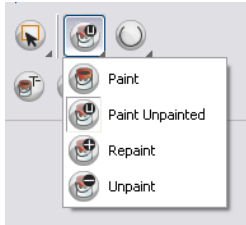
The Lasso and Marquee options let you choose what type of selection the Paint tool will do when you will click and drag your cursor to paint your drawings. The default selection mode is Marquee.


- The Marquee  option makes a rectangle selection box. Everything inside the selection will be painted according to the painting mode you selected.
- The Lasso  option lets you draw a custom selection box around the zones to be painted. Everything inside the selection will be painted according to the painting mode you selected.


Hold down the [Alt] key to switch to the opposite mode of your selection.

Painting Mode


The Paint tool has four different modes available:



 Paint Mode

 Paint Unpainted Mode


 Repaint Mode

 Unpaint Mode

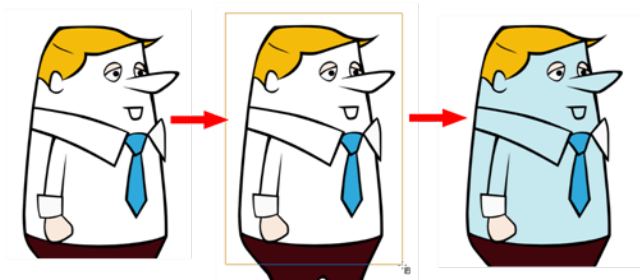
You can also find these tools directly in the Tools toolbar and in the Drawing Tools menu.


Paint Mode



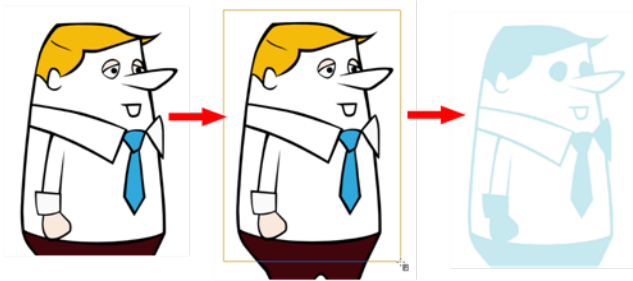
The Paint  mode paints everything it touches, including empty and filled zones.


Paint Unpainted Mode



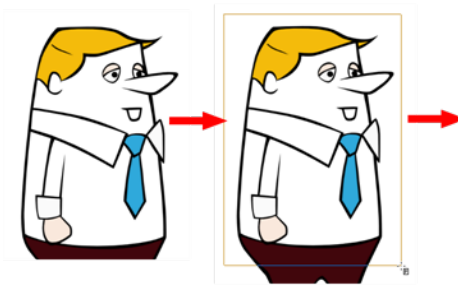
The Paint Unpainted  mode paints only empty zones. Any line or filled zone will remain unchanged.


Repaint Mode



The Repaint  mode paints everything it touches except empty zones. Any zone that is not painted will remain intact.

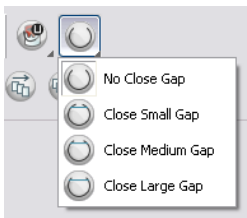
Unpaint Mode




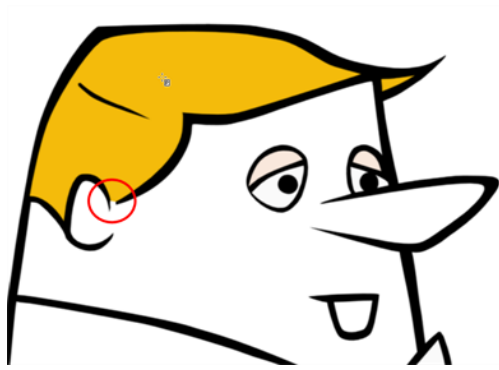
The Unpaint  mode unpaints everything it touches, including empty and filled zones.

Automatic Close Gap

The Automatic Close Gap option has four modes available:

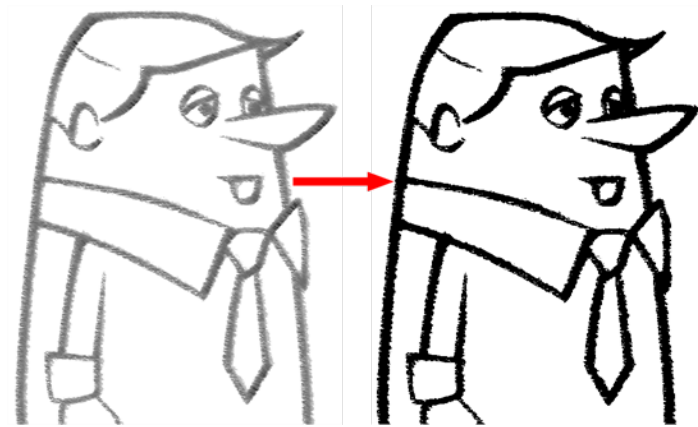



The Automatic Close Gap  option is used while painting drawings with small gaps. Instead of having to close them manually either with the Brush tool or Close Gap tool, Toon Boom Harmony will analyze the drawing and close the gaps while you paint according to the selected mode.



The automated gap closing should be done using the zoom function setting of your Camera or Drawing view. If your eye does not see the gap, Toon Boom Harmony won't either.

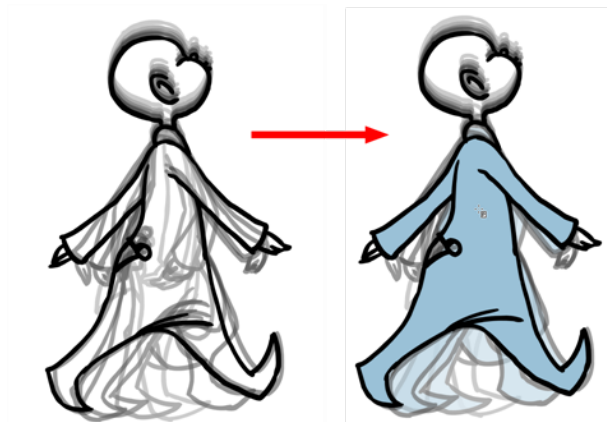
Paint and Remove Texture




The Paint and Remove Texture  option is used when you vectorized some images as greyscale texture style.

An image vectorized as texture is a mix of bitmap filling encapsulated in a vector based frame. Painting a textured zones with the Paint tool will change the tint of the textured lines. Painting the textured zones using the Paint and Remove Texture option transforms the bitmap filling into a 100% vector based zone and fills it with a solid colour.

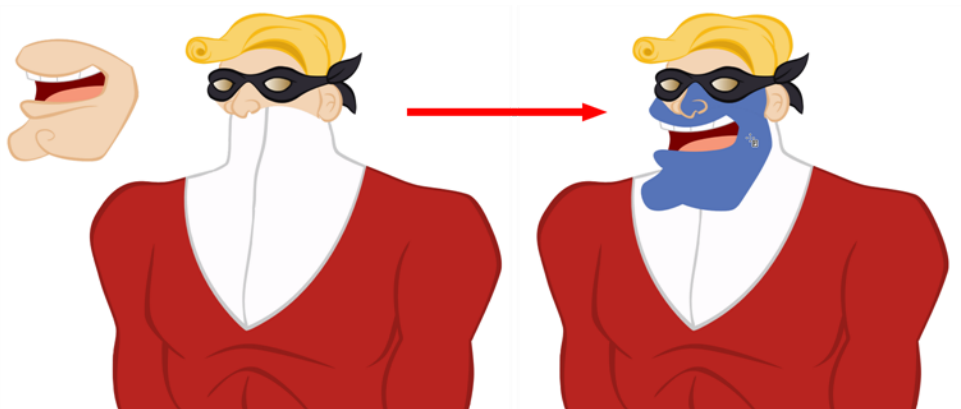
Apply to Multiple Drawings




The Apply to Multiple Drawings  option is used for hand-drawn animation fast painting. When you want to paint several drawings in a same layer at once, such as a walk cycle, you can enable this option and make a selection in your Camera or Drawing view. All the closed zones located within your Paint tool selection are painted with the selected colour swatch.

You do not need to enable the Onion Skin preview to use this option. The option will stay enabled only for the next action. If you want to use it again, you must click on the Apply to Multiple Drawings button again, or press [Alt] + [A].

Apply to All Visible Drawings




The Apply to All Visible Drawings  option is used to paint several drawings on separated layers on the current frames. If you have a character broken in several layers, you can enable this option to paint all your layers at once. The operation is only applied on the current frame.

The option will stay enabled only for the next action. If you want to use it again, you must click on the **Apply to All Visible Drawings** button again.

This option is only available in the Camera view and does not affect symbols.

Respect Protected Colour

The Respect Protected Colour  option is enabled by default. In your Colour view, you can protect some colour swatches to avoid repainting or unpainting the zones linked to that swatch.


If you disable this option the Paint tool will not follow the protect colour rule and will repaint or unpaint the protected colours on your drawings until you enable the option again.




Refer to the [Protecting Colours on page 250](#) topic to learn how to lock your colours.

Use Stored Colour Gradient



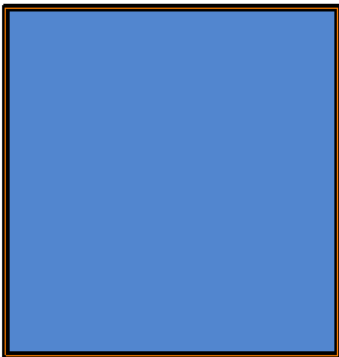
When you paint a zone with a gradient or textured colour swatch, the gradient or texture's position is set relative to the size of the zone you are painting. If you want the Paint tool to use a particular size and position, you must first store your desired position and size using the Select  tool and then enable the **Use Stored**


Colour Gradient  option in the Paint tool Tool Properties view.



Refer to the [Storing Your Favourite Gradient or Texture Settings](#) on page 245 topics to learn how to store your gradient or texture position.

Select Newly Painted/Repainted/Unpainted Contours/Lines



In the Paint  tool Tool Properties view, engaging this option will keep a selection highlighted around the latest painted zone after using either the Paint, Repaint, Unpaint, or Paint Unpainted tool.

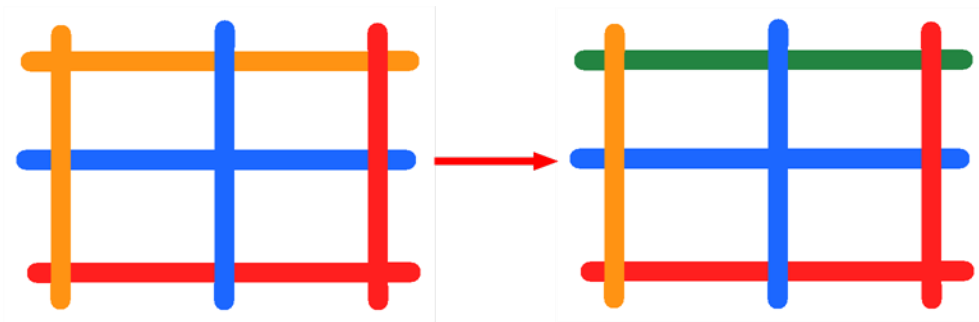
Related Topics


- [Painting Using the Paint Tool on page 223](#)

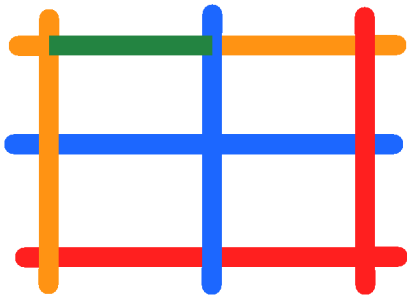
Painting Pencil Lines with the Ink Tool

Although pencil lines can be painted in much the same way as closed zones, you can use the Paint, Repaint, Repaint Brush, and Ink tools to make painting segmented lines easier.

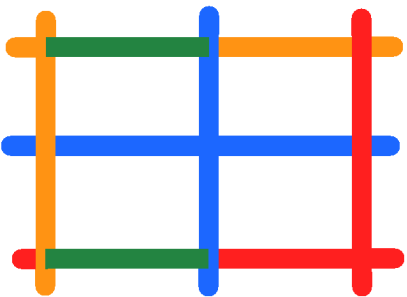
Normally when you have a drawing, such as the one below, and you use the Paint tool to paint one of the lines, the entire line is painted.



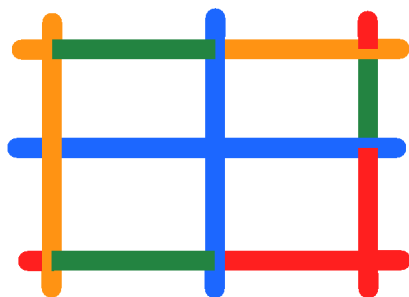
However, if you select the **Ink**  tool instead and click on the same pencil line, only the segment that you clicked on between two intersections will be painted.



The newly inked segment will always be moved to the front of all other pencil strokes, even if it was behind all other pencil strokes before it was inked.



That is, unless you hold down [Alt] while clicking a segment. Then the opposite becomes true. The inked segment will be sent to the back, even if it was in front of all other segments to begin with.



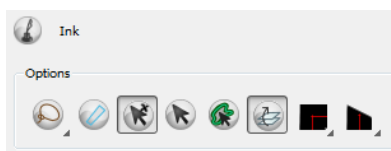
Painting and Inking can be used in combination depending on what it is that you need to paint. If you need to ink a character's outline in black, it might be easier to use the Paint tool. If you need to paint the outline of a character's neck with a tan colour and its shirt outline blue and both the neck and shirt belong to the same continuous outline, then the Ink tool might prove more useful.

Related Topics

- [Ink Tool Properties](#) below

Ink Tool Properties



When you select the **Ink** tool, its properties and options appears in the **Tools Properties** view.



- [Lasso and Marquee](#) below
- [Show Inkable Lines](#) on the facing page
- [Be Smart on Connecting Lines](#) on the facing page
- [Select Mode](#) on the facing page
- [Arrange Ink Lines](#) on the facing page
- [Mitre](#) on the facing page
- [Tip Style](#) on the facing page


Lasso and Marquee

The Lasso and Marquee options let you choose what type of selection the Paint tool will do when you will click and drag your cursor to paint your drawings. The default selection mode is Marquee.


- The Marquee  option makes a rectangle selection box. Everything inside the selection will be painted according to the painting mode you selected.
- The Lasso  option lets you draw a custom selection box around the zones to be painted. Everything inside the selection will be painted according to the painting mode you selected.

Hold down the [Alt] key to switch to the opposite mode of your selection.

Show Inkable Lines

The **Show Inkable Lines**  option highlights all pencil lines (so no brush strokes) on the selected layer. Pencil line segments that are already inked with the selected swatch colour from the colour palette are also not highlighted.


Be Smart on Connecting Lines

With this  option selected, as you hover and move the cursor across intersecting pencil lines, the path that you create will get highlighted. When you click on your mouse or stylus the highlighted segments will get inked.


With this option disabled, all the intersecting segments that your cursor comes near will get highlighted and become part of the selection, even if they were not situated in the direction of the chosen path.

This option only works if the **Ink** tool is in **Hover Mode** and not **Select Mode**.

Select Mode


Use this  mode instead of the **Hover Mode**. In the **Hover Mode**, any potentially inkable pencil line will have its central vector line highlighted as the **Ink** tool's cursor hovers over it. Use [Ctrl] (Windows/Linux) or [⌘] (Mac OS X) to toggle between the two modes.

Arrange Ink Lines

Use this  option to have every newly inked line be brought to the front. Disable this option to have every newly inked line be sent to the back. Use [Alt] to toggle between the two options.

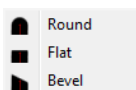
Mitre

As you hover over two perpendicular or nearly perpendicular segments a highlighted path with a corner is created. Clicking on these highlighted segments inks both segments and makes them appear as a single stroke with a corner or bend.

Click on the **Mitre**  button to reveal four options from its drop down menu. Select either **Round**, **Mitre**,

Bevel or **As Is** before creating corner selections to make a bend in the path either round, sharp, bevelled or gapped.

Tip Style



Use the **Tip Style** option to customize the edge of the **Ink** tool.

Related Topics

- [Painting Pencil Lines with the Ink Tool](#) on page 231

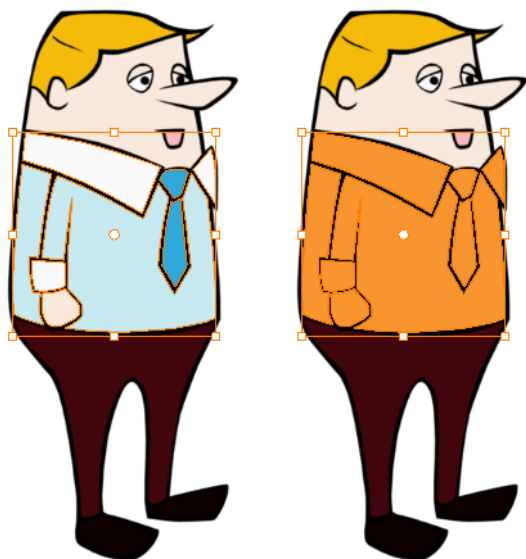
Advanced Painting Features




The following advanced painting features are available in Toon Boom Harmony and are described in this section:

- [Repaint Selection](#) on the facing page
- [Repaint Selection On All Drawings](#) on the facing page
- [Repaint Outside Selection](#) on page 236
- [Repaint Outside Selection On All Drawings](#) on page 236
- [Unpaint Selection](#) on page 237
- [Unpaint Selection On All Drawings](#) on page 237
- [Unpaint Outside Selection](#) on page 238
- [Unpaint Outside Selection On All Drawings](#) on page 238

Repaint Selection

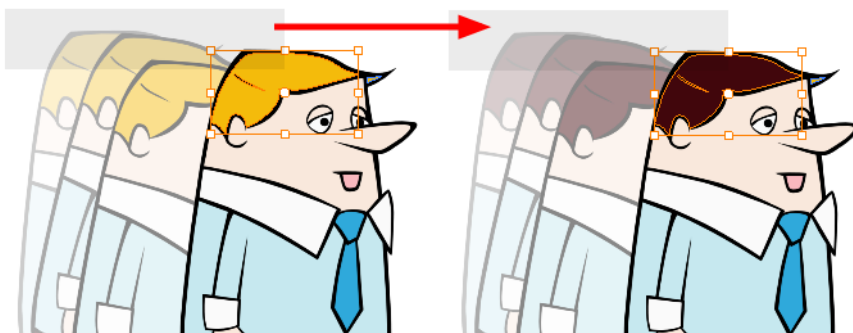



The Repaint Selection command is used to repaint any art inside a selection. You must first draw a selection using the Select  tool in order for this command to be available.


To use the Repaint Selection command:

- Select **Drawing > Paint > Repaint Selection**.

Repaint Selection On All Drawings



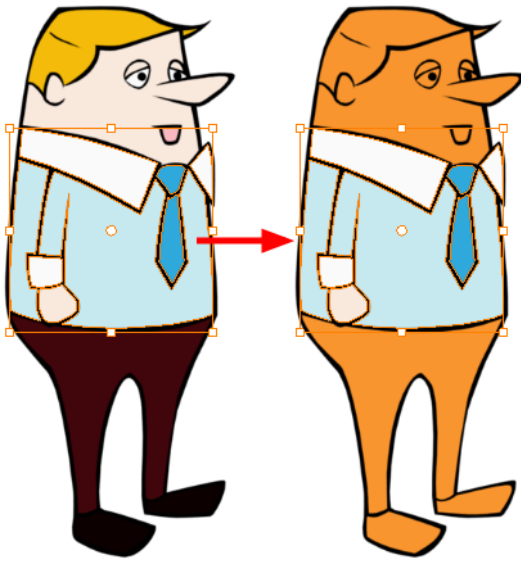
The Repaint Selection On All Drawings command is used to repaint any art inside a selection on all the drawings contained within the same layer. You must enable the Permanent Selection  option in the Select tool Tool


Properties view and then draw a selection in your drawing using the Select  tool in order for this command to be available. The Permanent Selection option is used to maintain the same selection throughout the drawings of a same layer.

To use the Repaint Selection On All Drawings command:

- Select **Drawing > Paint > Repaint Selection On All Drawings**.

Repaint Outside Selection

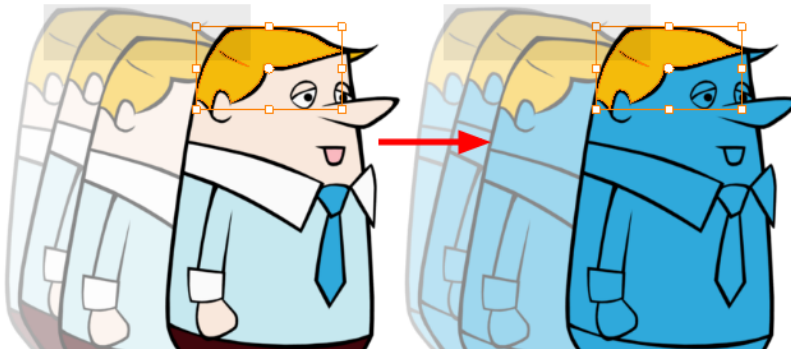




The Repaint Outside Selection command is used to repaint any art outside a selection. If no selection has been drawn using the Select  tool, the entire drawing will be repainted.

To use the Repaint Outside Selection command:

- Select Drawing > Paint > Repaint Outside Selection.

Repaint Outside Selection On All Drawings

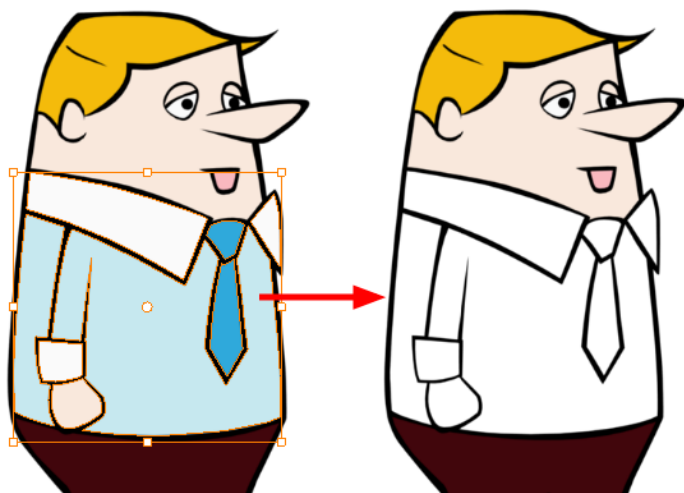



The Repaint Outside Selection On All Drawings command is used to repaint any art outside a selection on all the drawings contained within the same layer. You must enable the Permanent Selection  option in the Select tool Tool Properties view and then draw a selection in your drawing using the Select  tool in order for this command to be available. The Permanent Selection option is used to maintain the same selection throughout the drawings of a same layer.

To use the Repaint Outside Selection on All Drawings command:

- Select Drawing > Paint > Repaint Outside Selection on All Drawings.

Unpaint Selection

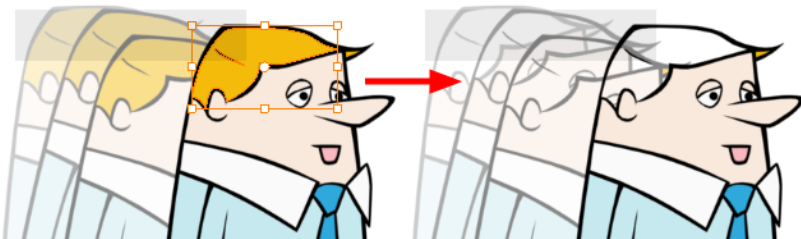



The Unpaint Selection command is used to unpaint any art existing inside a selection. You must first draw a selection using the Select  tool in order for this command to be available.

To use the Unpaint Selection command:

- Select Drawing > Paint > Unpaint Selection.

Unpaint Selection On All Drawings



The Unpaint Selection on All Drawings command is used to unpaint all art contained inside a selection on all the drawings within the same layer. You must enable the Permanent Selection  option in the Select tool Tool

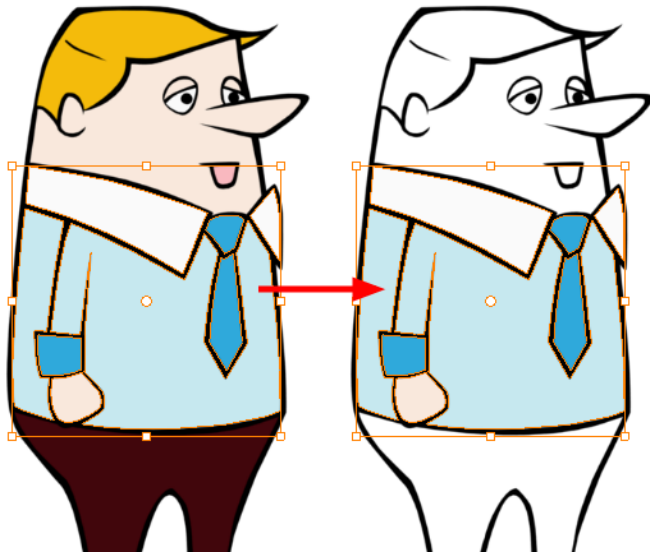
Properties view and then draw a selection in your drawing using the Select  tool in order for this command to


be available. The Permanent Selection option is used to maintain the same selection throughout the drawings of a same layer.

To use the Unpaint Selection On All Drawings command:

- Select Drawing > Paint > Unpaint Selection On All Drawings.

Unpaint Outside Selection

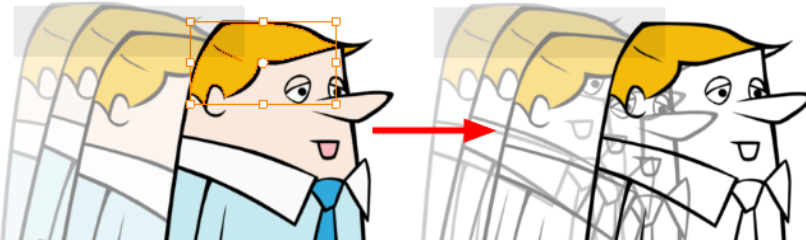



The Unpaint Outside Selection command is used to unpaint any art existing outside a selection. If no selection have been drawn using the Select  tool, the entire drawing will be unpainted.


To use the Unpaint Selection command:

- Select Drawing > Paint > Unpaint Outside Selection.

Unpaint Outside Selection On All Drawings



The Unpaint Outside Selection on All Drawings command is used to unpaint all art outside a selection on all the drawings within the same layer. You must enable the Permanent Selection  option in the Select tool Tool

Properties view and then draw a selection in your drawing using the Select  tool in order for this command to be available. The Permanent Selection option is used to maintain the same selection throughout the drawings of a same layer.

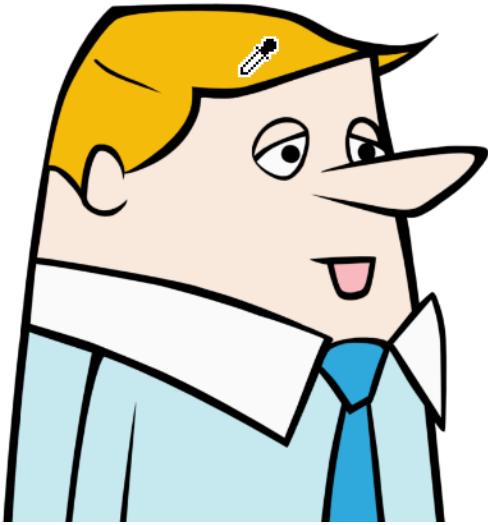
To use the Unpaint Outside Selection On All Drawings command:


- Select Drawing > Paint > Unpaint Outside Selection On All Drawings.

Related Topics


- [Select Tool Properties on page 130](#)

Selecting a Colour in a Drawing



While working in your Camera or Drawing view, you can use the Dropper  tool to pick a colour from your drawing without going to the Colour view.

To use the Dropper tool:

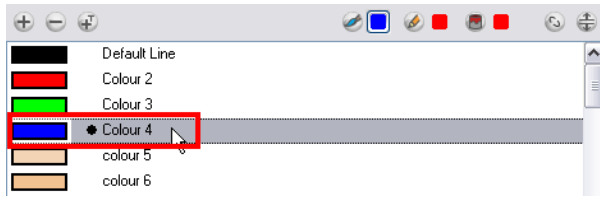
1. In the Tools toolbar, select the **Dropper**  tool or press [Alt] + [D]. You can also select the Dropper tool from **Drawing > Tools > Dropper** in the top menu.
2. In the Camera or Drawing view, click on the desired colour.
 - If you are using another drawing tool such as the Paint tool, you can temporarily hold down the [D] key and click in your drawing before releasing the key to pick your colour. Once you let go the hot key, Toon Boom Harmony will go back to your previous tool.

You may also want to select the zones painted with the colour currently selected in the Colour view. This can be useful to remove rough lines from a clean drawing.



To select the zones painted with the current colour:

1. In the Colour view, select the colour you want to select the corresponding zones from.




2. Select **Drawing > Select Strokes with Current Colour**.
Or press [Ctrl] + [Shift] + [A] (Windows/Linux) or [⌘] + [Shift] + [A] (Mac OS X).

Related Topics


- [How to Paint on page 206](#)

Editing Gradients and Textures



If you paint a zone or pencil line with a gradient or texture you can use the Edit Gradient/Texture  tool to modify its position in the zone. You can move, scale, rotate and skew. If you have to match the transformations performed on a gradient or texture from one zone or pencil line to many others, you can copy and paste the Edit Gradient/Texture position. When moving to the next drawing, you can select the next texture and paste the previous position to continue the modifications.

To use Edit Gradient/Texture tool on a zone:

1. In the Tools toolbar, select the **Edit Gradient/Texture**  tool. You can also select this tool from the top menu under **Drawing > Tools > Edit Gradient/Texture** or press [Shift] + [F3].
2. Click on the Gradient or Texture zone to be modified.

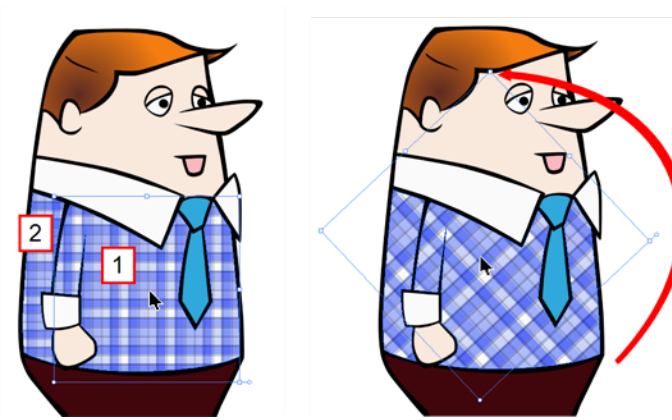


Linear Gradient





Radial Gradient


- ▶ If you want to modify several areas at once, hold down the [Shift] key and click on the zones to be modified.

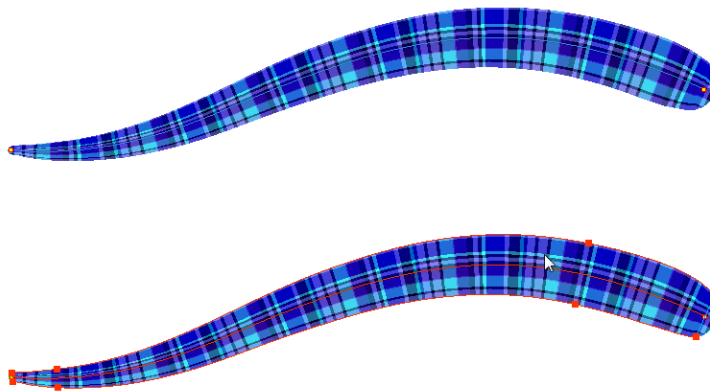


3. Move the edit texture's anchor points to the desired result.
 - If the same modification needs to be applied to another gradient in another drawing or texture zone, you can select the modified zone and select **Edit > Copy**. Select the zone to be modified in the other drawing and select **Edit > Paste**.

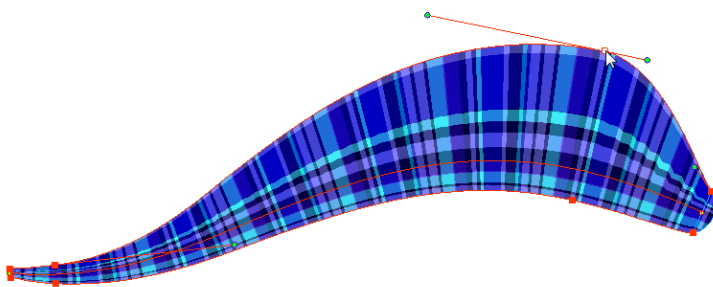
A pencil line can have its gradient, texture or texture's gradient edited in two different ways, either with the Pencil Editor  or with the Edit Gradient/Texture  tool.

To use Pencil Editor tool to edit the texture or gradient on a pencil line:

1. In the Tools toolbar, select the Pencil Editor  tool. You can also select this tool from the top menu under **Drawing > Tools > Pencil Editor** or press [Alt] + [W].
2. Click on the pencil line to be modified to bring up its contour envelope.

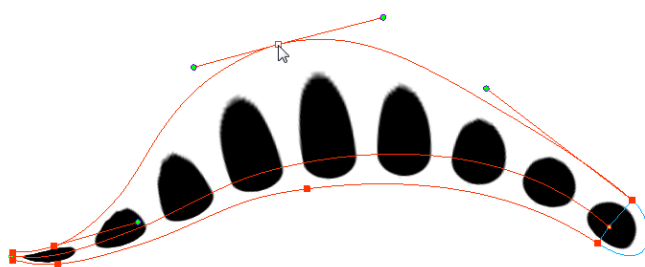


3. Select one of the contour points around the envelope and move its position to change the size of the tiled texture or gradient. You can also pull directly on the lines of the contour envelope or play with the bezier handles of any given point in order to continue to modify the envelope form.




Expanding the width of the envelope parallel to the pencil line's central vector will cause the tiled texture to be stretched. Conversely, reducing the envelope's width will cause the tiled texture to look squashed.

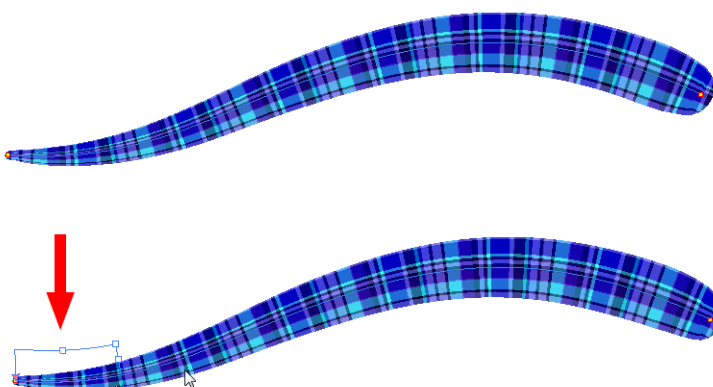
Reducing the contour's width perpendicular to the pencil line's central vector will reduce the number of tiles, while expanding it will increase the number of tiled images.



This editing technique does not just work on texture fills, but can also be applied to pencil lines drawn with a textured "brush".

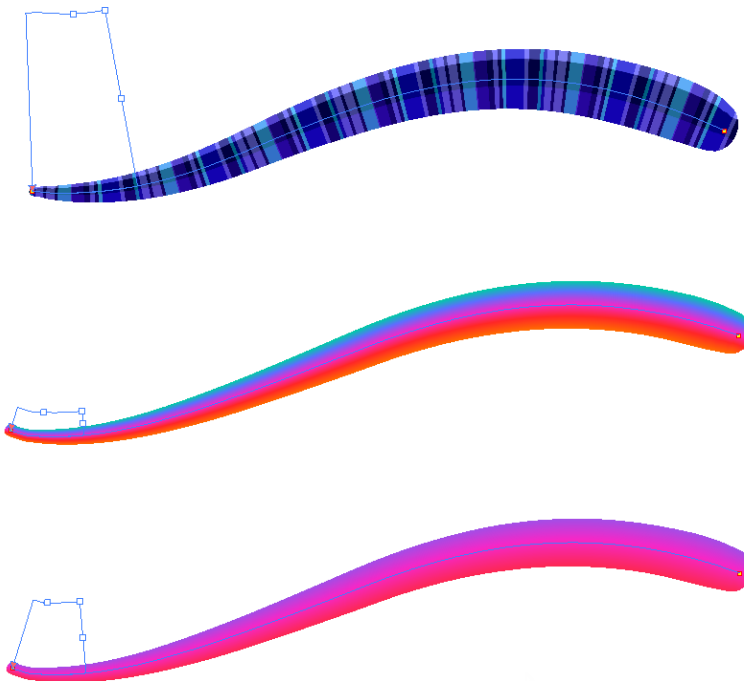
To use Edit Gradient/Texture tool to edit the texture or gradient on a pencil line:

1. In the Tools toolbar, select the **Edit Gradient/Texture**  tool. You can also select this tool from the top menu under **Drawing > Tools > Edit Gradient/Texture** or press [Shift] + [F3].
2. Click on the pencil line to be modified to bring up the editor controls.

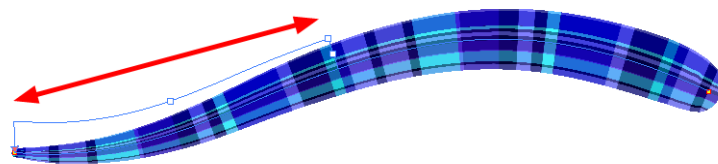


3. The editor controls delineate a single tile in the texture. For gradients, this is less applicable. Pull on the top of the editor controls to stretch the tiled texture throughout the length of the stroke.

As gradients are parallel to the stroke's central vector, this will stretch the way that the gradient is distributed in the pencil line's envelope. The envelope still acts as a boundary for the texture or gradient.



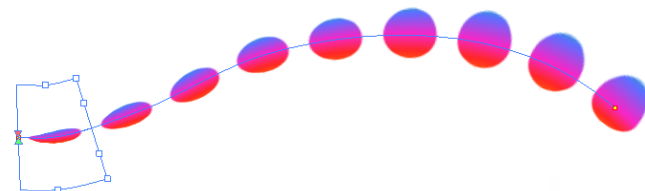
4. Drag the editor control perpendicular to the stroke. You will feel it glide along the stroke's central vector line. This is another way to resize the texture tile. Instead of stretching or shrinking it vertically, this motion stretches or shrinks it horizontally. As gradients are parallel to the pencil line's central vector, stretching them vertically gives no visual result.



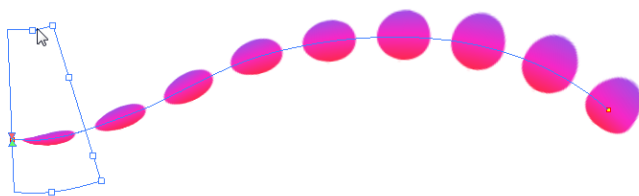
This way of editing a texture using the Edit Gradient/Texture tool also works with pencil lines drawn with textured "brushes". If you then paint your textured pencil line with a gradient, you can do so and then edit both elements independently at the same time.

To use Edit Gradient/Texture tool to edit both the texture and the gradient of a pencil line:

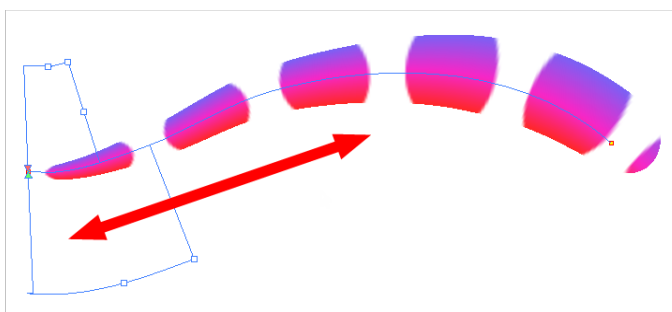
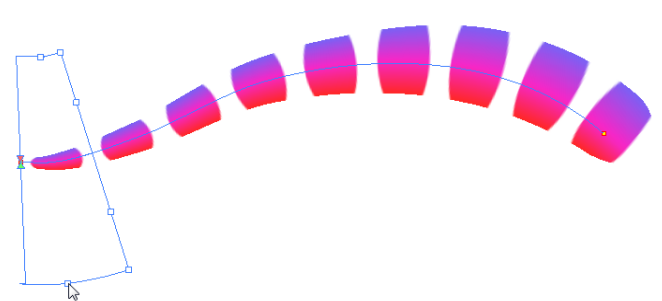
1. In the **Tools** toolbar, select the **Edit Gradient/Texture**  tool. You can also select this tool from the top menu under **Drawing > Tools > Edit Gradient/Texture** or press [Shift] + [F3].
2. Click on the pencil line to be modified to bring up the editor controls.



3. Use the top editor controls edit the gradient.



4. Use the bottom controls edit the “brush” texture.




Related Topics

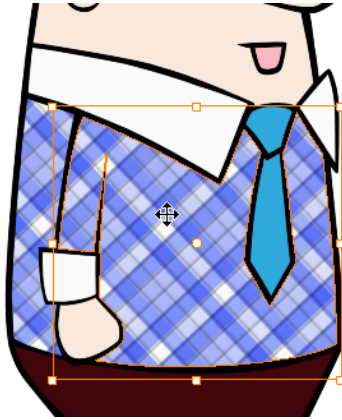
- [Drawing Using the Pencil Tool](#) on page 73
- [Storing Your Favourite Gradient or Texture Settings](#) below


Storing Your Favourite Gradient or Texture Settings

If you are painting a hand-drawn animation or if you want the Brush tool and Paint tool to use your gradient’s position, angle and scale settings instead of the default ones, you can store your own settings and reuse them afterward.




To store your gradient and texture settings:

1. In the Tools toolbar, select the **Select**  tool or press [Alt] + [S].
2. In the Camera or Drawing view, select the gradient or texture zone to store.



3. In the **Tool Properties** view, click on the **Store Colour Gradient**  button.

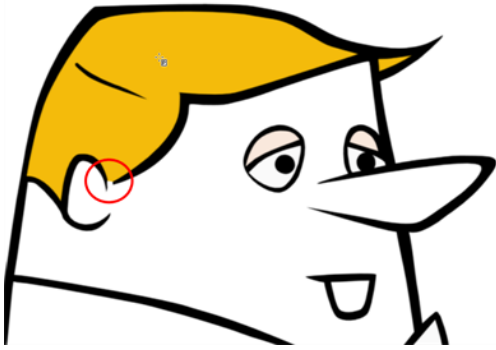
To use the stored gradient and texture settings:

1. In the **Tools** toolbar, select the **Brush**  or **Paint**  tool.
2. In the **Tool Properties** view enable the **Use Stored Colour Gradient**  button.
3. In the **Camera** or **Drawing** view, draw and paint.

Related Topics

- [Editing Gradients and Textures](#) on page 241



Closing Gaps Manually



When painting, notice that some of your drawing areas are not closed. To close the zone, you can either draw the missing line with the Brush or Pencil tool, or close the gap with an invisible line. To do this, you will use the Close Gap tool.

The Close Gap tool is used to close small gaps in a drawing. The Paint tool only paints closed areas. The Close Gap tool will create a small, invisible stroke between the two closest points to close the colour zone. You do not need to trace directly over the gap. You can draw it a few millimeters away. The two closest points automatically close up the gap.

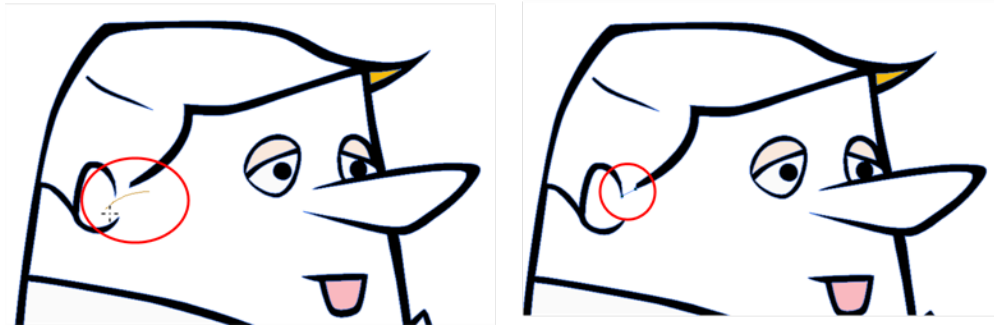
To close gaps:

- In the Tools toolbar, select the **Close Gap**  tool, select **Drawing > Tools > Close Gap** or press [Alt] + [C].
 - Enable the **Auto-Flatten**  option in the Tool Properties view if you want the stroke you will draw to be flattened in your drawing instead to be on top.
 - You can display the invisible lines with the Show Strokes option under **View > Show Strokes** or press [K].
 - If you do not display the strokes, a Message dialog box will appear.



Enabling the Don't Show This Message Again option prevents this Message dialog box from appearing.

- In the Camera or Drawing view, trace an invisible line near to the gap to be closed. The gap will automatically close.

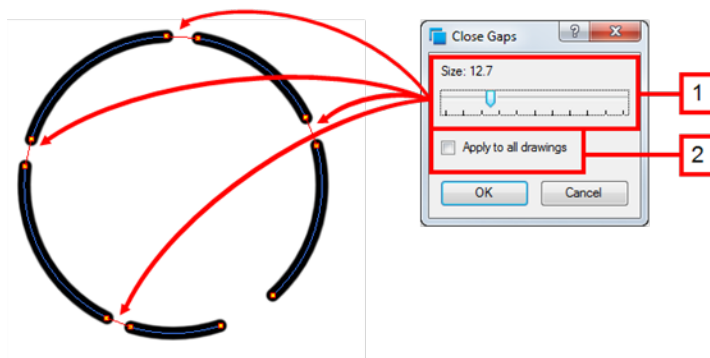


Related Topics

- [Close Gaps](#) below
- [How to Paint](#) on page 206

Close Gaps

When you have too many gaps in your drawings, you can use the Close Gaps feature in Toon Boom Harmony



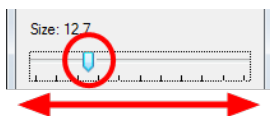
1. Close Gaps slider: Use this slider to determine the size of the gap you want to be closed. Move the slider to the left for smaller gaps and move it to the right for bigger gaps.
2. Apply to all drawings: Enable this option so that the **Close Gaps** feature is applied to all the drawings of the selected layer.

To use the Close Gaps feature:

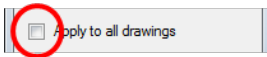
1. Select the **Show Strokes** option to see a preview of the result.
2. Select **View > Show Strokes** or press [K].
3. Select **Drawing > Clean Up > Close Gaps** or press[Shift] + [F10] (Windows/Linux only).

The Close Gaps dialog box opens.

4. Adjust the slider.



5. Select the **Apply to all drawings** option if needed.



6. Click OK.



Refer to [Colour Preferences](#) on page 293 at the end of this chapter to learn more about the Close Gap options.

Related Topics

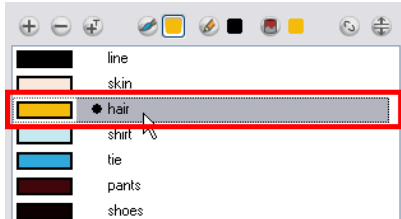
- [Closing Gaps Manually](#) on page 247

Protecting Colours

When you are finished painting some zones, you can protect the colour swatch they are associated with so the work cannot be accidentally painted over.

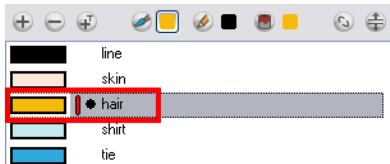
To use Protect Colour:

1. In the Colour view, select the colour to be protected.



2. In the Colour view menu, select **Colours > Protect Colour**. You can also right-click on the selected colour and select **Protect Colour**.

A red bar will appear on the side of the colour, notifying you that it is locked.

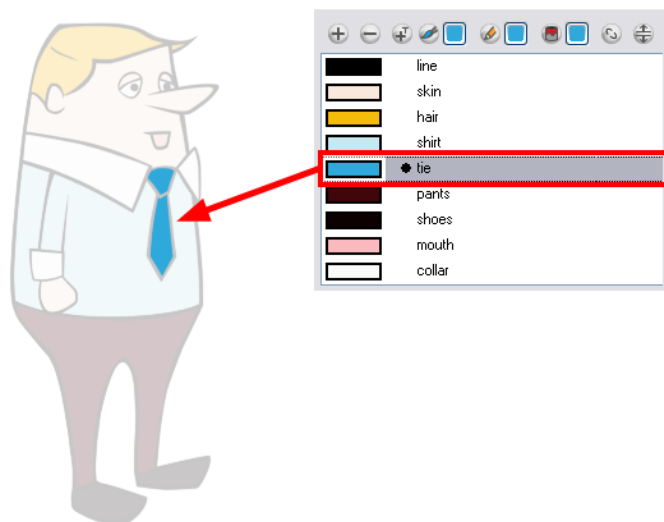


Related Topics

- [Respect Protected Colour](#) on page 229

Highlighting the Selected Colour

The Highlight Selected Colour option is used to identify colour pots used in a drawing. For example, if you have unnamed colours in your palette and you want to find out if a particular colour pot was used on the current model or drawing, you can select the colour pot and use the Highlight Selected Colour option. The system will wash out all the colours in the drawing except the selected one so that it stands out and can be identified. You can rename it accordingly.



To use the Highlight Selected Colour option:

1. In the Colour view, select the colour you want to highlight.
2. In the Drawing view or Camera view menu, select **View > Show > Highlight Selected Colour**.

Related Topics

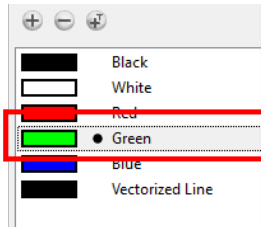
- [Selecting a Colour in a Drawing](#) on page 239

Inverting a Colour Selection

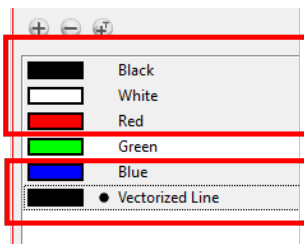
When you need to select all colour swatches but one, or select only a few swatches here and there, it might be faster to select the only colour you do not need, in order to select and invert the selection.

To invert a colour swatch selection in the Colour view:

1. In the Colour view, select the colour swatch you **DO NOT** want to have in your final selection.



2. In the top menu, select **Edit > Invert Selection**.



Related Topics

- [Colours](#) on page 208

Line Art and Colour Art Layers

Toon Boom Harmony has an option allowing you to paint the lines and the colour fills separately.

In Toon Boom Harmony, a drawing is composed of four embedded layers:

- Overlay Layer
- Line Art Layer
- Colour Art Layer
- Underlay Layer

In general, use the Line Art and Colour Art layers. The Underlay and Overlay layers are used for advanced purposes.

Refer to the topic to learn more about these layers.

Toon Boom Harmony has an option allowing you to paint the lines and the colour fills separately.

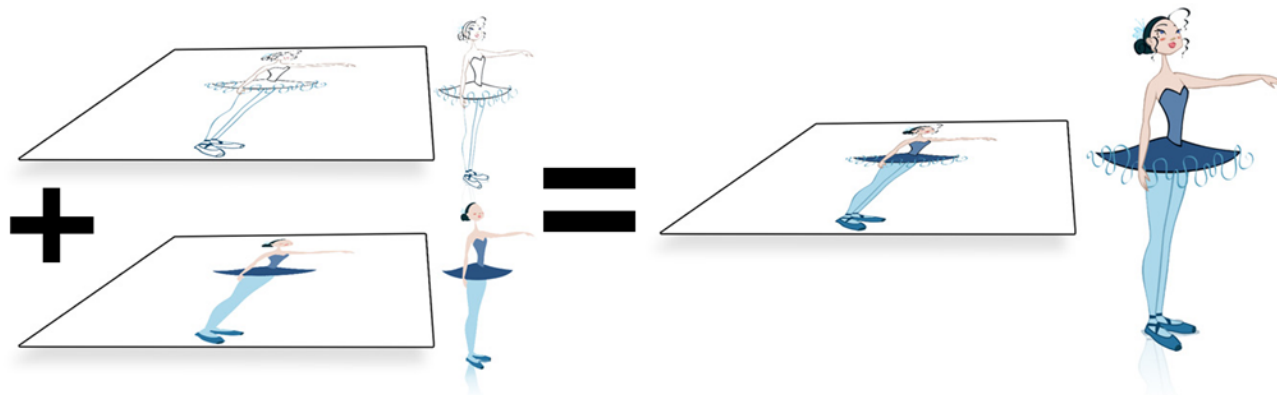
In Toon Boom Harmony, a drawing is composed of two embedded layers:

- Line Art Layer
- Colour Art Layer



The Line Art and Colour Art layers are only available in the Advanced Art Mode.

By default, you draw on the Line Art layer. The colour layer is always placed under the Line Art layer. These layers are accessible in the Drawing or Camera view (using drawing tools). When you look at your final drawing in the Timeline, Xsheet or Network view, you will not see four layers; instead you will see the final composition of the lines and colours.



You can draw and paint in all layers, but if you prefer working in a single layer, you can do everything in Line Art.




The main advantage of using the Line Art and Colour Art option is so you can repaint the lines easily. If your colour fills are separated from the lines, it allows you to use the repaint tool and paint the lines without affecting

the colour zones. Also, it allows you to paint tones and highlights in line art and then add some transparency to see the Colour Art through it.



In order to paint in the Colour Art, you must first use the Create Colour Art from Line Art option to create colour zones in the Colour Art. You need to use this option to paint drawings vectorized as greyscale texture style.

To toggle between Line Art and Colour Art and enable the Preview mode:

1. In the Tools toolbar, select any drawing tool.
2. To toggle between Line Art and Colour Art:
 - ▶ In the Drawing view, right-click and select **Switch to Colour Art/Switch to Line Art** or s[L].
 - ▶ In the Drawing or Camera bottom toolbar, click on the **Colour Art**  button.
 - ▶ In the Drawing or Camera bottom toolbar, click on the **Line Art**  button.
3. To preview the Line Art and Colour Art at the same time:
 - ▶ In the Drawing view, right-click and select **Preview Line Art and Colour Art**. While using the Preview mode, you still edit one mode at a time or press [Shift] + [P].
 - ▶ In the Drawing or Camera bottom toolbar, click on the **Preview**  button. To be able to see only one of the layers at a time in the Camera view, you must enable the **Current Drawing on Top** option, available from the Camera bottom toolbar drop-down menu. If this option is not enabled, you will see the final composition of all four layers.




In order to edit both Line Art and Colour Art at the same time, you must enable the Apply to Line Art and Colour Art button in the Tool Properties of the tools supporting the operation.


Underlay and Overlay Layers

In Toon Boom Harmony, you have two extra art layers available beside the Line Art and the Colour Art, the Underlay and the Overlay layers. The Underlay is situated at the very bottom and the Overlay at the very top.

Underlay

The Underlay  layer can be used like any other of the art layers available in the drawing, but since it is situated behind everything else, you can use it to create a matte for a quick line-test, write notes or store your rough animation.

Overlay

The Overlay  layer can be used as any other of the art layers available in the drawing, but since it is situated on top of every other, it can be useful for writing notes about the colour model or animation or to draw the highlight and tone shapes.

Related Topics

- [Generating a Matte for Your Animation](#)
- [Creating Strokes to Paint Your Drawings on a Separated Layer](#) below
- [More Drawing Layers](#)

Creating Strokes to Paint Your Drawings on a Separated Layer


You can use the outline you traced on one of the four embedded layers and create invisible strokes to paint your drawings on separate layers, this provides more inking and painting flexibility.

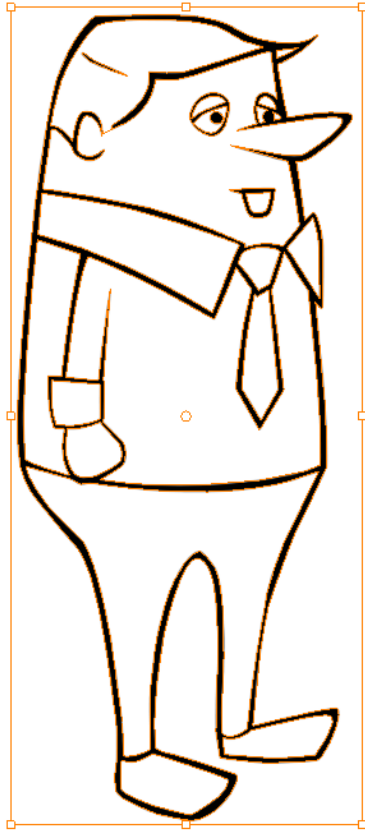
To do so, you must use the **Create Colour Art from Line Art** option. You can also configure the option to create the invisible strokes on any of the four embedded layers.



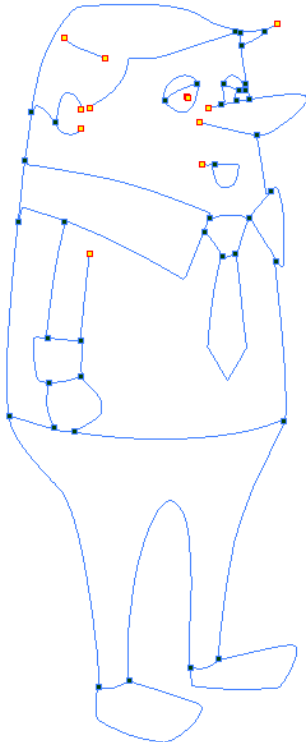
Make sure to enable the Advanced Art Mode in the Preferences panel in order to be able to use this feature.

To create Colour Art zones out of the Line Art content:



1. In the Tools toolbar, select the **Select**  tool or press [Alt] + [S].
2. In the Camera or Drawing view, select the artwork to transfer to the Colour Art.



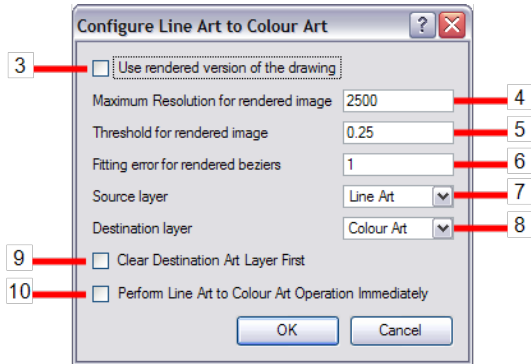
3. In the Drawing View toolbar, click on the **Create Colour Art from Line Art**  button or press [*].



To Configure the Line Art to Colour Art command settings:

1. In the Tools toolbar, select the **Select**  tool or press [Alt] + [S].
2. In the Tool Properties view, hold down the [Shift] key and click on the **Create Colour Art from Line Art**  button to open the Configure Line Art to Colour Art dialog box and modify the default settings of this command.

The Configure Line Art to Colour Art dialog box opens.



3. Use rendered version of the drawing: This option will render the drawing and vectorize it to calculate the position of the centreline that will produce the colour art stroke.
4. Maximum Resolution for rendered image: This is the size of the rendered image.
5. Threshold for rendered image: The value of grey processed to create the rendered vectorized arts.
6. Fitting error for generated Bezier: This value represents how precise the fitting of the colour art zone in relation of the line art will be.
7. Source Layer: In the Source Layer drop-down menu, select the layer (Line Art, Colour Art, Underlay or Overlay) you want the strokes to be created from.
8. Destination Layer: In the Destination Layer drop-down menu, select the layer (Line Art, Colour Art, Underlay or Overlay) you want the strokes to be created on.
9. Clear Destination Art Layer First: If you already have artwork on the destination layer and you want the content to be deleted before the strokes are added into it, enable this option.
10. Perform Line Art to Colour Art Operation Immediately: Enable this check box to perform the Create Colour Art from Line Art command when you click on the OK button of this window.

Related Topics

- [Line Art and Colour Art Layers](#) on page 253

Verifying Zones are Painted


When the painting process is completed, you should verify that each zone was painted correctly.

The Backlight feature produces a silhouette effect by changing the drawing's coloured areas into a single dark, solid colour use this to verify the completeness of the ink and paint process. Any unpainted zones can be seen as the light shows through the unpainted areas of the silhouetted drawing.

To use the Backlight:



This feature is only available in the Drawing view.

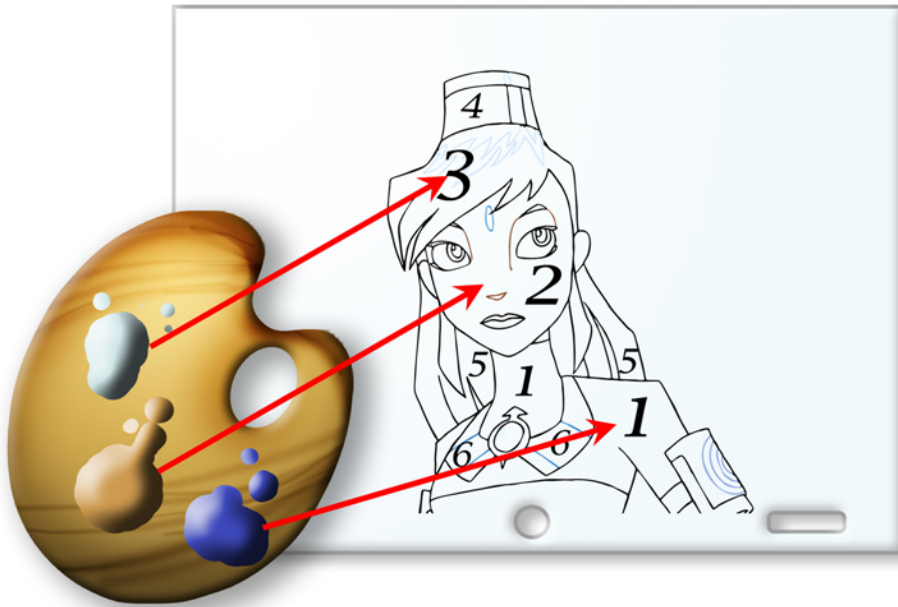
1. In the top menu, select **View > Backlight** or press [Alt] + [Shift] + [B]. You can also click on the **Backlight**  button available in the Drawing View toolbar.
2. Verify the drawings in the Drawing view.



Related Topics

- [How to Paint on page 206](#)
- [Painting Using the Paint Tool on page 223](#)

Palettes



In colour animation, specific colours are used to paint each particular character. In order to maintain absolute consistency, a colour palette is created for each character, prop and effect throughout the production. These are referred to as master palettes.

Master palettes contain a colour swatch for each zone to colour with a precise RGBA colour value.

Using a master colour palette has many benefits, including:

- Each character consistently retains their dedicated colours.
- You cannot accidentally use a colour which is not in the master palette.
- Standardization and colour consistency throughout the production
- Multiple artists can use the same colour palette and produce the same results.

Toon Boom Harmony uses palettes to hold all of the colours needed to paint your elements, allowing complete control and consistency in your painting process.

A palette is created by assigning a set of colours to each character, prop or effect. You will create a new palette and add a new colour, known as a colour swatch, for each zone of the character, such as the skin, hair, tongue, shirt, pants, etc.

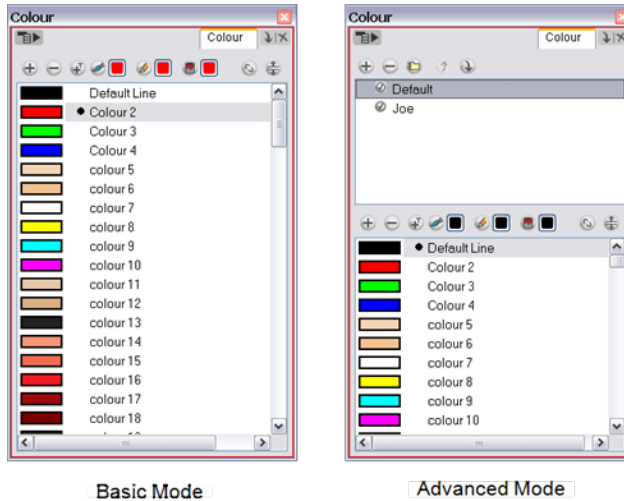
This topic is divided as follows:

- [Displaying the Palette List on the next page](#)
- [Creating a Colour Palette on page 264](#)
- [Copying and Pasting Colours on page 276](#)
- [Removing a Colour Palette on page 277](#)
- [Duplicating a Colour Palette on page 278](#)
- [Cloning a Colour Palette on page 279](#)

- [Mixing the Colours](#) on page 281
- [Importing a Colour Palette](#) on page 283
- [Ordering the Palette List](#) on page 287

Displaying the Palette List

The **Colour** view has two modes: basic and advanced.



Basic Mode

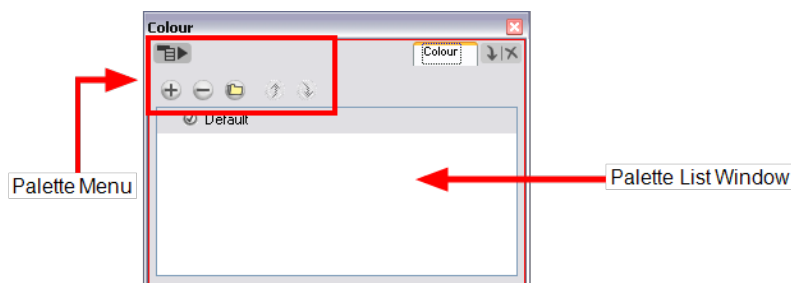
The Colour view's basic mode only shows the Colour list. When you open Toon Boom Harmony, you only see the colours available in the default palette. This default palette contains six basic colour swatches and is automatically named the same as your scene. For simple projects, you can manage with the default palette, but for movies, series or shorts it is recommended that you create palettes for your characters. To create a palette, you have to switch to the advanced display of the Colour view and show the Palette list.

Advanced Mode

To create palettes for your characters, you must display the Palette list. Once you display the Palette list area, a series of new buttons appear.

To show or hide the Palette List area:

1. In the Colour view, click on the **Show/Hide Palette List View**  button to expand or collapse the Palette List area.



- Each palette you add in your scene will appear in the Palette list.
- You can add, delete, import and order palettes in your scene using the Palette menu buttons.

Related Topics

- [Creating a Colour Palette on page 264](#)
- [Toon Boom Harmony Palette File Storage below](#)

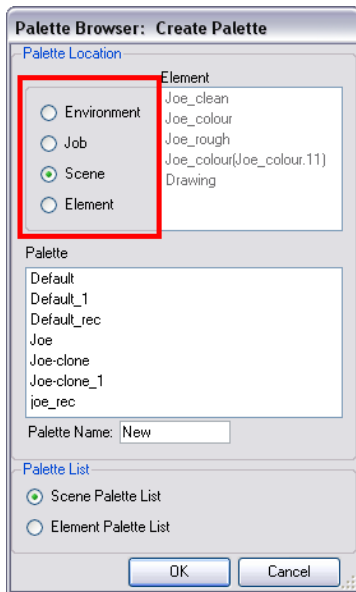
Toon Boom Harmony Palette File Storage

In Harmony, palettes are individual *.plt files that can be copied, transferred and stored. When a palette is created, it needs to be stored somewhere. Harmony is set on Basic Palette Lists mode which saves the palette at the Scene level.

In Toon Boom Harmony, you can switch from **Basic Palette Lists** mode to **Advanced Palette Lists** mode which will allow you to choose the folder level you want to save your palette files to.



Refer to the [Creating a Colour Palette on page 264](#) section to learn more on how to access these options.



There are four locations where you can find Palette Library folders: Element, Scene, Job and Environment folders.

- **Element:** The Palette Library folder is stored directly in the Drawing Element (Layer) folder.
- **Scene:** The Palette Library folder is stored directly in the Scene folder.
- **Job:** If you are working with Toon Boom Harmony as a stand alone version, the Palette Library folder is stored in a Job folder contained within the Scene folder.

- **Environment:** If you are working with Toon Boom Harmony as a stand alone version, the Palette Library folder is stored in an Environment folder contained in the Scene folder.

This existing structure is compatible with Toon Boom Harmony Server. Toon Boom Harmony's database has a leveled structure starting from the Environment down to the Element. They have a client-server configuration that allows all data, such as palettes and scenes, to be shared between a series of client machines.

In Toon Boom Harmony, you can switch from Basic Palette Lists Mode to Advanced Palette Lists Mode and choose the folder level you want to save your palette files to.

Element Level

Working with Harmony stand alone, the Element level is very useful when there are a lot of different palettes. When a colour model drawing is created, it is stored in its element folder. By storing the corresponding palette file with the colour model, the colourist is able to load them both from the same location. This also creates a more organized structure.

Scene Level

Working with Toon Boom Harmony stand alone, a palette file can also be saved at the scene level so that all of the palettes from the scene are stored together. The palette naming will have to be structured so that the colourist or character builders can find the correct one. Saving the palettes at the scene level makes it very easy to backup the palettes and retrieve their location.

The scene level can also be useful for Cut-out animation. Instead of creating a colour model scene that includes all of the characters, props, effects, and location, the colour palette or model will often be directly imported to, or created in, the character building scene. Just as with a Cut-out character building scene, each element uses the same palette so it would not be efficient to save the palette inside one element. Instead, it is saved at the scene level. This prevents a palette overload because all of the models are in different scenes. It also allows each scene its own set of palettes corresponding to its model.

When working on a cut-out animation production, it is highly recommended to work with the Scene level.

Related Topics

- [Palettes on page 259](#)

Scene Palette List and Element Palette List

There are two types of palette lists:

- [Scene Palette List on the facing page](#)
- [Element Palette List on the facing page](#)



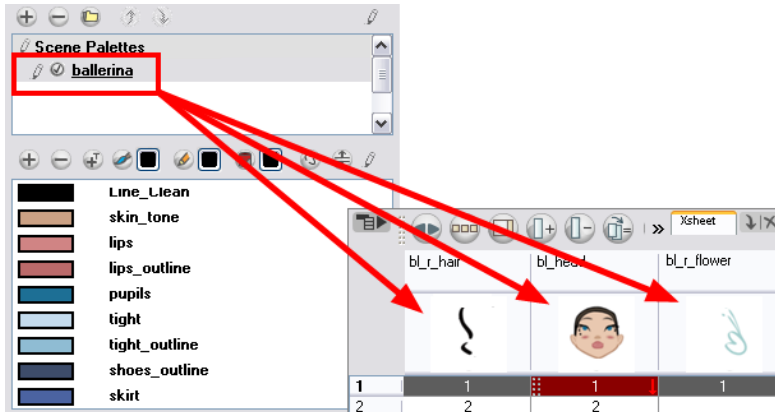
Refer to the [Colour Preferences on page 293](#) topic in this chapter to learn how to enable and disable the Element Palette List mode.

Scene Palette List

The Scene Palette List is mainly used with cut-out animation. A cut-out character will often be divided in twenty to thirty different drawing elements that use the character's master palette.

The palette list is stored at the scene level instead of the Element directory. This way, all palettes linked to this list will appear in every drawing element created in the scene. There is no need to manually load the palette in each element.

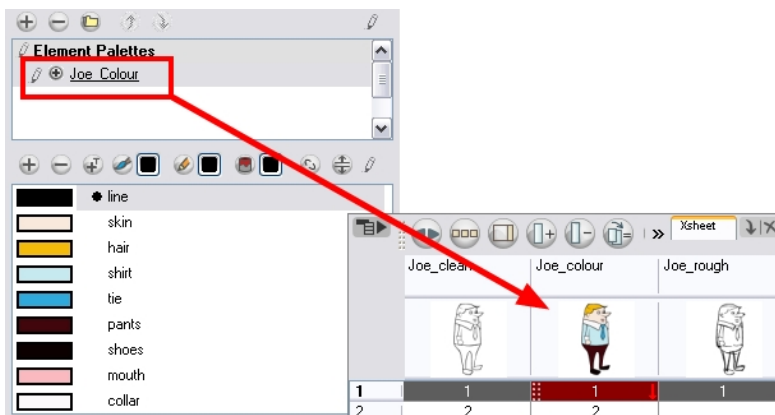
The Scene Palette List is the simplest one to use. By default, Toon Boom Harmony is set to use only Scene Palette Lists.



Element Palette List

In Toon Boom Harmony, you can switch to Advanced Palette Lists mode and choose to save your palette at an element's level. The Element Palette List is mainly used with Traditional and Paperless animation. Unlike Cut-out animation, all columns (drawing elements) contain different characters, props, backgrounds and effects. The Element Palette List is used because you do not necessarily want all of the palettes for all of your elements linked in every column.

The palette list is stored in the drawing element's directory instead of directly in the Scene level. This ensures that the links to the palettes appear only in the appropriate element. If you prefer to access a global palette list, link your palettes to the Scene Palette List.



Related Topics

- [Creating a Colour Palette](#) below

Creating a Colour Palette

You can create a palette in either basic or advanced mode:

- [Basic Palette Lists Mode](#) below
- [Advanced Palette Lists Mode](#) below
- [Renaming a Colour Palette](#) on page 266


By default, Toon Boom Harmony is set on basic mode. For simple productions, it is recommended to use the basic mode. For more advanced productions, it is a good idea to explore the possibilities of the advanced mode.



If you are using Harmony Network, refer to [Managing Palettes](#) on page 266.

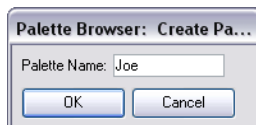
Basic Palette Lists Mode

To create a new palette (Basic Palette Lists mode):

1. In the Colour View menu, select **Palettes > New** or click on the **New Palette**  button.

The Create Palette window opens.

2. Enter the palette name according to the model.



3. Click OK.

The palette appears in the drawing element's palette list.

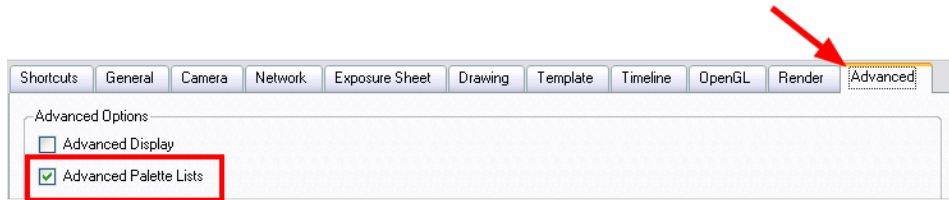


Advanced Palette Lists Mode

To use this method, you first need to set your preferences to Advanced Palette Lists mode in the Preferences panel.


To set the Advanced Palette Lists mode:

1. Select **Edit > Preferences** (Windows/Linux) or **Stage > Preferences** (Mac OS X) to open the **Preferences** panel or press [Ctrl] + [U] Windows/Linux or [⌘] + [U] (Mac OS X).
2. In the Advanced tab, enable the **Advanced Palette Lists** option.

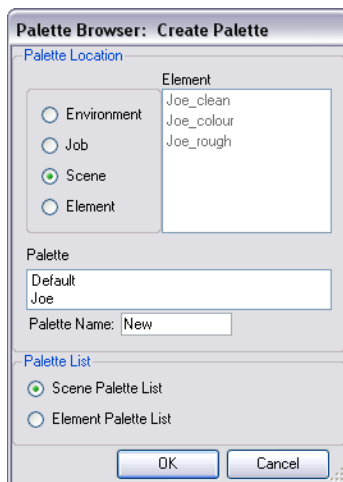


3. Click **OK**.

To create a new palette (Advanced Palette Lists mode):

1. In the Timeline or Xsheet view, select the drawing that requires the palette.
2. In the Colour View menu, select **Palettes > New** or click on the **Create Palette**  button.

The advanced Palette Browser: Create Palette (Stand-alone mode) window opens.



- ▶ **Palette Location:** Select which location to store the palette file to.
 - **Element:** Displays the drawing layers in your scene.
 - Environment
 - Job
 - Scene
 - Element.
 - **Palette:** Displays the palettes available in the currently chosen storage folder.
 - **Palette Name:** Name the new palette.
 - ▶ **Palette List:** Select either **Scene Palette List** or **Element Palette List**.
3. Select an element from the Element window.
 4. If you want to save your palette at the element level, select the **Element** option from the Palette Location section and then select the desired element form the Element list.
 5. Select either **Scene Palette List** or **Element Palette List**.

6. Click **OK**.

The palette is created.

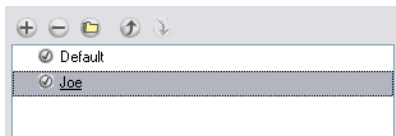


Refer to the [Toon Boom Harmony Palette File Storage](#) on page 261 and topics to learn more about palette storage location as well as scene and element palette lists.

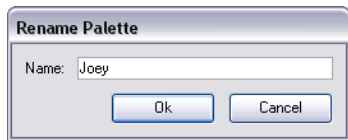
Renaming a Colour Palette

To rename a palette:

1. In the Colour view, select the palette to rename.



2. In the Colour View menu, select **Palettes > Rename**.
3. In the Rename dialog box, rename the palette.



4. Click **OK**.

Related Topics

- [Copying and Pasting Colours](#) on page 276
- [Removing a Colour Palette](#) on page 277
- [Duplicating a Colour Palette](#) on page 278
- [Cloning a Colour Palette](#) on page 279

Managing Palettes

The Harmony Network solution incorporates palettes which hold all of the colours needed to paint elements, a concept that brings complete control and consistency to the painting process. A palette is created by assigning a set of colours to each character, prop or effect. The colour artist will create a new palette and add a new colour, called a colour pot, for each zone of the character, such as the skin, hair, tongue, shirt, pants and so on.

When a zone on a character is painted with the colour contained in a colour pot, a link is automatically created between that colour pot and the zone. This means that if the tint of the colour in the colour pot is modified, any zone that is linked to it will automatically update to the new tint. This saves time and money spent on your production. Another advantage of this system is that you can also create complete palettes for different lighting situations. For instance, in addition to the regular palette for a character, you can have one for that character in the rain, using colours that are muted and less vibrant than the dry daytime colours, or another for use in a night

scene. Using palettes that are linked to your character this way allows you to instantly change colouring to suit the mood and atmosphere of the scene without tediously repainting each element.

Related Topics

- [Creating a Palette in Harmony below](#)
- [Palette Operations on page 271](#)
- [Palette Storage on page 274](#)
- [Palette Backup on page 276](#)

Creating a Palette in Harmony

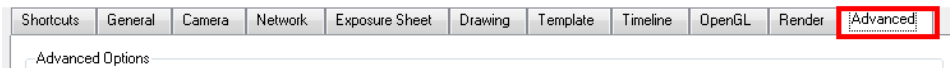
Harmony is set to **Basic Palette Lists** mode by default. This setting stores the palettes automatically for you and saves them at the **Scene** level. When you use **Advanced Palette Lists** mode, you can decide at which level you want to store your palettes; **Environment, Job, Scene, Element**.

To switch to **Advanced Palette Lists** mode:

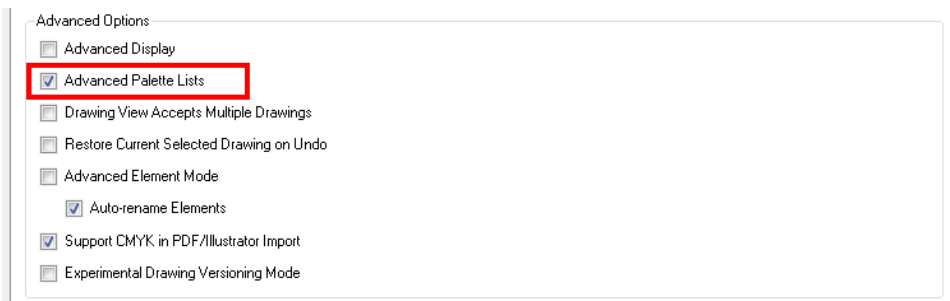
1. Open the **Preferences** panel:
 - ▶ Windows/Linux: Select **Edit > Preferences**.
 - ▶ Mac OS X: Select **Stage > Preferences**.
 - ▶ The [Ctrl] + [U] Windows/Linux) or [⌘] + [U] (Mac OS X).

The **Preferences** panel opens.

2. Select the **Advanced** tab.






3. Enable the **Advanced Palette Lists** mode.



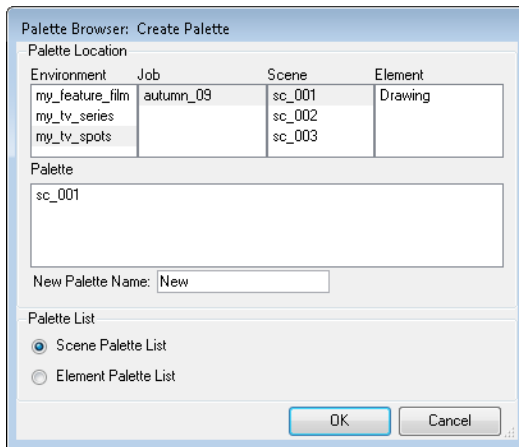
4. Click on the **OK** button.

To create a palette from the **Advanced Palette Lists** mode:

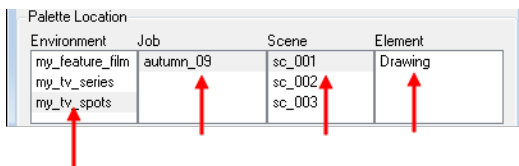
1. Make sure that you have the necessary rights to modify the palette list. If you do not, select **Edit > Edit Palette List Mode**, a check mark will appear beside the command to indicate that the mode is enabled.
2. In the **Timeline** or **Xsheet** view, select the drawing that requires a palette.
3. In the **Colour** view, click on the **Show Palette List View**  button to display the palette list.

4. In the **Colour** view, click on the **Menu**  button and select **Palettes > New** or click on the **Create Palette**  button.

The **Palette Browser: Create Palette** dialog box opens.



5. Select which level to store the palette file in.



- **Environment**

The Palette Library folder is stored in an Environment folder contained in the Scene folder.

- **Job**

The Palette Library folder is stored in a Job folder contained in the Scene folder.

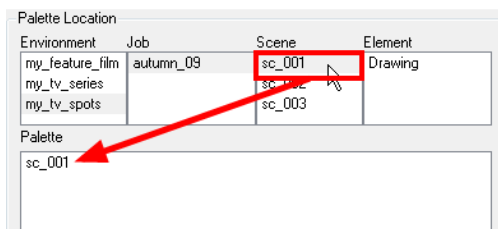
- **Scene**

The Palette Library folder is stored directly in the Scene folder.

- **Element**

The Palette Library folder is stored directly in the Drawing Element folder.

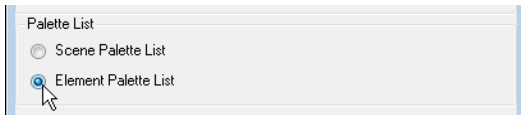
When you select a level that has a palette stored in it, the palette names are displayed in the Palette field.



6. Name the palette. (There is no need to add the suffix "palette" to the name as it is always recognized as a palette file.)



7. Select a Palette List option:



- **Scene Palette List**

The **Scene Palette List** is mainly used with cut-out animation. A cut-out character will often be divided in twenty to thirty different drawing elements that use the character's master palette.

The palette list is stored at the scene level instead of the Element directory. This way, all palettes linked to this list will appear in every drawing element created in the scene. There is no need to manually load the palette in each element.

- **Element Palette List**

The **Element Palette List** is mainly used with traditional and paperless animation. Unlike cut-out animation, all columns (drawing elements) contain different characters, props, backgrounds and effects. The **Element Palette List** is used because you do not necessarily want all of the palettes for all of your elements linked in every column.

The palette list is stored in the drawing element's directory instead of directly in the Scene level. This ensures that the links to the palettes appear only in the appropriate element. If you prefer to access a global palette list, link your palettes to the Scene Palette List.

8. Click on the **OK** button.

The new palette appears in the palette list.






Related Topics

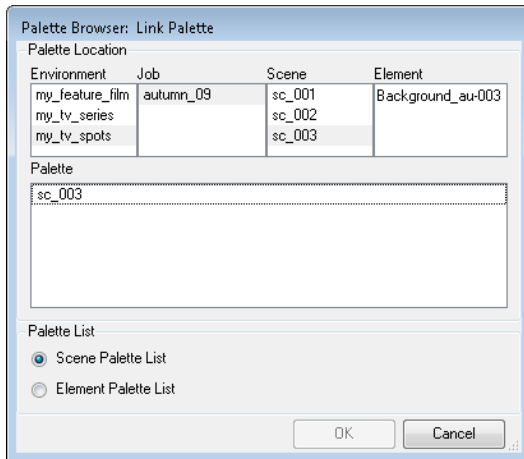
- [Palette Storage on page 274](#)
- [Linking a Palette in Harmony below](#)

Linking a Palette in Harmony

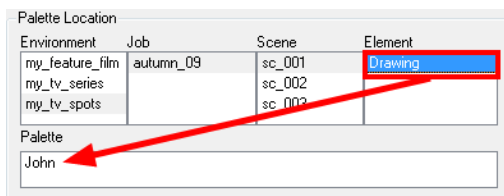
To link a palette in Harmony:

1. Make sure that you have the necessary rights to modify the palette list. If you do not, select **Edit > Edit Palette List Mode**, a check mark will appear beside the command to indicate that the mode is enabled.
2. In the **Timeline** or **Xsheet** view, select the drawing that requires a palette.
3. In the **Colour** view, click on the **Show Palette List View**  button to display the palette list.
4. In the **Colour** view, click on the **Menu**  button and select **Palettes > Link** or click on the **Link Palette**  button.

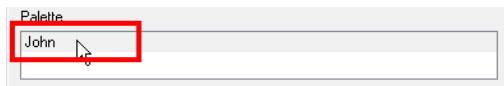
The **Palette Browser: Link Palette** dialog box opens.



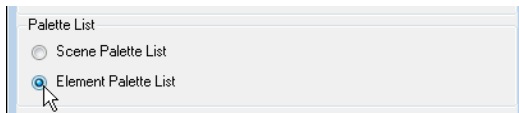
5. Select the location and level where the palette file is stored. When a level is selected, the palettes it contains are displayed in the Palette field.



6. Select your palette.



7. Select a **Palette List** option:



- **Scene Palette List**

The **Scene Palette List** is mainly used with cut-out animation. A cut-out character will often be divided in twenty to thirty different drawing elements that use the character's master palette.

The palette list is stored at the scene level instead of the Element directory. This way, all palettes linked to this list will appear in every drawing element created in the scene. There is no need to manually load the palette in each element.

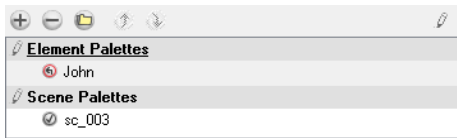
- **Element Palette List**

The **Element Palette List** is mainly used with traditional and paperless animation. Unlike cut-out animation, all columns (drawing elements) contain different characters, props, backgrounds and effects. The Element Palette List is used because you do not necessarily want all of the palettes for all of your elements linked in every column.

The palette list is stored in the drawing element's directory instead of directly in the Scene level. This ensures that the links to the palettes appear only in the appropriate element. If you prefer to access a global palette list, link your palettes to the Scene Palette List.

8. Click on the **OK** button.

The palette appears in the drawing element's palette list.



Related Topics

- [Creating a Palette in Harmony on page 267](#)

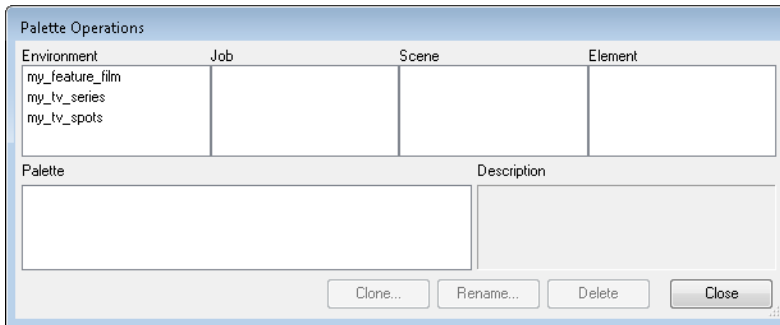
Palette Operations

When you launch Toon Boom Harmony connected to the database, you can have access to the Palette Operations dialog box. The **Palette Operations** lets you clone, rename or delete palettes.

To open the Palette Operation dialog box:

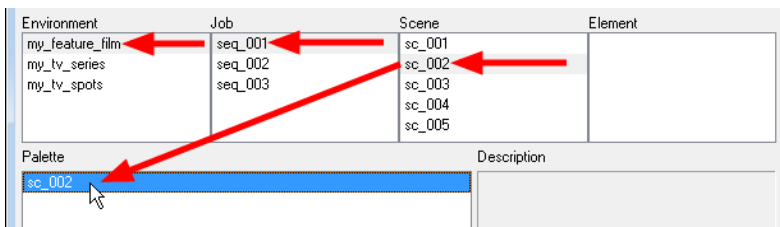
1. Launch Toon Boom Harmony and login on the database. Refer to [Connecting to the Database on page 1](#).
2. Click on the **Close** button to close the **Database Selector** dialog box.
3. Select **Tools > Palette Operations**.

The **Palette Operations** dialog box opens.

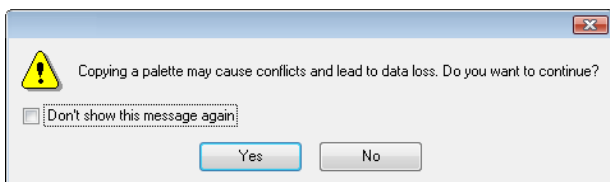


To clone a palette in the Palette Operation dialog box:

1. Select the palette you want to clone at the location and level it was stored in.



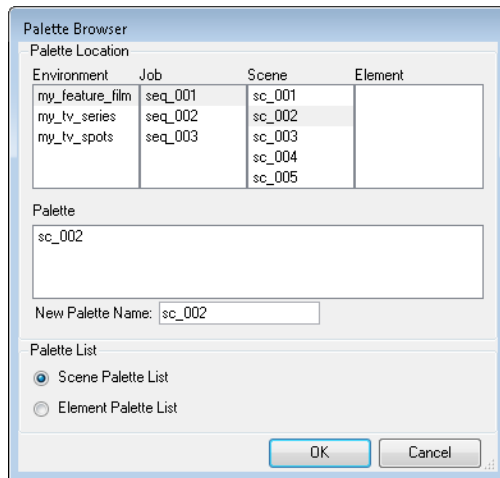
2. Click on the **Clone** button.
3. A **Warning** dialog box opens.



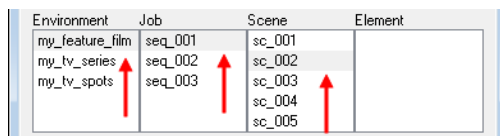
- ▶ Click in the checkbox beside **Don't show this message again** if you want to prevent the dialog box from opening every time you do this operation.

4. Click on the **Yes** button to continue or click on the **No** button to cancel the palette cloning operation.

The **Palette Browser** dialog box opens.



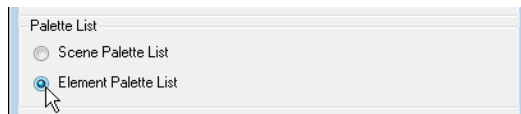
5. Select the location level where you want the new palette to be stored.



6. Name the new palette.



7. Select a Palette List option:



- **Scene Palette List**

The **Scene Palette List** is mainly used with cut-out animation. A cut-out character will often be divided in twenty to thirty different drawing elements that use the character's master palette.

The palette list is stored at the scene level instead of the Element directory. This way, all palettes linked to this list will appear in every drawing element created in the scene. There is no need to manually load the palette in each element.

- **Element Palette List**

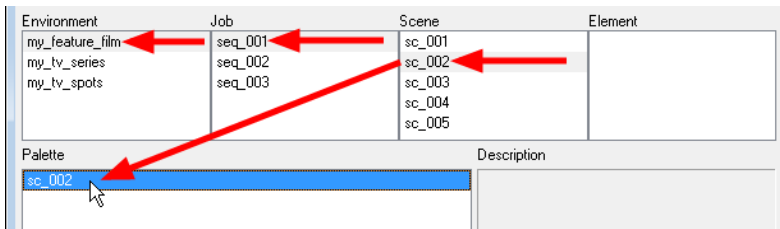
The **Element Palette List** is mainly used with traditional and paperless animation. Unlike cut-out animation, all columns (drawing elements) contain different characters, props, backgrounds and effects. The Element Palette List is used because you do not necessarily want all of the palettes for all of your elements linked in every column.

The palette list is stored in the drawing element's directory instead of directly in the Scene level. This ensures that the links to the palettes appear only in the appropriate element. If you prefer to access a global palette list, link your palettes to the Scene Palette List.

8. Click on the **OK** button.

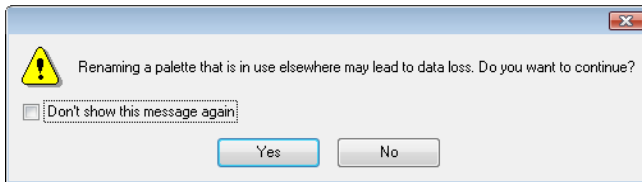
To rename a palette in the Palette Operation dialog box:

1. Select the palette you want to rename at the location and level it was stored in.



2. Click on the **Rename** button.

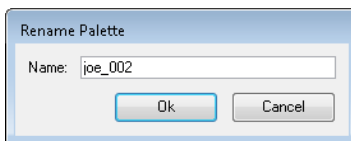
A **Warning** dialog box opens.



- ▶ Click in the checkbox beside **Don't show this message again** if you want to prevent the dialog box from opening every time you click on the **Rename** button.

3. Click on the **Yes** button to continue or click on the **No** button to cancel the palette renaming operation.

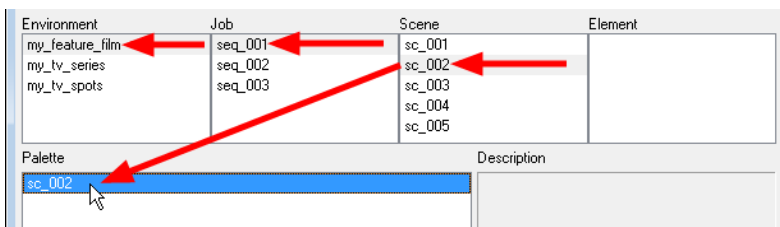
The **Rename Palette** dialog box opens.



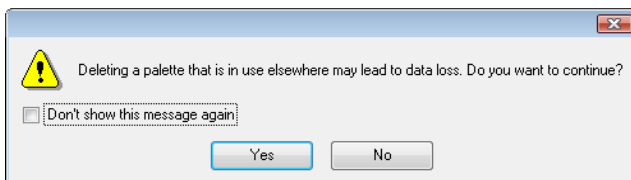
4. Rename the palette.
5. Click on the **OK** button.

To delete a palette in the Palette Operation dialog box:

1. Select the palette you want to clone at the location and level it was stored in.



2. Click on the **Delete** button. A **Warning** dialog box opens.



- ▶ Click in the checkbox beside **Don't show this message again** if you want to prevent the dialog box from opening every time you click on the **Delete** button. It is not recommended to disable the warning message in this case. Deleting a palette can not be undone.

3. Click on the **Yes** button to continue or click on the **No** button to cancel the palette deleting operation.

Related Topics

- [Connecting to the Database](#) on page 1.

Palette Storage

When a palette is created from Harmony it needs to be stored somewhere. In Harmony, palettes are individual `*.plt` files that can be copied, transferred and stored.

The palette files are saved in the scene directory and stored in a **Palette Library** folder. There are four locations where you can find Palette Library folders:

- **Element**
The Palette Library folder is stored directly in the Drawing Element folder.
- **Scene**
The Palette Library folder is stored directly in the Scene folder.
- **Job**
The Palette Library folder is stored in a Job folder contained in the Scene folder.
- **Environment**
The Palette Library folder is stored in an Environment folder contained in the Scene folder.

Related Topics

- [Where to Save the Palette File?](#) below
- [What Happens when you Export a Palette File?](#) below

Where to Save the Palette File?

The palette storage location depends on the type of production and the backup plan being used.

Some studios like to store their palettes at the Element level and others at the Environment level. This will not create a problem as long as the scene is in the Harmony structure, in fact as long as the structure is maintained it can be stored at any level. However, difficulties may occur when the scene is backed-up or transferred to another studio or database and removed from the initial structure.

Related Topics

- [What Happens when you Export a Palette File?](#) below

What Happens when you Export a Palette File?

It is important to understand what is happening to a palette file when the scene is exported.

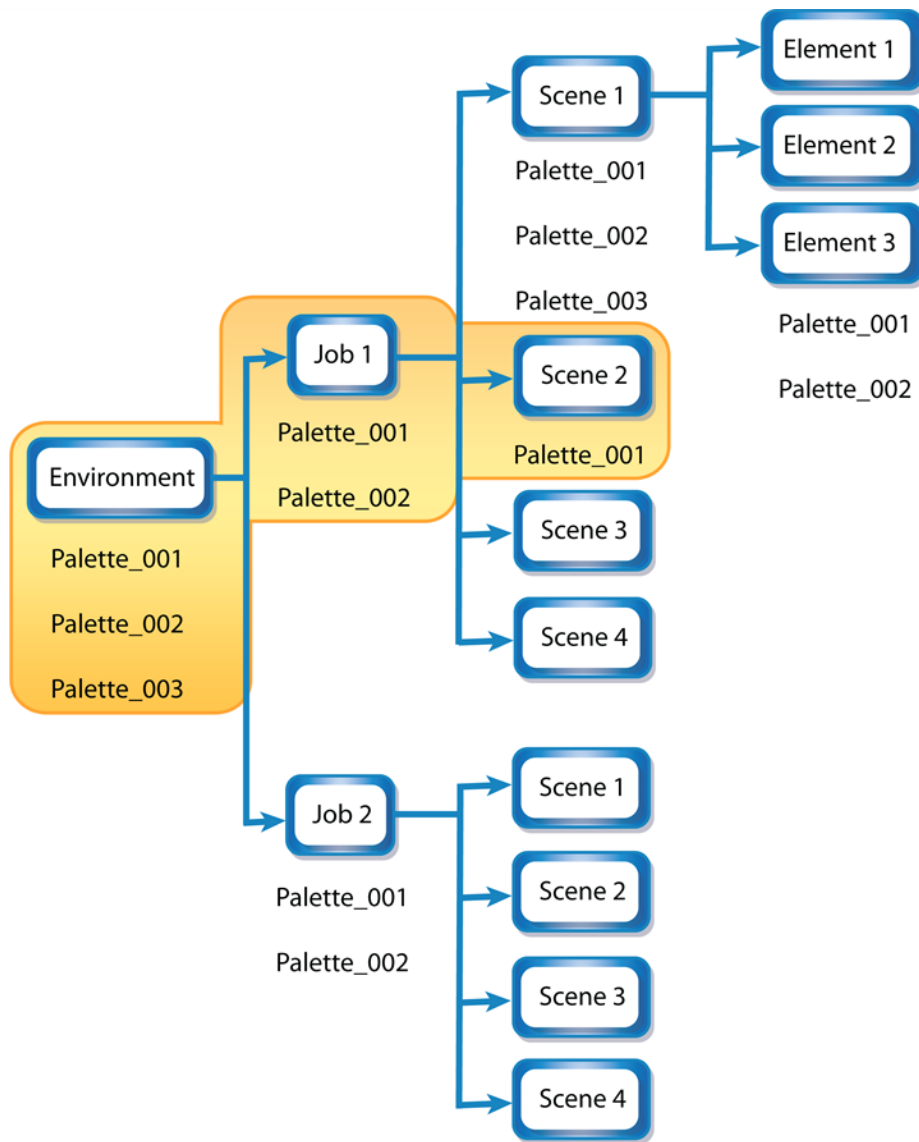
Because of the Harmony client-server configuration, all of the data can be shared through all of the scenes via the central database. This also includes the palette files, even if they are stored at the Element, Scene, Job, Drawing or Environment level. This way, the palette files can be accessed from any scene of any project.

When you export scenes from Harmony using the Control Center, either to archive them or to send them to other users or studios, the palettes stored in external scenes, jobs or environment will **NOT** be exported. An exported scene will only carry palettes stored in its own Element's palette library, Scene's palette library, Job and Environment. Any other palette from other Environments, Jobs, Elements or Scenes (even from the same job) will **NOT** follow. Instead a recovery palette will be created when the scene is reopened in another Harmony system.

A recovery palette is a local palette created by the system when palettes and colours are missing. This palette is no longer shared with the rest of the project because the original link is broken.

For example, look at this chart. If you export Scene 2 from Job 1, the package will carry the palettes from Scene 2, Job 1 and Environment. It **WILL NOT** carry the palettes from Element 3 in Scene 1, Scene 1 and Job 2.

If Scene 2 was linked to any of these, the system would create a recovery palette the next time that Scene 2 is opened in another Toon Boom Harmony system.



The best place to store your palette is:

- Environment level, for a movie or series
- Job level, for a publicity or small project

- Scene level, for a student exercise

If you want to store your palettes with your colour models, you can use the Element level. However, this will require more structure when exporting the different scenes of your project. The scenes will have to be exported along with the colour model scene. Then, the other studio you are working with will have to recreate an identical structure to yours, to be able to import the received scenes into the same location as you did. This will ensure that the links are maintained.

Related Topics

- [Where to Save the Palette File? on page 274](#)

Palette Backup

When sharing palettes between scenes, some users may modify the colours by accident. That is why it is a good idea to copy and backup your palette libraries and master palette directories.

When a palette file is copied, it automatically becomes a clone palette, so there is no trouble as for replacing an altered file. Harmony automatically updates all of the files and drawings linked to it.

Related Topics

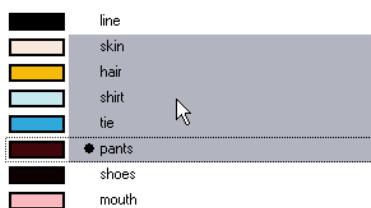
- [Creating a Palette in Harmony on page 267](#)
- [Palette Operations on page 271](#)
- [Palette Storage on page 274](#)

Copying and Pasting Colours

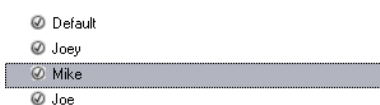
When you are creating palettes, you may want to copy colour swatches or their values and paste them in other palettes to save time.

To copy and paste colours

1. In the Colour view, select the colour to copy.



2. In the Colour View menu, select **Colours > Copy** or press [Ctrl] + [C] (Windows/Linux) or [⌘] + [C] (Mac OS X).
3. In the Palette list, select the palette in which you want to paste the colours.



4. In the Colour View menu, select **Colours > Paste as New Colours** or press [Ctrl] + [V] (Windows/Linux) or [⌘] + [V] (Mac OS X).

- If you want to paste the colour values of the copied swatch over an existing colour swatch, select **Colours > Paste as Values**.

Copying Colours from Another Palette

In Toon Boom Harmony you can quickly copy a colour value from a palette in your scene to a selected colour swatch in a different palette.

To use Copy Colour From:

1. In the Colour view, select the colour swatch you want to copy the colour into.
2. In the Colour View menu, select **Colour > Copy Colour From**, then select the palette where the colour you want to copy is listed and finally select the colour.

The selected colour swatch will immediately change to this new colour.

Related Topics

- [Adding a Colour Swatch](#) on page 210

Removing a Colour Palette

You can remove palettes from your Palette list if they are not needed in your scene. The actual palette file will not be deleted and you will be able to reimport it in your Palette list later on.

To remove a palette:

1. In the Colour view, select the palette to remove.



2. In the Colour View menu, select **Palettes > Remove** or click on the **Remove Palette**  button.

- If the palette was in use in your scene, the zones painted with its colours will turn red.



Related Topics

- [Creating a Colour Palette](#) on page 264
- [Duplicating a Colour Palette](#) on the next page

- [Cloning a Colour Palette](#) on the facing page

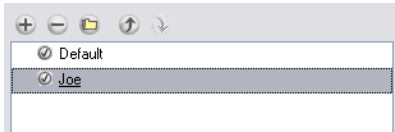
Duplicating a Colour Palette

A duplicate palette uses the same names, colour values, but has a different ID and is independent from the original palette. This ensures that both palettes are completely independent.

This option is used when there are similar models and you want to avoid recreating and naming all of the colours. You can change the values and the names afterward. You can also keep some RGBA values, such as the eyes, teeth, tongue, inside mouth, etc.

To duplicate a palette:

1. In the Colour view, select the palette to be duplicated.



2. In the Colour View menu, select **Palettes > Duplicate**.
The Palette Browser: Duplicate Palette window opens.



3. Name the palette appropriately.
4. Click **OK** to create the palette.

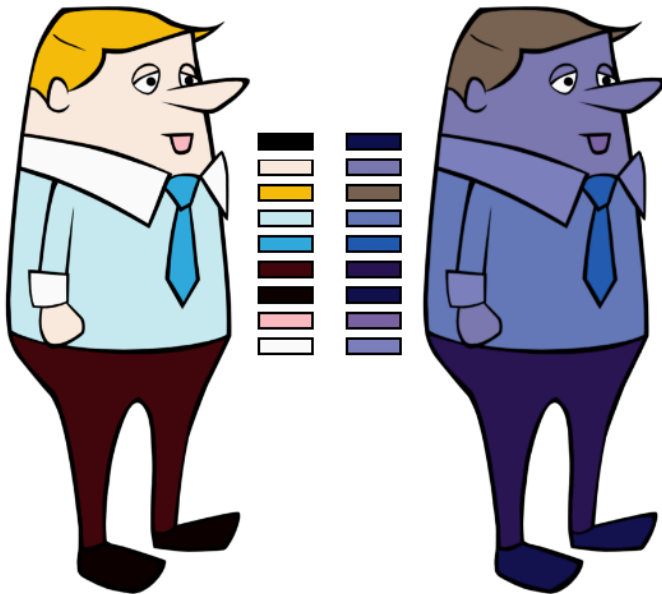
The palette appears in the palette list.



Related Topics

- [Cloning a Colour Palette](#) on the facing page

Cloning a Colour Palette



A character usually has only one master palette, although there are times when the characters are placed in different lighting conditions and require a different colour shading. The night palette is a popular choice when a scene or sequence changes from day to night. It can be difficult and time-consuming to repaint everything and creating two independent palettes can be quite complex. As an alternative, Toon Boom Harmony provides clone palettes.

The clone palette is a copy of the master palette. The colours in each palette have the same properties. The colours have the same identification number pointing to the same colour zones, but they can have different names and RGBA values. Depending on the activated palette (night or day), the painted drawing will update. So there is no need to repaint the animation, but to create or import a clone palette (palette style).

To clone a palette:

1. In the Colour view, select the palette to be cloned.



2. In the Colour View menu, select **Palettes > Clone**.

The Palette Browser: Clone Palette window opens.



3. Name the palette. *(It is recommended to keep the suffix "-clone" in the name.)*
4. Click **OK** to create the palette.

The clone appears in the palette list.



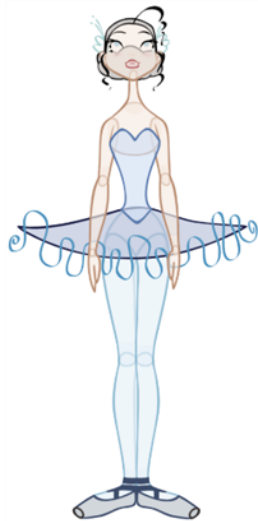
In the Colour view, you can also modify the colours individually by using the Colour Picker window or all at once using the Tint Panel window.



If there is more than one clone palette loaded, the system will use the one highest in the palette list.



When you want to see through painted drawings, but still see the outlines, you can create a clone palette where you set a lower alpha value on all of the filling colours. This trick can be handy when setting pivot points on cut-out puppets.



Cloning a Colour Swatch

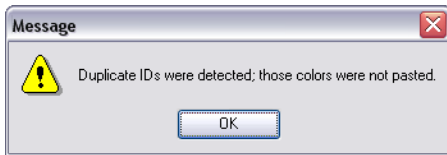
In Toon Boom Harmony, you can copy a selected colour swatch and paste it as a clone.

To clone a colour swatch:

1. In the Colour view, select the colour swatch you want to clone.
2. In the Colour View menu, select **Colours > Copy**. The [Ctrl] + [C] (Windows/Linux) or [⌘] + [C] (Mac OS X).
3. In the Colour view, select the colour palette you want to paste the clone into, or create a new palette.
4. In the Colour View menu, select **Colours > Paste as Clone**.

The cloned colour swatch appears in the palette.

Since it produces a clone colour swatch, it is impossible to use the Paste as Clone command in the same palette as you copied the original colour swatch from. If you try to do it, a Message dialog box will open as a reminder.



Related Topics

- [Mixing the Colours](#) below
- [Duplicating a Colour Palette](#) on page 278

Mixing the Colours

If you want to modify a series of colour at once to blend a tint in them or offset their RGBA values, you can use the Tint panel. The Tint panel is quite useful when creating palette styles such as night and day styles.

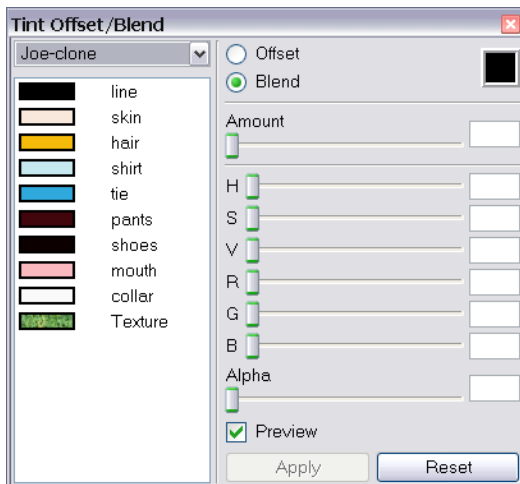
To mix colours:

1. In the palette list, select the palette to offset or blend colours in it.

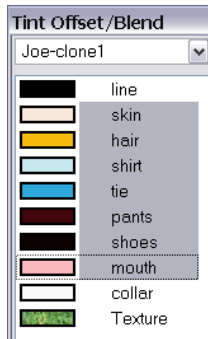


2. In the Colour View menu, select **Palettes > Tint Panel**.

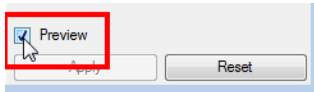
The Blend/Offset Tint panel opens.



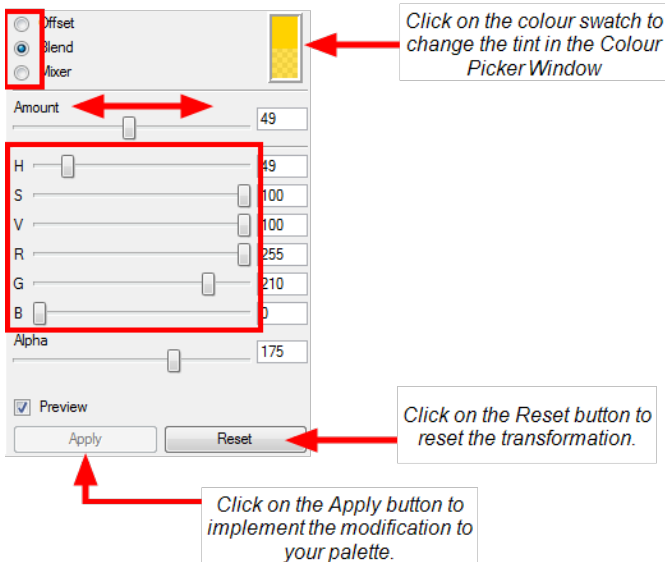
3. Select one or more colours to be modified in the colour list. To select all your colours, press [Ctrl] + [A] (Windows/Linux) or [⌘] + [A] (Mac OS X).



4. Check **Preview**.



5. **Offset, Blend** or **Mix** the selected colours.



▸ **Offset**

Use this option to simply offset the selected colours by the adjustments made using the HSB and RGB sliders. Use the Amount slider to adjust the degree of offset. Use the Alpha slider to adjust the opacity of the selected colour.

▸ **Blend**

Use this option to blend the selected colours with the colour swatch in the top right corner. Use the Amount slider to adjust the degree of blend. A blend of 100% would turn the selected colours into the same colour as the swatch. Adjusting the HSB and RGB sliders affect the swatch colour, which in turn affects the selected colours on the left. Use the Alpha slider to adjust the opacity of the swatch.

▸ **Mixer**

Select a Base and Tint colour to form a third colour swatch. Use the slider just beneath to mix the Base and Tint colours by different amounts. This will affect the mixed swatch whether it is selected or not. Select either the Tint or Base swatch and use the HSB and RGB sliders to adjust its colour. This will affect the mixed swatch colour, which in turn affects the selected colours on the left.



6. Click on the **Apply** button.
7. Close the Tint Offset/Blend Panel window.

Related Topics

- [Cloning a Colour Palette](#) on page 279
- [Adding a Colour Swatch](#) on page 210

Importing Palettes

- [Importing a Colour Palette](#) below
- [Linking a Colour Palette](#) on the next page
- [Linking your Master Palette](#) on the next page
- [Palette Linkage Status Icons](#) on page 286

Importing a Colour Palette

If you created a palette in another project and you would like to import it in your current project, you can browse for the palette file on your computer and add it to your project. When the palette is imported in your scene, the file is copied in the project's directory. It is not linked to the original file.

To import a palette into your project:

1. In the Colour View menu, select **Palettes > Import** or click on the Import Palette  button.

The Browser window opens.

2. Browse for a palette file located on your hard-drive. You will generally find the palettes in your projects' Palette-Library directory.
3. Click on the **Open** button.

The palette appears in the Palette list.



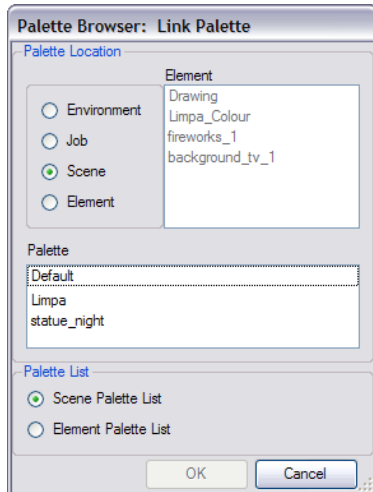
Linking a Colour Palette

You may encounter a scene where only the colour palette created for a certain layer is visible when that layer is selected. A good example would be a scene where there is a character on one layer and the background on another and each has its own custom colour palette. In order to see both colour palettes, independent of what element is selected, you must link your palette list to another palette file within the Harmony structure.

To link a colour palette:

1. In the Colour View menu, select **Palette > Link**.

The Palette Browser window opens.



2. Select the level where the palette file is stored. (Usually Scene or Element)
3. Select the **Scene** or **Element Palette** list. See [Scene Palette List and Element Palette List on page 262](#) topic for more information.

The palette appears in the Colour view.



See [Scene Palette List and Element Palette List on page 262](#) topic for more information.

Linking your Master Palette



With Toon Boom Harmony as a stand-alone application, every scene is local to the machine. This means that all of the scene's data is only accessible from that particular scene. Palettes are also local to the scene: they can be shared between all drawing layers, but not between scenes.

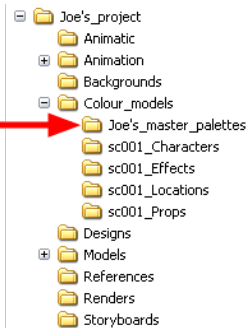
However, some users may want to share their palettes across a whole project. Toon Boom Harmony offers that possibility.

By default, a palette is an independent file stored in your Toon Boom Harmony scene. This file can be copied, moved or deleted.

To fully link a palette throughout an entire project, you need to create a central directory where you can copy all of the palettes you have created. Every time you link a palette in an element, it is linked to this folder. If you modify the palette, it will be updated throughout the whole project.

To link your master palette:

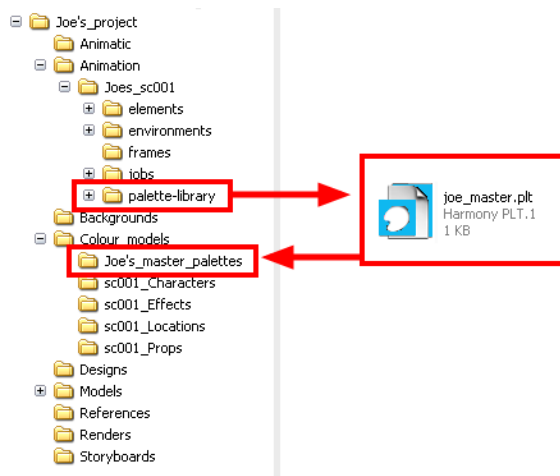
1. In the Colour view, click on the **Create Palette**  button to create your master palette.
2. Save your scene by selecting **File > Save** from the top menu or by clicking on the **Save**  button or press [Ctrl] + [S] (Windows/Linux) or [⌘] + [S] (Mac OS X).
3. In your operating system, create a master directory. Ideally, this should be created in your Root folder to keep it within the project directory. You could also place it inside your Colour Model's subdirectory.



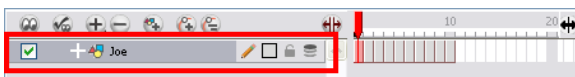
4. Name the folder appropriately, for example: Joe's_master_palettes.
5. From your operating system, browse to your Toon Boom Harmony scene and open the palette-library folder.



6. Select and copy your palette.plt file to copy it to the master palette directory.

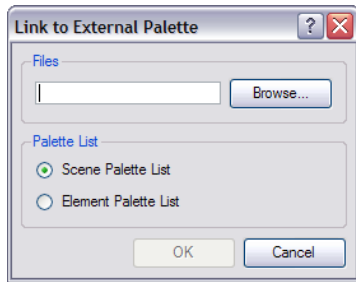


7. Create a new Toon Boom Harmony scene or open the scene where you will link this palette.
8. In the Timeline or Xsheet view, select the element to link the palette to.



9. In the Colour View menu, select **Palettes > Link to External**.

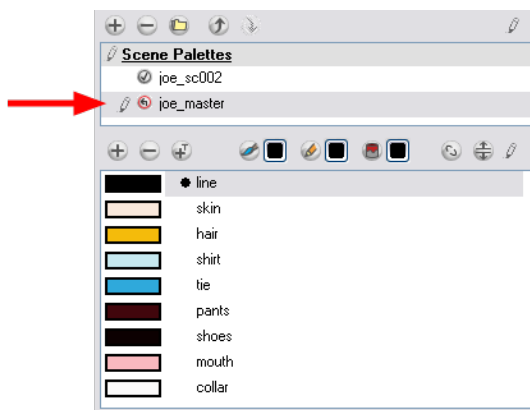
The Link to External Palette dialog box opens.



- ▶ Files: Click on the button to browse to your master palettes folder and select the palette *.plt file you want to link.
- ▶ Palette List: Select either you want to load this palette at scene or element level.

10. Click OK.

The linked palette appears in your Colour view.




If a palette is outside the scene, the External  icon appears beside the palette name.




To link an element (such as a colour model) to the palette that is stored in the external palette directory, you must remove the original palette from the element's palette list. You will then load the duplicated palette into the palette list using the Link to External command, like you did for the other elements.

Palette Linkage Status Icons


You will also notice that when you create or link a palette, a small icon will appear on its left. These icons represent the palette linkage status.

-  Indicates a potentially dangerous situation.


Problems may occur when trying to export or link to the palette file. For example, a palette file is stored into the element folder and is linked to the Scene Palette list. The issue in this case is that if you decide to delete the layer containing the palette, you will lose it from your scene.

-  Indicates that the palette is safe.

There won't be any trouble once the scene will be exported. For example, the palette file is stored in the scene folder and is linked to the Scene Palette List.

-  Indicates that the palette file is stored in a directory external to the scene's structure.

The palette file is probably stored in a Master Palette directory on a hard drive external to the palette-libraries planned for the palette storage. The warning in this case is that if you move your Master Palette directory to another location, you may lose the palette in your scene.

-  Indicates that a palette file stored in a level such as Element, Scene, Job or Environment is linked to a Palette list that is not on the same level.

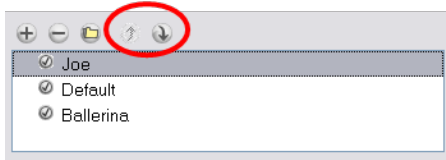
For example, a palette file is stored into the Environment folder and is linked to the Element Palette list. The palette is shared.

Ordering the Palette List

When you are using several cloned palettes that are related to the same original palette, Toon Boom Harmony uses the highest palette in the list to determine the colour of the painted zones.

To reorder palettes in the **Palette** list:

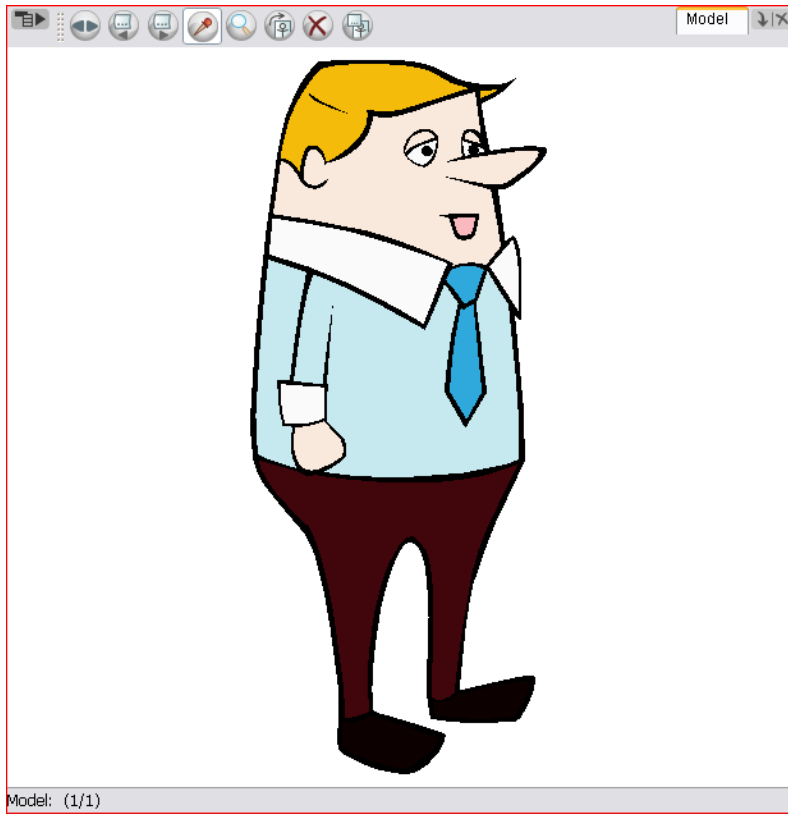
1. In the Colour View menu, select **Palettes > Move Up** or **Move Down**. You can also use the Up  and Down  icons.




Related Topics

- [Cloning a Colour Palette on page 279](#)

Colour Model



Once you have a fully painted drawing, you can use it as a colour model and load it in the Model view. That drawing can be used and loaded in any of your Harmony scenes.

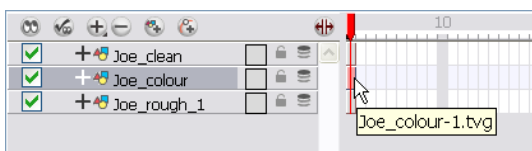
Once a drawing is loaded in the Model view, you can click on the **Dropper** , select a colour from the model and use it to paint in your Camera or Drawing view without having to pick the colour from the colour palette.

- [Loading a Colour Model below](#)
- [Cutting, Copying and Pasting from a Colour Model on page 291](#)


Loading a Colour Model

To load a colour model from your Timeline or Xsheet view:

1. In the Timeline or Xsheet view, select the desired drawing (*.tvg).




2. Bring the model into the Model view by doing one of the following:
 - In the Timeline view, click and drag the selected drawing and drop it directly in the Model view.
 - In the Model View menu, select **Use Current Drawing as Model**.

- ▶ Use **Current Drawing**  button in the Model View toolbar's extra buttons.


The model appears in the Model view.

To browse for a colour model drawing on your hard drive:

1. Do one of the following:
 - ▶ In the Model View menu, select **Import Model**.
 - ▶ Click the **Import Model**  button or from the Model View's toolbar.
 - ▶ Select **File > Import > Colour Model**.
2. In the Browser window, browse for any *.tvg drawing file on your hard drive.
3. Click **Open**.

The model appears in the Model view.

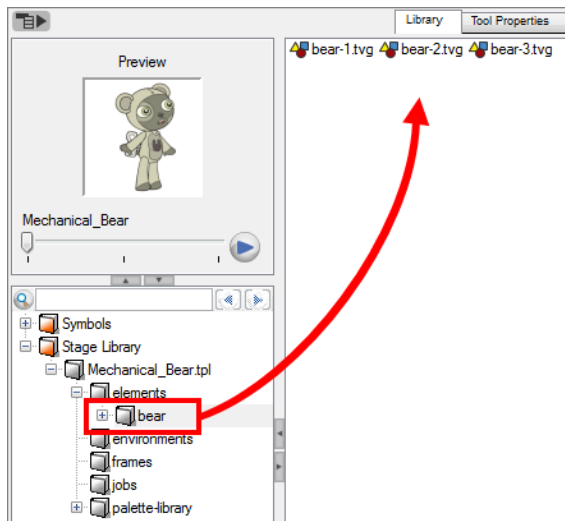
To load the Default models:

1. In your scene's folder, create a new folder and name it models.
2. On your hard drive copy the *.tvg drawing file you want to use as colour models in your scene.
3. In the Model View menu, select **Load Default Model**. You can also click on the **Load Default Model** 

button available in the Model View toolbar's extra buttons.

To load a single drawing from the Library view:



1. In the Library view, click the template containing the drawing to import in the Model view.
2. Right-click on the template and select **Open As Folder**.
3. In the Library view's left side, select the template's folder and continuing expanding its sub-folders until *.tvg files appear on the right side.



4. In the Library view's right side, select the TVG drawing to import and drag it into the Model view.

To load a template with multiple drawings from the Library view:

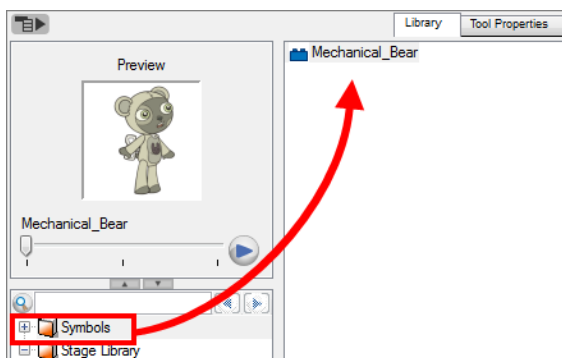
1. In the Library view, find the template you want to import in the Model view.
2. In the Library view's right side, click and drag the template (*.tpl file) and drop it directly in the Model view.



- Use the **Scroll Backward**  and **Scroll Forward**  buttons, found in the Model view's toolbar, to view all the drawings contained in the template. This can often be the front, profile and 3/4 views of a character.



To load a symbol from the Library view:

- In the Library view's left side, click on the **Symbols** folder.
- In the Library view's right side, select the symbol that you would like to use as a model and drag and drop it directly into the Model view.



- Use the **Scroll Backward**  and **Scroll Forward**  buttons, found in the Model view's toolbar, to view all the drawings contained in the symbol. This can often be the front, profile and 3/4 views of a character.


To clear a colour model:

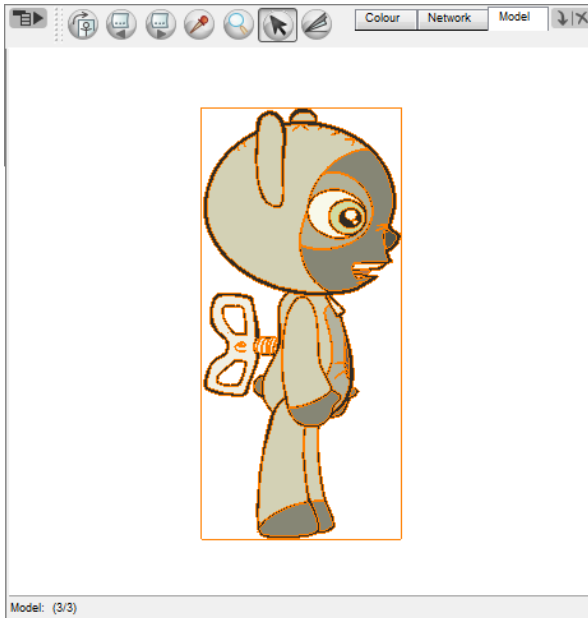
- In the Model View menu, select **Clear Model** or press [Delete].

Cutting, Copying and Pasting from a Colour Model

You can do more than just copy colours from a colour model. Harmony gives you the ability to copy parts of the character directly from its colour model and paste these elements into the Drawing or Camera views.

To copy the entire model from the Model view:


1. In the Model view's toolbar, select the **Select**  tool.
2. In the Model view, select your model.

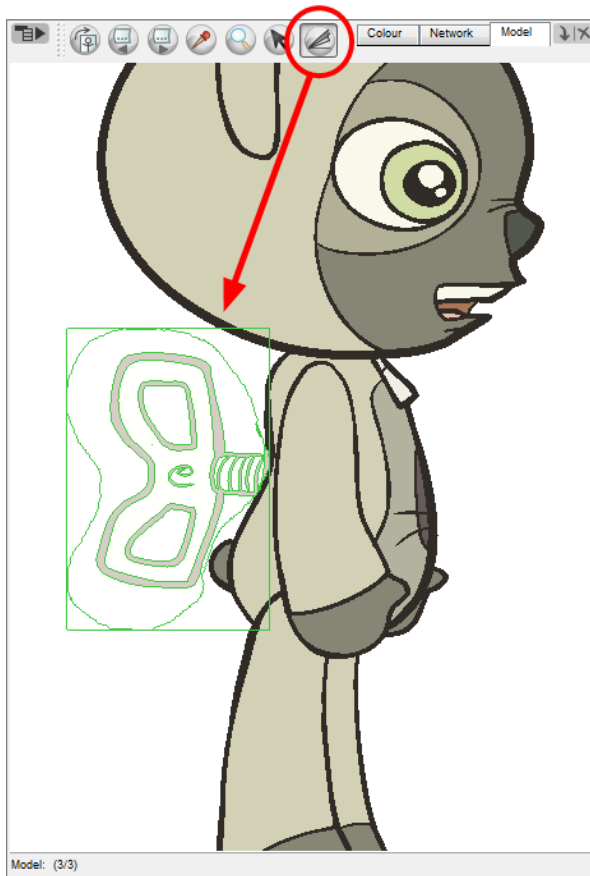


3. In the top menu, select **Edit > Copy Drawing Object** or press [Ctrl] + [C] (Windows/Linux) or [⌘] + [C] (Mac OS X).
4. In the Timeline view, make sure that you have the correct layer and frame selected.
5. Select either the Drawing or Camera views then go to the top menu and select **Edit > Paste Drawing Object**, or select the Timeline view and from the top menu select **Edit > Paste cells in the Timeline** or press [Ctrl] + [V] (Windows/Linux) or [⌘] + [V] (Mac OS X).

The model now appears in the selected view.

To copy part of the model from the Model view:

1. In the Model view's toolbar, select the **Cutter**  tool or press [Alt] + [T].
2. In the Model view, use the Cutter tool to create a selection around the part of your model that you would like to copy.



3. In the top menu, select **Edit > Copy Drawing Object** or press [Ctrl] + [C] (Windows/Linux) or [⌘] + [C] (Mac OS X).
4. In the Timeline view, make sure you have the correct layer and frame selected.
5. Do one of the following:
 - ▶ Select the Drawing or Camera view and select **Edit > Paste Drawing Object**.
 - ▶ Select the Timeline view and select **Edit > Paste cells in the Timeline** or press [Ctrl] + [V] (Windows/Linux) or [⌘] + [V] (Mac OS X).

The model appears in the selected view.

Colour Preferences

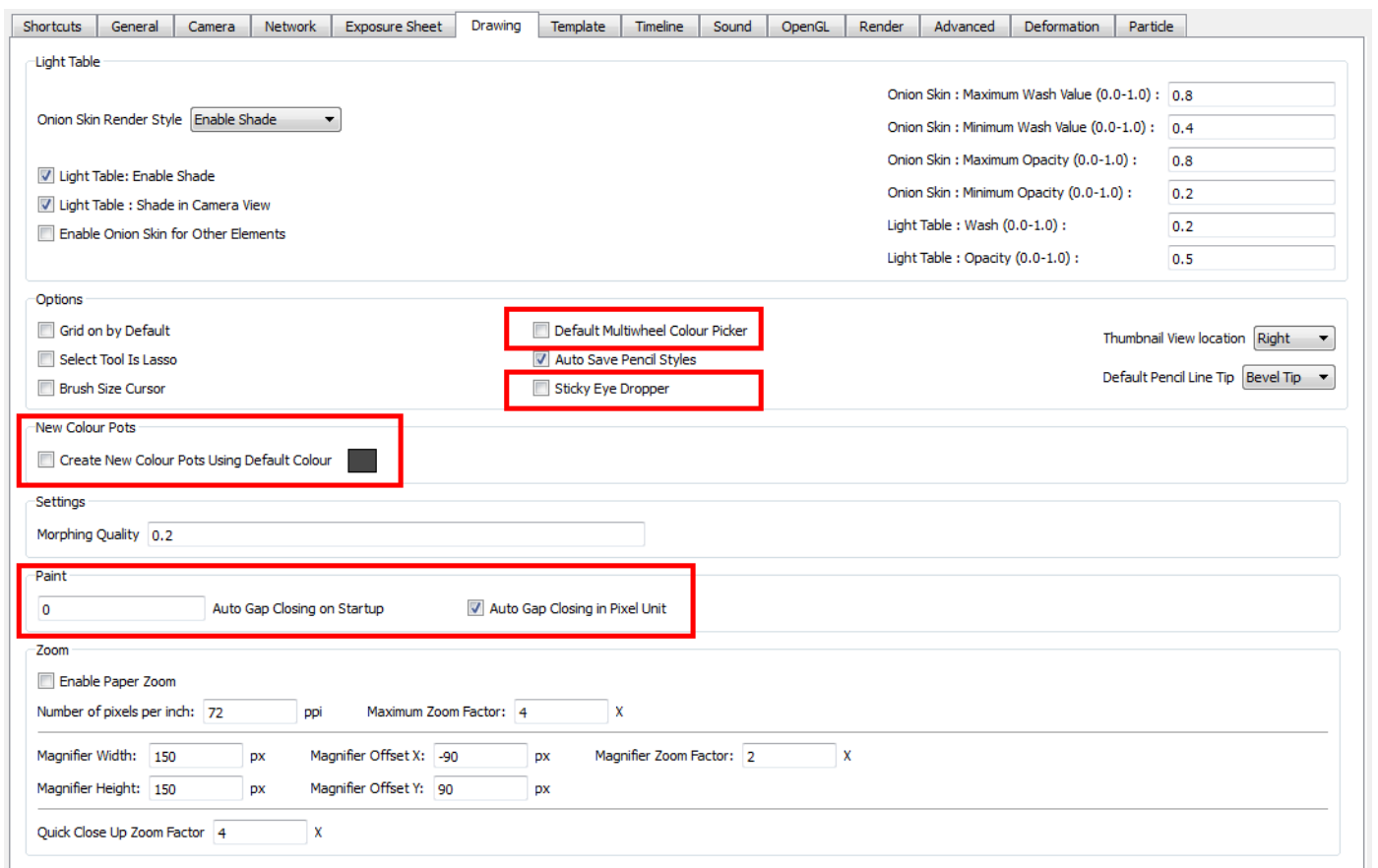
Adjusting preferences to suit your techniques allows you to paint your drawings more efficiently.

To open the Preferences panel:

- ▶ Windows/Linux: Select **Edit > Preferences**.
- ▶ Mac OS X: Select **Stage > Preferences**.
- ▶ Or press [Ctrl] + [U] (Windows/Linux) or [⌘] + [U] (Mac OS X).

In the **Preferences** panel, you will find the following preferences that are related to adding colours to your project.

Drawing Tab



Light Table

Onion Skin Render Style **Enable Shade**

Light Table: Enable Shade
 Light Table : Shade in Camera View
 Enable Onion Skin for Other Layers

Onion Skin : Maximum Wash Value (0.0-1.0) : 0.8
Onion Skin : Minimum Wash Value (0.0-1.0) : 0.4
Onion Skin : Maximum Opacity (0.0-1.0) : 0.8
Onion Skin : Minimum Opacity (0.0-1.0) : 0.2
Light Table : Wash (0.0-1.0) : 0.2
Light Table : Opacity (0.0-1.0) : 0.5

Options

Grid On By Default
 Select Tool Is Lasso
 Brush Size Cursor

Default Multiwheel Colour Picker
 Auto Save Pencil Styles
 Multi-Click Eye Dropper

Thumbnail View location **Right**
Default Pencil Line Tip **Bevel Tip**

Settings

Create New Colour Pots Using Default Colour ■ Morphing Quality 0.2

Paint

0 Auto Gap Closing on Startup Auto Gap Closing in Pixel Unit

Zoom

Enable Paper Zoom
Number of pixels per inch: 72 ppi Maximum Zoom Factor: 4 X
Quick Close Up Zoom Factor 4 X

Default Multiwheel Colour Picker

Enable this option to display the Mutliwheel Colour Picker window instead of the regular Colour Picker.

Sticky Eye Dropper

Enable this option to keep the Colour Picker's Dropper tool active until it is released by clicking on the Dropper icon again.

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.

Auto Gap Closing on Startup

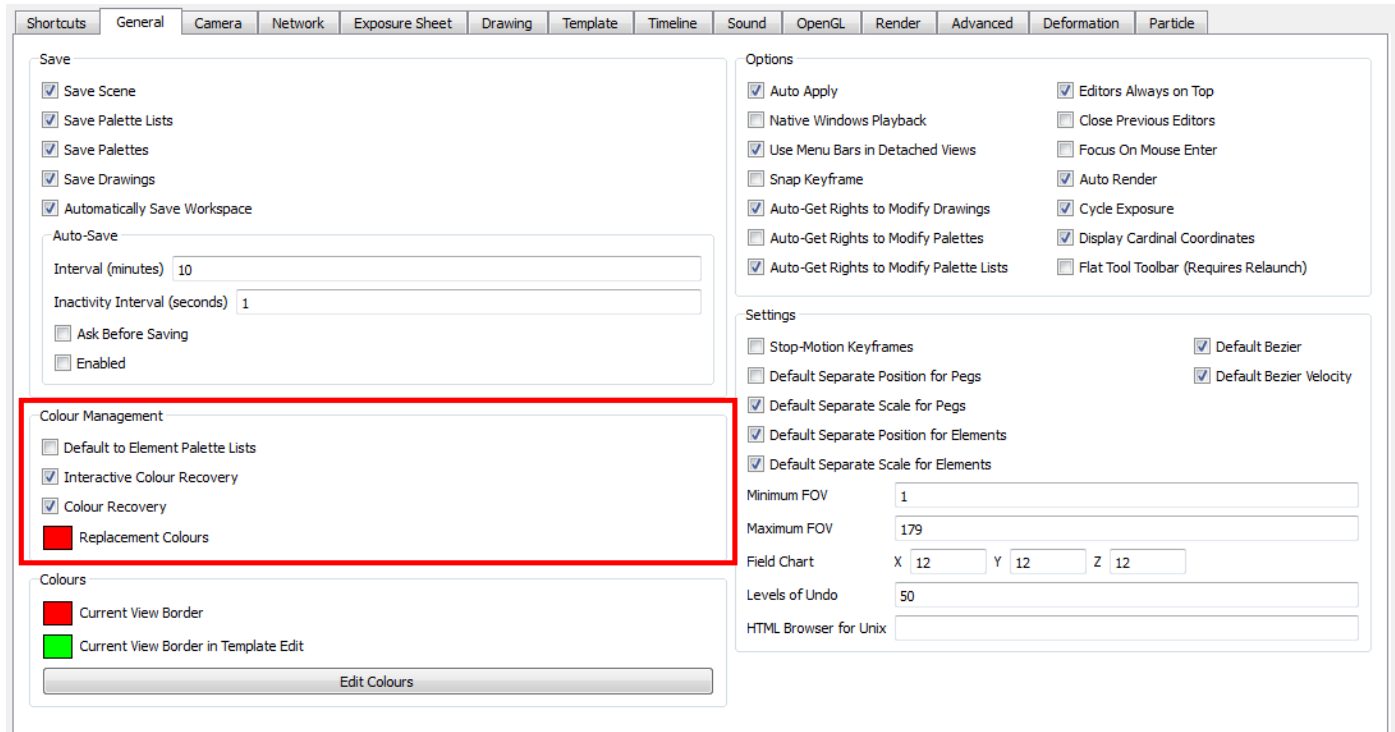
The values for automatic gap closing while painting drawings are:

- 0 = Disabled
- 1 = Small
- 2 = Medium
- 3 = Big

Auto Gap Closing in Pixel Units

Disabling this option will cause your gap to be zoom dependant. Zoom dependant 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 dependant.

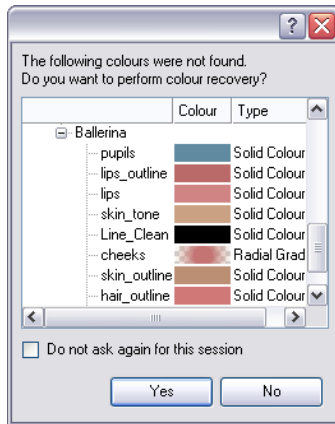
General Tab



Colour Management

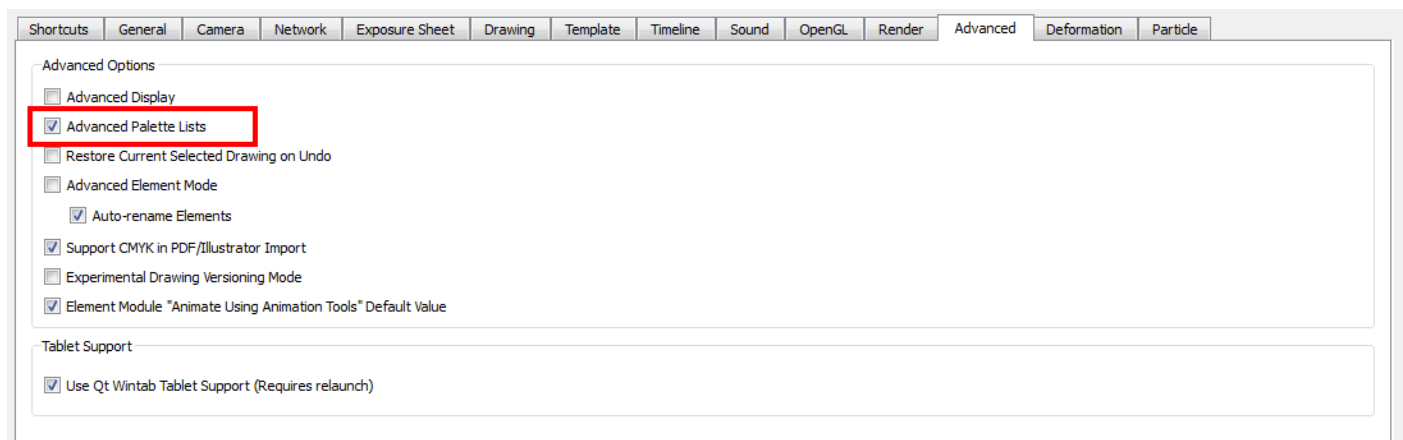
In the General tab of the Preference panel, you will find the following options:

- **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 for your scene is deleted or cannot be found, you will be asked if you want to recover colours from the program's memory. If this option is unchecked, the program recovers missing colours without displaying a dialog box for your input.



- Colour Recovery: If this option is unchecked, colour recovery will not occur.
- Replacement Colours: If colours are no longer available for your scene, these colours are automatically replaced with the ones indicated by the Replacement Colour swatch. The default colour is red, as it acts as a missing colour warning device.

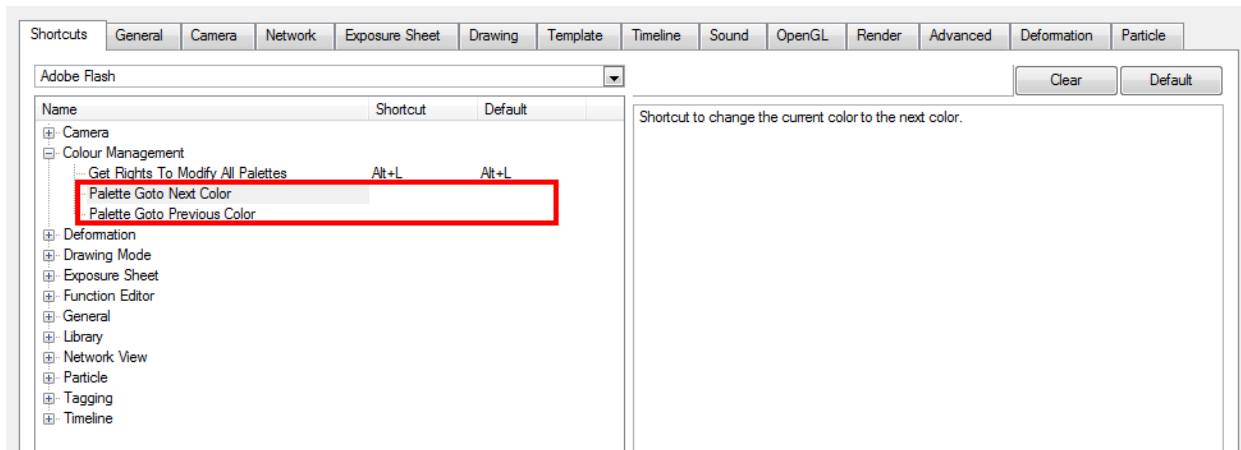
Advanced Tab



Advanced Palette Lists

In the Advanced section, you will find the Advanced Palette Lists option. Enable this feature to switch your palette list to advanced mode. The Advanced Palette Lists mode is used to create and store palettes in the Scene or Element Palette List.

Shortcuts Tab



Go to Next/Previous Colour in the Colour Palette

Under the Colour Management section, you can set two new possible shortcuts. You can set a shortcut to Go to the Next Colour in the Colour Palette or to Go to the Previous Colour.

Keyboard Shortcuts For Harmony Paint

This document lists default keyboard shortcuts for Harmony Paint.



The Harmony keyboard shortcuts set is used throughout the Harmony Paint module documentation.

To use a shortcut, press the key and the character simultaneously. The + sign, is not part of the sequence. If there is no shortcut allocated to a command it is left blank.

General					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Advanced Save	Ctrl+Shift+S	⌘ +Shift+S	Ctrl+Shift+S	⌘ +Shift+S	
Copy	Ctrl+C	⌘ +C	Ctrl+C	⌘ +C	
Cut	Ctrl+X	⌘ +X	Ctrl+X	⌘ +X	
Delete	Del	Del	Del	Del	
Delete (secondary key)	Backspace	Backspace	Backspace	Backspace	
Deselect All	Esc	Esc	Esc	Esc	
Free Pan And Zoom	Space	Space	Space	Space	
Get Rights to Modify Drawings	Alt+L	Alt+L	Alt+L	Alt+L	
Go to Next Column	J	J	J	J	
Go to Next Drawing	G	G	G	G	
Go to Previous Column	H	H	H	H	
Go to Previous	F	F	F	F	

General					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Drawing					
Help	F1	F1	F1	F1	
Open	Ctrl+O	⌘ +O	Ctrl+O	⌘ +O	
Open Elements	Ctrl+E	⌘ +E	Ctrl+E	⌘ +E	
Paste	Ctrl+V	⌘ +V	Ctrl+V	⌘ +V	
Preferences	Ctrl+U	⌘ +U	Ctrl+U	⌘ +U	
Quick Close-up	Shift+Z	Shift+Z	Shift+Z	Shift+Z	
Read Changed Drawings	Ctrl+;	⌘ +;	Ctrl+;	⌘ +;	
Recentre	F12	⌘ +F12	N	N	
Redo	Ctrl+Y	⌘ +Y	Ctrl+Shift+-Z	⌘ +Shift+Z	
Release Rights to Modify Drawings	Alt+Shift+L	Alt+Shift+-L	Alt+Shift+L	Alt+Shift+L	
Reset Pan	Shift+N	Shift+N	Shift+N	Shift+N	
Reset Rotation	Shift+X	Shift+X	Shift+X	Shift+X	
Reset View	Shift+M	Shift+M	Shift+M	Shift+M	
Reset Zoom					
Rotate View CCW					
Rotate View CW					
Save	Ctrl+S	⌘ +S	Ctrl+S	⌘ +S	
Select All	Ctrl+A	⌘ +A	Ctrl+A	⌘ +A	

General					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Show Colour Model	Shift+K	Shift+K	Shift+K	Shift+K	
Toggle Auto-Get-Rights-to-Modify-Palette-Lists					
Toggle Auto-Get-Rights-to-Modify-Palettes					
Undo	Ctrl+Z	⌘ +Z	Ctrl+Z	⌘ +Z	
Unload Model	Del	Del	Del	Del	
Zoom In	Ctrl+=	⌘ +=	2	2	
Zoom Out	Ctrl+-	⌘ +-	1	1	

Colour Management					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Get Rights To Modify All Palettes	Alt+L	Alt+L	Alt+L	Alt+L	
Palette Go to Next Colour					
Palette Go to Previous Colour					

Drawing Mode					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Activate Magnifier					
Apply Tool to All Drawings	Ctrl+Alt+A	⌘ +Alt+A	Alt+A	Alt+A	
Apply Tool to All Visible Layers	Shift+Q	Shift+Q	Shift+Q	Shift+Q	
Auto-Create Colour Art from Brush	Shift+F2	Shift+F2	Shift+F2	Shift+F2	
Auto-Matte					
Automatically Fill Inside Regions	Ctrl+Shift+R	⌘ +Shift+R	Ctrl+Shift+R	⌘ +Shift+R	
Bring Forward	Ctrl+Up	⌘ +Up	Ctrl+PgUp	⌘ +PgUp	
Bring To Front	Ctrl+Shift+Up	⌘ +Shift+Up	Ctrl+Shift+PgUp	⌘ +Shift+PgUp	
Brush Tool			Alt+B	Alt+B	
Brush Tool (General)	Alt+B	Alt+B			
Close Gap Interactive Tool	Shift+F10		Shift+F10		
Close Gap Tool	Alt+C	Alt+C	Alt+C	Alt+C	
Contour Editor Tool	Alt+A	Alt+A	Alt+Q	Alt+Q	
Convert Brush Strokes to Pencil Lines	^	^	^	^	

Drawing Mode					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Convert Pencil Lines to Brush Strokes	&	&	&	&	
Convert Strokes to Pencil Lines	Shift+F12		Shift+F12		
Create Breaking Triangles					
Create Colour Art from Line Art	*	*	*	*	
Crop Brush Textures					
Cutter Tool			Alt+T	Alt+T	
Dropper Tool	Alt+I	Alt+I	Alt+D	Alt+D	
Edit Texture/Gradient Tool	Shift+F3	Shift+F3	Shift+F3	Shift+F3	
Ellipse Tool	Alt+O	Alt+O	Alt+=	Alt+=	
Eraser Tool	Alt+E	Alt+E	Alt+E	Alt+E	
First Frame					
Flatten	Alt+Shift+F	Alt+Shift+F	Alt+Shift+F	Alt+Shift+F	
Flatten and Remove Extra Strokes	Ctrl+Shift+F	⌘+Shift+F	Ctrl+Shift+F	⌘+Shift+F	
Flatten Latest	F2	F2	F2	F2	
Flip					

Drawing Mode					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Horizontal					
Flip Vertical					
Go to Next Morphing Frame					
Go to Previous Morphing Frame					
Group	Ctrl+G	⌘ +G	Ctrl+G	⌘ +G	
Hand Tool					
Hide Line Texture	Ctrl+Alt+H	⌘ +Alt+H	Ctrl+Shift+H	⌘ +Shift+H	
Ink Tool					
Light Table	Shift+L	Shift+L	Shift+L	Shift+L	
Line Tool	Alt+N	Alt+N	Alt+\	Alt+\	
Merge Pencil Lines					
Morphing Tool	F3	F3	F3	F3	
Onion Skin: 1 Next	Ctrl+1	⌘ +1	Ctrl+1	⌘ +1	
Onion Skin: 1 Previous	!	!	!	!	
Onion Skin: 2 Next	Ctrl+2	⌘ +2	Ctrl+2	⌘ +2	
Onion Skin: 2 Previous	@	@	@	@	
Onion Skin: 3 Next	Ctrl+3	⌘ +3	Ctrl+3	⌘ +3	
Onion Skin:	#	#	#	#	

Drawing Mode					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
3 Previous					
Onion Skin: Add 1 next					
Onion Skin: Add 1 Previous					
Onion Skin: No Next	Ctrl+`	⌘ + `	Ctrl+`	⌘ + `	
Onion Skin: No Previous	~	~	~	~	
Onion Skin: Reduce 1 Next					
Onion Skin: Reduce 1 Previous					
Optimize	Ctrl+Alt+Shift+C	⌘ +Alt+Shift+C	Ctrl+Alt+Shift+C	⌘ +Alt+Shift+C	
Paint and Remove Texture	Ctrl+Shift+F6	⌘ +Shift+F6	Shift+F6	Shift+F6	
Paint Tool			Alt+I	Alt+I	
Paint Tool (General)	Alt+K	Alt+K			
Paint Unpainted Tool			Alt+Y	Alt+Y	
Pencil Editor Tool			Alt+W	Alt+W	
Pencil Tool	Alt+Y	Alt+Y	Alt+Y	Alt+Y	
Permanent Selection	Ctrl+Shift+P	⌘ +Shift+P	Ctrl+Shift+P	⌘ +Shift+P	
Perspective	Alt+0	Alt+0	Alt+0	Alt+0	

Drawing Mode					
COMMAND	FLASH		HARMONY		CUST OM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Tool					
Pivot Tool			Shift+P	Shift+P	
Polyline Tool	Alt+P	Alt+P	Alt+_	Alt+_	
Preview Line and Colour Arts	Shift+P	Shift+P	P	P	
Real-Time Antialiasing	Ctrl+Alt+Shift+A	⌘+Alt+Shift+A	Ctrl+Alt+A	⌘+Alt+A	
Rectangle Tool	Alt+R	Alt+R	Alt+7	Alt+7	
Reduce Drawing Texture Resolution					
Remove Dirt	Shift+D	Shift+D	Shift+D	Shift+D	
Remove Hair					
Remove Selected Drawing					
Removes art inside selection					
Removes art inside selection on all drawings					
Removes art outside selection					
Removes art outside selection on					

Drawing Mode					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
all drawings					
Repaint Brush Tool			Alt+X	Alt+X	
Repaint Tool			Alt+R	Alt+R	
Reposition All Drawings Tool					
Resize Pen Style Tool	O	O	O	O	
Rotate 180					
Rotate 90 CCW	Ctrl+7	⌘+7	Ctrl+7	⌘+7	
Rotate 90 CW	Ctrl+9	⌘+9	Ctrl+9	⌘+9	
Rotate View Tool					
Select Delete Morphing Hint Mode	Del	Del	Del	Del	
Select Morphing Appearing Point Mode					
Select Morphing Contour Hint Mode	Ctrl+Shift+H	⌘+Shift+H	F7	F7	
Select Morphing Vanishing Point Mode	F10		F10		

Drawing Mode					
COMMAND	FLASH		HARMONY		CUST OM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Select Morphing Zone Hint Mode					
Select Strokes With Current Colour	Ctrl+Shift+A	⌘ +Shift+A	Ctrl+Shift+A	⌘ +Shift+A	
Select Tool	Alt+V	Alt+V	Alt+S	Alt+S	
Send Backward	Ctrl+Down	⌘ +Down	Ctrl+PgDown	⌘ +PgDown	
Send To Back	Ctrl+Shift+Down	⌘ +Shift+Down	Ctrl+Shift+PgDown	⌘ +Shift+PgDown	
Shift Trace Drawing Move Down					
Shift Trace Drawing Move Up					
Shift Trace Drawing Reset Position					
Shift Trace Drawing Toggle Peg State					
Shift Trace Drawing Toggle Visibility					
Shift Trace Move Tool					
Shift Trace Rotate Tool					

Drawing Mode					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Shift Trace Scale Tool					
Shift Trace Toggle Manipulator					
Shift Trace Toggle View					
Show Grid	Ctrl+'	⌘ +'	Ctrl+'	⌘ +'	
Show Grid Outline Only	Ctrl+Alt+G	⌘ +Alt+G			
Show Other Morphing Key Drawing	=	=	Ctrl+Shift+M	⌘ +Shift+M	
Show Scan Info Panel					
Show Strokes	D	D	K	K	
Show Symbol Pivot					
Show/Hide Contour Editor Controls	Alt+F5	Alt+F5	Alt+F5	Alt+F5	
Show/Hide Onion Skin	Ctrl+Alt+O	⌘ +Alt+O	Alt+O	Alt+O	
Smooth	Alt+Shift+S	Alt+Shift+S	Alt+Shift+S	Alt+Shift+S	
Smooth Editor Tool					
Snap and Align	Ctrl+Alt+,	⌘ +Alt+,	Ctrl+Alt+,	⌘ +Alt+,	

Drawing Mode					
COMMAND	FLASH		HARMONY		CUSTOM
	Win/Linux	Mac OS X	Win/Linux	Mac OS X	
Snap to Contour	Ctrl+Alt+;	⌘ +Alt+;	Ctrl+Alt+;	⌘ +Alt+;	
Snap to Grid	Ctrl+Alt+'	⌘ +Alt+'	Ctrl+Alt+'	⌘ +Alt+'	
Stroke Tool	Alt+V	Alt+V	Alt+V	Alt+V	
Suggest Morphing Hints					
Switch to Line Art/Colour Art	L	L	L	L	
Switch To Overlay/Underlay Layer	:	:	:	:	
Text Tool	Alt+T	Alt+T	Alt+9	Alt+9	
Toggle Backlight	Ctrl+Shift+C	⌘ +Shift+C	Alt+Shift+B	Alt+Shift+B	
Toggle Line Building Mode					
Toggle Protect Colours	Shift+S	Shift+S	Shift+S	Shift+S	
Unpaint Tool			Alt+U	Alt+U	
Zoom Tool	Alt+Z	Alt+Z	Alt+Z	Alt+Z	