
Getting Started.7
Welcome to ArtRage. ..... 7
Installing ArtRage. ..... 7
For Mac OS X Users: ..... 7
For Windows Users: ..... 7
Unlocking ArtRage ..... 7
Registering Artrage Online. ..... 8
Languages. ..... 8
Getting Support for ArtRage. ..... 8
ArtRage Forums. ..... 8
Getting Tutorials. ..... 8
How to Paint with ArtRage. ..... 9
Selecting a Tool. ..... 9
Selecting Colors. ..... 10
Painting a Stroke. ..... 10
Realistic Paint. ..... 10
Undo and Redo. ..... 11
Saving Paintings. ..... 11
Sharing Paintings. ..... 12
Final Notes. ..... 12
The ArtRage Interface. ..... 13
The ArtRage Window. ..... 13
Pods. ..... 13
Panels. ..... 14
Manipulating Floating Panels. ..... 14
Manipulating Docked Panels. ..... 15
The Canvas. ..... 15
Interface Controls. ..... 16
Buttons. ..... 16
Sliders. ..... 16
Toggles. ..... 16
Popup Lists. ..... 16
Preset Blocks. ..... 16
Type Selectors. ..... 16
Tabs. ..... 17
Tooltips. ..... 17
Collapsible Categories. ..... 17
Popup Color Picker. ..... 17
Resource Pickers. ..... 18
Editing Resources. ..... 18
Cursors ..... 18
Working with ArtRage Files. ..... 19
Creating a New File ..... 19
Painting Size. ..... 19
Screen Size Mode. ..... 19
Size Presets. ..... 19
Print Size Mode. ..... 20
Canvas and Tracing Section. ..... 20
Saving a File. ..... 21
Loading a File. ..... 21
Importing and Exporting - How to Share Your Paintings. ..... 21
Importing Images. ..... 21
Exporting Images. ..... 22
Photoshop Files. ..... 22
Printing a File. ..... 22
File Size and Printing. ..... 22
Screen Pixels v. Printer Dots. ..... 22
Choosing a Size. ..... 23
Drag and Drop. ..... 23
The Menu Bar. ..... 24
The Menu Pod. ..... 24
Contents of the Menu Bar ..... 24
Application Menus. ..... 24
Application Buttons. ..... 25
Tools and Presets. ..... 26
Pods. ..... 26
The Tool Picker. ..... 26
The Settings Panel. ..... 27
The Preset Block. ..... 27
Pressure. ..... 27
Oil Brush. ..... 28
Watercolor. ..... 30
Palette Knife. ..... 32
Types: ..... 32
Airbrush. ..... 35
Ink Pen. ..... 37
Pencil. ..... 39
Paint Roller. ..... 41
Felt Pen. ..... 42
Gloop Pen. ..... 44
Sticker Spray. ..... 46
Pastel. ..... 47
Cloner. ..... 48
Setting Clone Source. ..... 49
How the Cloner Source Point Moves. ..... 49
Eraser. ..... 51
Paint Tube. ..... 52
Glitter Tube. ..... 52
Selection Tool. ..... 53
Transform Tool. ..... 55
Color Sampler. ..... 56
Fill. ..... 57
Creating Solid Fills. ..... 58
Creating Gradient Fills. ..... 59
Creating Pattern Fills. ..... 59
Text Tool. ..... 60
Flattening Text. ..... 61
Tool Presets. ..... 61
The Presets Panel. ..... 61
Selecting Presets. ..... 61
Creating Presets ..... 62
Storing Size and Color. ..... 62
Managing Presets. ..... 63
Colors ..... 64
Pods. ..... 64
Color Picker. ..... 64
Selecting Colors. ..... 64
Metallic Colors. ..... 65
Color Modes. ..... 65
Custom Color Pickers. ..... 66
Selecting a Custom Picker. ..... 66
Adding a New Custom Picker. ..... 66
Using Custom Pickers. ..... 67
Precise Color Picker. ..... 67
Real Color Blending. ..... 67
The Water Glass and Dirty Brushes ..... 67
Color Samples. ..... 68
Selecting Color Samples. ..... 68
Adding and Removing Color Samples. ..... 69
Sample Names. ..... 69
Sorting Color Samples. ..... 69
The Canvas. ..... 70
Navigating the Canvas. ..... 70
Menu Options. ..... 70
Mouse and Keyboard Shortcuts. ..... 70
Canvas Positioner. ..... 70
Behind the Canvas ..... 71
Workbench Mode. ..... 71
Canvas Properties. ..... 71
Canvas Grain. ..... 72
Canvas Pattern. ..... 72
Default Canvases. ..... 72
Resizing the Canvas ..... 73
Resizing. ..... 73
Cropping / Expanding ..... 73
Crop to Selection ..... 74
Layers. ..... 75
What are Layers? ..... 75
Types of Layers. ..... 75
Layer Groups. ..... 76
Blend Modes. ..... 76
Bump Blend Modes. ..... 77
The Layers Pod. ..... 77
The Layers Panel. ..... 77
Layer Thumbnails. ..... 77
Layer Groups. ..... 78
Naming Layers. ..... 79
Creating New Layers. ..... 79
Moving Layers. ..... 79
Exporting Layers. ..... 79
Merging and Flattening Layers. ..... 79
Selections. ..... 81
Working With Selections. ..... 81
Partial Selections. ..... 81
Selection Shortcuts ..... 81
Transformations.83
Your cursor will change as you pass over the handles and areasthe transform area to indicate that you can drag. Exactly whathappens when you click and drag there depends on the type oftransformation being applied.83
Normal Transformations. ..... 83
Non Uniform Transformations. ..... 84
Perspective Transformations. ..... 84
Transforming Layers ..... 84
Tracing and References. ..... 85
Pods. ..... 85
Tracing Images. ..... 85
The Tracing Panel. ..... 85
Managing Tracing Images. ..... 85
Automatic Color Selection. ..... 86
Positioning Tracing Images. ..... 86
References. ..... 87
The References Panel ..... 87
Manipulating References. ..... 87
Reference Controls. ..... 88
Reference Images. ..... 88
Scraps. ..... 88
Views. ..... 89
Stencils. ..... 90
Stencil Modes. ..... 90
Stencil Transparency. ..... 90
The Stencils Pod. ..... 91
The Stencils Panel. ..... 91
The ‘Active’ Group ..... 91
Manipulating Stencils. ..... 91
Adding and Removing Stencils on the Canvas ..... 91
Positioning Stencils ..... 92
The Straight Line Ruler. ..... 92
Stacking Stencils. ..... 92
Adding Stencils to the Collection. ..... 93
Creating New Stencils. ..... 93
Stickers. ..... 94
Sticker Properties. ..... 94
Flattened and Floating Stickers. ..... 94
The Stickers Pod. ..... 94
The Stickers Panel ..... 94
Sticker Sheets. ..... 95
Adding Single Stickers to the Canvas. ..... 95
Spraying Stickers on the Canvas. ..... 95
Manipulating Stickers. ..... 95
Moving Stickers. ..... 95
Changing Sticker Color Properties. ..... 96
Sticker Shadows. ..... 96
Erasing Stickers. ..... 96
Sticker Spray Variation. ..... 96
Setting Variation. ..... 97
Variation Properties. ..... 97
Variation Values. ..... 98
Object Sprays and Image Brushes. ..... 99
Adding New Sticker Sheets. ..... 99
Importing a Sticker Sheet. ..... 99
Creating a Sticker Sheet. ..... 99
Sticker Sheet Images. ..... 100
Text. ..... 102
Working With Text - Text Edit Mode. ..... 102
Manipulating Text. ..... 102
Image Adjustment and Filters. ..... 103
Blur. ..... 103
Color Adjustment. ..... 103
Add Noise. ..... 104
Compatible Filters. ..... 104
Adding Filters. ..... 104
Installing in the ArtRage Filters Folder. ..... 104
Scanning External Folders. ..... 105
Filters and Layers. ..... 105
Preferences. ..... 106
The Preferences Panel. ..... 106
Interface. ..... 106
Advanced Preferences. ..... 106
Input Device. ..... 107
Cursors. ..... 108
Filters. ..... 108
Panels. ..... 108
Automatic Updates. ..... 108
Keyboard Shortcuts. ..... 108
Editing Shortcuts. ..... 108
Entering Key Combinations. ..... 108
Package Files. ..... 110
Installing and Managing Package Files. ..... 110
File Naming. ..... 110
Repairing Packages. ..... 110
Tracking Installed Packages. ..... 110
Uninstalling Package Files. ..... 111
Creating Package Files. ..... 111
Adding Items to Packages. ..... 111
Adding Files to Groups. ..... 112
Building the Package File. ..... 112
Package Creator Templates. ..... 112
Script Files. ..... 114
Recording Script Files. ..... 114
Controlling Recording. ..... 114
Pausing and Idle Time. ..... 115
Saving Your Painting While Recording. ..... 115
Ending Recording. ..... 115
Script Annotations. ..... 116
Adding Notes and Tips. ..... 116
Dismissing Tips. ..... 116
Adding Spotlights. ..... 117
Playing Script Files ..... 117
Selecting Different Sizes. ..... 118
Controlling Playback. ..... 118
Notes, Tips and Spotlights. ..... 119
Advanced Scripting. ..... 119
Toolbox and Workbench ..... 120
The Toolbox. ..... 20
Saving Toolboxes. ..... 21
The Workbench ..... 121
Activating Workbench Mode. ..... 122
Workbench Toolbar Layout. ..... 22
Workbench Popup Panels. ..... 123
Showing and Hiding the Toolbar. ..... 123
The Pinboard. ..... 123
Stylus Controls. ..... 125
Stylus Properties. ..... 25
Stylus Recognition. ..... 126
Stylus Control Center. ..... 127
Working With Stylus Recognition. ..... 127
Paint Symmetry. ..... 129
Manipulating Symmetry. ..... 129
Painting with Symmetry. ..... 130
Gradients. ..... 131
What are Gradients. ..... 131
The Gradient Editor. ..... 131
Adding Gradient Points. ..... 131
Editing Gradient Points. ..... 131
Gradient Color Points. ..... 132
Gradient Alpha Points. ..... 132
Center Points: ..... 133
Adding a Gradient to the Collection. ..... 133
Importing Gradients. ..... 133
Credits. ..... 134

## Getting Started.

## Welcome to ArtRage.

In this manual you will find instructions for installing and unlocking your copy of ArtRage, a 'How To Paint With ArtRage' guide to get you started and teach you the basics of the product, and a full reference covering all the features of the product in detail.

If you want to learn more about the product, share paintings and tips, or find additional tutorials you can visit the ArtRage Forums.

Thank you for purchasing ArtRage, we hope you have a great time painting!

- The ArtRage Team.


## Installing ArtRage.

Whether you have downloaded ArtRage or received it on CD you should have an Installer File that can be used to install the product on your computer.

If you have any problems installing ArtRage with these instructions please visit the ArtRage Support Page to request support. You may find that an instant solution to your problem can be found on that page.

## For Mac OS X Users:

The ArtRage installation file is a Disk Image file ('dmg'). Double click the file and a folder will appear containing the ArtRage Application and an Applications Folder shortcut.

Drag the 'ArtRage 4' application from the folder to the Applications icon to install it. Once the ArtRage application is in your Applications folder the software is ready to run.

## For Windows Users:

This ArtRage installer file is a Windows Installer executable ('exe') file so when you double click it your operating system's Windows Installer will open and present installation options for the product.

Follow the instructions in the installer to install the product. Once the installer has finished installing you can find ArtRage in your Start Menu.

## Unlocking ArtRage

Before you can use ArtRage you will need to unlock it using your Serial Number. Your Serial Number is a 25 digit number that you should have received when you purchased the product.

If you purchased ArtRage from us online your Serial Number will be in the email that contains your product download link. If you received ArtRage on CD you will need to check the CD cover or the contents of the box it came in.

When you start ArtRage for the first time you will be presented with the Unlock Panel. If you follow the instructions on this panel, enter your Serial Number then click OK the product should be unlocked.

If you enter your Serial Number and it does not work please check the number you are entering carefully to make sure there are no mistakes. If you received the number in an email you can copy it from the email and paste it in to the panel using the button provided. If that still does not work please use the ArtRage Support Page to request support.

## Registering Artrage Online.

When you have successfully entered your Serial Number you will be asked if you want to register your copy of ArtRage in the Member Area.

> Please Note: You only need to register your copy of ArtRage once! If you have already registered this version, you can just cancel the Register prompt.

Registering your product allows you to download the installer again in the future if you need it, and allows you to recover your Serial Number if you lose it. Product updates are only available to users who have registered their product.

If you are not connected to the internet when you are prompted to register, or if you want to register later you can do so using the 'Register ArtRage Online' option in the Help Menu.

## Languages.

ArtRage is available in different languages. When you start the application it attempts to identify the language of your operating system and adapt to it automatically if it is supported.

If you find that ArtRage is not showing the correct language you can use the 'Select Language' option in the ArtRage Help Menu to select the language you want to use. By default 'Auto Detect Language' is active, this is the option that makes ArtRage find the language using your operating system settings.

## Getting Support for ArtRage.

If you have any problems with ArtRage you can get technical support from the ArtRage Support Page. You can also use the 'ArtRage Support' option in the ArtRage Help Menu.

If you contact us for technical support please make sure to include clear details of what the problem is, when it occurred, and any error messages you saw. You should also include the operating system you are using and the exact version of ArtRage. This will help us provide answers rapidly.

You may also find that your question has already been answered. When you use the Support Page you will be provided with a set of answers that may be appropriate for your situation. Please read these carefully as they may provide an immediate solution.

You can also get support on the ArtRage Forums.

## ArtRage Forums.

The ArtRage Forums are the home of the ArtRage user community. If you register for the forums you can join in discussion about the software and art in general, get tips and tricks for the product and upload your artwork for comment.

## Getting Tutorials.

The forums are a great place to go if you are looking for tutorials. The Tips and Tricks forum is filled with helpful advice and users are happy to provide assistance if you need it.

You can also find tutorials on the ArtRage Website Tutorials Page.

## How to Paint with ArtRage.

So you have started ArtRage and you have a blank canvas on the screen What do you do now? Fortunately it's so easy to get started painting that the only problem you'll have is deciding what to paint. This is what we call a 'happy problem'!

This section explains the basic features of ArtRage including the three most important ones: How to choose a tool and color, how to paint a stroke, and how to save your work. The methods you learn here should give you enough of an understanding of the tools and options in ArtRage that you can go exploring and discover the rest of the features in your own time

> ArtRage is like a well stocked artist's toolkit - You don't need to use everything in the kit to get good results so don't worry about pressing every button and using every tool.

Painting on your computer is a bit different from painting on a real canvas with real paint, so here are some golden rules to remember when you get started:

1. Every time you start ArtRage, a blank canvas is created for you so you can start painting immediately.
2. Every time you lift the brush up it is automatically reloaded with paint so you don't need to dip it in anything to get more color before you paint a new stroke.
3. Every paint stroke you make can be undone if you don't like how it looks, so don't be afraid to try something and get it wrong a few times!

Finally, the most important rule of all: Don't let the software get in the way of your creativity! Experiment with tools and colors and don't worry about breaking anything, ArtRage won't let you get into trouble as you play around!

## Selecting a Tool.



All of your painting tools are stored in the Tool Picker on the left hand side of the ArtRage window.

Click one of the tool icons and that tool will be selected.

The currently selected tool is lit up. In the image to the left, the Watercolor tool has been selected.

Tip: There is always a tool selected, so when you first start the application you can just start painting.

In the left hand corner you can see a preview of the currently selected tool. You can also see the size of the tool head. Click and drag in this box to change the tool size, or single click in it to enter the size manually.

## Selecting Colors

The other thing you need to know is how to select colors. Full information can found in the Colors section but here are the basics.


In the bottom right hand corner of your ArtRage window is your Color Picker. The Color Picker lets you pick what color you are going to apply to your painting. Picking a color on a computer isn't quite like picking it in real life but it's similar.

In real life you select the basic color you want then select another color to blend with it to make an exact color. In ArtRage you do something similar because the Color Picker is split in to two sections.

Around the outer edge of the Picker there is a rainbow spectrum of basic color ('Hue'). Click and drag inside this rainbow to select the basic color you want to use. For example, if you want a Green of any kind you click in the green area of the spectrum.

The inner, large curve shows you the current basic color you selected and a range of brightnesses and intensities ('Luminance' and 'Saturation'). Click and drag in this section to choose how bright or how grey you want your green to be.

When you click in either section, the small color sample in the bottom right corner of the Color Picker updates to show the exact color that will be loaded on your brush head when you paint the next stroke.

If you want your green to be a bit more yellow, you can click and drag in the rainbow spectrum towards the yellow tint. The large curve area updates when you do this? Now you can select the exact brightness of yellowy-green you want and the color sample updates to show the result.

So selecting colors involves:

1. Picking a basic color from the rainbow.
2. Picking how bright or grey you want it from the mixing area.
3. Watching the color sample so that you know what color you have selected.

## Painting a Stroke.

Once you have selected a Tool and a Color, painting a stroke is simple: Just click and drag on the canvas! If you are using a mouse, hold down the left mouse button as you drag. If you are using a stylus on a graphics tablet you should only have to touch the stylus to the tablet and drag. If you are using a touch screen device, touch the screen with a single finger and drag.

As you drag, a stroke is created following the path you paint. When you release the mouse button, or lift the stylus or your finger from the drawing surface, the stroke ends.

Your tool is automatically refilled with paint every time you finish a stroke so you can just click and drag again to paint a new stroke of the same color.

> If you hold down Cmd (Mac OS X) / Ctrl (Windows) when you click and hold to paint, a perfectly straight line will be generated. Hold down Shift as well and this line will rotate in 15 degree increments as you move the mouse.

## Realistic Paint.

Paint in ArtRage isn't just flat color, it has its own thickness and wetness and other properties that work like they do in the real world. This means you can work with paint on the canvas the way you would if you were working with real tools: Smearing thick paint around to create new colors through blending, and smudging dry paint to create blurred edges. Some tools even know how much paint is loaded on to the head, so they run out over the length of a single stroke!

If you paint with a wet medium your paint can be blended with other wet paint. If you paint with a dry medium it won't blend with other paint, but you can smudge it after you have finished painting.

Thick wet paint such as oil paint will also spread over the Canvas and run out as you spread it further. This means you can control whether you apply paint thickly in small areas, or draw it out over large areas to spread it thinner.


When paint blends its color may change depending on what you are blending it with. Two colors will blend to create a new one as you mix them, and if you keep blending, more of the new color will be created. As you smear paint over the canvas it thins out and will eventually go dry.Imagine smearing real oil paint: The thick blob you started with gets thinner as you spread it over a larger area.


Wet tools that apply thin paint such as a wet marker pen or watercolor can still blend with other colors as they pass over them. Watercolor strokes will merge with other watercolor strokes as they get closer and the wet areas of the strokes touch.

If you paint a stroke of wet paint over a stroke of dry paint the two colors will not interact. Dry paint does not blend with other paint that passes over it.


Some paint tools have limited amounts of paint on them with each stroke. As you paint they may run out of pigment and the stroke will end. To 're-fill' the tool, just start a new stroke and more paint will be loaded on to it.


Dry strokes won't spread over your Canvas if you paint over them, but you can still use the Palette Knife tool to Smudge them, like using a finger to smudge a pencil line on paper.


Thick paint can be made dry too. If you paint a stroke of Insta-Dry Oil Paint you can paint another stroke on top and the colors won't blend. Notice how the bristle lumps on the bottom stroke show through the bristle lumps of the top stroke.

## Undo and Redo.

ArtRage has one big advantage over real painting: You don't need to worry about making mistakes because you can Undo any action you have previously taken. The Undo option allows to completely erase the last action you took, even if you blended a stroke in with other paint. You can continue to Undo through as many actions as you like.

You don't even need to worry about making mistakes when you Undo! The Redo option allows any action you just removed with Undo to be put back in to your painting, so you can change your mind after Undoing if you realize you wanted the change after all.

Undo and Redo allow you to experiment without fear of damaging your painting.

## Saving Paintings.

When you have finished your painting, or you are ready to take a break, make sure to Save your work so that you can get it back later. Full information on how to do this is found in the Working with ArtRage Files section but for now, just select Save Painting from the File Menu and select a name for your painting. ArtRage has created a folder for your painting to be saved in so that you can find it later.

## Sharing Paintings.

ArtRage Painting Files (.ptg files) contain lots of information that most image applications don't understand, like the thickness and wetness of your paint. This means that you can't share your paintings with other people just by giving them a copy of the painting file unless they are also using ArtRage.

If you want to share your artwork online, or send images to friends who aren't using ArtRage, you will need to save a copy of your painting file in a common image format. This is done using the Export Image option in the File Menu.

For full instructions on how you can export copies of your painting as an image file that can be viewed in other applications, see Importing and Exporting Images below.

## Final Notes.

This section explained the basics of painting in ArtRage, but there is much more to discover. The rest of this manual goes through all of the features in detail and explains how they work. As you explore the product, just remember that you can Undo anything you do so don't be afraid to try things out!

## The ArtRage Interface.

This section explains where you can find the tools and options you will need while painting, what the various types of control in the products are and how they work, and how to change the layout of your workspace.

## The ArtRage Window.

When you open ArtRage a window appears that contains the Canvas and a number of objects that are arranged around the edge.


Around the edge of the window you will find a collection of control items: Large 'Panels' that contain sets of controls, and smaller 'Pods' that give you quick access to important functions without getting in the way of your painting.

Pods are placeholders for panels, click one and it expands to display the appropriate panel. Close the panel and the pod will appear again. ArtRage manages the layout of these items for you so you don't need to worry about moving things around.

The empty area of the window is your Canvas, the surface you paint on. When you start ArtRage a new Canvas is created that is the same size as the window so you can start painting right away.

As you paint, any panels and pods on the screen will get out of the way of your stroke, so don't worry if you are painting close to a corner, the controls will vanish as you approach to make sure you can continue working. They will reappear when you end the paint stroke.

## Pods.

Each pod has its own specific functions, but there are two main things you can do with all of them:

1. Click to open the Panel the pod contains.
2. Click and hold to trigger a command menu containing common options for the controls the Pod represents, without needing to bring up the full Panel.

Some pods provide other forms of interaction. For example the Color Pod can be clicked and held down on to get a popup color picker, and the Tracing Pod will load a Tracing Image the first time it is clicked. These functions are detailed in the section for each Panel and Pod combination later in the manual.

Pods are gathered in to groups of similar functions:

1. On The Top: The Menu Pod contains the Menu Bar for making application wide changes.
2. On The Left: The Stickers, Stencils, Settings, Tools, and Presets Pods represent the things you use to change your painting.
3. On The Right: The Layers, Tracing, Refs, Color, and Samples Pods represent color and helper functions.

## Panels.

Panels contain most of the in depth functions in ArtRage. There are two types of Panels that can be opened when you click a Pod: Floating Panels that can be freely positioned anywhere on the screen, and Docked Panels that are attached to the edges of the screen by default.

Panels that are Floating have a grey title-bar at the top, while Panels that are docked have a Collapse Button that is used to close them.


Panels that are Floating have a grey title-bar at the top.

Panels that are docked have a Collapse Button that is used to close them.

There are three Docked Panels and they are visible by default when you first start ArtRage: The Menu Bar, the Tool Picker, and the Color Picker. These panels sit on the sides beside the other Pods and their position is managed automatically by ArtRage.

The other Panels are all Floating Panels, so they can be moved wherever you like, including a second monitor if you have one. Floating Panels can also be scaled and rotated so you can lay them out however you want.

The exact functionality of each Panel is covered in detail later on in this manual, but there are some controls that apply to all of them.

## Manipulating Floating Panels.

The grey title-bar at the top of any Floating Panel can be used to manipulate it in a number of ways, including moving it, changing its scale, and rotating it. At any point you can right click the title-bar to get a menu of options that allow you reset any changes you make.

To manipulate a Panel with its title-bar:

1. Move the Panel: Click and drag on the title-bar and the Panel will move.
2. Scale the Panel: Hold down Command (Mac OS X) / Control (Windows) and click and drag on the title-bar and the Panel will scale. You can increase its scale to $200 \%$ or reduce its scale to $25 \%$ of its original size.
3. Rotate the Panel: Hold down Option (Mac OS X) / Alt (Windows) and click and drag on the title-bar and the Panel will rotate. If you also hold down Shift the panel will rotate in 15 degree increments.
4. Options Menu: Right click the title-bar to get a menu of options including a reset option to undo any changes you have made. The 'Jauntify!' option applies a random small rotation to your Panel to give it a jaunty angle!
5. Close the Panel: If the Panel has an ' $X$ ' button in its title-bar you can click this to close it.


Some Panels allow you to change their size by expanding or collapsing their area (as opposed to changing their overall scale).

These Panels have a Sizing Grip at the bottom. To change the size of the Panel, click and drag the Sizing Grip up and down. Panels that can be resized in this manner have a minimum size to prevent them going too small.

## Manipulating Docked Panels.

Docked Panels are stuck to the edge of the ArtRage window like Pods, and when they expand or collapse the Pods around them shift to make best use of the available space. Because they are docked, these Panels are fixed in place and cannot be moved using a title-bar.

The Collapse Button at the corner of the Docked Panel allows you to close the Panel once it is open. Click once to close the Panel.

Right click the Collapse Button on a Docked Panel to get a menu of options for scaling the panel. A Docked Panel cannot be rotated, but it can still be scaled using this menu.

Docked Panels can also be disconnected from the edge and converted to Floating Panels. If you find that you want to place them somewhere else for ease of access, or just to get them out of the way, you can right click the Collapse Button and select the 'Tear Off Edge' option to tear the Panel off the ArtRage window and float it.

When a Docked Panel has been torn off, you can use its Close Button to move it, scale it, and rotate it as if it was the title-bar of a Floating Panel. The Close Button will not collapse the Panel if it is floating in this manner.

To reattach a Docked Panel to the ArtRage window, just right click the Close Button again and select 'Stick To Default Edge'. This will return it to its original position.

## The Canvas.

The Canvas sits underneath the Panels and Pods in the ArtRage window and is the area upon which you apply paint. When you start ArtRage the Canvas fills the window completely, but as you paint you may find you want to move, rotate, or zoom so that important bits of your painting are in the center of the screen.

There are a number of ways to manipulate the Canvas, including shortcut keys and a Canvas Positioner that can be left open if you find you are making
frequent adjustments. Detailed instructions on manipulating the Canvas can be found in the Canvas section.

## Interface Controls.

There are a number of types of basic control used in the ArtRage interface. This section looks at each control type and the shortcuts you can use with them.

## Buttons.

## Use Window Size

Click a button and it will perform the action indicated by its label. Buttons that open popup menus are marked with the Menu Icon.

## Sliders.



Sliders allow you to click and drag to set their value, or click the text item to enter the value manually. If there is more than one slider on a panel you can press the Tab key while editing its value to select the next one, or Shift + Tab to select the previous.

## Toggles.

## Auto Clean

Toggles are simple on/off switches. The current state of the control is indicated by the colored tint. Click anywhere on the toggle to change the state.

## Popup Lists.

## Font: Helvetica Condensed

Some settings have a large list of potential values. Popup List controls can be clicked to generate a popup menu containing all the value options. The arrow on the right indicates that there is more information to be had by clicking the control.

## Preset Blocks.

## Thick Gloss

Some panels have areas that contain information about presets or other components of the panel. These blocks contain an image preview of the content, sometimes a name, and an arrow indicating that more information can be found by clicking. Click anywhere in the block for options related to its contents.

## Type Selectors.



Type Selectors show a preview of a small range of settings. Click the setting you want and it will become active. The name of the setting you have chosen is indicated at the top right of the control.

You can also right click the Type Selector to get a list of all of its options in popup menu form.

## Tabs.

## Y P M 5 E B

Tab controls let you select settings that change the nature of the contents of the panel. Just click a tab and the panel contents will update to reflect the change.

## Tooltips.



Most items that do not have a text label in ArtRage have a Tooltip. Just hover the mouse over an item and a small text tip will appear telling you what the item is.

You can adjust the time you need to hover before the Tooltip appears in the Interface section of the ArtRage Preferences Panel. See Preferences for more information.

## Collapsible Categories.

```
Interface

Advanced Preferences

Some sets of controls in ArtRage are large enough that they are divided in to Collapsible Categories. Each category has a title and an arrow indicating if it
is open or closed. Click anywhere in the grey title-bar of the category to open or close it.

\section*{Popup Color Picker.}


Popup Color Pickers are used when you want to get quick access to a color without worrying about being too precise.

They let you quickly select the Hue, Luminance, and Saturation of a color with a single click and drag. They appear when the mouse button is pressed, and vanish when it is released.


When the Popup Color Picker appears, the Current Color sample is under the pointer. This is the color that is currently selected for whatever option spawned the picker.

Without letting go of the mouse button, drag around the color selection area of the picker. As you drag over the different areas the New Color sample changes to indicate the color that will be selected when the mouse button is released.

Dragging around the horseshoe ring in the color selection area changes the Hue of your color. Drag from there in to the diamond area and you can change the Luminance and Saturation. Typical color selections start with Hue selection, then the pointer slides to the diamond and the details of the color are selected.

If you want to undo your change, just drag the pointer over the Current Color sample and release the mouse button, the color will not change.

Holding down Shift while the Popup Color Picker is visible prevents the color changing as you move the mouse. This means
you can move your pointer around to a spot without making any changes if you wish, then release Shift and the New Color updates immediately.

\section*{Resource Pickers.}

Many of the custom resources you can use in ArtRage, such as Stencils and Stickers, are chosen from a Resource Picker. Resource Picker panels present a list of specific types of resource sorted in to groups for ease of organization.


On the left of the picker is a list of available groups. Click a group and the right hand side of the picker will update to indicate all of the available objects in that group.

Some Resource Pickers have special group types such as Favorites. These groups are always listed at the top of the panel and sit above the scrolling list of custom groups.

At the top of the Picker you will find buttons for adding groups and adding items to existing groups. These buttons may vary depending on the nature of the resource type.

\section*{Editing Resources.}

Resources that you have added to the panel can be removed or renamed. Right click an item for a list of options available.

If the item has a lock icon next to it it cannot be edited, these items were installed by the application.

\section*{Cursors.}

ArtRage lets you select from three different styles of cursor depending on how precise you want to be:


Tool Cursors: These cursors take on the appearance of the tool you are currently using. The tip of the tool is where the tip of the cursor will apply paint.


Outline Cursors: These cursors show you the outline shape of the tool head where you are about to apply paint. Some tools that do not have Tool Cursors automatically use Outline Cursors.

Precise Cursors: These cursors are small crosshairs that show the precise point where your stroke will begin. When Outline Cursors are too small to display accurately, Precise Cursors are automatically used.

You can choose which type of cursor to use in the 'Cursors' section of the Preferences Panel.

\section*{Working with ArtRage Files.}

Paintings you create in ArtRage store a lot more information than normal image files, including how much paint there is on the Canvas and how wet it is. This means that ArtRage uses a special file format to ensure that this information isn't lost when you save your work. These files (Painting Files or PTG files) can't always be understood by other applications.

This section of the manual explains how to create ArtRage files, how to save them and how to reload them, print them, and export them in a format you can share with other people. Most of these options can be found in the File Menu.

\section*{Creating a New File.}

When you open ArtRage it displays a fresh Canvas ready for paint but if you want to create one of a different size, or if you want to create a new file while you are working you can do so using the 'New Painting' option in the File Menu. When you select this option, the New Painting Panel appears. This panel lets you create a new painting and set up its properties.


The top section of the panel is used to set the size of your new painting.

The bottom section is used to set the paper or canvas type you want to paint on, and load any Tracing Image you may want to work with.

The following sections explain how these various options work.

\section*{Painting Size.}

ArtRage lets you choose a size for your painting either by selecting how large it will appear on the screen (Screen Size) or by how large it will be when you print it (Print Size). Clicking either Screen Size or Print Size changes the controls in the panel to reflect the correct options for the selected mode.

Regardless of the mode you select, the grey information stripe just beneath the controls will tell you what values the other mode will have for your currently entered values.

Printing size can be confusing if you're not used to it. For more information on selecting sizes and how this relates to printing, see the section on File Size and Printing.

\section*{Screen Size Mode.}

To select a size in Screen Size mode, enter the width and height of the painting you wish to create in the Width and Height boxes. If you wish to use the size of the ArtRage window click 'Use Window Size'. If you have loaded a Tracing Image you can also choose to use the size of that image.

When you are setting the size in Screen Mode you can also enter the Pixels Per Inch resolution that will be used for printing. Entering a value in this box does not change the size of your image, it changes the size the image will be when printed. In the grey information stripe you will see how big your painting is going to be when it is printed taking into account this value.

\section*{Size Presets.}

Beneath the Screen Size / Print Size tabs is a Presets menu button. If you click that button you will be presented with a list of preset sizes. If you select a size preset its properties will be applied to the panel.

If you want to add a new size preset for your current settings select Add New Size Preset. You will be prompted to enter a name for the new preset. Enter the name you want and click OK.

If you wish to manually add or remove files from your collection of Canvas Presets you can use the 'Open User Size Presets Folder' option to see the location on disk where your custom presets are stored.

If you are not sure what the settings mean or if you think you have made a mistake you can always select 'Reset Size To Default' from the presets menu.

\section*{Print Size Mode.}

Selecting a size in Print Mode involves selecting the Units you wish to use from the 'Measure In' menu, and entering the size in the Width and Height boxes using those units.

For example, you might want a painting that will be 10 cm by 10 cm when printed. To do this you would select Centimeters from the 'Measure In' menu, and enter 10 in the Width and Height boxes.

You will also need to know the resolution you will be using to print. This is entered in the Pixels / Inch box. The term 'PPI' ('Pixels per Inch') or 'DPI' ('Dots per Inch') is used to indicate how many dots are placed down in each inch of paper, and in general the higher the number goes the clearer the image is.

If you wish to print your image at 300 DPI, just enter 300 in the Pixels / Inch box and ArtRage will calculate how big it needs to make the Canvas.

Whenever you make a change to one of the values in the Print Mode controls the grey information stripe will update to tell you how many pixels wide and high ArtRage has to make your Canvas to match the print size you have requested. Please be aware that very large files take lots of memory and slower computers may have problems painting on them.

If you are new to print sizes see File Size and Printing later on in the manual.

\section*{Canvas and Tracing Section.}

When you have selected the size you want your new file to be you can select a Canvas Texture and a Tracing Image for it using the controls below.

The Canvas preview shows you the texture and color you have selected for your Canvas. Click the preview to open the Canvas Texture Panel where you can select a new texture or create your own. For more information on this panel see Canvas Properties. The menu button beside the preview allows you to select a Canvas Texture Preset from the list of available presets if you wish.

The Tracing Image preview shows you the Tracing Image you currently have loaded for the new file. By default there is none, but if you click the preview or select 'Load Tracing Image' from the menu button next to it you can load an image. If you want to clear the image you can use the menu button next to the preview.

When you have finished setting up your new file, click OK to create it, or Cancel to cancel and return to your previous work.

\section*{Saving a File.}

Before you quit ArtRage or start working on a new painting you should save any work you have done on the previous painting to make sure you can get it back later. The ArtRage Painting file format allows you to save your painting so that it can be reloaded without losing any of its information.

To save a painting, just select 'Save Painting' from the File Menu. What happens when you select this depends on whether you have saved the painting before. If you have, the painting will automatically be saved and replace the previously saved version. If you have not, you will be asked to enter a name for the painting and choose where to save it.

If you wish to save a copy of your painting, without overwriting the previous copy, just select 'Save As' from the File Menu.

If you attempt to quit, create a new file, or load an existing file while you have a current painting loaded that has unsaved changes you will be asked if you wish to save before you continue. At this point you can either choose to save the changes you have made, discard the changes and continue, or cancel so that you can check your changes and save manually.

Files saved by ArtRage are of the type 'PTG', Painting files.

Always use Save to save your paintings, don't be tempted to use Export as if it was Save, Exported files do not contain all the information needed to keep painting later on!

ArtRage can automatically save backups of your files whenever you save. To read about this feature, see Store Backup Files in the Preferences section of the manual.

\section*{Loading a File.}

If you want to load a painting you have on disk you can select 'Open Painting' from the File Menu. This allows you to locate and select the file to load.

If you have loaded the file recently you may also be able to locate it in the 'Recent Files' popup under the File Menu. Select it there to load it if you can see it.

This option is for loading ArtRage Painting files only, to load a non ArtRage file, use the Import option as explained below.

You can also load a painting file by dragging it on to the ArtRage window.

\section*{Importing and Exporting - How to Share Your Paintings.}

As mentioned previously, ArtRage Painting files contain lots of data that is not understood by normal image formats. A JPEG file for example doesn't know about how wet your paint it or how many Layers you have in your document. This means that normal image applications can't display ArtRage Painting files easily. The solution when you want to share images with someone else, post them online, or load images created in another application, is to use Import and Export.

\section*{Importing Images.}

If you want to load a non ArtRage Painting file to work with select 'Import Image File' from the File Menu. When you select this option you are prompted to select a file to load. The file will be loaded in to ArtRage and a new Canvas will be created at the right size to contain it.

The image will appear on the Canvas and will be editable as if you had painted it in ArtRage.

Because you have Imported a file to create a new ArtRage Painting, you will be asked to enter a file name for it when you go to save. If you have edited
the image, make sure to save it as an ArtRage Painting file so that you can work on it later.

To overwrite the original image with your edited version, you would need to use the Export function described below.

\section*{Exporting Images.}

Most applications do not understand the information stored in ArtRage Painting files. Not many applications recognize how much paint there is on a Canvas, or how metallic it is for example. This means that you can't just load an ArtRage Painting file in to another application to view it, or send it to a friend to have them look at it.

The solution to this is to use the 'Export Image File' option in the File Menu. This option allows you to save a copy of your ArtRage Painting to disk in a format that other applications can understand. When you select the option you will be asked to enter a name for the copy, and select an image format to use. The copy of your painting is saved to disk and can be used as a normal image file.

Very Important: Do not use the Export function as if it was Save. You should always Save your paintings using the Save function so that you can reload them later without losing information. If the only copy of your painting is a JPEG or other normal image format then you have lost a lot of information!

Some file formats do not understand some properties of your Canvas. If you have made your Canvas transparent and you export to an image format that does not understand transparency (such as JPEG) the Canvas will be made completely opaque on export, displaying its standard color.

\section*{Photoshop Files.}

ArtRage supports Adobe Photoshop PSD files and can import and export them while maintaining many of their properties including layers, blend modes, and groups.

Text imported from a PSD file will appear in ArtRage as it did in Photoshop, and if you export the file as a PSD unedited text will remain correct when you open the file in Photoshop again. If you edit text that was imported from a PSD file it may appear different when you return the file to the previous application.

\section*{Printing a File.}

To print a copy of your ArtRage Painting use the 'Print Painting' option in the File Menu. This will open your computer's normal print dialogue and allow you to set options as you wish.

On Mac OS X you will also be able to use the 'Page Setup' option in the File Menu to set up your print settings before printing.

\section*{File Size and Printing.}

The difference between the size of your painting on the screen and the size of your painting when it is printed can be quite confusing. ArtRage helps you understand this by letting you work in either Screen Size or Print Size, but it may still help to understand why they are different.

\section*{Screen Pixels v. Printer Dots.}

The image you see on your computer screen is made up of tiny dots called 'pixels'. The number of pixels that are displayed on your screen depends on your computer and settings but there will generally be between 72 and 96 pixels on your screen for every inch of space on the monitor. This can change if you have manually adjusted how many pixels are displayed on the screen or
if your computer has a high density display (such as a Retina Macbook Pro), but it's a good rule of thumb.

When a printer prints an image, the image is made up of a number of dots clustered together to form the colors and shapes you want, these dots are basically like the pixels on your screen. The printer generally places many more dots down in each inch of space than your monitor has pixels. To get a crisp, clean image your printer might put down between 120 and 600 dots for every inch.

So imagine you have created an image in ArtRage that is 72 by 72 pixels in size. On your screen it might be about an inch wide and an inch high (because your screen shows 72 pixels per inch). But if you print it and your printer prints 300 dots per inch, your printed image is less than one third of an inch in both directions, because you only had 72 dots to give it.

You could tell your printer to print 72 dots per inch, so your painting would be 1 inch by 1 inch, but the quality wouldn't be very good, 72 dots of ink isn't enough to fill in an inch very well. You could also tell ArtRage to resize your painting so that it is 300 pixels wide and 300 pixels high. That would make it larger than an inch on your screen but your printer would print it as 1 inch in size. The trouble with that is that resizing your image is going to damage its quality, ArtRage has to guess at how to fill in the holes that are left when your pixels get stretched out to fit the new size and it will never be \(100 \%\) perfect.

This means that if you are going to print the best time to decide what size you want to print at is when you create your file, before you have even painted a stroke.

\section*{Choosing a Size}

When you create a new file in ArtRage you are given the option of defining how large it is either by entering a Screen Size or a Print Size. Both options create the same basic result: A new painting that is a certain size on your screen, but the options allow you to work in the manner you wish

If you want to create an image that is only usually going to be seen on a computer screen, just work in Screen Size and set the pixel size of the image. For example you might create an image that is 640 by 480 pixels in size, to
show on a web page. When you work in Screen Size you can see how big your image will be when it is printed. Better still, you can enter how many dots per inch you want the printer to print. So if you make a 300 by 300 pixel image that you want to be 1 inch in size when printed, you can just set the Pixels Per Inch value to 300. The number of pixels doesn't change, because you are working in Screen Size, but you know how big it will be when printed.

If you want to create an image that you intend to print, work in Print Size. When you work in Print Size select the units of measurement you want to use and enter the size in those units. If you also enter the number of pixels per inch (the same as dots per inch here) then ArtRage will know how many pixels to create. For example if you tell ArtRage you want a 10 inch by 10 inch image that is 200 Pixels per Inch it knows that you have to have 2000 by 2000 pixels and creates the Canvas accordingly. You don't need to worry about doing the calculation in your head.

Don't forget: If you change your mind later you can always use the 'Resize the Painting' option in the 'Edit' Menu to change the size of your painting. It won't be as high quality as if you had created it at the right size, but it will print at the right size.

\section*{Drag and Drop.}

You can drag image files on to ArtRage from your computer. What happens when you do this depends on the type of file. A single ArtRage Painting file will be loaded when you drop it. A non ArtRage file will prompt to see if you wish to Import it, load it as a layer in the current painting, load it as a reference or load it as a tracing image.

If you drop multiple files on to ArtRage and choose to load as a painting or a tracing image, only the first file alphabetically in the list of dropped files will be loaded as these options can only work with one image.

\section*{The Menu Bar.}

The Menu Bar sits at the top of the ArtRage window and contains useful items that relate to the running of the application. In this panel you will find useful items like Undo and Redo, zoom level control for the Canvas, the Canvas Positioner, window options and the Quit button for the application.
```

.) File Edit Tools View Help - 100% + > 4 \# \& %

```

On Windows the Menu Bar also contains all the application menus. On Mac OS X the operating system menu bar contains the application menus in their normal place.

If you are using ArtRage on Mac OS X on a desktop that does not have a menu bar at the top you can make the ArtRage Menu Bar display the application menus. This option appears in the Interface section of the ArtRage Preferences Panel.

\section*{The Menu Pod.}

When the Menu Pod is visible, click it to bring up the menu Monu bar. Click and hold it and the ArtRage menus will appear as a popup for easy selection of menu items.

\section*{Contents of the Menu Bar.}

When the Menu Bar is open it contains a series of buttons for menus and other options.

The button at the left of the Menu Bar is the Close Button. If your Menu Bar is docked, clicking this button will cause the panel to
collapse back in to the Menu Pod. If your Menu Bar is not docked, you can click and drag this button to move the panel, or right click it for additional options.

\section*{Application Menus.}

The Application Menus (File, Edit, Tools, View, and Help) give you access to all the main functionality in ArtRage.

Full information on what the menu items do can be found throughout this manual. More information can be found in the following sections:

\section*{1. File Menu:}
a. Working With ArtRage Files.
b. Printing a File.
c. Package Files.
d. Scripts.
2. Edit menu:
a. Undo and Redo.
b. Resize and Crop.
c. Transformations.
d. Selections.
e. Image Adjustment.
f. Preferences.
g. Keyboard Shortcuts.
3. Tools Menu:
a. Select Tool.
b. Presets.
c. Layer Options.
d. Stencil Options.
e. Tracing Options.
f. Reference Options.
g. Color Options.
h. Color Sample Options.
i. Toolbox Options.
j. Paint Symmetry.
4. View Menu:
a. Canvas Positioning.
b. Clear Canvas Mode.
5. Help Menu:
a. Help and Support.

\section*{Application Buttons.}

The Menu Bar contains a series of buttons for common operations in ArtRage. These are:


Zoom Controls: Click the ' + ' and ' - ' buttons to zoom in or out. Click the percentage indicator to enter the zoom value you want. For more information see Navigating the Canvas.

Undo and Redo: Click the left arrow to undo the last action you performed, click the right arrow to redo it. For more information see Undo and Redo.


Canvas Positioner: Click this button to summon or dismiss the Canvas Mover. For more information see Canvas Positioner.

Hide: Shrinks the application to the task bar or dock.

Full Screen / Window: Click this button to make ArtRage take over the whole screen, or return to a Window if it is already filling the screen.

Close: Click this button to close ArtRage. If you have not saved your work you will be asked if you wish to do so before the application quits.

\section*{Tools and Presets.}

On the left side of the ArtRage window are controls for your painting tools. These include the Tool Picker for selecting tools, the Settings Pod for adjusting the settings associated with your current tool, and the Presets Pod for selecting presets for the current tool.

This section tells you everything you need to know about working with tools, and includes a detailed list of all of the settings and properties of the tools included in the application.

\section*{Pods.}

\section*{The Tool Pod.}


When the Tool Pod is visible click it to open the Tool Picker where you can select the tool you want to use. Click and hold it to bring up a menu of available tools for easy selection. Click and drag left and right on it to change the size of the current tool, which is indicated at the top left of the Pod. The icon displayed on the Pod indicates which tool is currently selected.

\section*{The Settings Pod.}

When the Settings Pod is visible click it to open the Settings Panel where you can adjust the settings of the current tool Click and hold it for a 'Reset Tool' menu option.

\section*{The Presets Pod.}


When the Presets Pod is visible click it to open the Presets Panel for your current tool. Click and hold for a menu of available Presets.

\section*{The Tool Picker.}


The Tool Picker on the left hand side of the ArtRage window is used for selecting which tool will be active when you click and drag to paint a stroke on your Canvas.

Each tool has its own icon in the Picker and the currently selected tool is lit up so that you can see what it is.

To select a tool, click its icon and it will light up to show you that it has been selected. If you want to know what a tool is, just hover the mouse pointer over it and after a short time a Tooltip will appear to tell you.

At the bottom left corner of the Tool Picker is a preview of the paint stroke that will be generated by the current tool, and an indication of how large it will be. You can change the size of the tool by left clicking and dragging in this area. If you want to enter the size manually, left click in the size area without dragging and you will be prompted for a percentage size.

You can change the size of the current tool by holding down Shift and clicking and dragging on the Canvas. You can also make your tool larger than 100\% size either when Shift click dragging on the Canvas or by typing a value up to \(500 \%\) in to the size prompt when you click the size area of the Tool Picker.

\section*{The Settings Panel.}


Each tool has a collection of settings that can be adjusted to alter the appearance of the stroke made when the tool is used. If you want to edit the settings of the current tool click the Settings Pod and the Settings Panel appears.

The appearance of this panel changes depending on which tool you have selected. When you select a tool the contents of the Settings Panel change to display the settings available for that tool.

A detailed description of the settings for each tool can be found in the 'Tools' section below.

\section*{The Preset Block.}

At the top of the Settings Pane is a control that indicates which Preset (if any) you currently have selected. Presets are combinations of settings that are applied to the tool to make it behave in a specific manner. For example you might have a 'drybrush' preset that causes the Oil Brush tool to reduce loading and thinners to dry its paint out.

The Preset Block at the top of the panel allows you to quickly select presets for the currently selected tool. To select a preset, click the Preset Block and a menu will appear containing options:
1. Reset Current Tool: If you ever need to reset the tool to its default settings, select this option.
2. Stylus Controls: Options that allow you to change how a stylus input device works with the current tool. For more information see Stylus Controls.
3. Preset Options: Items that allow you to open the Preset Collection panel to select presets, or add new presets.
4. A List of Presets: The final items in the menu are a list of presets currently available for the tool you have selected. These are divided in to groups. Select an item from one of the groups and those settings will be applied to the current tool.

Presets are an easy way to recall settings you have used previously. For more information see the section on Presets.

\section*{Pressure.}

The Pressure Setting is available to most tools and does the same thing for each one. Pressure indicates how hard you are pressing the tool down as you work. If you are using a mouse or graphics tablet with no pressure sensitivity this sets the level of pressure the tool applies. If you are using a pointing device that is pressure sensitive this value adjusts the pressure of your stroke, allowing you to increase or decrease the effect of the pressure you are applying manually.

\section*{Oil Brush.}

The Oil Brush lets you paint with a variety of styles of oil or acrylic paint. The Oil Brush is great for putting down strokes of paint for blending. It can also be good for creating texture because the bristles of the brush leave trails in the stroke.


Features of the Oil Brush include:
1. Smearing: Wet oils will smear and blend as you paint over them. If you paint a stroke over a previous oil stroke the colors will blend and the strokes merge. You can also smear oil strokes with the Palette Knife.
2. Texturing: The bristles of the brush leave a trail in the oil stroke giving it the appearance of depth and texture.
3. Runout: If you have a lightly loaded brush the color will run out as you paint, thinning down until it leaves a dry stroke on the surface of the Canvas.
4. Cleaning: If you turn off Auto-Clean, your brush head will remain dirty after each stroke so the last color you had on it will be applied when you next paint.
\(\qquad\) The Oil Brush interacts with the texture of your Canvas. As the paint thins and dries out at the end of a stroke you will see that it sticks to only the high points of the Canvas.

\section*{Settings:}

Thinners:


Allows you to add Thinners to your paint. As you increase this value the paint you are applying gets thinner so the stroke will go further before running out. Thinner paint is also more transparent and the bristles of the brush leave fewer marks as the paint gets thinner. Thinner paint is harder to smear because there isn't much volume to spread around, but you can still smudge a thin stroke with the Palette Knife.

\section*{Loading:}


Indicates how much paint has been picked up by the brush head before the stroke begins. The higher the value the more paint there is so your paint will spread further if you turn Loading up high. If you set Loading to \(100 \%\) the paint will never run out in a single stroke.

Insta-Dry:


If this is turned on your paint will dry as soon as it touches the Canvas.

Dry paint does not blend with other paint on the canvas so color and texture will be unaffected as you paint over it.

\section*{Auto Clean:}


If this is turned on your brush will be cleaned automatically between strokes. If it is turned off you will need to clean the brush manually using the Water Glass that pops up next to the Color Picker. For more information see the Colors section.

\section*{Aspect:}


This controls how round or square the brush head is.
If the brush is using a Round head and the value is \(100 \%\), the brush head will be a perfect circle, reduce the value and the brush head 'squashes', becoming more elliptical.

\section*{Rotation:}


Controls the default rotation angle of the brush head.
This is more visible if you have a narrow aspect brush. Rotation is also controlled dynamically as you paint, this setting just assigns the default value.

Stiffness:


This controls how stiff the bristles of the brush head are.
The stiffer the bristles, the less flexible the brush head is and the less the pigment will be 'pushed' in to the dents in the canvas.

\section*{Square Head:}


The Oil Brush usually uses a rounded brush head but if you turn this on the brush head becomes square, giving a more blocky start and end to the stroke.

\section*{Watercolor}

The Watercolor tool lets you paint with a variety of watercolor styles using a soft bristled brush on wet or dry paper. Because it is a wet medium the Watercolor tool is ideal for creating subtle, blended color washes and detail. The control you have over the amount of wetness of your brush and the Canvas beneath it lets you produce a wide variety of results.


Features of the Watercolor tool include:
1. Soft Blending: Strokes of watercolor merge as they get close and their wet edges touch. This creates smooth blended colors with soft edged transitions. The feel of the stroke is organic, spreading slightly as wet areas of the Canvas interact.
2. Internal Blending: As you create areas of color the brush will pick up and move around pigment that is already on the Canvas, creating areas of darker or lighter transparency.
3. Wetness and Dryness: Watercolor strokes vary in appearance greatly depending on the wetness of the area they are entering and the wetness of the brush head. This allows you to create firm edged areas of color then apply soft blended strokes inside those areas where the Canvas is already wet.
4. Run Out: Lightly loading the Watercolor tool can give short dagger-like strokes that dry rapidly and darken towards the end as the water dries up and the pigment is applied more thickly.
5. Cleaning: If you turn off Auto-Clean, your brush head will remain dirty after each stroke so the last color you had on it will be applied when you next paint.

Watercolor is a complex medium and there are a large number of settings that can be used to control the results you see when you paint. ArtRage understands both the color of the pigment you are applying and how much water is on your brush, and simulates these two things as you work with the tool. A basic understanding of what is happening when you paint with this medium can help explain how its settings work. There are some golden rules that should help explain what is happening:
1. The water on the brush allows the pigment to spread, so a dry brush (one with less Thinner) applies paint more thickly because there is less water to spread it around.
2. Because the pigment spreads in water, a wet Canvas will draw pigment out beyond the area of the stroke. This is why strokes of watercolor merge and blend smoothly as they meet.
3. If the Canvas is not wet, the edge of the wet stroke where it meets dry Canvas generates a slightly darker rim as pigment gathers there, unable to go further.
4. Highly thinned watercolor is really just water, so you can use it to thin out paint that has already been applied.

Watercolor strokes interact with the texture of your Canvas, flowing more readily in to the dips in the surface and gathering there. The rougher your Canvas, the more obvious this effect will be.

\section*{Settings:}

\section*{Thinners:}


Allows you to add water to the brush to thin the paint that is applied. The higher the value the more water there is and the further the stroke will paint. High Thinners also decrease the density of the pigment giving you a more transparent stroke. 100\% Thinners removes all pigment from the stroke and lets you apply pure water to the Canvas to thin previous paint down.

\section*{Loading:}


Indicates how much paint has been picked up by the brush head before the stroke begins. The higher the value the more paint there is so your paint will spread further if you turn Loading up high. If loading is low the end of the brush will start to dry out as you paint, and the pigment will be applied more densely until finally the stroke breaks up and no more is applied. If you set Loading to \(100 \%\) the paint will never run out in a single stroke.

\section*{Color Bleed:}


This setting is only available if Insta-Dry is turned off. It controls how fast the paint on the brush spreads in to paint that is already on the Canvas as you work, so high values mean that your current paint stroke will blend deeply in to previous strokes while lower values will prevent the color on your brush blending too heavily in to the color on the Canvas.

\section*{Paper Wet:}


If this is turned on the Canvas will be treated as if it is wet when you paint and your strokes will expand beyond the area of the brush, and have softer edges. If this is turned off the Canvas is treated as if it was dry so your strokes are not softened.

\section*{Insta-Dry:}


If this is turned on your strokes are dried as soon as they touch the Canvas. This means they will not blend in to other strokes as you paint. They will still blend into their own area.

\section*{Auto Clean}

If this is turned on your brush will be cleaned automatically between strokes. If it is turned off you will need to clean the brush manually using the Water Glass that pops up next to the Color Picker. For more information see the Colors section.

\section*{Palette Knife.}

The Palette Knife provides a blending and smearing tool that takes a number of different forms to produce a variety of effects. In its simplest form, the tool is a flat bladed knife that can be used to smear around paint that has been applied to the Canvas. If you want to soften the edge between two paint strokes or create an entirely new color using existing paint then the Palette Knife is the right tool to use.


The Palette Knife does not apply paint to your Canvas, so if you have nothing to smear the tool will do nothing.

The Palette Knife has the following features:
1. Smear \& Smudge: The Palette Knife will smear paint where there is lots on the surface, spreading it out as it goes. If there is not much paint on the surface the Palette Knife smudges what is there, like a finger on a pencil line.
2. Blade Types: The Palette Knife can be used as a flat blade or along its edge to create a different shape of smear.
3. Blending Types: The Palette Knife can be used to blur paint or apply wet droplets to blend and break down paint already on the Canvas.

The Palette Knife interacts with the texture of your Canvas. As the paint thins during smearing you will see that it sticks to only the high points of the Canvas.

\section*{Settings:}

The Type of knife you have selected controls any other settings that are available. Types are selected from the Tab Control at the top of the Settings Panel:

\section*{Types:}

There are five types of Palette Knife available: Two different blade types, and three special effect types. These are:


Flat Blade: Uses the flat of a knife blade to smear paint on the canvas.

Edge Blade: Uses the edge of a knife blade to smear fine lines in paint on the canvas.

Soft: A digital effect that draws paint along the canvas around the cursor.

Blur: A digital effect that blurs the paint underneath the cursor.

Wet: A digital effect that simulates sprinkles of water dispersing the paint on the canvas.

The settings for each type are listed below:

\section*{Flat and Edge Types:}


Flat and Edge types control how the blade of the knife is positioned as you use it. Flat blades create wider profile strokes that are even across their width. Edge blades create sharper strokes that have more effect at one side of the stroke.

The following settings are available when using the Flat and Edge types.

Loading: Indicates how much paint has been picked up by the knife before the stroke begins. The higher the value the more paint there is so your paint will spread further if you turn Loading up high. If you set Loading to \(100 \%\) the paint will never run out in a single stroke.

Auto Clean: This setting is only relevant if Loading is set higher than 0\%. If this is turned on your knife will be cleaned automatically between strokes. If it is turned off you will need to clean the knife manually using the Water Glass that pops up next to the Color Picker. For more information see the Colors section.

Lock Rotation: If this is turned on, the angle of the knife head will not change as you paint. If it is turned off, the knife will rotate the follow the direction of your stroke.

Rotation: If Lock Rotation is turned on this slider appears and allows you to define the angle of the knife during painting.

\section*{Soft Type:}


The Soft Type turns the Knife in to a smoother stump type blending tool that can be used to drag paint around smoothly on the surface of the Canvas.

The following settings are available when using the Soft type.

Smudge: Controls how much the paint on the Canvas is moved around as you apply a stroke. The higher this value goes the further the paint is moved by your stroke.

\section*{Blur Type:}


The Blur Type makes the Knife blur paint that is on the Canvas rather than spread it around. You can hold the cursor over an area and the blur will continue to apply without the cursor moving.

The following settings are available when using the Blur type.

Softness: Controls how much blur is applied to the paint on the Canvas. The higher this value goes the more the paint blurs.

\section*{Wet Type:}


The Wet Type turns the Palette Knife in to a water sprinkler that sprinkles droplets on to the Canvas causing the paint to spread and expand, thinning as it goes. The droplets sprinkle automatically as you hold down the mouse button so you do not need to move the cursor to continue applying more.

The following settings are available when using the Wet type.

Falloff: Controls how far the droplets can fall from the center of the stroke as you paint with the tool. The higher this value, the further they can spread from the center point, affecting a wider area of paint.

Drip Size: Controls the size of the individual droplets that are applied by the tool. The higher this value, the larger each droplet will be. Tiny droplets created a more speckled effect on the Canvas.

Drip Spike: Controls how spiky the droplets are when they hit the surface of the Canvas. The higher this value the more ragged the droplets appear as they strike and the more ragged the paint appears when it spreads.

Drip Spread: Controls how much the paint is spread through the area of each droplet. The higher this value the further the paint travels and the harder the edge of the droplet becomes. Low values cause very little spread of the paint so the result is a smoother droplet.

Color Drag: Controls how far the paint color on the Canvas is dragged with the droplets as you move. If this value is high, the color will move with your stroke for a distance before running out. If this value is low, the color will not spread far from its original point as you drag around.


You can make great clouds with the Wet Blender. Lay down some lines of white with the Paint Tube and see how the blender smoothes them out!

\section*{Airbrush.}


The Airbrush allows you to spray a fine mist of paint. The spray coats the surface of the Canvas, tinting it without flattening any paint that was already there and without blending with any color beneath.

\section*{The Airbrush has the following features}
1. Dryness: The spray from this tool is thin and dries really quickly. This means that if you run the Palette Knife over it after spraying you won't get smearing and blending, the paint on the Canvas will be smudged instead.
2. Shape: The Airbrush provides control over the shape of your stroke, supporting tilt information from tilt sensitive input devices to create conical sprays, and allowing you to create dagger strokes by tapering the stroke over its length.
3. Flow: The Airbrush can be set to keep spraying as you hold the tool still, so you can make it really transparent and remain in one area to get subtle
tints that vary over the length of the stroke. Pressure also adjusts flow speed, allowing you to manually adjust the density of the mist that is sprayed while you paint.

\section*{Settings:}

Blend Mode: The Airbrush allows you to adjust the color of the spray by applying a blend mode as the paint is sprayed on the Canvas. Unlike Layer Blend Modes, the blend mode used by the Airbrush is applied to the paint as it lands on other paint, it does not change the color of the paint if it is landing on a blank area of Canvas. The Blend Mode will also only apply to paint on the current Layer, it does not change the color of the paint as it passes over paint on a different layer. For more general information on what Blend Modes look like when they are used, see the section on Layers.

\section*{Tilt Angle:}


This setting controls the default angle the Airbrush is considered to be tilted at when you use it. Tilting the airbrush changes the shape of the spray and the higher this value is set the more conical the spray becomes.

Setting Tilt to 0\% creates a circular 'direct down' spray. If you are using a stylus that provides tilt information this value can be set to increase the amount of tilt your stylus will apply as you work.

Taper Length:


This setting allows you to tell the Airbrush to taper its stroke over time. If the value is set to \(0 \%\) the stroke will not be tapered at all. If the value is set higher than \(0 \%\) the stroke will taper. The higher the value the longer the time before the stroke tapers.

\section*{Opacity:}


Controls the basic opacity of the spray and indicates the maximum opacity each stroke can be. If you want to create subtle tints, set this value below 100\% and you will not be able to apply a fully opaque spray no matter how long you spray each individual stroke. Strokes can still become more opaque as they overlap each other.

\section*{Hardness:}


Controls how sharp the edge of the Airbrush spray is. The higher the value, the sharper the edge of the spray area becomes.

\section*{Drip Spread:}


Controls how much spatter there is from the Airbrush. Set this value above 0\% to cause the tip of the Airbrush to create droplets. The higher the value, the wider the droplets spray through the area of the stroke.

If this setting is on the Airbrush will continue to spray paint while the cursor is held still. If this setting is off the Airbrush will only spray when you move.

When the spray continues on its own it can build up to form a larger patch of paint if you hover over a single spot on the canvas. Turning Autoflow off prevents this and allows you to make more consistent strokes.

\section*{Autoflow:}

\section*{Ink Pen.}

The Ink Pen is a precise, solid line pen that can be used for illustration or detailing without blending with other paint on your Canvas. The Ink Pen comes in round or chisel-tip forms and also allows you to automatically smooth your lines, removing some of the irregularities that can appear when using a mouse or stylus.


The Ink Pen has the following features:
1. Dryness: Inked lines dry immediately so they do not interact with other paint on your Canvas. They will not blend or change their shape as you use them over other paint.
2. Shape: The shape of the pen head can be adjusted, changing from square to round and adjusting how much of a chisel tip it has. This changes the thickness of the stroke depending on direction as you draw, rather like a calligraphy pen.
3. Smoothing: The ink pen can adjust your strokes after you paint them to make them smoother. This helps reduce the wobbles that can occur when using a mouse or stylus.

\section*{Settings:}

Blend Mode: The Ink Pen allows you to adjust the color of the ink you are drawing with by applying a blend mode as it is applied to the Canvas. Unlike Layer Blend Modes, the blend mode used by the ink is applied as it lands on other colors already on the Canvas, it does not change the color of the ink if it is landing on a blank area of Canvas. The Blend Mode will also only apply to ink that overlaps color on the current Layer, it does not change the color of the ink as it passes over color on a different layer. For more general information on what Blend Modes look like when they are used, see the section on Layers.

\section*{Aspect:}
\(\square\) Controls how flat the tip of the pen is. A \(100 \%\) aspect means that the tip is entirely circular or square depending on other settings. A 50\% aspect creates an elliptical or rectangular tip. A 0\% aspect means that the tip has been flattened down to a single line.


Allows you to change the default rotation of the pen tip. If you have 0\% rotation the pen tip lies horizontally by default. As you change the value the default position rotates. So a low aspect circular tip with \(50 \%\) rotation would look like a vertical ellipse.

Opacity:


Controls the basic opacity of the ink and indicates the maximum opacity each stroke can be. If you want to create subtle lines, set this value below \(100 \%\) and you will not be able to apply a fully opaque ink no matter how many times you drag over an area in an individual stroke. Strokes can still become more opaque as they overlap each other.

\section*{Smoothing:}


Controls how much smoothing is applied to your stroke after it is complete. Smoothing can be used to make strokes flow more smoothly or remove small irregularities in their shape. Higher values apply more smoothing to your stroke and can significantly change its basic shape and size as ArtRage calculates a smoothed version of the path you took.

\section*{Taper Length:}


Controls how much the ink stroke tapers along its length. If this slider is set above \(0 \%\), when you finish a stroke it will be reconstructed with a taper starting at both end and finishing part way along the stroke depending on the slider value.

A value of \(100 \%\) means that the taper will meet in the middle.

\section*{Taper Bias:}


If Taper Length is set above \(0 \%\) this controls where the widest point of the taper will appear. If the value is \(50 \%\), the widest point will be in the middle of the stroke. If the value is \(100 \%\) the widest point will be at the end of the stroke. If the value is \(0 \%\) the widest point will be at the start of the stroke.

The effect of changing this slider varies heavily depending on how much the Taper Length slider is set to.

\section*{Square Head:}


If this is on the pen tip is square. If it is off the pen tip is circular.

\section*{Antialias Edge:}


If this setting is turned off the edges of the stroke will not be antialiased. This removes partially transparent pixels from the edge of the stroke and can create a jagged look but can be useful if you are inking for a print medium that is high resolution and has problems when printing partially transparent areas.

\section*{Pencil.}

The Pencil Tool gives you a range of difference pencil types including soft and hard, and precise mechanical pencils. The pencil tool is good for detailed line work and soft shading when you sketch using the side of the lead. If you have a pressure sensitive stylus the darkness of the lines you make can also be adjusted while you draw.


The Pencil Tool has the following features:
1. Dryness: Pencil strokes apply dry color to the Canvas so they do not smear, but they can be smudged using the Palette Knife.
2. Hardness: The tip of the pencil is hard so the lighter you press with a pressure sensitive stylus the lighter the stroke you will make. In addition, if you draw with the pencil over an area of thick paint the tip of the pencil will cut through the paint and leave a flat trail.
3. Shape: The head of the pencil is conical so if you increase the Tilt value setting you can draw with the flatter, wider side of the lead.
4. Smoothing: Precise Pencils can adjust your strokes after you draw them to make them smoother. This helps reduce the wobbles that can occur when using a mouse or stylus.

The Pencil interacts with the texture of your Canvas. If you draw lightly on a rough Canvas you will see the texture of the Canvas show through as the Pencil touches only the higher parts of its surface.

\section*{Settings:}

\section*{Softness:}
\(\square\) Controls how soft the lead of the pencil is. Higher value, softer lead breaks up more easily so leaves more on the Canvas as you draw, leading to a darker line and a more powdery look. Harder leads break up less so create lighter, more precise lines.

\section*{Tilt Angle:}


If the Pencil's 'Precise' setting is turned off you can adjust the Tilt Angle. The higher this value, the more the pencil is considered to be tilted when you draw, giving softer, wider strokes as you sketch with the side of the lead rather than the tip.

\section*{Smoothing:}


This setting is only available when the Pencil's 'Precise' setting is turned on. It controls how much smoothing is applied to your stroke after it is complete. Smoothing can be used to make strokes flow more smoothly or remove small irregularities in their shape. Higher values apply more smoothing to your stroke and can significantly change its basic shape and size as ArtRage calculates a smoothed version of the path you took.

\section*{Precise:}


If turned on this setting switches the pencil to a precise mode that simulates mechanical pencils. Precise pencils ignore the texture of the Canvas and create smooth, accurate lines that can be smoothed. Precise Pencil lines still vary in their opacity based on pressure as they are drawn.

\section*{Paint Roller.}

The Paint Roller lets you paint solid block strokes of flat paint on to the Canvas. This tool is great for filling in large areas with a flat color without it looking fake, as it takes into account the texture of the Canvas and can blend colors as it applies paint to the surface.


\section*{The Paint Roller has the following features:}
1. Smearing: As the roller applies paint it smears other paint on the Canvas beneath it to blend and spread paint around.
2. Runout: If you have a lightly loaded roller the color will run out as you paint, thinning down until it leaves a dry stroke on the surface of the Canvas.
3. Cleaning: If you turn off Auto-Clean, your roller head will remain dirty after each stroke so the last color you had on it will be applied when you next paint.
4. Size: The roller can go much larger than the other tools in ArtRage so it's great for applying large areas of color either to use as a background or to blend with more detailed tools.

The Paint Roller interacts with the texture of your Canvas. The harder you press when you use the Roller (or the higher your Pressure slider is set if you do not have a pressure sensitive stylus) the more paint is lifted off the surface as the roller passes and the texture of the Canvas below will show through.

\section*{Settings:}

Thinners:


Allows you to add Thinners to the paint that is applied. As you increase this value the paint you are applying gets thinner so the stroke will go further before running out. Thinner paint is also more transparent and is harder to smear because there isn't much volume to spread around, but you can still smudge a thin stroke with the Palette Knife.

\section*{Loading:}


Indicates how much paint has been picked up by the roller before the stroke begins. The higher the value the more paint there is so your paint will spread further if you turn Loading up high. If you set Loading to \(100 \%\) the paint will never run out in a single stroke.

\section*{Auto Clean:}


If this is turned on your roller will be cleaned automatically between strokes. If it is turned off you will need to clean the roller manually using the Water Glass that pops up next to the Color Picker. For more information see the Colors section.

\section*{Felt Pen.}

The Felt Pen tool lets you draw with a range of marker pens of varying wetness and qualities, creating a number of different effects. From cheap, dry markers and highlighters through to expensive art pens that have wet brushtips, the Felt Pen is a great tool for applying color while sketching without applying texture such as the bristle strokes in the oil brush.


The Felt Pen has the following features:
1. Smudging: Even a wet felt pen doesn't leave much actual paint on the Canvas so it won't leave lumps and won't smear. It can, however, be smudged using the Palette Knife.
2. Blending: Wet felt pen tips can blend with other colors as they pass over them, lifting some of the existing color off the Canvas and blending it in to the color of the pen.
3. Build Up: Dry felt pens like highlighters don't blend very well so as you use them to draw back and forth over other colors, or even their own stroke, they tend to build up and darken.


Using a white felt tip pen is like using a water soaked felt nib. It will blend and thin existing color but it won't apply white to the surface. Solid white requires a thicker paint such as Oil, or Chalk/Crayon if you want a dry medium.


The Felt Pen interacts with the texture of your Canvas. If you draw lightly on a rough Canvas you will see the texture of the Canvas show through as the tip touches only the higher parts of its surface. Because it is really a wet medium the stroke sinks deeper in to the Canvas than something like Chalk or Pencil.

\section*{Settings:}

Softness:


Controls how soft the tip of the pen is. Softer pens will vary the size of their stroke more with pressure. If you are not using a pressure sensitive input device this setting won't appear to do much unless you change the pressure slider.

\section*{Wetness:}


Controls how wet the tip of the pen is and how much ink is deposited as you move.

Lower values create dry pens that break up around the edges where the texture of the Canvas is lumpy and the tip is not in full contact.

Higher values cause the edges of the stroke to smooth out as the ink flows in to the dents of the Canvas Texture. Higher values also cause the felt pen to drag existing color from the Canvas as the pen moves over it.

\section*{Art Pen:}


If this is turned on the felt pen is given a much higher quality stroke as the tip quality is improved. Art Pens produce a bolder stroke that doesn't build up over itself because the tip deposits more color on the Canvas as it moves around. Art Pens also blend with other colors smoothly.

\section*{Gloop Pen.}

The Gloop Pen is a special effect pen that produces expanding blobs of ink on the Canvas as you use it. Each stroke of the Gloop Pen expands wetly from the nib and 'gloops' in to itself as you draw, and there are settings that control exactly how it looks as it gloops.


Because it is a special effect tool, there are many different uses for the Gloop Pen. You can use it for everything from painting thought bubbles and organic outlines to making clouds and leaky ink pens.

The Gloop Pen has the following features:
1. Dryness: The Gloop Pen is wet while you draw a stroke, but as soon as the stroke ends it becomes dry. This means that it cannot be smeared, but you can still smudge it with the Palette Knife.
2. Flow: The Gloop Pen continues to produce ink as you hold the tool still so you can build up larger strokes by dragging slowly or holding over one spot.
3. Glooping: While you work the ink that is produced will flow together with other ink from the same stroke to produce different results.


The Gloop Pen is special because the inside and edge area of its stroke can be independently controlled. As you draw, the settings you have applied to the inside and edge areas change the appearance of the stroke. If your settings create a very wide edge on the stroke you may not see the inside area until the area you have filled with ink is large enough. The Gloop Pen interacts with the texture of your Canvas, breaking up at the edges based on the roughness beneath.

The Gloop Pen looks great without any roughness at the edges too, try turning off the Canvas Texture for the Layer you are drawing on. See the section on Layers.

Trying out Presets is a great way to explore the complex features of the Gloop Pen.

\section*{Settings:}

Blend Mode: The Gloop Pen allows you to adjust the color of the ink you are drawing with by applying a blend mode as it is applied to the Canvas. Unlike Layer Blend Modes, the blend mode used by the ink is applied as it lands on other colors already on the Canvas, it does not change the color of the ink if it is landing on a blank area of Canvas. The Blend Mode will also only apply to ink that overlaps color on the current Layer, it does not change the color of the ink as it passes over color on a different layer. For more general information on what Blend Modes look like when they are used, see the section on Layers.

\section*{Opacity:}


Controls the overall opacity of the stroke as it is applied. Lower values produce more subtle tints on the Canvas.

Controls the opacity of the ink that fills the area of the stroke. The higher this value the more opaque the ink becomes. If you set this value to \(0 \%\) only the stroke rim
 will be visible as you draw.

Outer Blur, Edge Width, Inner Blur: These three settings control the appearance of the stroke at its edge. The Gloop Pen creates a stroke that has an inner fill and editable rim that expands to surround the area you draw.


Outer Blur: This controls how soft the outer edge of the rim is. The higher this value the softer the outer edge of the rim becomes.


Edge Width: This controls how thick the solid rim is as it forms around the stroke area. The higher this value the thicker the line produced around the edge of the stroke.


Inner Blur: This controls how soft the inner edge of the rim is. The higher this value the softer the inner edge of the rim becomes.

\section*{Sticker Spray.}

The Sticker Spray takes sheets of Stickers and lets you spray them directly on to your Canvas rather than having to place each one manually. The range of effects that can be created with this tool are limited only by the range of stickers you have available. It can create masses of leaves for trees, flocks of birds, beaches full of pebbles, and even special effect strokes that mimic other painting tools.


The section on Stickers explains in detail the variation settings of the Sticker Spray and how Stickers are used. This section covers the basic settings of the Sticker Spray and how you can use it.

The Sticker Spray has the following features:
1. Sticker Placement: Rather than create a single stroke when used, the Sticker Spray places numerous stickers down on the Canvas as it is used.
2. Flow: The Sticker Spray can be adjusted to spray constantly while in use, or to spray only as you move.

The easiest way to start using the Sticker Spray is to explore the various presets provided with ArtRage.

\section*{Settings:}

Sheet: Allows you to select which sticker sheet to use for the spray. Sticker sheets can be selected from your Sticker Collection. See the section on Stickers for more information.

Spray Rate: Controls how fast new stickers are sprayed on to the Canvas as you work with the sticker spray. The higher the settings, the more stickers will be sprayed for a denser result.

Autoflow: Sets whether the spray of stickers is continuous or only occurs when you move. If turned on, stickers will be sprayed constantly while the mouse button is held down. If turned off, stickers will only be released on to the Canvas as you drag, like sticky tape from a dispenser roll.

Shadow: If turned on, each sticker will be given its own shadow as it is sprayed. If turned off, the stickers will not have shadows. For more information on this panel see the section on Stickers.

Auto-Flatten: If turned on, stickers will be sprayed to the surface as simple images, each sticker will be sprayed on to the layer as paint. This preserves the volume, gloss, and other properties of the sticker but it will not be editable after spraying. If turned off, every sticker that is sprayed is an individual, floating sticker object that can be scaled, rotated, moved, and edited in other ways post spraying.

If you don't think you will want to edit your stickers after spraying, consider turning Auto-Flatten on, spraying thousands of stickers can take up quite a lot of memory if they are all editable!

Variation Symmetry: When the Sticker Spray is used with paint Symmetry turned on, you can either have this setting turned on, in which case all variable properties of the spray are affected by symmetry, or turned off in which case on the path of your stroke is affected by symmetry.


In the example above, the Sticker Spray is set to vary the size of the dominoes based on their \(Y\) Position: The higher the domino is placed up teh canvas, the smaller it gets.

The left hand image was created by making a single stroke from the middle to the top left with Variation Symmetry turned off: The mirrored strokes in the other segments all respect the absolute value of the Variation.

The right hand image was created in exactly the same way, but with Variation Symmetry turned on. The Variation is applied to the stroke we painted, and the automatically mirrored strokes copy the variation that was applied to it.

Spray Variation: Click this to access the Spray Variation Panel which allows you to control a large number of properties of the spray. For more information on this panel see he section on Sticker Spray Variation.

Shadow Settings: Allows you to set the properties of the shadow that will be applied to stickers as they are sprayed. For more information on this panel see the section on Stickers.

\section*{Pastel.}

The Pastel Tool lets you draw with wax or chalk pastels of varying softness, producing strokes of varying boldness depending on the pressure of the stroke and interacting with the grain of the Canvas to produce textured results.


The Pastel Tool has the following features:
1. Waxiness: Strokes of Wax Pastel are almost dry, but not quite. This means that as you draw over them small amounts of color can be picked up from previous strokes and the wax can build up slightly on the surface of the Canvas.
2. Dryness: Chalk Pastel strokes are dry so they do not smear, but they will smudge if you use the Palette Knife.
3. Hardness: The tip of the Pastel is hard so the harder you press the bolder the stroke becomes. Light strokes will only apply to the high parts of the Canvas, because the tip doesn't deform to push in to the dents.

The Pastel interacts with the texture of your Canvas. If you draw lightly on a rough Canvas you will see the Canvas Texture show through as the tip touches only the higher parts of its surface.

\section*{Settings:}

Type: The Pastel can be set to use Wax or Chalk. The two are very similar but Wax Pastels will blend and smear slightly as you work with them. Chalk Pastels are dry and blur slightly but do not smear.

\section*{Softness:}

Controls how soft the pastel is. Softer wax will apply more easily to the Canvas. The higher the softness, the bolder the stroke will be at light pressures.

\section*{Cloner.}

The Cloner is a special effect tool that allows you to replicate paint already on your canvas by setting a Source point then painting in to a new area. The Cloner can be used to repeat existing detail on the canvas such as flowers in a field, or duplicate patterns and colour blends that you have already applied.

The Cloner has the following features:
1. Replication: The Cloner precisely recreates paint from its source area at the cursor. This means that it will replace any paint already on the canvas at that point without blending. It also means that the Cloner will replicate any paint wetness or texture from its source area.
2. Head Control: The Cloner allows you to soften the edges of its brush head to help blend the replicated paint in with paint already on the canvas. It also allows flow control like the Airbrush.
3. Clone Source: All Cloner operations need a source, which is the point from which the Cloner takes paint to replicate.

\section*{Settings:}

Blend Mode: The Cloner allows you to adjust the color of the paint you are drawing with by applying a blend mode as it is applied to the Canvas. Unlike Layer Blend Modes, the blend mode used by the Cloner is applied as it lands on other colors already on the Canvas, it does not change the color of the paint if it is landing on a blank area of Canvas. The Blend Mode will also only apply to paint that overlaps color on the current Layer, it does not change the color of the ink as it passes over color on a different layer. For more general information on what Blend Modes look like when they are used, see the section on Layers.

Opacity: Controls the overall opacity of the cloned paint as it is applied.

Hardness: Controls how hard the edge of the Cloner brush head is. The higher this value the sharper the edge line of the cloned stroke. Lower values cause cloned paint at the edge of the stroke to blend with the paint behind it.

Autoflow: Sets whether the flow of cloned paint is continuous or only occurs when you move. If turned on, paint will be applied constantly while the mouse button is held down. If turned off, paint will only be applied as you drag.

Relative Offset: This defines how the Cloner Source Point behaves. When you paint with the Cloner paint is duplicated from the Source and applied under the cursor. As you paint, the Source Point moves to mirror the motion of the cursor.

If this option is turned on the Source Point stays at the same relative distance from the cursor between paint strokes so that every time you start painting it will be the same offset distance that it was when you defined it. This option is useful if you are duplicating a large area of paint.

If the option is turned off, every time you start painting the Source Point returns to the original location it was when you defined it, regardless of how much the cursor has moved. This option is useful if you want to repeatedly duplicate an area of existing paint in different locations on the canvas, because each time you start a stroke, the Source Point returns to its original, defined location.

Current Layer Only: Sets whether the Cloner replicates paint only from the current layer, or from every layer on the canvas. If turned on, paint from any layer the Source Point passes over will be replicated.

If this option is turned off, the following additional settings become available:
Include Canvas Color: If turned on, this option causes the Cloner to treat the Canvas color as paint and replicate it along with paint from any layers. If turned off, only actual paint is replicated.

Include Current Layer: If turned on, this option causes the Cloner to replicate paint from the layer it is painting on. If turned off, the Cloner will ignore any paint that it finds on the current layer.

\section*{Setting Clone Source.}

All Cloner operations need a Source for the paint to replicate. You can define the Clone Source in one of two ways:
1. If you have not already defined a Source, the first time you click with the Cloner on the Canvas your Source point will be defined.
2. At any point when using the Cloner, hold down Alt (Windows) / Option (OS \(X\) ) and click on the canvas to define the Source point.

A small crosshair will be left behind on the Canvas to indicate where the Source point is.

\section*{How the Cloner Source Point Moves.}

As you paint, the Cloner Source Point moves in exactly the same way the cursor moves. For example, if you move to the right, the Source Point will move to the right. Understanding the relationship between the Source Point and the Cursor is important when you are trying to clone large areas.

If Relative Offset is turned on, you can make as many paint strokes as you like to clone an area of paint, because the motion you make with the cursor is mirrored by the Source Point even when you are not actually painting:


Stroke 1 replicates part of the source area.
In this case the clone source is at the top left, and a single stroke has been made to clone part of the watercolor dots at the bottom right.


Stroke 2 starts in a different spot but replicates the correct part of the source area relative to the motion of the cursor.

So the second stroke continues to recreate the watercolor dots in the bottom right corner.


Stroke 2 resets the Source Point to the original spot
and you can just paint a new stroke to replicate the entire object again.

You can repeat this as often as you like.

If Relative Offset is turned off, you must replicate the entire area of paint that you want to clone in a single stroke because the Source Point will reset every time a stroke ends.


Stroke 1 replicates part of the source area.
This looks the same as a Relative stroke because the Relative Offset toggle is only relevant between strokes, the tool behaves the same way during a single stroke regardless of the Relative value.


Stroke 2 clones form the same source as stroke 1 even though my cursor is in a different position, so the Source Point is not in the same position relative to the cursor and I cannot complete replication of the source.

Instead, the watercolor dots are repeated again at the new stroke point.

This can be useful if you want to create multiple clones of a smaller object.


Stroke 1 replicates the entire object you want to clone.
Remember that you need to make sure that I complete the clone in a single stroke

\section*{Eraser.}

The Eraser lets you remove paint from the surface of the Canvas. It doesn't just erase color, it will erase the texture of paint as well so you can use it to shape large volumes of paint that you have previously applied.


The Eraser has the following features:
1. Hardness: Even a soft eraser is hard enough that you can vary how much is erased by varying the pressure of your stroke. Light strokes only erase small amounts of paint, harder strokes erase more.


If the Eraser is used on a stroke of paint it will remove the physical mass of the paint before it removes the color. This can be useful if you have a very thick area of paint and want to thin it down a bit. Carving dents in to paint strokes with a light pressure eraser can produce some very interesting effects.

If you want to instantly erase everything under the eraser as you work, set its Pressure slider to \(100 \%\) and its Softness slider to \(0 \%\), that will give a hard edged, instant eraser.

\section*{Settings:}

Softness:
Controls how soft the edge of the erased area is. The softer the eraser, the more blurred the edge of the line it erases. To get a solid, hard edged eraser take softness all the way down to \(0 \%\).

\section*{Paint Tube.}

The Paint Tube can be used to lay down lines of thick paint on the Canvas for blending or adding texture. It adds a large amount of physical material so it is the ideal tool to use when preparing to smear paint with the Palette Knife.

The Paint Tube has the following features:
1. Wetness: The paint laid down by the Paint Tube is thick and wet so it can be easily smeared around.
2. Never Runs Out: The Paint Tube never runs out so you can make as long a line of paint as you like.
3. Thick: The paint applied by the Paint Tube is thick enough that it covers over the texture of the Canvas.
4. Shape: Single splotches of paint on the Canvas look different to the strokes you make, and can be used to make for interesting textures.

The Paint Tube has no settings of its own.


Single clicking with the Paint Tube causes it to leave only a spot of paint on the Canvas. The harder the pressure, the larger the amount left behind.

\section*{Glitter Tube.}

The Glitter Tube lets you sprinkle colored particles of various shapes on to the Canvas. This can be used to build up textures, add some sparkle to a painting, or even recreate images if used with a Tracing Image. Glitter is particularly good to use when you want a metallic look, as the many particles reflect the light in different ways.

The Glitter Tube has the following features:
1. Dryness: Particles of glitter are dry as they hit the Canvas so they cannot be smeared, but they can be smudged with the Palette Knife.
2. Flow: The tube continues to sprinkle without you needing to move it around, so you can build up large piles of glitter in a single spot if you wish.
3. Shape: There are five different options for the type of glitter you want to sprinkle.

\section*{Settings:}

\section*{Glitter Size:}


Controls the size of the particles of glitter that are sprinkled. The higher the value the larger the particles.

\section*{Multicolor:}


Allows you to make the glitter particles change color as they sprinkle. The higher this value, the further the color of the particles will be from your currently selected paint color.

\section*{Glitter Shape:}


Sets the shape of the particles that are sprinkled. The options are: Square, Circle, Ball, Grit, and Random.

Each option creates a slightly different texture when used on the canvas.

If you have a Tracing Image loaded and color is set to automatically sample from beneath each particle of glitter will adopt the color it is landing on. This allows you to easily build up an image using glitter.

\section*{Selection Tool.}

The Selection Tool does not create strokes of paint on the Canvas, it is used to mark areas for other operations such as copy and paste, or transformation. If you want to prevent paint being applied outside a specific area of the Canvas you can use a selection as a mask and it is active paint can only be applied inside its area.

Full information on selections and what you can do with them can be found in the section on Selections. This section explains the settings of the Selection Tool and how to use it to make selections.

\section*{Settings:}

Type: There are six types of Selection Tool available:

Rectangle: Creates rectangular selections by clicking and dragging on the canvas. Hold down Shift to create perfect square selections.

Ellipse: Creates elliptical selections by clicking and dragging on the canvas. Hold down shift to create perfect circle selections.

Polygon: Creates multi-sided polygonal selections. Click to place a corner point, then release the mouse button and click to place the next point.

To end the process and create the polygonal selection either double click on the last corner you want to create and a final edge will be linked back to the first point, or click on the first point again to close the line.

Press Escape on the keyboard or select another tool to cancel polygon construction.

Freehand: Creates freehand selected areas. Click and drag to draw an outline around the area to be selected. When you release the mouse button the end of your line will be automatically connected to the start and the area closed.

Magic Wand: Creates automatic selection areas using the color on the canvas as a guide. Click in an area to select the surrounding area of color similar to the point clicked. This mode has additional settings that are used to change how ArtRage identifies the area to select.

Paint Area: Allows you to paint an area that will be turned into a selection. As you paint, the area you want to protect from changes is filled in with red, you are painting a Mask. You can always use Invert Selection in the Edit Menu to turn the selection around after you are finished.

When you have finished painting your selected area, select another tool or selection mode to convert the ink you applied in to a real selection.

This mode has additional settings that are used to change the shape of the paint stroke.

Unique settings for each type are listed below:

\section*{Magic Wand Type:}

Spread: Controls how far the area to select will spread from the point you click. To select the area, ArtRage looks at the color of the point you clicked and expands outwards until it finds a different color, at which point it stops. The Spread value controls how different that color can be before the spread ends. The higher the Spread value, the more different it can be.

So a low Spread value means that if you click a blue spot on the Canvas, even a lighter blue could stop the selection spreading. A higher Spread value means that the selection will expand further through the light blues but might stop when it hits green.

Antialias Edge: If this is on the edge of the selected area will be antialiased, selecting partial pixels to soften the selection. If you do not want to work with partial transparencies, turn this setting off.

Current Layer Only: When you click a point to make a magic wand selection ArtRage can either look at color only on the layer you clicked, or on all layers to find where it should stop expanding. If Single Layer is turned on, other layers will be ignored. If it is turned off, color on other layers is also taken into account as the selection spreads.

\section*{Paint Area Type:}

Opacity: Adjusts the opacity of the selection. The higher this value the more the area will be selected. Lower values can create transparent selections. For more information see the section on Selections.

Hardness: Controls the hardness of the edge of the strokes made with the Paint Area selection tool. The higher this value the sharper the edge of the stroke. The lower the value goes, the more blurring you will see at the edge of the stroke.

Autoflow: If this is turned on the tool will automatically place 'selection ink' down on the surface of the Canvas as you hold the pointer still. This causes the selected area to build up over time and is particularly visible if you turn Hardness down to \(0 \%\). If this is turned off, ink will only be applied as the pointer is moved.

If you want to paint a detailed selection make sure to set Mode to Add, or every stroke you paint will remove the last one you painted.

These settings are available for all types:
Mode: Controls how the next selection will be added to any current selection already on the Canvas. Available modes include:

Replace: Replaces the current selection with the new one.
Add: Adds the new selection to any current selection to create a new result.

Subtract: Subtracts the area of the new selection from any current selection to create a new result.
[- Difference: Makes a new selection from any area of selection that is in either the current or new selection, but not in both.Intersection: Makes a new selection from areas that are in both the current and the new selection.

For more information see the section on Selections.
Feather: Controls how soft the edge of the selection is. Feather creates a blur at the edge of your selected area. The higher the value the softer the blur will be. This setting is not available to the Paint Area type.

Clear Selection: Removes the current selection from the Canvas.
Invert Selection: Inverts the current selection.

\section*{Transform Tool.}

The Transform Tool is used to adjust the shape, size, and position of paint and other objects that have already been placed on the Canvas.

The Transform Tool is used to select an item to transform. When you have this tool selected, clicking on an object on the Canvas will trigger a transformation overlay so that you can change its position, size, and rotation. For example, if you have a paint stroke on the Canvas you can click it with the Transform Tool and it will become available for transformation.

If you have a Selection active, clicking inside the selection with the Transform Tool will affect only the paint in its area.

More information on how to perform transformations can be found in the section on Transformation. This section explains the settings and use of the Transform Tool itself.

\section*{Settings:}

Type: There are three types of Transform available:

0-8
Normal: Allows adjustment of scale and rotation using the handles and edges of the transform area.

Non Uniform: Allows non uniform transformations that can be used to skew the transform area.


Perspective: Allows perspective transforms that can be used to skew the transform area and apply perspective distortion.

A full description of each type can be found in the section on Transformation.
Select Layer: If this is turned off, the Transform Tool will only select items on the current layer when you click. If it is turned on, the Transform Tool will select the first item it finds underneath the point you clicked, regardless of which layer you have selected.

\section*{Tools and Presets}

In complex paintings the Single Layer option can be turned on to give you more control over what you are selecting when you click in the Canvas.

\section*{Color Sampler.}

The Color Sampler allows you to sample colors from the Canvas and make them your current color. For more information on colors see the section on Colors.

To use the Color Sampler simply click on the Canvas. The color underneath the point you click is selected as the current color.

\section*{Settings:}

Single Layer: If this is turned on the Color Sampler will only sample color from the current layer you have selected. If there is no paint on the layer where you click, nothing is sampled. If this is turned off the Color Sampler will sample whatever is under the pointer regardless of what layer it is on, and if there is no paint it will sample the Canvas color.

With Lighting: ArtRage has a light that creates the illusion of dents and lumps in paint strokes. If this option is turned on the Color Sampler will sample the color you see on the screen, so a red paint stroke that has a bristle dent might give you a dark red where there is a dent or a light red where there is a peak. If this option is turned off the Color Sampler will only sample the actual color of the pigment used to create a stroke, so your red paint stroke would produce red regardless of whether you click on the dark or light parts made by the bristles.

\section*{Fill.}

The Fill Tool is used to pour large areas of paint on to the Canvas that expand until they find a border they cannot flow over. If you want to create large areas of solid color, gradients, or patterns the Fill Tool is the tool to use.

The Fill Tool has the following features:
1. Dryness: Although the Fill Tool pours paint in to an area, that paint dries as soon as it touches the Canvas. This means it cannot be smeared, but it can still be smudged using the Palette Knife.
2. Automatic Fill: The Fill Tool automatically fills in areas on the Canvas, you do not need to manually define the area it will fill.

\section*{Settings:}

Type: There are three types of Fill Tool available:
Solid: Fills areas of the canvas with solid color. Click to start 'flooding' the canvas with color and the fill will spread outwards based on the tool settings listed below.Gradient: Fills areas of the canvas with gradations of color. Click and drag to define the direction and size of the gradient based on the tool settings listed below.

6 Pattern: Fills areas of the canvas with a predefined pattern. Click and drag to define the direction and size of the tiles based on the tool settings listed below.

Each Type of Fill works in a different way. You can find explanations of how to apply them below.

All Fill Types have the following settings:
Blend Mode: The Fill Tool allows you to adjust the color of the poured paint by applying a blend mode as it spreads on the Canvas. Unlike Layer Blend Modes, the blend mode used by the Fill Tool is applied to the paint as it lands
on other paint, it does not change the color of the paint if it is landing on a blank area of Canvas. The Blend Mode will also only apply to paint on the current Layer, it does not change the color of the paint as it passes over paint on a different layer. For more general information on what Blend Modes look like when they are used, see the section on Layers.

Opacity: Controls the opacity of the paint that is poured on to the Canvas. The lower this value the more transparent the paint.

The following settings are unique to certain Fill Types. You can also find detailed information on how to create different types of fills in the next sections.

\section*{Solid Type:}

Spread: Controls how far the area to select will spread from the point you click. To select the area, ArtRage looks at the color of the point you clicked and expands outwards until it finds a different color, at which point it stops. The Spread value controls how different that color can be before the spread ends. The higher the Spread value, the more different it can be.

Antialias Edge: If this is on the edge of the filled area will be antialiased, selecting partial pixels to soften the selection. If you do not want to work with partial transparencies, turn this setting off.

Single Layer: When you click a point to fill an area ArtRage can either look at color only on the layer you clicked, or on all layers to find where it should stop expanding. If Single Layer is turned on, other layers will be ignored. If it is turned off, color on other layers is also taken into account as the paint spreads.

\section*{Gradient Type:}

Gradient: The Gradient Type allows you to select a gradient to use when applying the Fill. Click this control to open the gradient editor, or click the menu for options that allow the loading of gradients from disk or your collection. For more information on designing your own gradients see the Gradients section.

Gradient Type: The Type of Gradient that will be applied. Different types cause the gradient to be generated with a different shape on the canvas. For information on how each type works and how to apply it see Creating Gradient Fills.

Smoothing: Controls how smooth the steps between points in the gradient area. The higher this value the smoother sharp transitions in the gradient will appear.

Reverse Gradient: Turn this on to flip the start and end points of the gradient. This does not edit the gradient, it just adjusts the direction applied by the Fill tool.

\section*{Pattern Type:}

Pattern: The Pattern Type allows you to select a color image to be applied as a tiled pattern within the fill area. Click this control for pattern selection options including loading from disk and selecting from your collection.

Lock Scale: If this option is turned on the scale of the image you use in the pattern fill will not change, every tile will be the size of the actual image.If you turn this off the scale of the tile will be defined by the distance you drag when creating the fill area. For more information on how this works see Creating Pattern Fills.

Scale: Controls the scale of the pattern image when the fill is generated. If Lock Scale is turned on, this value is used regardless of whether you drag to create the fill. If Lock Scale is turned off, this value will be used only if you single click to create the fill.

Flip Horizontal: When turned on, this option flips the pattern horizontally.
Flip Vertical: When turned on, this option flips the pattern vertically.

\section*{Creating Solid Fills.}

The Solid Fill Type creates areas of solid color that spread outward from the point at which you click. The spread of the color is limited by the colors already on the canvas. The Spread slider indicates how different a color on the canvas must be before the Fill stops spreading.

The example below shows spread from the center of the dark blue circle, first with the Spread value at \(0 \%\), then with the Spread Value at \(60 \%\).


A 0\% Spread means that as soon as the fill hits a color different to the one you clicked, it stops spreading. Here, the light blue has created a border it cannot spread past. A \(60 \%\) Spread means that the fill will continue expanding over colors that are quite different to the one you clicked (here, the light blue) but will stop at colors that are significantly different. This is why the fill stops at the red border.

\section*{Fills and Antialiasing}

Antialiasing is the process by which a digital line is made to appear smooth by varying the opacity of pixels along the edge. This makes angled lines and curves appear smooth despite the fact that your display is made up of discreet
blocks (pixels). This also means that a Flood Fill operation can have problems where the fill area meets the edge of another line, because the antialiased pixels of the edge of your line are not the same color as the pixels inside the line itself. As a result you may see some fringing around the edge of the fill area where it met these partially opaque pixels.

Increasing Spread can help to counteract this problem: If the Spread is slightly higher the fill area will extend further in to the line. In cases where this does not help, turning off the Antialiasing option in the Fill tool may help.

> One trick if you find that you're seeing fringes when doing a Flood Fill on to black line work is to set the Fill Tool Blend Mode to Multiply and increasing Spread: Where the fill area meets the line, it will vanish, so even if the fill area overflows the line slightly you should get a smooth edge!

\section*{Creating Gradient Fills.}

Gradient Type Fills fill the entire available area with a color gradation, replacing any colors already on the Layer.

There are two ways to create them:
1. Click and drag on the canvas: The gradient will be created with its starting color at the point you clicked, and its ending color at the point at which you release. The direction of the gradient (see below) is defined by the direction of your drag. Note that all space in the canvas before your starting point will be filled with the starting color, and all space after the point of release will be filled with the ending color. Hold down Shift to constrain the angle of the line to 15 degree increments.
2. Single click on the canvas: The entire available area will be filled with the gradient you have selected, its direction will be treated as if you had clicked and dragged downwards.

If you create a Gradient inside a Selection, the gradient will not apply outside the area of that Selection. If there are Stencils on the canvas, the Gradient will not apply beneath them.

\section*{Gradient Types}

There are five types of gradient. Each type defines the shape the gradation of color will take when it is applied, and how click and drag works to adjust this.

Linear: The Gradient is created in a straight line. If you click and drag the starting color of the gradient is placed where you click, and the ending color is placed where you release.

Radial: The Gradient is created in a circular shape projecting outwards. The centre of the circle is the starting color of the gradient and is placed where you click, and the ending color is placed where you release.

Angle: The Gradient is created around a circular path like a clock face. The starting and ending colors of the gradient meet at the same point and the angle of that point is defined by the angle you drag.

Reflect: The Gradient is created in a straight line but repeats itself. The starting point and ending point of your drag will both be the starting color of the gradient, the ending color of the gradient will be placed half way between the two.

Diamond: The Gradient is created in a diamong shape projecting outwards. The centre of the diamond is the starting color of the gradient and is placed where you click, and the point at which you release defines the tip of the diamond and is made the ending color of the gradient.

\section*{Creating Pattern Fills.}

Pattern fills replace the contents of the available area with a predefined pattern that is tiled repeatedly to fill the space provided. The size of the pattern tiles and the angle at which they are placed is defined by how you use the fill tool on the canvas. There are two ways to do this:
1. Click and drag on the canvas: The pattern will be created with its tiles aligned along the line you define. Hold down shift to constrain the angle of the line to 15 degree increments. If Lock Scale is turned off, the length of the line you drag defines the size of the tile: The starting point of the line is where the top center point of the tile will be placed, and the ending point is where the bottom center point will be placed.
2. Single click on the canvas: The pattern will be created with tiles at the size defined by the Scale slider and oriented normally.

If you create a Pattern Fill inside a Selection, the Pattern will not apply outside the area of that Selection. If there are Stencils on the canvas, the Pattern will not apply beneath them.

\section*{Text Tool.}

The Text Tool allows you to place editable text on your Canvas using standard fonts and formatting. For detailed information on how to work with text in ArtRage see the Text section. This section explains how to use the settings available in the Text Tool.

To add text with the Text Tool, just click where you want it to begin and start typing. If you click where there is already text, that text will be made active for editing.

When you have finished typing you can press Enter on your numeric keypad if you have one or select a different tool and text editing will be completed. If you press Escape while editing, the edit will be cancelled.

When you click to add new text to the Canvas a new layer is added specifically for the text item.

The Text Tool has the following features:
1. Editable: Text is not paint in the standard sense of the word. When you enter text on the Canvas it occupies its own special layer type and cannot be adjusted using tools like the Palette Knife until you flatten it. Until it is flattened, text can be freely edited and transformed so you can change your mind and adjust it after creation if you wish.

\section*{Settings:}

Most of these settings will change either the next text you type in to a text layer, or any text that is currently selected. For more information see the Text section.

Text Size: The point size of the text. Point size is valid for 72dpi images, note that higher DPI will not adjust the font size accordingly.

Font: Allows you to select the font you want to use for the text.
Bold, Italic, Underline: These items turn on or off the indicated formatting for text.

Align: Controls the alignment of the text when you have more than one line, aligning it to either the Left, Right, or Center of its body.

\section*{Flattening Text.}

As mentioned above, Text does not act like normal paint. In order to be able to edit it with other paint tools you need to 'Flatten' it. This can be done by locating the Text Layer you wish to flatten in the Layer Panel and using the Flatten option in its Text Menu.

For more information, see Layer Thumbnails.
When you flatten text the live text content is converted to paint on a standard paint layer. You will not be able to edit it after you have done this so make sure you either have a copy of the layer to work on later, or that you are done with all your editing.

\section*{Tool Presets.}

Most of the tools in ArtRage have a large number of settings that allow them to be used in a wide number of different ways. For example, the single Oil Brush tool can create thick oil strokes, delicate thin washes, rough drybrushed smudges, and many more effects. This means that each tool is actually a collection of hundreds of other potential specific tools, each defined by what can be a very narrow range of settings from the available controls.

Tool Presets are used to avoid you having to remember the exact settings that go to make a specific type of tool, and allow you to set up all of those settings with a single click. Presets store all of the settings of the tool they are created for, and can optionally also store the paint color and brush size at the time of creation.

\section*{The Presets Panel.}


The Presets Panel is opened by clicking the Presets Pod. It gives you functions for selecting, storing and sorting presets for the current tool. When you select a tool the contents of the Presets Panel update to show you what you have available.

Presets are sorted in to groups for ease of use. You can select which group of presets you wish to display using the Group control at the top of the panel. The presets that are in the current group are displayed below in the main list.

\section*{Selecting Presets.}

To select a preset from the list, click it. This will apply all of its settings to the current tool and the preset will light up. If you change any of the properties the highlight will disappear because the preset's settings are no longer active.

Presets that are listed with a dot next to them on the right hand side cannot be edited as they come installed with ArtRage. Presets without a dot are ones that you have added and you can edit them by right clicking on them.

So why does a preset lose its highlight when you change settings? Presets are exact combinations of settings, so if you change anything, the tool settings no longer reflect the content of that preset. That's why the highlight vanishes.

\section*{Creating Presets.}


If you want to create a preset, set up your tool in the state you want to store then click the New Preset button. When you click this button the New Preset Panel appears and you can set up details.

At the top of the panel is a menu containing options for setting up groups, and the option to add the preset to the Toolbox when it is created. For information on the Toolbox see the Toolbox and Workbench section later in this manual.

The next section of the panel allows you to select the Group that the preset will be added to. Click the control to choose from a list of available groups. You can also set the name of the preset here.

If you want to set the icon for your preset click the icon button to the left of the name entry. This will produce a menu that allows you to use the default tool image for the current tool, load an image from disk, or sample an image from the Canvas.

If you want your preset icon to show what its tool strokes will look like and you have a sample on the Canvas select the Sample Preview Image option. When you select this a small panel will appear and the rest of the interface will fade out. Drag the small panel until its central preview area is over the part of the

Canvas you want to sample and click the tick button. This will sample from the Canvas and assign that image to your preset.

Finally you are given the option to store Tool Size and Paint Color with the preset. If you store these properties, they will be set when the preset is selected. If they are not stored, the tool size and paint color will remain unchanged when the preset is selected.

When you are ready to create the preset click OK and ArtRage will generate the file for you. If you have selected a name that has already been used or there is a problem of another kind you will be notified and can choose how to resolve the problem.

Once you create a preset it is added to the User Preset Collection and you will find it in the appropriate Group of the presets panel.

\section*{Storing Size and Color.}

The option to store Size and Color with your preset allows you to use presets in two different ways:
1. As tool types: If you do not store Size and Color, your preset represents a generic type of tool that you may use in different ways in different projects. For example, a stiff bristle brush, or a leaky airbrush. Selecting the preset sets the basic type of tool you are using and you can then apply that tool to various different jobs in the painting.
2. As specific tools for defined purposes: If you store Size and Color your preset represents a specific tool for a specific task. For example, if you are painting a portrait and working on the eyes you might want a specific soft brush at \(10 \%\) size with a precise blue-green color. This is still just an Oil Brush, but it is for a defined task rather than for general use.

You may want to split your presets in to groups that reflect these different types of functionality. You may also find if you are using lots of specific tool presets that the Toolbox is useful. For information on the Toolbox see the Toolbox and Workbench section later in this manual.

\section*{Managing Presets.}

Any presets you add to ArtRage can be accessed from the User Preset Collection folder. The easiest way to get to this folder is by selecting Open User Tool Presets Folder in the Preset Panel menu.

Each preset is a file on disk so you can change their names and move them around in that folder if you like. Each Group is a folder stored inside that folder, so if you add new folders you are adding new categories.

If you want to import a preset that someone else has sent you, you can use the Import Preset To Collection option in the Preset Panel menu. This allows you to select a preset to load and ArtRage imports it to the correct disk location for the currently selected Group.

Right click an item in the panel to delete or rename it from inside the application.

\section*{Colors.}

On the right hand side of the ArtRage window you will find controls for selecting and managing colors. Whenever you paint a stroke with a paint tool the color that is selected on the right hand side will be used to make that stroke. This section tells you everything you need to know about working with color.

\section*{Pods.}


Color Pod: When the Color Pod is visible click it to open the Color Picker. Click and hold it to bring up the Popup Color Picker for quick color selection. This Pod contains a preview of the currently selected color.


Samples Pod: When the Samples Pod is visible click it to open the Color Samples Panel. Click and hold it for a menu of Color Sample options.

\section*{Color Picker.}

The Color Picker on the right hand side is used for selecting your current color. There are 5 important controls starting from the bottom right corner and working inwards:
1. Sizing Grip: The grip at the bottom right can be clicked to close the panel. You can right click it for a set of options for scaling and tearing off.
2. Current Color Sample: This shows you the color you currently have selected. Click here for an options menu.
3. Metal Slider: Click and drag here to change the metallic value of the current color.
4. Large Color Arc: Contains 2 of the 3 components that make up your color.

5. The Small Color Arc: Contains the last of the 3 components that make up your color.

\section*{Selecting Colors.}

In real life selecting colors involves picking the basic color you want then blending in other colors to make the exact color you want to see. In ArtRage you do something similar because the Color Picker is split in to two sections. The Small Color Arc is where you pick your basic hue, and the Large Color Arc is the mixing area in which you mix in black, white, and grey to create the final color to be used in painting.


Around the outer edge of the panel is the Small Color Arc. By default this shows a rainbow spectrum of basic colors. Click and drag inside this rainbow to select the basic color you want to use. For example, if you want a green of any kind, click in the green section of the arc.


When you click in the green section the Large Color Arc updates to display the color you picked in various shades from black to grey to white. Now click in this section to choose how bright or how grey you want the green to be. This is a bit like a mixing palette where you blend the exact color you want.


When you click in the Large Color Arc, the Current Color Sample in the corner of the panel updates to show the exact color that is being loaded on the brush head when you paint the next stroke.

If you want your green to be a bit more yellow, you can click and drag in the rainbow spectrum again, towards the yellow tint. The Large Color Arc mixing area updates when you do this. Now you can select the exact brightness of yellow-green you want and the Current Color Sample updates to show the result.

\section*{So selecting colors involves:}
1. Picking a basic hue from the Small Color Arc rainbow.
2. Picking how bright or grey you want it to be from the Large Color Arc mixing area.
3. Watching the Current Color Sample so that you know what color you have selected.

For information on other forms of color picking in this panel see the section on Color Modes below.

If you want to quickly sample color from your Canvas hold down Option (Mac OS X) / Alt (Windows) and click in the Canvas. This samples color directly.

If you want to quickly pick a color without going to the color picker, for example if you have hidden the interface, hold down Cmd + Alt (Mac OS X) / Ctrl + Alt (Windows) and click and hold down on the Canvas. This brings up a Popup Color Picker which you can use to select a new color.

\section*{Metallic Colors.}


The Metal Slider on the Color Picker allows you to make your paint more metallic. The higher this value the more reflective the paint becomes. Even plain colors like white will look different when they are more metallic.

You can blend metallic paint with non metallic paint to create a partially metallic result.

Metallic paint works really well with the Glitter Tool.

\section*{Color Modes.}

The Color Picker has a number of different modes that can be used to display color in different manners. The color options menu which can be found in the Tools menu or by clicking on the Current Color Sample allows you to select a mode for the Color Picker. Different modes cause the picker to change which properties of color are displayed in the Small and Large Color Arcs. These modes are:

HL / S, HS / L, LS / H (Default): These modes break the color down in to three components: Hue (the basic tint), Luminance (how bright the color is,
varying from black through pure color, to white), and Saturation (how grey the color is). In each mode, the last character indicates the property that is displayed in the Small Color Arc. By default, the Hue of the color is displayed in the Small Arc, which gives you the rainbow of colors to choose from.

RG / B, RB / G, BG / R: These modes break the color down in to three digital components indicating the amount of Red, Green, and Blue that make up the color. In each mode, the last character indicates the property that is displayed in the Small Arc.

RGB Color is a digital standard, but if you turn on Real Color Blending in the Color Options Menu ArtRage will simulate real world paint color blending.


Tint / Tone: The Tint / Tone Picker provides a slightly different method of selecting color. When you choose this mode the Color Picker updates to display a circular Hue Wheel and a diamond in which you can select the artistic tint and tone of your final color.

To select the basic color you want, click and drag in the circular ring around the outside of the picker. When you have selected a basic color you can use the diamond in the center of the picker to select how light, dark, and grey the final color will be. The final color is still displayed in the Current Color Sample.

\section*{Custom Color Pickers.}

Custom Color Pickers are normal images that you can load in to the color picker for custom selection. This lets you create your own pickers for specific paintings or any case where you have a particular color set you want to use. The Color Options menu gives you access to the custom color picker system.

If you choose to load a new custom picker from disk you can select an image file that will be loaded in to the Color Picker, replacing the existing picker contents. If you choose to open the Custom Color Picker Collection you will be given the chance to select a Custom Picker already stored in the application.

Right click an item in the panel to delete or rename it from inside the application.

\section*{Selecting a Custom Picker.}

If you want to load a Custom Color Picker from the collection of pickers already stored with the application just select 'Custom Color Picker Collection' from the color options menu. When you select this option the Custom Pickers Panel opens and you can choose a picker from your collection.

On the left hand side of the panel you see a list of groups, each of which can contain one or more custom pickers. Click a group name to select it and its contents appear on the right.

Click one of the pickers that appears on the right and it will appear in the Color Picker. A lock icon on a picker indicates that it was installed by ArtRage and cannot be overwritten, you can still select it.

\section*{Adding a New Custom Picker.}

You can add new custom pickers to your collection by loading them from disk or sampling them from your ArtRage Canvas. In the Custom Pickers panel you will see an Import Picker and New button above the pickers on the right. The Import Picker button allows you to select an image file from disk that will be loaded in to the current Group you have selected, and can then be selected as normal.

If you click the New button the Custom Picker Creator appears. Drag the panel until the preview area in the middle is over the area you wish to sample and click the tick button. This will sample the are you selected and ask you for
a file name. The file location has already been set to the correct folder for the group you selected, so you can just save the file there. The picker will then appear in the Custom Pickers panel and you can select it as normal.

\section*{Using Custom Pickers.}

When you load a Custom Color Picker it replaces the contents of the Color Picker. The Large Color Arc is taken up by the custom picker you have selected, and the Small Color Arc becomes a Luminance slider, indicating the color you have selected in the Large Arc and its variance from black to white.

To select a color from a custom picker just click in the Large and Small Color Arcs as normal. To remove the Custom Picker go to the Color Options Menu (either in the Tools Menu or in by clicking the Current Color Sample) and select a mode for the Color Picker.

\section*{Precise Color Picker.}

If you want to select a color using exact color values you can use the Precise Color Picker. The Precise Color Picker can be opened using the Color Options menu that can be found in the Tools menu, by clicking the Current Color Sample, or by selecting the Precise Color Picker option from the View Menu.

The Precise Color Picker allows you to select the exact color you want using RGB or HLS color values. Using the menu at the top right you can change the picker's display mode to use the standard modes listed in the section on Color Modes above.

The Precise Color Picker can be left open while you work. Some other interface items cause a Precise Color Picker to appear with OK and Cancel buttons. In this version of the Picker you can click the 'Original' button at the top left to reset the color.

\section*{Real Color Blending.}


Most digital painting packages blend colors using an RGB color model. This color model is familiar to people who use painting software but does not produce results familiar to people who work with real paint. Real Color Blending mode allows you to change how ArtRage blends color so that it mimics real world pigments more closely.

Real Color Blending mode can be turned on in the color options menu which can be found in the Tools menu or by clicking the Current Color Sample. The Real Color Blending menu item can be turned on or off whenever you wish. Changing it will not affect any of the paint already on the Canvas, but any paint you blend after changing it will blend in the newly selected mode.

The most obvious example of how Real Color Blending changes the paint color can be found when you blend blue and yellow. Using an RGB blending model the resulting blend comes out somewhere between blue and grey. If you tun on Real Color Blending you find that the resulting color is green.

Real Color Blending is great when you are trying to mix colors, especially if you are used to real paint.

\section*{The Water Glass and Dirty Brushes.}

Some tools in ArtRage can be set up so that they do not completely reload their head with color at the end of every stroke. These tools pick up color from the Canvas and remain dirty until they are cleaned manually.


If your tool needs to be cleaned manually you will see the Water Glass Pod appear next to the color picker. Clicking the pod will clean your brush head. The Water Glass will vanish if your current tool does not require manual cleaning.

If you don't clean a brush you can get some interesting effects when you continue painting from paint that previously blended on the brush head.

\section*{Color Samples.}


If you want to keep colors for later use you can store them as Color Samples. Clicking the Samples Pod opens up the Samples Panel which lists all the samples available to you.

At the top of the panel you will find a menu containing sample options and a button to add a new sample.

There are two types of Color Sample that can be added:
1. Regular Color Samples: Usually referred to simply as 'Color Samples', these Samples are listed in the Samples Panel and are available to all paintings.
2. Toolbox Samples: The Toolbox is a storage space for content specific to a particular painting. Toolbox Samples are samples that are stored in the painting only so do not appear in the Samples Panel unless that painting is loaded. For more information on the Toolbox see Toolbox and Workbench.

Both types of sample can be accessed from the Samples Panel. Toolbox Samples are listed at the end of the list in their own collapsible section. The menu at the top of the Samples Panel contains options for both types as well. Toolbox Samples are accessed from a sub menu of that menu.

\section*{Selecting Color Samples.}

To select a color using a Color Sample just click the sample in the Samples Panel. The Current Color Sample on the Color Picker will update to show the new selection.

\section*{Adding and Removing Color Samples.}

There are a number of ways to add new Color Samples, all of which can be accessed using the Color Sample Options Menu in the Tools menu, or using the menu button on the Samples Panel

The Add Sample button at the top of the Samples Panel adds a regular Color Sample to the list. At the end of the list of samples, and the list of Toolbox Samples, is a + button that lets you add a sample to that section of the panel.

Each method of adding one or more samples from the menu is available for both regular and Toolbox samples, just select the appropriate option from the menu.
1. Add Sample: Creates a new sample using the current color.
2. Replace Samples: Replaces all existing samples of the indicated set with a new set of samples either from the collection of samples or by loading a file from disk.
3. Add Samples: Adds a new set of samples to the current samples in the indicated set either from the collection of samples or by loading a file from disk.
4. Export Samples: Allows you to save the samples you currently have in the selected set out to disk as an ArtRage Color Sample file.
5. Add To Collection: Allows you to add the entire set of either the Regular or Toolbox Color Samples to your Samples Collection.
6. Clear Samples: Clears out all current samples from the indicated set.

Individual samples can be removed by right clicking them and selecting the appropriate item from the popup menu.

\section*{Sample Names.}

If you turn on the Show Samples With Names option in the Color Samples menu the sample panel will list each sample on its own line with its allocated name.

When this option is turned on, you will be prompted to enter a name for each sample that you add. If names have been assigned to samples but the option to display them is not turned on, the sample will have a tool tip containing its name.

\section*{Sorting Color Samples.}

There are a number of ways to sort your Color Samples, all of which can be accessed using the Color Sample Options menu in the Tools menu, or using the menu button on the Samples Panel.

The easiest way to identify the samples is to give them a name. You can select to show samples with or without names using the appropriate items in the Color Sample Options menu. If you are displaying them with names you will be prompted to enter a name each time you manually add a sample. If you do not wish to enter a name, just press Escape or click outside the name edit that appears. You can also rename your samples by right clicking them when you have names displayed and selecting the appropriate option from the popup menu.

There are a number of alternative sorting options available in the menu. Each option sorts the entire sample set in to ascending order based on a property. If you have already sorted them in to that order, selecting the same order from the Sort menu will sort them in to descending order.

\section*{The Canvas.}

The ArtRage Canvas is the sheet of material on to which all of your paint strokes go. It sits underneath your Layers and acts as a backdrop for everything you do. This section explains how you can navigate around your Canvas and how to change its visual and textural properties.

\section*{Navigating the Canvas.}

As you work with ArtRage you may find you want to change the position of the Canvas, or rotate it or zoom in or out to see different detail. There are a number of different ways to do this. Mouse and keyboard shortcuts provide a quick and easy way to move around, but the Canvas Positioner can be used if you want more accurate control.

\section*{Menu Options.}

At the top of the View Menu you will find a Canvas Position menu that allows you to control zoom level and reset individual navigation properties of the Canvas. You will also find the Canvas Positioner option if you want to open the Positioner.

\section*{Mouse and Keyboard Shortcuts.}

To navigate around the Canvas using the mouse
Move the Canvas: Right click and drag and the Canvas will move.
Zoom the Canvas: Hold down Ctrl (Windows) / Cmd (Mac OS X) and right click and drag right and left, and the Canvas will zoom in and out.

Rotate the Canvas: Hold down Option (Mac OS X) / Alt (Windows) and right click and drag, and the Canvas will rotate.

Instead of using a right click you can use a left click if you hold down the spacebar. For example, to move the Canvas you can hold down the spacebar and left click and drag, to rotate the Canvas you can hold down the spacebar and the Option / Alt key and left click and drag.

> If you have a Multitouch input device and are using an operating system that supports it you can use Multitouch Gestures to manipulate the Canvas.
> 1. Use two fingers to drag on the Canvas to move it.
> 2. Use two fingers and pinch inward or outward on the Canvas to scale it.
> 3. Use two fingers and twist on the Canvas to rotate it.

\section*{Canvas Positioner.}


The Canvas Positioner can be kept open if you find you want to make many precise adjustments to the Canvas position while you are working with ArtRage. It can be opened using the easel button on the Menu Bar, or with the Canvas Positioner option in the View Menu.

Move The Canvas: Click and drag on the move icon in the panel to move the Canvas.

Zoom The Canvas: Click and drag up and down on the magnifying glass icon in the panel to zoom the Canvas in and out. You can also click the percentage indicator text in the Zoom Button to set zoom level by entering a number.

Rotate The Canvas: Click and drag in the outer ring of the panel, this causes the Canvas to rotate. The dot on the ring shows you the direction the top of the Canvas is pointing. If you click the arrows around the edge of the ring the Canvas will immediately jump to that angle. You can also click the rotation indicator above the top arrow to set the rotation by entering a number.

You can close the Canvas Positioner by clicking the X button in the middle. You can move the Canvas Positioner by clicking and dragging in the area outside the rotation ring.

\section*{Behind the Canvas.}


If you move the Canvas so that it does not fill the ArtRage window you will be able to see the area behind it. That area is tinted with a single color that you can adjust if you want to make the Canvas clearer.

In the 'Interface' section of the ArtRage Preferences Panel you will find the 'Background Color' option which can be used to change the color beneath the Canvas.

You can also set the Background Color using a menu option if you Right Click the Canvas.

\section*{Workbench Mode.}

Sometimes you might want to clear all the Pods and Panels off the Canvas and have a completely clean space to paint in. ArtRage lets you do this using Workbench Mode. You can find Clear Workbench mode in the 'View' Menu. If you turn this mode on, all the Pods and Panels that are currently overlapping the Canvas will vanish.

You can also turn Workbench Mode on and off by right clicking on the Canvas, or pressing the Enter key.

If you have two monitors, you can move all of your Panels to the second monitor, then active Clear Canvas Mode and have a completely clear ArtRage Canvas for painting, while still being able to use your controls.

Workbench Mode gives you access to a compressed form of the interface that allows you to work with as much of the screen clear as possible. For more information on how to use this, see the Toolbox and Workbench section later.

\section*{Canvas Properties.}

The look of the Canvas and how other tools interact with it is controlled using settings that are available in the Canvas Panel. You can open the Canvas Panel using the Canvas Settings option in the View Menu.


This panel contains all of the options available for defining how your canvas looks.

At the top of the panel is a preview of the current canvas, and if a preset has been selected its name will appear here.

Click the top preview area to get a menu of canvas options including the ability to reset your canvas, store default canvases, and load presets from the Canvas Collection.

The following options are available in the Canvas Panel:
1. Canvas Lighting: The texture of the canvas and the paint strokes that you apply is created by a 'Lighting' system. Turning off the Canvas

Lighting removes all texture effects so paint texture will vanish and the canvas will appear perfectly flat.
2. Canvas Color: Click the color sample to choose the color of the canvas. Click and hold to bring up a Popup Color Picker for quick selection.
3. Opacity: Controls how opaque the canvas is. Transparent Canvases in ArtRage are represented by checkered squares. When Exporting files it is important to remember that a transparent Canvas is not understood by all file formats, and some other applications don't recognize them even if the file format does. For more information see the section on Importing and Exporting.
4. Metallic: Controls how metallic the surface of the Canvas is. Metallic Canvases reflect light differently and if this value is high the Canvas Texture will become much more visible.
5. Grain and Pattern Tabs: These tabs give access to specific controls for the Canvas Grain and Canvas Pattern.

\section*{Canvas Grain.}

The texture of the canvas is defined by a Grain image. The grain image defines the high and low points of the surface of the canvas which, in turn, interacts with the painting tools as you work.

When you select the Grain tab a set of controls appear for selecting and manipulating the canvas grain.
1. Preview Control: This displays the current Grain image. Click in this area to select a new image either from disk or from the Grain Collection.
2. Grain Size: Controls how big the grain is. The higher the value the larger the grain will be.
3. Roughness: Controls how rough the Canvas Texture is. The value can be taken up to \(100 \%\) or down to \(-100 \%\) to invert the high and low points of the grain. The closer the slider is to its edges, the rougher the grain will be and the more it will affect paint strokes.

Canvas grain images are black and white, they use the brightness of the image to determine what is a high point and what is a low point in the texture. Dark patches will become dents in the Canvas, while light patches will become peaks.

You can create your own Grain Images and import them to the Grain Collection by clicking the grain preview and using the Resource Collection panel to import a new item.

\section*{Canvas Pattern}

Canvases can have colored patterns applied to them to represent colored variations in the surface. For example, a hand made paper might have tiny colored threads in it, or a natural surface such as wood or stone might have color variations.

When you select the Pattern tab a set of controls appear for selecting and manipulating the canvas pattern.
1. Preview Control: This displays the current Pattern image. Click in this area to select a new image from disk or from the Pattern Collection, or to clear the current image.
2. Opacity: Controls how opaque the Pattern is against the canvas.
3. Scale: The Pattern image is applied in tiles to fill the canvas. This slider controls the Scale of the pattern image. 100\% indicates that the Pattern will be at its normal image size.

\section*{Default Canvases.}

Clicking the preview at the top of the Canvas Panel opens a menu that allows you to set and clear the Default Canvas. If a Default Canvas is set ArtRage will use that canvas whenever a new file is created.

If you have a Default Canvas set you can clear it using the same menu. If no Default Canvas has been set ArtRage uses a basic paper when new files are created.

\section*{Resizing the Canvas.}

If you want to resize your Canvas there are two ways to do it: Resize the Canvas along with its contents, or expand or crop the Canvas without changing its contents.

Resizing the Canvas is like taking a piece of patterned elastic and stretching it, the patterns expand with the elastic as it grows. Expanding or Cropping the Canvas is like taking a piece of paper with a picture on it and either sticking more paper to it to expand the space you can draw in, or slicing off part of the paper, reducing the area available for drawing in but not changing the size of the contents

These two types of resizing can be achieved using the 'Resize the Painting' and 'Crop/Expand the Canvas' options in the Edit Menu. Both options bring up a panel that allows you to define the new target size for the Canvas.

\section*{Resizing.}


To stretch or shrink the Canvas and all its contents select the 'Resize the Painting' option from the Edit menu. This option brings up a resize panel that allows you to enter a new size for the painting.

The basic size settings in this panel work in exactly the same way as the ones in the New File Panel. See Creating a New File.

There are two important new settings
Preserve Original Aspect: If this item is turned on, the size you entered will be automatically adjusted to maintain the original width to height ratio of the painting. For example, if you have a \(200 \times 200\) painting (square aspect) and you have this item ticked, if you set Width to 300 Height will automatically
adjust to 300 to maintain the aspect. If you want to change the aspect of the painting, turn this item off.

Percentage Size: You can size the Canvas to a percentage of its original size if you wish. Next to the Width and Height items are percentage text boxes that allow you to enter a percentage size to use.

If you edit the Pixels Per Inch setting when you are in Screen Mode the size of the Canvas will not change (remember that Pixels Per Inch just tells the printer how many pixels you want it to print in an inch, so you're not actually changing the screen size of your painting when you edit that setting). The print size will update to reflect the change.

If you click OK the entire Canvas and all of its contents will be changed in size to match the new size you requested.

\section*{Cropping / Expanding.}


To change the area of the Canvas without changing the size of its contents select the 'Crop / Expand the Canvas' option from the Edit menu. This option brings up a Crop/ Expand panel that allows you to enter a new size for the painting.

The basic settings in this panel work in exactly the same way as those in the Resize panel detailed above. There is one additional set of controls:

Position Of Contents: At the bottom of the panel is a preview showing you where your current Canvas contents will be inside the new area of the Canvas. When youchange the size using the controls at the top you can drag the preview below around to position your painted contents.

If your new Canvas size is smaller than your painted contents you will lose any content that is not on the Canvas after the resize. You can Undo the crop if you want to after it is completed.

The menu to the right of the content preview allows you to quickly select default positions for the content inside the new Canvas area.

If you click OK the Canvas will be resized to the new size but the contents left at their original size.

\section*{Crop to Selection.}

The Crop To Selection item in the Edit menu allows you to crop the Canvas down to fit a selected area. Select the area you wish to appear in the new Canvas space and select this option. The Canvas will be trimmed to fit just the selection.

\section*{Layers.}

Layers are a powerful tool that can allow you to quickly make changes to your painting without damaging paint above or below, but understanding them can be difficult. This section explains what layers are and how to use them.

\section*{What are Layers?}

Layers are like sheets of transparent paper that can be stacked on top of each other and painted on. As many of these sheets can be stacked on top of each other as you like, and you can paint on any of them at any time. This means you can build up a painting by putting different parts of it on different sheets.


For example, a painting of an apple might start out with the table and background on their own layer, then on to a new sheet above you paint the apple itself.

The apple covers the table, but you could at any time erase it and still see the table behind because the table and apple are on their own sheets.

When there's a transparent area of a layer, we illustrate this in its preview by putting checkers in the hole. You can see this in the apple layer above.

As explained in the section on The Canvas above, all layers are transparent and sit on top of the Canvas so you can see the Canvas Texture through them. If we make the background Canvas transparent we'd see checkers in our painting, not just the mini-preview. Don't worry, those checkers won't be there if you print your painting or Export it. They also won't blend with your colors as you paint

For more information on how to work with layers in ArtRage see The Layers Panel.

\section*{Types of Layers.}

There are three types of layer in ArtRage:
1. Paint Layers: These are normal layers that can be painted on with all the normal painting tools.
2. Text Layers: These layers contain text that can be edited with the Text Tool.
3. Sticker Layers: These layers contain Stickers that can be edited using various tools.

For more information on how to recognize what type a layer is see The Layers Panel.

Layers can be used to simulate the drying of paint. Take the apple example again: If you paint the table on a real canvas, you would generally wait for the paint to dry before painting the apple over it. In our case, we paint the table on a Layer then add a new transparent Layer so that we can paint the apple. The table paint beneath is still there but it's not mixing with the apple paint, so it's like we've left the table to dry. Of course, if we want we can still go back and paint on the table layer and it will be like it was before, wet and smearable, but it still won't blend with the apple.

\section*{Layer Groups.}


Sometimes in a complex document that has many layers you might want to group them together to make it easy to locate them, to edit them, or to show or hide them while you are working on other things. In our apple example above, we might want to hide the apple so that we can see the table layer beneath and paint in the contents of the white hole. But what if the apple was painted on to its own set of layers, rather than just one?

In this example the apple and table layers have been grouped together differently. The apple is actually made up of multiple layers of paint on top of each other, which we can see when we open up the Layer Group it's in.

When the group is opened, we can see that the apple is made up of two different layers. The stalk is at the top, the main body of the apple is below. The advantage to placing these items in a group is that you can collapse it down so that you don't need to see them when you're working on other things. Better yet, if you want to make the apple smaller you can just make the Apple group smaller and everything inside it scales as well.


At the bottom of the Layer Panel is a button that allows you to create a new Layer Group.

\section*{Blend Modes.}

Blend Modes can be used to tell layers to interact with layers beneath them in different ways. By setting Blend Modes you can make paint darken paint below, tint it, or otherwise adjust it. ArtRage provides a number of Blend Modes, including standard ones from Adobe Photoshop and some of its own.

The default Blend Mode applied to each Layer is 'Normal', which means that paint will sit on top of paint on the layer beneath and cover it over like normal paint on a surface. There are four other modes specific to ArtRage.


Tint: The tint mode takes the color of the paint on your layer and tints the paint underneath it. In this example the blue stroke has applied a blue tint to the darker grey stroke beneath. Use this mode if you want to apply color to something that has none, or tint the color below with a new color above.


Shadow: The shadow mode darkens paint beneath it, allowing you to make subtle adjustments to the shading of paint from a layer above. In this example the grey stroke has darkened the stroke underneath.


Highlight: The highlight blend lightens paint beneath it, allowing you to make paint brighter by applying paint above it without washing it out to plain white. In this example the green stroke has lightened the stroke underneath.

Watercolor: This blend mode is a special mode that can enhance the look of your Watercolor strokes if you are painting on multiple layers.

Other Blend Modes are from Adobe Photoshop and may not produce predictable results, they are included so that you can pass documents back and forth easily between the two applications without losing data.

For details on how to apply Blend Modes to Layers see the Layer Panel section.

\section*{Bump Blend Modes.}

ArtRage also allows you to change the way the volume of your paint builds up over multiple layers. There are three available Bump Blend Modes:


Maximum: The default mode. ArtRage uses the thickest volume of paint on all layers, as if the strokes were all on the same surface.


Replace: ArtRage uses the volume of the topmost layer, as if it had cut through the layers beneath.


Add: ArtRage adds the volume of the top layer to the volume of the bottom layer, as if the top stroke was laid on top of the bottom one.

For details on how to apply Bump Blend Modes to Layers see the Layer Panel section.

\section*{The Layers Pod.}


When the Layers Pod is visible click it to show the Layers Panel. Click and hold down on it for a menu of layer options. The Layers Pod shows a preview of the contents of the current layer.

\section*{The Layers Panel.}


The Layers Panel contains all the controls you need for creating and manipulating layers. It contains a visual stack of all of your layers with previews of their contents and controls for each of them.

The + button adds a new layer above the current layer. The Folder button adds a new layer group. The trash can button deletes the current layer. The menu button provides options for the current layer.

This section contains information on how to use the various options available in this menu and in the layer thumbnails.

\section*{Layer Thumbnails.}


The top area of the Layers Panel is taken up by a list of layer entries. Every layer you have in your document is represented here by a thumbnail that has additional controls for manipulating that layer.

The layer thumbnails are stacked in their vertical order on the Canvas, so the topmost thumbnail is the topmost layer visible in your painting. When you create a new layer it is added on top of the currently selected layer.

The current layer is lit up in the stack. This is the layer you will be applying paint to if you paint a stroke on the Canvas. To select a layer for painting, click the thumbnail.

When your mouse hovers over the thumbnail a set of buttons becomes available. The buttons fade out when your mouse pointer leaves the area of the layer unless they are indicating that the layer has a special state. Which buttons appear depend on the type of layer you are pointing at:

Layer Visibility: Click to set whether the layer is visible on the Canvas. If the layer is not visible, the eye icon loses its central dot. This button stays visible if the layer is hidden.


Layer Opacity: Click and drag up and down on this button to change the opacity of the layer. The circle fills in to indicate how opaque the layer is. If you hover the mouse over this button the Tooltip will indicate your precise opacity. Click this button to enter the opacity value manually. This button stays visible if the layer is not \(100 \%\) opaque.

Menu Button: Click for a list of layer options. When you use the layer thumbnail menu button rather than the menu bar layer options menu item or the menu button at the bottom of the Layers Panel the options refer to the layer you clicked, not the current layer.

Layer Locks (Paint Layers Only): This button allows you to lock various aspects of the layer to prevent editing. If the lock icon is open then nothing is locked, if it is closed then some aspect of the layer has been locked. Locks can be applied as follows:
1. Lock All: This option prevents any changes being made to the layer.
2. Lock Transparency: Locks the layer so that no new areas of paint can be added. Existing paint can be changed but where there is no paint on the canvas already, no new paint will be added when you make a stroke.
3. Lock Paint: Locks the layer so that new new areas of paint can be added and existing paint cannot be modified by paint strokes.
4. Lock Position: Locks the layer so that it cannot be scaled or moved by the Transform tool.

This button stays visible if any lock is applied to the layer.
Text Options (Text Layers Only): Click for a set of options for the text layer. This button is always visible for text layers.

Sticker Options (Sticker Layers Only): Click for a set of options for the sticker layer. This button is always visible for sticker layers.

Layer Blend Mode: This button is only visible if you have selected a layer blend mode other than 'Normal' from the layer options menu. The icon indicates the current mode if it is Tint (T), Shadow (-) or Highlight (+). Any other mode is indicated by an ellipsis. Click the button to select a new Blend Mode for your layer.

\section*{Layer Groups.}

Layer Groups are represented by two icons in the stack of thumbnails: A title bar and a grip. Click the name in the title bar or the grip to open or close the group.

When a group is open all the layers it contains are displayed between the title bar and the grip and the folder icon on the group title bar will open up.

The group menu button on the right side of the title bar gives you options for the group including setting the group name and opacity value.

\section*{Naming Layers.}

If you want to give a layer a name so that it is easier to locate in the future click the Menu Button on the layer thumbnail and select the 'Set Layer Name' option. Enter a layer name and click OK and the thumbnail will update to show the new name. If you enter a blank name, the layer name will vanish from the thumbnail.

\section*{Creating New Layers.}

To create a new layer click the ' + ' button at the bottom of the Layers Panel. You can also select the 'Add Layer' option from the layer options menu. If you want to make a copy of the current layer select the 'Duplicate Layer' option from the layer options menu.

If you are using a tool that relates to a special layer type such as the Sticker Spray or Text Tool you do not need to create a new layer to use them. If you have a Paint Layer currently selected, clicking with either of those tools automatically creates a new layer of the correct type for their content. If you have already added a layer but have not added any paint to it, clicking in that layer with the Text Tool or Sticker Spray converts the layer to the appropriate type for editing with the tool

If you try to paint with a painting tool on a non Paint Layer ArtRage will automatically create a new layer for the paint to go on.

You can create a new Layer Group using the folder button at the bottom of the Layer panel or by selecting the Add Layer Group option in the layer options menu. When you create a new Layer Group it is added above the currently selected layer.

\section*{Moving Layers.}

You can move layers around in the stack to change the appearance of your Canvas. To move a layer click and drag it up and down.

While you are dragging, an arrow in the stack indicates where the layer will be dropped when you release the mouse button.

If the arrow points between the title bar and grip of a Layer Group the layer will be dropped in to the group. If the group is closed, the layer will not be visible in your stack when you drop it.

\section*{Exporting Layers.}

The layer options menu allows you to export the contents of a single layer to an image file. Because layers have transparency, you should export to a file type that supports transparency such as PNG if you are exporting a single layer.

The Export Layer To Channels option exports the layer to a series of files that contain the different values that make up an ArtRage layer including the color of the layer, its paint volume and its reflectivity. This option can be used if you want to import layers from ArtRage in to a 3D package for rendering.

\section*{Merging and Flattening Layers.}

You can merge multiple layers in to a single one if you are sure you do not want to edit them independently any more. This can save memory in large documents, or allow you to blend paint that was applied to different layers. To do this use the layer options menu.

Merging the current layer down causes the currently selected layer to merge with the layer directly beneath it. Merging all layers causes the entire painting to be merged in to a single layer. The contents of Layer Groups can also be merged in to a single layer by using the option menu in the group title bar.

\section*{Layers}

When layers are merged, any layers that are hidden are discarded. The merged result is intended to look like the Canvas you can currently see so before merging all layers or a layer group make sure that the right layers are visible.

If you want to use standard paint tools on a Sticker Layer or a Text Layer you will need to convert the layer to a Paint Layer. The Text and Sticker icons that appear at the top right corner of the layer thumbnail for those layer types provide an option to flatten the layer to paint. This converts the layer to a Paint Layer.

When you flatten a text or sticker layer you can no longer edit it using the original tool that created it. So if you want to edit text you add to a layer, avoid flattening that layer.

When a text or sticker layer is merged with any other layer it is automatically flattened.

\section*{Selections.}

ArtRage allows you to mark areas of your Canvas with a Selection. When an area is selected the operations you carry out are limited to that specific area. For example if you select an area then paint, the paint will only be applied inside the area you selected. Think of Selections as easy masking tools allowing you to block off areas of the Canvas you do not want to change.

This section explains what you can do with selections and how you can manipulate them. For information on basic selection creation see the Selection Tool section.

\section*{Working With Selections.}

The Edit Menu provides some basic tools for manipulating selections. Select All selects the entire Canvas, while Deselect All removes any current selection you have. Invert Selection selects the opposite of your current selection. Select Layer Contents is used to create a selection that matches the paint on the current layer.

Do not use Select Layer Contents before you use the Transform Tool, or you will leave semitransparent pixels on your Canvas. If there is no selection the Transform Tool will transform all the contents of the layer automatically.


When you have a selection active it is outlined on your Canvas by a series of animated dashes. Everything inside those dashes is selected, everything outside is unselected.

If you have used a feathered selection the dashes indicate the area of the selection that is \(50 \%\) opaque or more, there may be an area outside the dashes that can still have paint partially applied.

When you have a selected area it limits where paint can be applied on your Canvas. Painting outside the selection will not apply any paint, painting inside it will apply as much paint as the selection allows.

If you use Copy or Cut in the Edit Menu when a selection is active the contents of the selection will be copied to the clipboard.

If you click with the Transform Tool inside a selection the contents of that selection will be transformed. For more information see the Transform Tool.

\section*{Partial Selections.}


If you have a feathered selection or if you have painted a less than \(100 \%\) opaque selection using Paint Selection mode, your selection will contain pixels that are less than \(100 \%\) selected. This is the equivalent of adding masking tape that allows some but not all of the paint you apply through.

If you paint over a partial selection your painted result will be less than \(100 \%\) opaque.

If you Cut the contents of a partially selected area only some of the paint will be removed, leaving some of it behind.

\section*{Selection Shortcuts.}

While you are creating selections using the Selection Tool there are a number of keyboard shortcuts you can use to make the process faster.

While you are dragging to create a selection:
1. Hold down Shift when using the Rectangular or Elliptical tool type to lock the selection area to a square or circular aspect.
2. Hold down Option (Mac OS X) / Alt (Windows) to drag the selection from its center point outwards.
3. Hold down the Spacebar after you have started to drag to drag the position of your entire selection without changing its size.

If you already have a selection created:
1. Hold down Shift before dragging a new selection to Add the new selection to the old one.
2. Hold down Option (Mac OS X) / Alt (Windows) before dragging a new selection to Subtract the new selection area from the old one.
3. Hold down Shift and Option (Mac OS X) / Alt (Windows) before dragging a new selection to have the result be the intersection of the old and new selected areas.
4. When dragging your second selection, if you had any keys held down you can release them after the drag has started and press them again to constrain the aspect of your selection or create it from its center point as with the instructions above.

These shortcuts do not work when using the Paint Area tool type. Some of these options do not work when using the Magic Wand tool type.

When there is a selection active:
1. Press or hold down the arrow keys on your keyboard to move the selection 1 pixel at a time.
a. Hold down the Shift key to move 10 pixels at a time.
2. Click and drag inside the selection when the Selection Tool is active to move it.

\section*{Transformations.}

If you want to change the size, position, or rotation of something on your Canvas you can use the Transformation system. This system allows you to take all or part of a layer, a sticker, or text that you have entered and freely edit these properties. Items that can be transformed are: Paint Layers, Text Layers, Sticker Layers, and Stencils.


You can start a transformation either by selecting the layer you wish to transform and using the Transform option in the Edit Menu, or by selecting the Transform Tool and clicking the object you want to transform.

When an object is ready to be transformed the transform area is outlined with a set of handles that can be used to manipulate object.

Your cursor will change as you pass over the handles and areas of the transform area to indicate that you can drag. Exactly what happens when you click and drag there depends on the type of transformation being applied.

\section*{Normal Transformations.}

If you use the Normal Transformation Type in the Transform Tool (or if you trigger a Transformation using a menu option) you will be able to scal, move, and rotate the object you are transforming as follows:
1. Corner Handles: Click and drag these inward and outward to scale the object. If your object allows it, you can scale the horizontal and vertical axes differently. Hold down Shift to force the transformation to be applied equally to both axes and maintain the original aspect of the object.
2. Outside the Corner Handles: Click and drag just outside the corner handles to rotate the object around its center point. Hold down Shift to constrain rotation to 15 degree increments.
3. Edge Handles: Objects that allow you to scale the horizontal and vertical axes independently display handles on the edge of the transform area. Click and drag these handles to scale that axis only.
4. Inside the Area: Click and drag inside the transform area to move the object. Hold down Shift to constrain movement to one axis only.
5. Outside the Area: Click and drag outside the transform area to accept and end the transformation.
6. Right Click inside the Area: Opens a menu of options that can be applied to the object you are transforming.
7. Arrow Keys: You can move the object you are transforming using the arrow keys. Press a key to move it 1 pixel in that direction, or press Shift and an arrow key to move it 10 pixels.

If you are transforming a single sticker on a Sticker Layer that has multiple stickers you can press the Tab key to accept the transformation and move the outline to the next sticker, or Shift + Tab to move it to the previous sticker.

If you have a Multitouch input device and are using an operating system that supports it you can use Multitouch Gestures to manipulate the object you are transforming.
1. Use two fingers to drag on the object to move it.
2. Use two fingers and pinch inward or outward on the object to scale it.
3. Use two fingers and twist on the object to rotate it.

\section*{Non Uniform Transformations.}

The Transform Tool allows you to apply a Non Uniform Transformation. This type of Transformation changes the behavior of the Corner Handles that appear on the transform area.


While Normal Transformations retain the original rectangular shape of the transform area, Non Uniform Transformations allow you to drag individual corners out of line with their neighbors. This means you can stretch the object out of its normal shape.


Click and drag a Corner Handle to stretch the object.
As you stretch it, the entire contents of the transform area deform to fit the new outline you have created.


Hold down Shift while you drag a Corner Handle and the other Corner Handles will mirror its motion.

For example, if you Shift-Drag the bottom left Corner Handle to the left, the bottom right Corner Handle will move right, and the top Corner Handles will move horizontally towards each other.

Non Uniform Transformations do not present Edge Handles to drag.

\section*{Perspective Transformations.}

Perspective Transformations work line Non Uniform Transformations in that they allow you to drag a corner independently of the connected corners. When you do this, ArtRage treats the new shape as if it was a 3D surface that has been tilted. This causes the contents of the transform area to deform in a slightly different way to that of a Non Uniform Transformation, applying perspective to the result.


Non Uniform Transformation


Perspective Transformation

In the Non Uniform version you can see that the circle has been 'squashed' inside the transform area. In the Perspective version the circle is 'tilted' as the bottom left handle is dragged up, retaining its original shape projected in 3D.

\section*{Transforming Layers.}

If you transform a layer or group of layers the outline will be drawn large enough to contain the layers you are transforming.

If the layers being transformed include text or sticker layers and you transform the group in a way those layers cannot support (squashing them along one axis for example) you will be prompted before the transformation is applied. At this point you can choose to flatten the non Paint Layers so they can be squashed, leave them as their current layer type and transform them as much as possible, or cancel the operation.

When you transform layers ArtRage turns off its lighting effects to speed up the process of positioning. When you accept the transformation the lighting effect turns back on and you will see the texture of your paint again.

\section*{Tracing and References.}

ArtRage provides a range of tools to help you recreate existing images as paintings or guide you while you paint: Tracing Images and References.

Tracing Images are existing images that can be loaded in to ArtRage and projected on to your canvas to help you choose colors as you paint.

References are items that are pinned to the canvas to give you a guide while painting. They can be existing images, 'scraps' of paper to sketch ideas on or mix paint on, or views that display parts of your canvas while you work.

This section explain how to use these systems.

\section*{Pods.}


Tracing Pod: If you do not have a Tracing Image loaded clicking this Pod opens a file picker to allow you to load one. If you do have a Tracing Image loaded, clicking this Pod opens the Tracing Panel. Click and hold for a menu of Tracing Image options. This Pod contains a preview of the current Tracing Image if there is one.

Refs Pod: Clicking this pod opens the Reference Panel. Click and hold for a menu of Reference options. The Pod indicates how many References you currently have available.

\section*{Tracing Images.}

A tracing image is an existing image of any kind, such as photos or images produced in other software, that is loaded in to ArtRage and projected on to the Canvas like a film projected on to a wall. This allows you to use it as a
guide for shapes as you paint, and you can even use it to set the color that will be applied for each stroke. Using a tracing image allows you to recreate existing images using the painting tools in ArtRage and give them your own artistic touches.

Tracing Images are saved with your painting but if you export or print the painting they will not be visible. They are guides to painting projected on to the Canvas rather than paint on a layer.

\section*{The Tracing Panel.}


If you have a Tracing Image loaded and you click the Tracing Pod, or if you use the Tracing Panel option in the View menu, the Tracing Panel appears. This panel allows you to load or clear Tracing Images and manage their properties.

The preview at the top of the panel shows the current tracing image, it can be clicked to load a new one. Beneath the preview are three buttons for showing or hiding the tracing image, transforming it, and accessing the tracing options menu for setting the various properties of your image. At the bottom of the panel is an Opacity slider used to set how visible your tracing image is on the Canvas.

\section*{Managing Tracing Images.}

You can load a tracing image using the option in the tracing options menu in the Tools menu or on the Tracing Panel. This menu also allows you to clear the current tracing image. Clearing the image removes it completely, unlike hiding it which leaves it invisible but still usable.

The Convert Tracing Image To Paint option in the tracing image options menu allows you to convert the current tracing image to paint on the current layer.

\section*{Tracing and References}

When you select this option the tracing image is immediately recreated as paint on the Canvas so you can smear and work with it as if it was an imported image.

Converting a tracing image to paint does not remove the tracing image, it will remain visible on top of the converted layer. To see the converted paint color without the tracing image on top, just hide or clear the image.

\section*{Automatic Color Selection.}

ArtRage can automatically select colors from the currently loaded tracing image as you paint. The first time you load a tracing image this happens automatically, but you can turn the feature on or off using the tracing options menu in the Tools menu or on the Tracing Panel.

When the automatic color selection option is on the color picker updates to indicate this. Click the text to turn automatic selection off if you wish.

Every time you start a paint stroke with this option on ArtRage selects the color that is under your pointer in the tracing image. This lets you concentrate on the shape and flow of the strokes rather than the color.

You can still use the automatic color selection feature of Tracing Images if your image is hidden or at low opacity, those controls only display how visible it is to you.

\section*{Positioning Tracing Images}

The tracing options menu in the Tools menu or on the Tracing Panel allows you to set the scale of your tracing image. The options in the Tracing Image Scale menu allow you to control whether the image is stretched to fit inside the Canvas, stretched so that it retains its original shape but fills as much of the Canvas as it can, or repeated to fill the Canvas if it is too small to do so on its own.

The Manual Scale and Tile options allow you to use the Transform button on the Tracing panel to move and scale your tracing image as you wish. At any point while you are doing this you can use the reset option in the Tracing Image Scale menu to reset the image back to the center of your Canvas.

You can only click the Transform button on this panel if your Tracing Image is set to Manual Scale mode.

\section*{References.}

References are pieces of paper that are pinned to your canvas to act as a visual guide or aid to painting. There are three types of Reference, each of which has different properties:

Reference Image: An image such as a photograph that is pinned to the canvas to act as a visual guide.

Scraps: Scraps are mini-canvases you can paint on. They are pinned to the canvas and can be used as mixing palettes or test areas for painting without altering your canvas.


Views: Views are alternative 'windows' in to the canvas. A view can be set to display all or part of the canvas and lets you zoom and pan independent of the main canvas window to view other areas while you work.

This section explains the differences between the three types and how you work with them from the References Panel.

\section*{The References Panel}


When you click the References Pod the References Panel opens. In this panel is a list of all the References currently available.

Each item in the list has an icon at the top right indicating what type of Reference it is. Clicking that icon brings up a list of menu options for it.

At the bottom of the list is a set of buttons for adding new References and accessing general Reference menu options.


When you hover the mouse over one of the References in the list, a Show/Hide button appears. Click it to toggle the visibility of the Reference. This button will remain visible when your pointer moves away from it if the Reference is hidden.

\section*{Manipulating References.}

You can add or remove References using the Reference Options menu in the Tools menu or from the References Panel. To remove an individual Reference either use its menu in the list in the References Panel or right click the Reference itself for options.

You can manipulate the size, position and rotation of a Reference by clicking and dragging on its area in various ways.
1. Move: Click and drag in the control tray at the bottom of the reference, or right click and drag the reference anywhere inside its body.
2. Scale: Click and drag in the white border at the corners of the reference.
3. Rotate: Click and drag in the white border on the edges of the reference.

If you have a Multitouch input device and are using an operating system that supports it you can use Multitouch Gestures to manipulate the Reference you are transforming.
1. Use two fingers to drag on the Reference to move it.
2. Use two fingers and pinch inward or outward on the Reference to scale it.
3. Use two fingers and twist on the Reference to rotate it.

You can drag References anywhere on your desktop, they do not need to stay inside the area of the canvas.

Right click a Reference for additional options you can use to hide or remove the reference.

\section*{Reference Controls.}


Every Reference has a set of controls that appear underneath it in a 'tray' that slides out when your mouse is pointing at the Reference. These controls allow you to access the Reference Options menu for the specific Reference, and manipulate its contents.

Different types of Reference have different controls and options detailed below but there are some controls common to all Reference types:

Type Icon: You can tell what type of Reference an item is by looking at its Type Icon. Click the icon to get a menu of options for the specific Reference.


Internal Scale: You can change the scale of the contents of the Reference by clicking and dragging on this control. This does not scale the Reference, it scales the image you can see inside it.

Internal Position: You can change the position of the contents of the Reference by clicking and dragging on this control. This does not move the Reference, it moves the image you can see inside it.

\section*{Reference Images.}


Reference Images are pre-existing images that can be pinned to the canvas to act as a guide while painting. When you create a new Reference Image you will be asked to load an image from disk.

Reference Images display the name of the file that created them in their control tray.

Hold down Alt (Windows) / Option (OS X) to sample color from a reference image.

\section*{Scraps.}


Scraps are mini-canvases that can be painted on using the current tool.

Scraps can be used as mixing palettes, pieces of paper for jotting down notes or ideas, or surfaces for experimenting with tool settings without having to edit your main canvas.

Scraps use whichever tool is currently selected in the main tool picker and whatever color is currently selected in the main color picker.

Scraps have their own Undo / Redo system that can be accessed using the Undo and Redo buttons on the Scrap's tool tray.

You can sample color from a scrap by holding down Alt (Windows) or Option (OS X) and clicking inside it.

\section*{Views.}


Views are alternative displays of your canvas that update live as you paint.

Painting in a View will apply paint to the main canvas in the area the View indicates, on the current layer, and any paint applied in the main canvas will be displayed live in the View.

Views allow you to keep track of specific areas of the canvas when you need to monitor how changes you are making might be adjusting areas you're not zoomed in to or not looking at directly.

Use the Internal Scale and Internal Position controls to change which part of the canvas is displayed by your View.

\section*{Stencils.}

Stencils are used to create precise shapes or lines on your Canvas. They work just like a piece of plastic or wood placed on the Canvas, allowing you to paint over them without the paint applying to the Canvas beneath, or draw around them to make outlines

\section*{Stencil Modes.}

Stencils come in three different types which have different properties on your Canvas: Stencil, Ruler, and Guide. Stencils you place on the Canvas can be switched between these modes whenever you like.


Stencil: A stencil just prevents paint from being applied underneath it on the Canvas. Stencils appear red on the Canvas.


Ruler: Rulers help guide your cursor to create lines on the Canvas. Rulers appear grey on the Canvas.

Any Stencil can be turned in to a Ruler but only the default Ruler object has measurement marks along its length.


When your cursor approaches a ruler and 'bumps' against it, it will stick as if it was a pen against a physical ruler.

You can then draw roughly along the edge of the ruler and a straight line will be generated.


The easiest way to draw a line that starts against a ruler is to start drawing on the ruler itself. Start drawing on the ruler and the stroke will start on the Canvas against the ruler edge.

When you draw against a ruler your paint does not go underneath it.


Guide: Guides work exactly like Rulers but they do not prevent paint from being applied to the Canvas underneath them. This allows you to use a guide to precisely plot out the centre line of a stroke with paint applied on either side. Guides appear blue on the Canvas.

\section*{Stencil Transparency.}


Like real world stencils, ArtRage stencils have solid areas and areas that let paint through. Unlike real world stencils however, ArtRage allows your stencils to be partially transparent.

A stencil with different levels of transparency allows differing amounts of paint through to the Canvas. If you load an existing image as a stencil the different levels of brightness in the image define the transparency.

Loading a photograph as a stencil lets you lay down paint on top of it and see the image beneath when it is removed.

\section*{The Stencils Pod.}

Clicking this pod opens the Stencils Panel. Clicking and holding it brings up a menu of available Stencils for easy selection, and other useful Stencil menu items.

\section*{The Stencils Panel.}

The Stencils Panel contains all the stencils available for use in ArtRage. In this panel you can select and organize your stencils and import new ones from disk. On the left side of the panel is a list of groups of stencils. When you select a group the right hand side of the panel updates to show the stencils that are available in that group.

A lock icon on a stencil indicates that it was installed by ArtRage and cannot be overwritten, you can still select it.

Right click an item in the panel to delete or rename it from inside the application.

\section*{The 'Active' Group.}


The Active group contains a list of all the stencils you have currently placed on your Canvas. Each stencil is represented by a preview and when your point at it with your cursor two buttons fade in. The Eye button is used to show or hide the stencil, and the Menu Button provides options for that specific stencil on the Canvas.

If a stencil is hidden the Eye button remains visible when the cursor leaves the area of the preview.

The stencil preview indicates the rotation of the stencil and the current mode it is in through its color.

\section*{Manipulating Stencils.}

To use stencils you have to add them to your Canvas. Stencils are utilities like panels or References so they do not appear in the final printed picture or if you Export a copy of your painting, they sit on the Canvas and act as guides or masks and can be moved and deleted without damaging paint.

\section*{Adding and Removing Stencils on the Canvas.}

To add a stencil that is already in your collection to the Canvas you can either click its preview on the right of the panel or click and drag its preview. If you click and drag, the stencil will appear on the Canvas and you can position it before releasing the mouse button.

Stencils in the Active group cannot be clicked to add to the Canvas.
If you want to load a stencil from disk and place it directly on the Canvas without importing it to the stencil collection, use the menu button at the top right of the Stencils Panel and choose 'Select Stencil From Disk...'. This allows you to load an image to use as a stencil, it can be done for Rulers and Guides too.

You can also add a stencil to the Canvas by selecting 'New Stencil From Layer Contents' from the Stencil Options Menu. This option creates a stencil that surrounds the contents of the current layer.

To remove a stencil from the Canvas right click it and select the remove option from the popup menu. You can also use the menu button for the stencil preview in the Active Stencil group of the Stencils Panel.

\section*{Positioning Stencils.}

Once a stencil is on the Canvas you can position it freely. Because you may need to start a paint stroke on top of a stencil you can't just click and drag them to move them. To move a stencil you should select the Transform Tool and click the stencil you want to move.

For information on how to use the transformation outline to position the stencil see the section on Transformations.

Stencils have a Pin that attaches them to the Canvas. The pin is also used as the point around which stencils will rotate and scale. To move the pin click and drag on the pin head.

You can also position stencils by Right Click Dragging them. Right click drag to move, Cmd (Mac OS X) / Ctrl (Windows) + Right Click Drag to rotate. Option (Mac OS X) / Alt (Windows) + Right Click Drag to scale.

If you have a Multitouch input device and are using an operating system that supports it you can use Multitouch Gestures to manipulate the Reference you are transforming.
1. Use two fingers to drag on the Reference to move it.
2. Use two fingers and pinch inward or outward on the Reference to scale it.
3. Use two fingers and twist on the Reference to rotate it.

You can also use the right click menu for the stencil on the Canvas, or the menu button for the stencil in the Active group of the Stencil Picker to flip the stencil, set its angle precisely, or invert it.

The Reset options in the stencil's right click menu allow you to set the stencil to its actual \(1: 1\) scale for pixel precision, and reset the pin to its default central position.

\section*{The Straight Line Ruler.}


At the top of the Rulers group in the Stencil Panel is the straight line ruler. This ruler can be rotated and changed in length using the grips at either end. Click on the grip and drag it to the point you want the ruler to end.

The straight line ruler displays pixel dimensions for your painting and a print dimension value for your current units and Points Per Inch setting in the New File Dialog or Resize Panel. These can be adjusted from the right click menu on the Stencil.

\section*{Stacking Stencils.}


You can stack stencils on top of each other for cumulative effect. This works for all modes of stencil so if you want to create complex ruler paths, just place rulers against each other and draw around them.

\section*{Adding Stencils to the Collection.}

New stencils and groups of stencils can be added to the collection using the Stencils Panel. At the top left of the panel is a New Group button that allows you to add a new group, and on the right of the groups is an Import Stencil button that allows you to import a new stencil from disk.

When you select the Import button you are presented with a file dialog in which you can choose an image to import. The image you select is imported in to the current group. If there is already a stencil with the same name as the image you will be asked to change the name and try again.

Your Stencil Collection exists on disk as a series of folders representing groups and files representing stencils. You can access the folder in which all of your user stencils are contained using the 'Open User Stencils Folder' option in the Stencil Options Menu.

\section*{Creating New Stencils}

If you create a stencil using the 'New Stencil From Layer Contents' option in the Stencil Options Menu it will not appear in the collection. To add it to the collection right click the stencil on the Canvas or use the stencil's menu button in the Active group and select Store Stencil In Collection.

A file dialog appears pointing to the location of your user stencils and you can save the stencil there.

\section*{Stickers.}

Stickers are individual images that can be peeled off a sheet and stuck to your Canvas, or sprayed on to the Canvas using the Sticker Spray tool. Stickers can be anything from objects such as sparkly gold stars, pebbles, and leaves to artistic effect stickers that simulate painting styles. This section shows you how to use stickers in your painting and how to create new ones.

\section*{Sticker Properties.}


Stickers can contain more than just color information. Each sticker can have its own texture and even its own reflectivity, like a transparent plastic domed sticker you get from the supermarket.

Stickers can be tinted when they are added to the Canvas, and have their opacity and shadow adjusted. If you want to place a rock in to a scene you might not want it casting a shadow, but if you're sticking a gold star or seashells to a photo the shadow can look good.

Normal layers lose quality when you change their size or rotate them, but stickers can be sized and rotated as much as you like without damaging their contents.

\section*{Flattened and Floating Stickers}

The most important property of a sticker is whether it has been flattened or not. Flattened stickers are applied to the Canvas as if they had been painted on and they cannot be edited in way normal stickers can. Floating stickers can be moved, scaled, and rotated as much as you wish.

When you apply a single sticker to the Canvas by peeling it off a sticker sheet, it will always be Floating. When you use the Sticker Spray to can choose to have it either spray Flattened or Floating stickers. For more information see the Sticker Spray.

\section*{The Stickers Pod.}

Clicking this pod opens the Sticker Collection Panel. Clicking and holding produces a menu of available Sticker Sheets for easy selection. Select a sticker sheet and it opens for use.

\section*{The Stickers Panel}

The Stickers Panel contains all the sticker sheets available for use in ArtRage. In this panel you can select and organize your sticker sheets and import or create new ones. On the left side of the panel is a list of groups of sticker sheets. When you select a group the right hand side of the panel updates to show the sheets that are available in that group.

A lock icon on a sticker sheet indicates that it was installed by ArtRage and cannot be overwritten, you can still select it.

When you click a sticker sheet on the right hand side of the panel it opens up and you can use it to apply single stickers to your Canvas.

Right click an item in the panel to delete or rename it from inside the application.

\section*{Sticker Sheets.}


Stickers are organized in to sheets like the collections of stickers you can buy in stationary suppliers. There might be a sheet of numbers or letters, a sheet of shapes or a sheet of types of leaf.

When you click a sticker sheet preview in the Stickers Panel the sheet opens up for use.

\section*{Adding Single Stickers to the Canvas.}

If you want to add stickers to the Canvas one by one you can do so using a sticker sheet. To open a sticker sheet, locate it in the Stickers Panel and click its preview. When you click the preview the sheet opens up for you to use.

To add a single sticker from the sheet to the Canvas just click it and it appears on the Canvas. If you prefer, you can click and drag it from the sheet to the desired point on the Canvas.

When you complete the drag, or finish the single click, the sticker appears on the Canvas with a transformation outline. For more information on using the transformation outline see Transformations.

A single sticker on the Canvas is represented by an entry in the Layers Panel. In that panel you will see the sticker you just added along with an icon indicating it is a sticker. You can drag it around in the Layers Panel the same way you would any other layer. For more information see Layers.

Adding single stickers is great if you want to place some specific items at precise points on the Canvas, such as oranges on a plate, or seashells on a photo border.

\section*{Spraying Stickers on the Canvas.}

Sometimes you want to add many stickers to the Canvas at once. The Sticker Spray lets you do this by automatically selecting stickers from a sheet and spraying them on to the Canvas as you paint with it.

For full information on the basic settings of the Sticker Spray see the Sticker Spray section.

When you spray stickers to the Canvas they are either sprayed as flat or floating. Flat stickers will spray directly on to existing paint layers, but floating stickers will create a new sticker layer if there is not one already selected. Even though the floating stickers all apply to a single layer they can still be individually manipulated, the layer is just a way of collecting all the stickers you spray with the tool together so that you don't end up with thousands of layers in your painting!

\section*{Manipulating Stickers.}

Floating Stickers on the Canvas can be positioned and adjusted after they have been created. Flattened stickers are just paint on the Canvas so you can smear and blend them like paint but you cannot change their nature once they have been applied.

\section*{Moving Stickers.}

Because stickers are part of the Canvas they must be used moving the Transform Tool. To move a sticker select the Transform Tool and click the sticker to transform. The transformation outline appears around the sticker and you can use that to scale, rotate, and move it. For more information on the transformation outline see Transformations.

If you have a layer with multiple stickers on it you can press the Tab key while transforming a sticker to select the next one to transform, or Shift + Tab to select the previous one.

If you have a Multitouch input device and are using an operating system that supports it you can use Multitouch Gestures to manipulate the Sticker you are transforming.
1. Use two fingers to drag on the Sticker to move it.
2. Use two fingers and pinch inward or outward on the Sticker to scale it.
3. Use two fingers and twist on the Sticker to rotate it.

\section*{Changing Sticker Color Properties.}

Stickers can have their basic tint and opacity adjusted after they are applied. Right clicking a sticker brings up a set of options that can be used to adjust these properties.

Stickers are objects on the Canvas so their layer must be selected to make them active before they can right clicked.

Changing the sticker tint brings up a Precise Color Picker that allows you to tint the sticker as you want. Changing the sticker opacity lets you enter an opacity percentage manually.

\section*{Sticker Shadows.}


Right clicking a sticker gives you the option of changing its shadow properties. The Shadow Panel gives you control over the size, position, color and opacity of the shadow using sliders. Click and drag in the preview to the left to set the position manually.

You can click the color sample to select color using a Precise Color Picker, or click and hold to use a Popup Color Picker.

\section*{Erasing Stickers.}

To erase a single sticker layer you can delete its layer as you would any other layer using the menu button that appears when the cursor points at the layer in the Layers Panel.


If you have more than one floating sticker on a layer you can erase single stickers using the Eraser Tool. Select the layer with the stickers on and select the Eraser Tool, then click the stickers you wish to erase and they will disappear.

Because floating stickers are real objects on the Canvas, stickers behind ones you erase are still whole so they will show through from underneath.

\section*{Sticker Spray Variation.}

The Sticker Spray has a large number of properties that are used to decide the appearance of the stickers that are sprayed. These are controlled in the Sticker Spray Variation panel. To open this panel click the 'Spray Variation' button on the Settings Panel when the Sticker Spray is selected, or select the option from the View menu.

The Spray Variation Panel is laid out in a large grid that gives you a number of Properties that can be adjusted down the left hand edge, and Values used to adjust them along the top edge.

Each Property can be adjusted by as many Values as you wish, by a certain amount varying from \(-100 \%\) to \(+100 \%\). With 10 Properties and 14 Values this gives you an enormous number of potential adjustments you can make to the spray.

Every time the Sticker Spray goes to spray a sticker on to the Canvas it uses the information defined in the Spray Variation Panel to decide which sticker to spray, and what properties to apply to it as it sprays.

\section*{Setting Variation.}

Each Property on the left that is used by the Sticker Spray can be set to vary based on the Values on the top. For example the Scale Property could be set to vary based on the Pen Pressure, meaning the harder you press as you paint the larger the sprayed sticker can become.

Each slot in the grid contains a token that indicates the current state of the variation being applied to the Property by the Value.


No Token: If there is no token in the slot then no variation is applied to the Property by the indicated Value.


Green Token: A green token indicates a positive variation ( \(1 \%\) to \(100 \%\) ) applied to the Property by the indicated Value. For example Scale set by Pen Pressure using a green token makes the scale Increase as Pen Pressure increases.


Red Token: A red token indicates a negative variation (-1\% to \(-100 \%\) ) applied to the Property by the indicated Value. For example Scale set by Pen Pressure using a red token makes the scale Decrease as Pen Pressure increases.

To set a variation, click and drag up and down in its slot. If you drag up the variation becomes positive (a green token appears). If you drag down, the variation becomes negative (a red token appears). As the value changes the token adjusts like a clock face to indicate the approximate value at a glance.

As you point at various slots an information outline will appear showing exactly what properties are being adjusted and the amount of adjustment.

To set a value back to 0 , invert it, or set it manually in text just right click the slot and use the options there.

If you click on any column or row text header you can clear, invert, or set the value for that entire row or column!

If multiple Values are used to vary a single Property each Value is calculated in turn. For example if you have X Distance and Pen Pressure varying Scale, the eventual scale is decided by adjusting by its X Distance variation then adjusting that result by its Pen Pressure variation.

\section*{Variation Properties.}

The following properties of the spray and stickers can be adjusted in this panel:
1. Sheet Row, Sheet Column: Tells the Sticker Spray which Column or Row of the sheet to choose stickers from as it sprays. Sticker sheets do not have to be laid out in a grid but ArtRage identifies an approximate column and row value for the stickers on a sheet when you import it.
2. Scale: Tells the Sticker Spray how large each sticker should be.
3. Rotation: Tells the Sticker Spray how much rotation to apply to each sticker.
4. Hue, Luminance, Saturation: Tells the Sticker Spray what tint should be applied to each sticker.
5. Alpha: Tells the Sticker Spray how opaque to make each sticker.
6. Offset: Tells the Sticker Spray how far to place each sticker from the cursor point.
7. Sticker Sequence: Tells the Sticker Spray what order to select stickers from the sheet as it places them.

\section*{Variation Values.}

The following values can be used to adjust Properties in this panel:
1. Base Value: A set value is applied to the property. Eg. Scale at \(+100 \%\) makes each sticker as large as it can be.
2. Random: A random value is applied to the property. The larger the variation amount the greater the random value can be from 0 . Eg. Alpha at Random \(-100 \%\) makes the each sticker vary between fully opaque and fully transparent.
3. Sequence: The index of the sticker in the stroke is applied to the property, so the fifth sticker to be placed is index 5 for example. This value loops, if it reaches the minimum amount the Property can be it resets to the maximum and vice versa. Eg. Luminance at Sequence -2\% makes each sticker slightly darker than the last.
4. Tracing \(\mathbf{H}, \mathbf{L}\), and \(\mathbf{S}\) : The color values of the Tracing Image are applied to the property. Eg. If the \(H, L\), and \(S\) properties of the sticker are set to vary \(100 \%\) based on the Tracing H, L, and S, the stickers will adopt the color of the tracing image beneath them. Note that these values are offsets from 0 , so the color may not match completely if the sticker color is varied heavily from a basic red.
5. Tracing Alpha: The transparency of the Tracing Image is applied to the property. Areas outside the tracing image are considered to be fully opaque. If your Tracing Image has an alpha channel its alpha value is used to vary the property. If no tracing image is loaded the currently selected color is used Eg. Sticker Alpha at Tracing Alpha 100\% varies the sticker opacity significantly.
6. Pen Pressure, Pen Tilt, Pen Rotation: If your input device supports these features the property is varied based on the value your input device indicates. Eg. Size at Pen Pressure 100\% makes the sticker get larger the more pressure is applied.
7. Stroke Direction: The direction you are painting in is applied to the property. Eg. Sticker Rotation at Stroke Direction 100\% rotates the sticker so that it points in the direction you are drawing.
8. X Distance, Y Distance, Center Distance: Uses the location of your stylus in the Canvas to define the property. X and Y distance refer to the left to right and top to bottom distances, so low \(X\) distance is at the left of the Canvas, low \(Y\) distance is at the top. Center Distance refers to the distance from the center of the Canvas, so low Center Distance is right in the middle. Eg. Size at Y Distance -100\% makes the stickers smaller the closer they get to the top of the Canvas.
9. Airbrush Wheel, Pen Twist: If your input device is a stylus that has an Airbrush Wheel or that supports barrel rotation, the property is adjusted by variations in those values. Eg. Rotation at Pen Twist \(100 \%\) makes the sticker rotate as you rotate your stylus.

\section*{Object Sprays and Image Brushes.}

There are two default sets of values you can apply to the variation system using the menu button in the Spray Variation Panel:

Set Up Settings For Object Spray: Sets up the variations so that the Sticker Spray will produce a spray of random objects from your selected sticker sheet.

Set Up Settings For Image Brush: Set up the variations so that the Sticker Spray will produce a continuous stroke of paint that adopts the currently selected color (or Tracing Color if color selection is automatic) as if it was a shaped brush head.

Image Brushes are really just a single sticker on a sheet that is used to place shaped impressions of color on the Canvas continuously as you paint. They do not blend paint like other painting tools but they can be used to create a huge range of artistic brush types that have very specific appearances, such as sparse bristle brushes and matted hair brushes.

These two default settings give you a starting point for creating new Sticker Spray presets

\section*{Adding New Sticker Sheets.}

Before they can be used, sticker sheets must be added to the sticker collection. This section explains how to do that.

\section*{Importing a Sticker Sheet.}

At the top of the Stickers Panel is an Import button. This button allows you to locate an ArtRage sticker sheet file and select it for import. When you select the sheet it is copied to the correct folder for the current sticker group visible in the panel.

You cannot import a sticker sheet that has the same name as a sheet already in the category. If you try to do so you will be asked to rename the sheet and try again.

Once the sheet has been imported it should be visible in the list of sheets for the current category and can be selected from the picker or used in the Sticker Spray.

\section*{Creating a Sticker Sheet.}

New Sticker Sheet


To create a new sticker sheet click the New button in the Stickers Panel. When you click this button the New Sticker Sheet Panel appears. There are three main control sections:
1. At the top of the panel you can select the group to put the sticker sheet in and the name to use for it. The Menu Button allows you to create a new group and import an existing sticker sheet to edit if you wish.
2. On the left of the panel is a preview of the current component of the sticker sheet you are working on.
3. On the right is a series of slots that can be filled with images. Each slot represents a property of the sticker on a back or front layer. Each slot can be clicked to load an image (or the '...' button can be clicked), and when an image is loaded the ' \(x\) ' button can be clicked to remove it.
4. At the bottom is a pair of sliders that allow you to indicate how many columns and rows of stickers you are importing in your image.

Stickers are constructed from two layers each containing optional color, texture, gloss, and metallic images. The contents of the Upper Layer sit on top of the contents of the Lower Layer, but by creating combinations of images you can create complex multilayer effects such as stickers that have texture underneath a smooth glossy dome, giving your stickers internal highlights as they are moved around on the Canvas.

\section*{To Create The Sheet:}
1. Prepare your images (see below).
2. Click each of the slots on the right and load in the image that will be used for its property.
a. You can click a slot that already has something in it to see it previewed on the left.
3. Select how many columns and rows are in your sheet.
4. Select a group and name for the sticker sheet.
5. Click OK.

When you click OK the name of your sheet is checked. If you are attempting to overwrite an existing sheet you will be warned and allowed to continue or cancel and choose a new name. If the sheet you are attempting to overwrite is one of the sheets installed with ArtRage you will be asked to choose a new name, you cannot overwrite those sheets.

\footnotetext{
You can drag images between slots. Click and drag the image from a slot to make a copy of it in another slot.
}

\section*{Sticker Sheet Images.}

Images are used to tell the stickers what color they are, what texture they have, how glossy they are and how metallic their color is. You can prepare one or more of these images for your sticker sheet.

The panel that creates sticker sheets constructs them by importing items from a grid. When you create your images, make sure they are all the same size and that the areas of interest inside them are laid out identically in a grid.

\section*{Color Image:}

The most important image for most sticker sheets is the Color Image. Without a Color Image the sticker will just be a texture on the Canvas.


The Color Image supports 32-bit color, that is to say full color with a transparency map. Any type of image can be used as the Color Image but only types that support transparency, such as PNG, can give ArtRage this additional information.

If you do not use a Color Image that has transparency, your stickers will be square. If you want them to take on the shape of the item you are creating (such as the baubles in this example) make sure they have a transparent background. The checkerboard in the example above indicates transparency.

If you have a Color Image on the Upper and Lower Layers of the sticker the Lower Layer will be covered by any non transparent area of the Upper Layer.

\section*{Texture Image:}

The Texture Image gives a textured surface to the sticker. Without it the sticker is just a flat piece of paper on the surface of your Canvas.


The Texture Image is a greyscale height map in which the brighter areas indicate the higher points of the texture.

To create a Texture Image it is usually wise to take the shape of the items you have placed in your Color Image and create your texture based on those.

If the Color Image has transparency, there will be no sticker substance where the image is completely transparent and your texture will not show through.

Here, we have created a height map for the baubles that will create a curve over the surface of sphere, note how the height map goes from dark at the edges to light in the center. Also note how the position of the detail in the Texture Images matches identically the position of the detail in the Color Image.

\section*{Gloss Image:}

The Gloss Image defines which parts of the surface of the sticker are shiny. Generally, shiny parts will only be visible where there is texture that changes the angle of the surface so that light reflects.

The Gloss Image is a greyscale image that follows the same requirements as the Texture Image. Lighter areas are more glossy, darker areas are more matte.

\section*{Metallic Image:}

The Metallic Image defines which parts of the surface have metallic reflection. Metallic reflection changes the color of the surface where light reflects from it so the easiest way to see it is to have texture as well as your Metallic Image.


The Metallic Image is a greyscale image that follows the same requirements as the Texture Image. Lighter areas are more metallic, darker areas are more plastic.

\section*{Text.}

The Text Tool allows you to create editable areas of text on your Canvas. These areas can be moved, scaled, and rotated freely and still edited. For more information see the section on the Text Tool. This section explains how to use the text system while you are editing.

\section*{Working With Text - Text Edit Mode.}

To create a new text item select the Text Tool and click on the Canvas. If you have clicked a blank area of the Canvas a new text layer is created and a blinking caret appears showing where text will be entered.

If you click on text that is already on the Canvas that text becomes editable, no new layer is created.

While the caret is visible you are in text editing mode. To exit this mode and accept the changes you have made either press the Enter key on your numeric keypad, or if you do not have one select a different tool or click anywhere other than on the Canvas. If you wish to cancel your edit, press Escape on your keyboard and your text will be reverted to its original form. While editing text you can also use the Undo and Redo buttons on the ArtRage Menu to undo or redo the last edit.


While you are editing text you can select characters to apply specific formats to. Click and drag over the characters you wish to select, or hold down the Shift key and use the Arrow Keys on your keyboard to navigate to the end of the area you wish to select.

If you make changes in the Text Settings Panel while text is selected, the selected text will be changed.

> Remember that Text Layers cannot be painted on, a new layer will be created if you try to paint on one.

When you type text the current color is used for each character. Clicking in the Color Picker will not turn off text editing mode so you can still use it to change colors as you type.

Text supports metallic color too! Turn the metallic value up and the texture of your Canvas will make the surface of the text reflect in metallic fashion.

If you copy characters from another application you can paste them in to your current text item using the Paste shortcut key while you are in text edit mode.

\section*{Manipulating Text.}

If you are not in text edit mode, you can edit a piece of text by selecting its layer and clicking it with the Transform Tool. This creates a transformation outline you can use to edit the position, scale, and rotation of the text. For more information see Transformations.

If you are currently editing text you can transform it by clicking and dragging on the Canvas.
1. Move: Click and drag outside the area of the currently editable text to move it.
2. Scale: Hold down Option (Mac OS X) / Alt (Windows) and click and drag outside the area of the currently editable text to scale it.
3. Rotate: Hold down Cmd (Mac OS X) / Ctrl (Windows) and click and drag outside the area of the currently editable text to rotate it.

\section*{Image Adjustment and Filters.}

ArtRage provides three basic forms of image adjustments and filters which can be found in the Edit Menu: Blur Layer, Adjust Layer Colors, and Add Noise.

ArtRage also supports Adobe Photoshop format Filters. You can find a list of installed filters in the Edit menu under Filters. Selecting a Filter from that list will launch its interface and allow you to apply its effects to the current ArtRage layer.

If you try to adjust a non Paint Layer you will be asked to flatten the layer before the panel opens, you can only apply adjustments to Paint Layers.

\section*{Blur.}


If you want to apply a blur to the contents of the current layer select the Blur Layer option in the Edit Menu.

The preview image at the top of the panel shows what the layer will look like after blur. Drag in the preview to select the area of the Canvas you want to display. As you change settings the preview will update instantly and the contents of the canvas will update as they can with a more detailed preview to avoid slowing you down.

The 'Blur Radius' slider adjusts how much blurring is applied. Click OK to apply the blur, or Cancel to close the panel and leave the canvas unchanged.

\section*{Color Adjustment.}


If you to make changes to the color on a layer select the Adjust Layer Colors option in the Edit Menu. This brings up the Adjust Colors Panel.

The preview image at the top of the panel shows what the layer will look like after color adjustment. This preview works like the one in the Blur Panel described earlier.

Click OK to apply the changes, or Cancel to close the panel and leave the canvas unchanged.

The following settings are available in the Adjust Colors Panel:
1. Brightness, Contrast: Adjusts the brightness and contrast of the image, ranges from \(-100 \%\) to \(+100 \%\).
2. Hue, Color: Adjusts the hue and saturation of the image, ranges from \(-100 \%\) to \(+100 \%\).
3. Flatten Layer To Bitmap: Causes the texture of the paint to be flattened to pixel colors rather than rendered dynamically. Select this if you want your color adjustment to work on the highlights and shadows in the bumps and dents of the paint on the layer.
4. Colorize With Paint Color: Causes any completely grey areas of the layer to be tinted with the currently selected paint color. Set the 'Color' above \(0 \%\) slider to adjust how much tint is applied.

\section*{Add Noise.}


This filter allows you to add simple noise to any paint that has already been applied to the layer.

The preview image at the top of the panel shows what the image will look like after the noise has been applied. Drag in the preview to select the area of the canvas you want to display.

The following settings are available in the Add Noise Panel:
1. Intensity: Controls how much noise is applied to the image. The higher the value, the more noise will be applied.
2. Gaussian Falloff: If this option is turned on the noise generation system uses a Gaussian Falloff model, which changes the general smoothness of noise application.
3. Monochrome: If this option is turned on the noise that is applied will be monochromatic, shifting between darker and lighter variants of the current paint color. If it is turned off the noise that is applied will have hue variations.

\section*{Compatible Filters.}

Because Photoshop filters were not written specifically for ArtRage only some of them are compatible. ArtRage supports .8bf format filters only (including 8BF type filters on Mac OS X), other types of plugin will not work.

A list of incompatible filters is maintained by the application so if your filter does not appear it may already have been determined to cause problems when running in ArtRage.

Ambient Design cannot provide support for any third party plugin used in ArtRage or guarantee that it will operate correctly. If you are having problems getting a filter going or want to know if something will be compatible before purchase, please ask in the Technical section of the ArtRage Forums at http:// www2.ambientdesign.com/forums. Someone there may be able to answer your questions.

\section*{Adding Filters.}

There are two ways to add Filters to ArtRage. The first is to install them to the ArtRage Filters Folder, and the second is to tell the application to look in an existing filters folder for another application.

You must restart ArtRage after installing Filters for it to detect them.

\section*{Installing in the ArtRage Filters Folder.}

The ArtRage Filters folder is located in the ArtRage User Contents folder. This folder does not exist until it is required so before you install filter go to the Tools menu and in the User Content menu select Open ArtRage Filters Folder. This option creates the folder and opens it for you.

You can now install filters to the folder. The location of this folder varies depending on your operating system, and in some cases can be hidden by default. If you need to locate it for an installer to work please open the folder using the menu option and use your operating system tools to locate the folder in relation \(t\) the rest of your folders.

\section*{Scanning External Folders.}

It can sometimes be easier to tell ArtRage to scan an external folder to locate Filters. To add folders to the list of items to be scanned use the Filters section of the Preferences Panel which can be found under the Edit menu.

The Filters section presents you with a list of folders that will be scanned for filters. If you have filters installed for another application or outside the ArtRage Filters Folder click the + button and locate the folder that contains the filters on disk.

When you point the mouse at a filter in the list an ' \(x\) ' button appears. Click that button to remove the folder from the list.

You must restart ArtRage after changing the list of filter folders for changes to take effect.

\section*{Filters and Layers.}

Because they were not designed to work with ArtRage, Photoshop Filters do not recognize the additional information ArtRage stores with its layers such as the volume of paint on the Canvas and how wet it is. This means that when you apply a filter to a layer in ArtRage the layer is converted in to a flat image and while you can still work on it with the painting tools it will not smear as easily as before.

If you use a filter on a Sticker or Text layer you will be prompted to flatten the layer to an image first so that it can be edited.

\section*{Preferences.}

ArtRage provides two main areas of customization that are accessed from the Edit menu: Application Preferences and Keyboard Shortcuts.

\section*{The Preferences Panel.}

The Preferences Panel presents a series of categories of settings for various elements of the product. To open the panel use the Preferences Panel item in the Edit menu.

The Preferences Panel contains a series of groups of settings. Click a grey header and its settings will become available. Click again and the group will close.

The menu at the top right allows you to reset your preferences and manage which groups are open.

Some settings require that you restart ArtRage for them to take effect, you will be prompted if you change anything that will require this.

\section*{Interface.}

Settings for controlling the look and feel of ArtRage come under the Interface group. These settings are

Tooltip Delay: Controls how long you must hover over an object before its Tooltip appears.

Play Sounds, Play Animations: Controls whether ArtRage plays sounds and animations for panels and events

Show Menus In Menu Bar (Mac OS X Only): If this option is turned on the ArtRage menus will appear in the ArtRage menu bar as well as the OS Menu Bar. This can be useful if you are using ArtRage on a second monitor that does not have an OS menu bar on it.

Background Color: Allows you to set the color of the workbench behind the Canvas. This color becomes visible if you move the Canvas. Click to set using a Precise Color Picker, click and hold for a Popup Color Picker.

Control Tint Color: Allows you to set the tint color applied to controls. The color sample can be clicked for a Precise Color Picker or clicked and held for a Popup Color Picker.

The Menu button allows you to store custom tints in the list of available tints below and manage the current tint color.

The list of custom tints presents a series of default ArtRage tints and a set of custom tints that you have defined. Custom tints appear in the list below the standard tints. Click a tint in the list to select it.

\section*{Advanced Preferences.}

Settings that control advanced functionality within the application.
Temporary File Storage: ArtRage allows you to select where temporary files that are used to save memory, such as undo and temporary layer files are stored. Use the control at the top of the Advanced Preferences page to select a location, or reset to default

The default location is your operating system's default temporary file location.

IMPORTANT: Do not choose removable media for this location because if the location suddenly becomes unavailable you may lose layer or undo data. External media such as USB media can also cause significant slowdowns in the application.

Multithreading: Allows you to turn on or off support for Multithreading on multiple core processors in ArtRage.

JPEG Quality: Allows you to set the desired quality for exported JPEG images. The higher the value, the higher the quality will be and the larger the file on disk.

Store Backup Files: ArtRage can automatically back up your files as you save them. If you're working on an important project or have any stability issues this system allows you to keep previous versions available. The slider indicates how many backup files will be stored, from 0 to 26 .

When the value of the slider is above 0 , whenever you save a file ArtRage first renames the original version of that file on disk, adding ' Gen \(<X>\) ' to the end of the filename, where \(\langle X\rangle\) is replaced by a letter of the alphabet from \(A\) to \(Z\).

Each time you save, any previous generations that were backed up are renamed as well, increasing their letter of the alphabet by one to indicate their age. When the number of backed up files reaches the limit defined by the Store Backup Files Slider, the oldest one is deleted when the new file is saved.

For example, if I have created a new painting and set Store Backup Files to 2 :
1. The first time I save, I name the file 'Test.ptg' and that file is saved.
2. Next time I save, my original file is renamed to 'Test.ptg_GenA' and a new Test.ptg is saved with my new data.
3. Next time I save, my 'Test.ptgGenA' file is renamed to 'Test.ptgGenB', the file I saved previously is renamed to 'Test.ptgGenA' and the new data is saved as Test.ptg.
4. If I then save again, because my limit is set to 2 , the original file I saved, which is now named 'Test.ptgGenB' is deleted so that the GenA file can be renamed GenB, the last saved version can be renamed GenA, and the new file can be saved as Test.ptg.

To reload one of the older generations, just make a copy of the file you want and rename the copy to remove the 'Gen<X>' from the end of its suffix. You can then load it using ArtRage.

Force Whole Pixel Placement: If this option is turned on ArtRage will limit the placement of items such as text, selections, and transform operations to whole pixel boundaries. Sub pixel placement (if this option is turned off) can be used to place items between pixel boundaries but can result in blurred
edges where the edge of an object exists between whole pixels in the document.

> If you don't understand Whole Pixel v. Sub Pixel systems, leave this option turned on.

\section*{Input Device.}

Settings that control how your input device works.
Cmd/Ctrl + Mousewheel = Zoom: Some systems that use a touch interface use mouse wheel events to scroll objects (like the Canvas) rather than zoom them. If this is turned on, the Cmd (Mac OS X) / Ctrl (Windows) key must be held down when the mousewheel is used to zoom the Canvas. Use this if you experience odd zooming behavior while using touch gestures.

Use Realtime Stylus (Windows Only): Realtime Stylus is a Windows service for integrated screen tablet input devices. Some graphics tablets do not interact well with Realtime Stylus so if you find you are experiencing odd behavior such as strokes not recognizing pressure, strokes moving the Canvas rather than painting, or strokes only painting a single dot, try turning this off, your tablet device may not be interacting well with the operating system.

Precise Tablet (Windows Only): Some graphics tablets support a high resolution input mode that creates more precise strokes. Unfortunately some graphics tablets do not support this but incorrectly report that they do, this can cause problems with strokes failing to complete or appearing incorrectly. If you are having problems with your paint strokes try changing this setting.

Use Touch Input (Windows Only): Allows you to turn on or off ArtRage support for the Windows 7 Touch Screen system. If this is on you can use Multitouch gestures on a Windows 7 machine to manipulate various objects in the application.

\section*{Cursors.}

Settings that control the appearance of your cursor. Select the type of cursor you want to display using the large buttons.

If you have a Precise Cursor selected, the Magnify Precise Cursor option makes it larger and more visible. Some tools that use Outline Cursors display a Precise Cursor by default if your tool size gets very low.

The Opacity slider is available when the cursor is set to Precise, and allows you to control the opacity of the cursor on the screen.

> Can't find your cursor? Make sure Opacity isn't \(0 \%\) ! You can use the default shortcut keys 2 , and 3 to set the cursor to Outline or Tool mode to make it visible in the meantime.

\section*{Filters.}

Allows you to set additional folders to be scanned for filters. See the Image Adjustment and Filters section for more information.

\section*{Panels.}

Settings that control your panels globally.
Scale, Rotation: Sets the scale or rotation of all panels.
Reset Panel Positions: Resets the position of all panels after restart.

\section*{Automatic Updates.}

Allows you to turn off the automatic online check for updates ArtRage performs weekly.

\section*{Keyboard Shortcuts.}

Keyboard Shortcuts in ArtRage can be adjusted to suit your requirements. The Keyboard Shortcuts Panel can be opened from the Edit menu.

The menu at the top right presents load and save options for sets of shortcuts and the ability to reset them or revert them to the previous set. The list below contains groups of similar shortcuts that can be customised, and any key combination currently allocated to them. Click the grey title bar of a group to open or close its contents.

\section*{Editing Shortcuts.}

Shortcut events can have multiple entries. This can be useful if there is more than one way you wish to access a shortcut. For example 'Zoom In' may require Cmd/Ctrl ' + ' as well as Cmd/Ctrl + Shift + ' \(=\) ' depending on your keyboard layout. Existing shortcut key combinations can be modified, and new ones added.
1. Add A Key Combination: Point at the name of the shortcut you wish to edit and a ' + ' button appears. Click it to add a new key combination to that event.
2. Remove A Key Combination: Point at the key combination you wish to remove and click the ' \(x\) ' button that appears.
3. Edit A Key Combination: Point at the key combination you wish to edit and click the '...' button that appears.

On Mac OS X changes you make to the shortcuts will not be available until you restart the application.

\section*{Entering Key Combinations.}

If you Add or Edit a key combination you will be presented with an entry dialog. Simply press the key combination you wish to use and it will appear in the dialog. Then click OK to apply it.

\section*{Preferences}

If you have chosen a key combination that is already in use you will be prompted to either remove the old one and store this new one, or cancel.

Some characters are reserved and cannot be applied to shortcuts: Tab, Enter, Space, and Escape, among other keys cannot be used in key combinations.

\section*{Package Files.}

Package Files are a convenient way to share custom content with other users by gathering items together in to a single file that can then be installed on another computer. Each Package File can contain multiple different types of custom content including Stencils, Stickers, Presets, and even Scripts. Installing a package file places all of its contents in to the correct folder on disk and store a receipt which allows you to uninstall the contents later if you wish.

\section*{Installing and Managing Package Files.}

Package files have a filename that ends in '.arpack' and a 'wrapped present' icon. If you have installed ArtRage already, you can install a Package either by double clicking it (this will launch ArtRage and start the installation process) or by dragging it on to the ArtRage window. You can also find an option in the File Menu to install a Package file.


When you start the installation process, the Install Package panel appears. This panel lets you know about the contents of the package and allows you to select which files to install.

The space at the top of the panel tells you about the content and its author. The space below is a list of all of the files that are contained in the package.

Grey items with an arrow next to them represent groups. Each group will be installed as a group of resources in the appropriate panel.

For example, a Stickers group named 'Art Papers' will add and 'Art Papers' group to the Stickers Panel.

To Select Files To Install: If an item has a tick next to it, it will be installed. If it has a cross, it will not be installed. Click the item to change whether it will be installed. Clicking on a group's tick will change all of the contents of the group.

To Open and Close Groups: To open or close groups, click the name of the group. The list will update to show or hide its contents.

Click 'Install' when you are ready to install and ArtRage will install the files you selected from the list.

\section*{File Naming.}

During installation, ArtRage will list all of the files that are being installed so that you can see what is being placed in your resource collection. If a file with the same name as the one being installed already exists in the collection, the file being installed will be given a new name. The Install Package panel will let you know the names of items that have been changed and a full report can be saved at the end of installation.

\section*{Repairing Packages.}

If you try to install a Package that has been installed before, ArtRage will ask you if you want to repair the installation. Repairing a Package re-installs the files from the Package to make sure that any damaged or lost files work correctly.

\section*{Tracking Installed Packages.}

You can see a list of all the Packages you have installed by selecting Show Installed Packages from the File Menu.

The Installed Packages panel displays a list of all the Packages you have installed down the left. Select a package from the list to display information about it, and a list of all the files it installed on the right hand side of the panel.

\section*{Uninstalling Package Files.}

To uninstall a Package, select Show Installed Packages from the File Menu. Select the Package you wish to uninstall from the list of installed Packages on the left then click the Uninstall button. When you uninstall a Package, all the files that it created will be removed from your collection.

\section*{Creating Package Files.}

To create a new Package, select Create Package from the File Menu. When you select this option, the Create Package panel appears. This panel allows you to set up the contents of your Package, including information for the end user and the files it contains. Once you have set up contents the Package can be Built to create the final file.


The top section of the panel allows you to set information regarding the Package that will be displayed to anyone who installs it. Information is optional, you do not need to enter any information here.

ArtRage will not display empty information items, so if your Package has no preview, no preview area will be displayed when the package is installed.

To set a Preview image, either click in the Preview Image section to select an image to use, or drag the image from your computer on to that section. The
image needn't be \(400 \times 80\) pixels but it will be scaled to that size when it is loaded so it may look unusual if it has different dimensions.

Click in the Package Name, Package Author, and Package Description sections to set those values. The name of your Package does not need to be unique.

\section*{Adding Items to Packages.}

The contents of Packages are sorted in to named groups. When the Package is installed each group will become a new category in the user's resource collection. Each group can contain only one kind of resource (for example, a group can contain Stencils, or Stickers, but not both).

You can create groups of different types of resources that have the same name (for example, you could have a group of Stencils named 'Art Papers' and a group of Stickers also named 'Art Papers').

You will need to add a group before you can add any contents to the Package. To do this, click 'Add Group' and select the type of resource you want to add from the popup list presented.

When you have selected the type of resource you want to add, enter a name for the group and it will appear in the list indicating which type of resource you have selected and the name you have chosen.


You can rename the group by clicking the '...' button, add an item by clicking the ' + ' button, or delete the group by clicking the ' \(X\) ' button. Click the group name to expand or collapse it in the list.

If you add a group of Presets you will have to choose which tool your Presets are for, but if you add Presets for a different tool to
that group, a new group will automatically be added for the correct tool.

\section*{Adding Files to Groups.}

Once you have added at least one group to a Package you can start to add files. There are two ways to add a file: Click the + button on the group titlebar to add a specific file form a menu, or drag a file from a folder on your computer on to the group titlebar to add it.

\section*{1. Using the + Button:}

When you click the + button on the titlebar of a group a popup menu appears containing all of the items in your current resource collection for the type of resource your group represents.

The menu allows you to add an item that you already have in your own collection, or select 'Add From Disk...' to locate a file on disk for the group.

Types of resource that do not have a collection (Color Samples, for example) just present the 'Add From Disk...' option.

\section*{2. Dragging Files to the Group Titlebar:}

If you want to add a file that is not in your current collection, you can drag it directly from a folder on your computer. Drag the file on the group titlebar and it will be added to that group if it is of the correct type. For example, if I drag an Image file on to a Stickers group, it will not be added. You can drag more than one file at a time.

If you are adding Presets to a group in this manner, the type of preset you are adding is not important, ArtRage will automatically create groups for the presets you drag. For example, if I have a group of Oil Brush Presets called 'Matt's Presets' and I drag a Watercolor Preset on to the group titlebar, a new group of Watercolor Presets titled 'Matt's Presets' will be created and the file I dragged in added to that group.

\section*{Building the Package File.}

When you have set up the contents you want to include in the new Package, you need to Build it. Building a Package takes all of the files you have selected for inclusion and writes them out to a single file for easy installation later.

When you are ready to Build the Package File click the 'Build...' button at the bottom right of the panel. You will be asked to enter a name for the file and the file will then be built. When the user installs the Package the name you set in the Package Information section will be displayed to the user, so it does not matter if the file name has to be abbreviated.

A Package file must be Built before it can be shared. If you make any changes to the contents listed in the Package Creator after Building, you must click Build again to add those changes to the Package file before you share it.

Important: If you leave the Package Creator, its list of contents will be cleared. If you want to save your current working contents to make changes later, you must save a Template (see below).

\section*{Package Creator Templates.}

Packages that have been built cannot be loaded in to the Package Creator for editing later. The contents of the Package Creator panel are just a list of files that will be included in a Package when you build it so if you want to be able to edit a Package later, to make changes to its contents or information, you need to store a Package Template. Package Templates are files that store the layout of your Package Creator, including all the information, groups, and files you have added.

\section*{Package Files}

You can save a Package Template using the menu button next to the 'Add Group' button in the panel. From this menu you can Save and Load Template files.

If you close the Package Creator without saving a Template for your current layout, you will be prompted to save.

\section*{Script Files.}

Script Files are a way to record and play back the process of creating a painting so that it can be played back later to reconstruct the painting from a clear canvas, stroke by stroke. Script files are easy to share with other users and can also record annotations, allowing you to make notes while you paint to display during playback for the easy creation of tutorials.

Because Script Files record the process of making each stroke rather than the result they can be played back at different resolutions, allowing you to recreate paintings at different sizes. Advanced users can also edit script files directly via a text editor, changing properties of the painting and the scripting language includes the ability to write \(C\) style code functions to create special effects.

\section*{Recording Script Files.}

To record a Script, select 'Record Script...' from the File Menu. When you select this item, the Record Script panel appears.

This panel allows you to select what will be included in the Script file when it is recorded.

Including the current painting in your script means that when anyone plays it, the contents of your canvas as they are when you select Record will appear before the script is played.

Turning the 'Include Current Painting' option on will cause the script file to be larger, because all painting information (including any layer contents) will be added to the script.

If the canvas is blank, or if the person playing the script does not need the current contents in order for the script to work, do not turn this option on. For example, if you have already painted a face and want to record the process of adding an eye as a tutorial, you might include the current painting so that the face is visible when the script is played. In general, this option should be turned off.

Important: Including the current painting in your script prevents the script being played back at larger size later. Do not turn the option on unless you specifically want paint that is already on the canvas to be included in script playback.

If you do need to include the current painting, consider Merging all Layers before you record the Script, this will cut down on the size of the eventual Script File.

Advanced Users: You can write script files manually. For information on how to do this see the Advanced Scripting section later in this manual.

\section*{Controlling Recording.}

While the Script is recording, the Recorder Panel appears. This panel allows you to control the process of recording and add Annotations if you are using ArtRage.
\begin{tabular}{|c|}
\hline Recorder \(\quad \boldsymbol{x}\) \\
\hline Recording... \\
\hline II \\
\hline Add Note... \\
\hline Add Tip... \\
\hline Add Spotilight... \\
\hline Close Spotilight... \\
\hline
\end{tabular}

The top line of the Recorder Panel tells you what the Recorder is currently doing. If you Pause recording, the top line will pulse to let you know that nothing is being recorded.

The buttons on the second line of the panel allow you to Pause or Resume recording, or Stop recording completely. When you Stop recording you will be prompted for information before the Script is saved.

\section*{Script Files}

If recording is paused, nothing you do in ArtRage will be recorded. This means the Script may not play back correctly if you paint while paused.
he buttons below allow you to add Annotations to the Script. Annotations are used to provide information to the person who is playing the Script. More information is available regarding Annotations later in the manual.

\section*{Pausing and Idle Time.}

If you stop painting at any point during recording and do nothing in ArtRage, this is recorded as idle time. When a user plays back your Script they will be given the option to accelerate playback, which removes all idle time from playback, otherwise the script will pause during playback until the idle time expires. Users are given the option to skip idle time manually if it occurs during playback.

If you are going to be away for an extended period during recording, consider pressing Pause on the Recorder Panel. While recording is paused idle time is not recorded so there will be no pause in the action during playback.

\section*{Saving Your Painting While Recording.}

If you save your painting while recording, the script is saved with it. If you then quit, recording will start again when you reload the painting later to continue working on it. This will continue until you specifically end recording.

\section*{Ending Recording.}

When you are read to end recording, click the Stop button on the Recorder Panel. When you click this button, the Save Script Panel appears. This panel allows you to enter information for your script and save it, or cancel and discard the recoded script.

If you Cancel in this panel, you will be given the opportunity to continue recording from where you left off, or to discard the script entirely.

The information requested in this panel is optional, you do not need to enter any information here. ArtRage will not display empty information items, so if your Script has no preview, no preview area will be displayed when it is played.


To set a Preview either click in the Preview Image section to select an image to use, or drag the image from your computer on to that section. The image needn't be \(400 \times 80\) pixels but it will be scaled to that size when it is loaded so it may look unusual if it has different dimensions.

Click in the Script Name, Script Author, and Script Description sections to set those values. The name of your Script does not need to be unique.

When you are done editing information, click OK and you will be asked to save the Script to a '.arscript' file. That file is the file that will be played back in the future.

\section*{Script Annotations.}

Annotations allow you to present additional information to someone during Script playback. While the script is being recorded you can add three types of Annotation depending on the kind of information you want to present: Notes, Tips, and Spotlights.


Notes are messages that appear and interrupt the flow of the script. When the Note appears, playback is paused until the user clicks Continue. Use Notes when you have complex information that requires reading and understanding before the script continues.


Tips look like Notes but the script continues to play while the Tip is visible and the Tip vanishes when the original Author wants it to vanish. Use Tips when you want to illustrate something that is currently happening and doesn't require a lot of explanation.


Spotlights appear on the canvas as a dark or light blurred patch with a hole in the centre. They are used to highlight important areas of painting while you work. Spotlights remain on the canvas until the Author dismisses them. There can only be one Spotlight at a time.

Spotlights can coexist with Notes and Tips, so you can add a Spotlight then add a Note to explain what it is highlighting. Use them to focus the user's attention on an area of the canvas during script playback.

\section*{Adding Notes and Tips.}

To add a Note or a Tip, click the appropriate button on the Recorder Panel. When you do this, a Note Editor appears:


Enter your text in the space provided in the bubble then click the tick to add the Note or Tip.

The bubble will automatically adjust its height fit its contents as you type.
The green handles on either side of the bubble are used to change its width. The bubble will resize its height to fit its contents as you do this.

The target button indicates where the 'tail' of the bubble will sit when the Note or Tip appears. You can move the tail by clicking and dragging on the target. It can go anywhere inside the dark border of the Note Editor.

You can click and drag in the dark border to move the Note Editor. When the Note or Tip is displayed, the dark border will not be visible, it is only displayed here to contain editing controls.

If you are creating a Note, the 'Continue' text will be visible in the bubble. This is to show you how the final bubble will look when it is displayed.

\section*{Dismissing Tips.}

Tips remain on the canvas during recording until you want to dismiss them. For example, you could create a Tip that says 'Part 1: The Eyes' and leave it on the canvas until you have finished drawing the eyes for a portrait, then dismiss the tip when you go on to the next task. As an author, you add the Tip when you want it to appear, then as you are recording you click it to close it.

\section*{Script Files}


When you add a Tip to the canvas while recording, it looks like this. Click the tip when you want to remove it. When the script is played back, this is the point at which it will vanish from the canvas.

When playback ends, any open Tips are automatically closed. You can have as many open as you like during playback.

\section*{Adding Spotlights.}

To add a Spotlight click the Add Spotlight button on the Recorder Panel. When you do this, all other panels fade out and the Spotlight Editor appears.


The target button in the centre can be clicked and dragged to move the spotlight. This represents the centre of your point of interest.

The radius button that sits on the edge of the Spotlight can be dragged to change its size.

The Menu Button allows you to select whether this is a Dark or Light Spotlight. Use Dark Spotlights (the default) on light canvases, and use Light Spotlights on Dark canvases.

When you have positioned and sized the Spotlight, click the tick button to okay its addition to the Script.

If you move a Spotlight so that the OK and Cancel buttons are off the screen, they will shuffle to the other edge to make sure they are visible. If you lose them for any reason you can press Enter to okay the Spotlight, or Escape to cancel it.

\section*{Playing Script Files.}

To play a Script select 'Play Script...' from the File Menu. When you select this option you will be prompted to save your current Painting if there are unsaved changes, then asked to select a '.arscript' file to play. Once you have selected a file the Play Script Panel appears.


This panel contains any information that was saved with the Script file, including its title, its author, a description and a preview.

It also allows you to make two choices about how the Script will be played including speed and whether the result will be the same size as the original painting.

If you choose Accelerate Playback, any idle time that was recoded in to the script by the author will be ignored. This speeds up the process of playback. If you do not turn this option on you will be given the option to manually skip any idle time as it occurs during playback.

Accelerating playback also accelerates the paint strokes.
Playing the Script at its original size causes a new canvas to be created at the indicated size when you click Play. If you would prefer the Script to play back at a different size, turn off the Play at Original Size option and enter the size you would like to use using the Screen Size or Print Size controls.

Click Play when you are ready to start the Script playing.

\section*{Selecting Different Sizes.}

If you opt to play back the script at a custom size you are provided with full control over the sizing of the new file as per the new file dialog. This allows you to set the size in pixels or screen units.

Because the Script records the process of painting rather than the resulting image, playing Scripts back at different sizes allows you to recreate them as if they had originally been painted at that size. The result is a higher quality way to scale images.

Normal image scaling takes the resulting picture and stretches it, which reduces the quality of the paint strokes. Script scaling using the Play Script Panel re-paints the script at a different scale, so each paint stroke has the same quality as one painted by hand.


While ArtRage scales the path of the strokes and the properties of the brush as best it can, you may find that the results of a Script played back at larger scale do not look identical to the original result. In general however, the result should be very similar.

In this example the paint stroke was created at \(200 \times 200\) pixels in size and recorded in a script. The two examples below show the difference between scaling the image up 200\% and playing back the script at \(200 \%\). The scaled image is fuzzier and lower quality, while the Script image is crisp as if the stroke had been originally painted at that size.


Scaled to 200\%


Script Played at \(\mathbf{2 0 0 \%}\)

\section*{Controlling Playback.}

While a Script is playing the Playback Controls panel appears. This panel contains controls that you can use during playback. While a Script is playing you cannot interact with any other control in ArtRage.


The top bar indicates what the Player is currently doing. If you have chosen not to accelerate playback and the script contains idle time (time where the author was not doing anything during recording) the top bar will update to indicate how long until the idle time ends, and a 'Skip' button that allows you to skip past the idle time.

Click the Pause button to pause playback, or continue if it has been paused.
The percentage indicator tells you how far through the Script you are. Note that this is not based on time but on the number of events that were recorded.

Click the Stop button to stop playback. When you do this, the Playback Controls Panel vanishes and your canvas is left in the state it was in at that point in the script.

\section*{Script Files}

If you play a Script through to the end, the Playback Controls panel will vanish of its own accord.

\section*{Notes, Tips and Spotlights.}

Notes and Tips are messages left by the Script Author to help explain what is happening.
```

This is a note.

```
    Continue...
bubble appears that has bottom, the Script will pause until you click inside the bubble. This is a 'Note'.


If a bubble appears that does not have a 'Continue' button at the bottom, the Script will continue to play. You cannot dismiss these manually, they will vanish when the Script Author wants it to. This is a 'Tip'.


If a dark blurred area with a hole in the middle appears, the Script will continue to play underneath it. This is a Spotlight and it will vanish when the Script Author wants it to.

Spotlights are used to draw your attention to important parts of the canvas while the Script is playing.

\section*{Advanced Scripting.}

ArtRage Scripts are text files that store data in a human readable format. This allows you to edit the contents of the Script directly and change its properties, or create entirely new scripts from scratch using the ArtRage Scripting Language. The Scripting Language allows you to instruct the application to do anything that can be done by a user, and also includes mathematical and
string operators, and the ability to script functions that can be called as the Script is played.

The Scripting Language is not covered in this manual, but full details can be found in the ArtRage Scripting Guide here: http://www.artrage.com/advancedscripting.html

Scripts that are created manually should be saved with the '.arscript' suffix and can be loaded in to the application via the standard Play Script option in the File Menu.

\section*{Toolbox and Workbench}

When you're working on a project that uses a small set of tools you might not want to have the entire interface visible constantly. The ArtRage Toolbox lets you gather a set of tools, colors, and utilities that are relevant to the specific project you're working on in to a single panel that can be used in place of the main interface. When you've gathered your tools together, Workbench Mode lets you collapse the entire interface in to a single toolbar and work in a focused environment without distraction.

This section explains how to use the Toolbox and Workbench.

\section*{The Toolbox.}


The Toolbox Panel is a place where you can store tools, colors, and utilities that are relevant to a specific painting. The contents of the Toolbox are stored with the painting itself so that when you reload it, the Toolbox is restored.

When you store an object in the Toolbox it appears in the Toolbox Panel. Objects are sorted in to groups for ease of location. Clicking on an object in the Toolbox Panel activates it, the actual effect of which varies depending on the object type (see below for details).


When objects are added to the Toolbox they are automatically pinned to the Workbench Pinboard. The pin icon next to the object in the Toolbox Panel can be clicked to unpin or re-pin them.

\footnotetext{
Alt (Windows) / Option (OS X) Click an item in the Toolbox to remove it quickly.
}

The following objects can be added to the Toolbox. Each object is listed with information on how you add it, and what happens when you click it in the Toolbox:

\section*{Color Samples.}

Color Samples stored in the Toolbox are stored for the current painting only. They also appear in the Samples Panel.

Adding Color Samples: You can add Color Samples to the Toolbox either by choosing the Add options from the Toolbox Samples menu item found in the Color Samples menu, or by using the Add Sample button at the top of the Toolbox. once you have at least one Color Sample in the Toolbox there will be an add button in the list of available samples.

Clicking Color Samples: When you click a Color Sample in the toolbox, that sample is made the current color.

\section*{Layers.}

Any Layer in your painting can be added to the Toolbox. This can be useful if you're working on a specific subset of layers in a larger document and want quick access to them.

Adding Layers: Right click the Layer you want to add in the Layers Panel and choose the Add to Toolbox option. You will be prompted to enter a name for the item. This does not change the name of the Layer, it just labels the item in the Toolbox

Clicking Layers: When you click a Layer in the Toolbox that Layer becomes the active Layer. If you right click a Layer in the Toolbox its options menu appears.

\section*{Tracing Images.}

A Tracing Image that has been loaded can be added to the Toolbox. When stored, it retains all of its settings including scale and opacity.

Adding Tracing Images: When you have a Tracing Image loaded, use the Add To Toolbox option in the Tracing Menu to store it in the Toolbox. You will be prompted to enter a name to label the item in the Toolbox panel.

Clicking Tracing Images: When you click a Tracing Image in the Toolbox the image is loaded and its settings are restored. It is important to note that Tracing Images stored in this manner don't store the actual image, they store a reference to the file on disk that was used to create the image. If that file does not exist, the item cannot load.

\section*{References.}

Any Reference Image, Scrap, or View that is currently in the painting can be stored in the Toolbox.

Adding References: Right click on the Reference or select its menu in the References Panel and choose the Add To Toolbox option. You will be prompted to enter a name to label the item in the Toolbox panel.

Clicking References: When you click a Reference in the Toolbox its visible state is toggled. This allows you to quickly show and hide References you are using. If you right click the Reference in the Toolbox, its options menu appears.

\section*{Stencils.}

Any Stencil that is active in the painting can be stored in the Toolbox. Stencils that have not yet been added to the painting cannot be added.

Adding Stencils: Right click on the Stencil on the canvas, or use the menu for the Stencil in the Active category of the Stencils Panel and select the Add To Toolbox option. You will be prompted to enter a name to label the item in the Toolbox panel.

Clicking Stencils: When you click a Stencil in the Toolbox its visible state on the canvas is toggled. If you right click a stencil in the Toolbox its options menu appears.

\section*{Custom Color Pickers.}

Any Custom Color Picker in your Collection can be added to the Toolbox.
Adding Custom Pickers: Right click the Picker in the Custom Pickers Panel and choose the Add To Toolbox option. You will be prompted to enter a name to label the item in the Toolbox panel.

Clicking Custom Pickers: Click a Custom Picker in the toolbox to activate it in the Color Picker.

\section*{Saving Toolboxes.}

The contents of the Toolbox are automatically saved with your painting and restored when you load it. There may be cases where you want to save a Toolbox to disk for use later however, and you can do this using the menu button in the Toolbox Panel.

Because some of the items that are stored in the Toolbox are only relevant to a specific painting file however, not all items will be saved. Any item in the Toolbox that represents an active item in your painting will not be saved when you export the Toolbox to its own file. This includes:
1. Layers.
2. Stencils.
3. Reference Images, Scraps, Views.

Items that represent either a file on disk or an object that does not rely on a specific painting will be saved when you save the Toolbox file.

\section*{The Workbench}

The Workbench is a compressed interface mode that clears away all of the panels on the screen and replaces them with a single toolbar that sits on the
edge of the ArtRage window. Workbench Mode is designed to give you a focused environment for working, and contains quick access to important app functionality as well as a Pinboard for storing custom objects that are relevant to your current work.

\section*{Activating Workbench Mode.}

Workbench Mode can be activated by selecting the Workbench option in the View Menu, by right clicking the canvas and selecting Workbench Mode, or by pressing Enter (the default shortcut key).

When Workbench Mode is activated any interface controls that are on or overlapping the canvas vanish. This means that panels you have moved outside the main ArtRage window will remain visible. For example, if you have dragged panels to a second monitor they will not vanish when entering Workbench mode.

When you leave Workbench mode, any panels that were hidden will be restored.

The Workbench Toolbar appears when you enter Workbench Mode.

\section*{Workbench Toolbar Layout.}


The Workbench Toolbar is laid out in to individual segments that contain controls of a specific type. Layout can be either horizontal or vertical depending on its docked location.

You can change the edge of the window the Workbench Toolbar is docked to using the Menu button on the Toolbar itself.


The X Button: Ends Workbench Mode and restores normal panels.

The Menu Button: Click for access to all of the ArtRage Menus and Workbench docking options.

Tool Selector: Indicates which tool is active. Click to select another from a menu.

Tool Size: Indicates the size of the current tool. Click to enter tool size manually, or click and drag to change tool size smoothly. Drag left and right if the Workbench Toolbar is docked at the top or bottom, or drag up and down if it is docked on the left or right.

Current Color: Indicates the current paint color. Click for a Color Picker to select color manually. Click and hold to get a Popup Color Picker.

Layer Preview: The preview of the current layer you are painting to. This item updates as you paint. Click for a Layer Panel, or right click for the options menu for the current Layer.

Presets Pod: Click to open a Presets Popup Panel.

Settings Pod: Click to open a Tool Settings Popup Panel.

Samples Pod: Click to open a Color Samples Popup Panel.


Toolbox Pod: Click to open a Toolbox Popup Panel.

Tracing Pod: Click to open a Tracing Popup Panel. If no Tracing Image is loaded, clicking this pod prompts you to load one.

References Pod: Click to open a References Popup Panel.

Stickers Pod: Click to open a Stickers Popup Panel

Stencils Pod: Click to open a Stencils Popup Panel.

Canvas Zoom: Click to set the canvas zoom level manually, or click and drag to change it smoothly. Drag left and right if the Workbench Toolbar is docked at the top or bottom, or drag up and down if it is docked on the left or right.

Shift click this button to zoom in a step. Alt (Windows) / Option (Mac OS X) click it to zoom out.

Canvas Positioner: Click to open a Canvas Positioner Popup Panel.

The Pinboard: The rest of the space in the Workbench is the Pinboard, which contains any custom items you have pinned to it. For more information, see below.

\section*{Workbench Popup Panels.}

Many of the buttons in the Workbench Toolbar open a Popup Panel. Popup Panels are exactly the same as the normal panels they represent, but their position is docked to the Toolbar and they vanish when you click outside them. You can also press Enter or Escape to close a Workbench Popup Panel.

If you trigger a Popup Panel for a panel that is already visible on the screen, the original panel vanishes. It will reappear when you leave Workbench Mode. If you want to display a full, non vanishing panel when in Workbench Mode, hold down Shift and click on the appropriate Pod in the Toolbar.

\section*{Showing and Hiding the Toolbar.}

At the Right or Bottom edge of the Toolbar is an arrow pointing to the edge of the window. Click that to retract the Toolbar off the screen.

When the Toolbar is retracted a small arrow button appears in the corner of the window. Click this to bring the Toolbar back.

Pressing Tab will Show or Hide the Toolbar.

\section*{The Pinboard.}

Any space in the Workbench Toolbar that is not taken up with its normal buttons is available for custom items. This is called the Pinboard. When you add an item to the Toolbox it is automatically pinned to the Pinboard so that it is available for use when in Workbench Mode.

The icon that appears to the left of items in the Toolbox Panel indicates whether the item is pinned to the Pinboard. Click it to toggle the value.

When there are more items than can fit on the Pinboard, a set of scroll arrows appears allowing you to scroll through rows of items.

Some items have identifier icons indicating the type of object they represent. This is common for items that may appear either blank or similar in nature.

You can unpin an item from the Pinboard by Alt (Windows) / Option (OS X) clicking it there.

Because some projects use a wide range of tools that may all be stored in the Toolbox, you can unpin objects from the Pinboard if you would like to create a smaller, focused set for use during painting.

For example, if you are working on a portrait and want to focus on a single aspect such as the eyes, you might want to pin only those tool presets, layers and color samples relevant to the eyes to your Pinboard, even though the Toolbox might contain tools for all aspects of the portrait.

\section*{Stylus Controls.}

ArtRage includes support for two sets of advanced features available with some graphics tablets and stylus based screen input devices:
1. Stylus Properties: Stylus properties such as Pressure, Tilt, and Barrel Rotation.
2. Stylus Recognition: The ability to recognize individual styluses as they are brought close to the tablet.

These two sets of features are supported via the Stylus Properties and Stylus Control Center.

Important: These features require that your graphics tablet or stylus input device support them. If these features do not work for you, check the specifications of your input device.

In addition, some features such as barrel rotation or airbrush wheel support require special stylus types.

\section*{Stylus Properties.}

ArtRage includes support for the following stylus properties:


\section*{Pressure:}

This tracks how hard you press on the surface while using the stylus.

The Pressure slider in the Tool Settings Panel is used to offset the incoming pressure value, increase it to make changes in pressure have a larger effect on the canvas, decrease it to reduce the pressure.


Tilt:
This tracks the angle of the stylus relative to the flat surface of the tablet.

Some tools such as the Airbrush change the shape of their spray automatically when the stylus is tilted.

\section*{Tilt Angle:}

This tracks the rotational angle of the stylus around the surface of the tablet.

The view on the left is from above as you look down on the tablet, the pen is like the hands on a clock face, its rotational position is the Tilt Angle.

\section*{Airbrush Wheel:}

Some styluses, usually of the airbrush stylus type, have an additional wheel control.

The wheel sets the absolute value of the property it is attached to, it's like a slider in the Tool Settings Panel when you use it.

\section*{Twist:}

This tracks the barrel rotation of the body of the stylus around its vertical axis.

Most styluses do not support this property. If your stylus does not, the direction of the stroke tends to define the Twist value of the brush head as you paint.

ArtRage allows you to assign the Pressure, Airbrush Wheel, and Twist properties of a stylus to individual settings in each tool.
\begin{tabular}{|c|c|c|}
\hline \multicolumn{3}{|l|}{sylus Properies} \\
\hline Pen Pessure: & spe: & Inven \(x\) ( ) \(\triangle\) \\
\hline \multirow[t]{2}{*}{Afroush Wheel:} & Thinnes: & Invert \(x\) ( () \\
\hline & & Add seling © \\
\hline \multirow[t]{2}{*}{Iwst:} & Rotation: & Invert ( ) - \\
\hline & Cancel & ок \\
\hline & 2 & \\
\hline
\end{tabular}

This is done via the Stylus Properties Panel, which can be opened using the Set Stylus Properties menu option which can be found by clicking the Preset Block at the top of the Tool Settings Panel.

The Stylus Properties Panel contains a list of all of the stylus properties supported by the tool. For example, the Oil Brush supports Pen Pressure, Airbrush Wheel, and Pen Twist.


Beside each property is a list of Tool Settings that will be affected by that property. For example, in this image the Oil Brush Size is being affected by Pen Pressure. As you press harder, the brush size will increase.

Some Tool Settings support an 'invert' value represented by a check box next to their entry in the property list. Turning this check box on causes the relationship of the property and value to be inverted.

For example, if I turn on Invert for the Pen Pressure's Size property in the Oil Brush, pressing harder with the stylus will cause the brush to become smaller.

Each setting is listed with an \(X\) button that allows you to delete it. If you delete a setting, the Property it was assigned to will no longer affect that setting.

If a property has the potential to affect more settings, there will be an 'Add Setting' entry listed next to it. Click that entry to get a list of all the settings that property can modify.

Not all settings can be modified by stylus properties. Some settings are locked to specific properties or unavailable for modification due to their nature. In general, properties that would be associated with the brush are modifiable, while properties that define the base nature of the paint are not. This is due to the painting simulation running in the background, which tracks properties of your media in a natural manner.

For example, the Loading of a brush head defines how much paint is on the brush at the start of a stroke, so it is not possible to modify that value after the stroke has begun.

\section*{Stylus Recognition.}

Some graphics tablets and other stylus based input devices support the ability to recognize unique styluses. ArtRage allows you to take advantage of this feature in the Stylus Control Center, which lets you assign specific tool settings to specific styluses.

The Stylus Recognition system does not just recognize different types of stylus (eg. Normal, Airbrush etc.), it recognizes different styluses of the same type. This means that if you have multiple styluses you can assign specific tools to each and switch styluses to change tool settings.

To open the Stylus Control Center, select the Stylus Control Center option using the menu accessed by clicking the Preset Block at the top of the Tool Settings panel.

Stylus recognition works by monitoring the stylus that is currently in use. When you bring a new stylus close to the tablet, the settings that were assigned to that stylus are applied (including tool type, color, size, and any additional settings).

\section*{Stylus Control Center.}


The Stylus Control Center allows you to assign properties to each unique stylus ArtRage has detected in use.

At the top of the panel is a checkbox that allows you to turn off stylus tracking If this option is turned off, ArtRage will not store or assign settings to the styluses you use.

The menu button at the top of the panel allows you to save out sets of settings that you have assigned, or load them back in again later.
```

Stylus:
Untitled

```

Tool Type: Oil Paint
Name: Untitled

The main bulk of the panel is taken up with a list of styluses and their assigned properties. Every unique stylus that has been brought close to the tablet while ArtRage is running is listed here.

6D Art Pen
Untitled
The left hand side of the list indicates the type of stylus that

Types of stylus recognized include a generic 'Stylus', a Wacom Airbrush Stylus (which supports Airbrush Wheel properties), and a Wacom 6D Art Pen Stylus (which supports Pen Twist properties). Click the name area to assign a name.

Tool Type: Inking Pen Name: Untitled

On the right hand side of the list you can see the Tool that has been allocated to the stylus and the name of the Preset if a preset was selected. The tool icon is displayed, or the preset icon if there is one.

If no settings have been assigned to the stylus, this is indicated here in the list.
© On the right hand edge of the list are a Lock and Menu icon for each stylus.

The Menu item is used to assign the settings of the current tool to the stylus, or clear out settings. The menu also allows you to remove from the list any stylus that is not currently being used.

The lock icon is used to lock the currently assigned settings (or lack thereof) to the current stylus so that they do not change.

The last stylus to have been detected is lit up in the list.

\section*{Working With Stylus Recognition.}

Stylus recognition and how settings are allocated can be confusing at first. The basic model is this:
1. When a stylus is brought close to the tablet for the first time, it appears in the list with no settings assigned.
2. When a different stylus is brought close to the tablet, the tool settings at the time are assigned to the last stylus, then the new stylus becomes active.
3. If you then bring the first stylus back to the tablet, its tool and settings are applied in the interface.

So you can see that this process is driven by stylus changes. Until a different stylus is brought close to the canvas, no changes will be applied to the settings allocated to the current stylus.

If you only use one stylus, you won't notice any difference in behavior, your settings will never be allocated to the current stylus.

If you don't specifically lock a stylus in the list, you will notice that every time you bring a stylus close to the tablet the tool settings that were applied when it was last used are restored.

This means that you can use different styluses to represent different tasks in a painting, using each one as if it was a specific real world tool.

\section*{Locking Stylus Settings.}

Locking stylus settings makes a small change to the workflow. When you turn on the lock for a stylus, the settings (or lack thereof) that are currently assigned to it will be locked on and will never change.

If no lock is applied, changes you make to settings while using a stylus will be stored when you switch styluses. For example:
1. I use Stylus A and select Oil Paint.
2. I bring Stylus B to the tablet - Stylus A now has oil paint allocated. I switch to Watercolor.
3. I bring Stylus A back to the tablet and Oil Paint is selected. I now switch to Palette Knife.
4. I bring Stylus B back to the tablet - Stylus A now has Palette Knife allocated.

So we can see here that changes I make while using Stylus A will be kept when I return to Stylus A. If I want to make sure that Stylus A is always Oil Paint when I bring it to the tablet, regardless of what I change after I bring it to the tablet, I would turn on the lock for Stylus A after Oil Paint has been allocated to it in step 2.

\section*{Manually Allocating Stylus Settings.}

If you prefer, you can manually control the settings that are allocated to each stylus and avoid changes being made. To do this:
1. Bring a stylus close to the tablet.
2. Click its lock icon in the Stylus Control Center list.
3. Set the tool settings up as you want them.
4. Use the Menu Button for the stylus in the Control Center list and select Assign Current Settings.

The current settings are assigned to the stylus and because the lock is turned on, they will never be automatically changed.

\section*{Paint Symmetry.}

The Paint Symmetry system automatically creates mirrored strokes on the canvas as you paint, and allows control over properties such as how many mirrors are created and the center point of symmetry.

Paint Symmetry can be activated and controlled from the Paint Symmetry menu in the Tools Menu.

When Symmetry is turned on any stroke you make on the canvas will be mirrored in other positions based on the settings you have selected. There are two important settings that define how this works:
1. Number of Segments: This value defines how many different symmetry segments there are. Your stroke is repeated in every segment on the canvas.
2. Type of Symmetry: This value defines whether the repeated strokes are directly mirrored, or rotated around the center point.

How these two settings define the look of the mirrored paint is explained below:


The dotted lines on the canvas indicate the lines of symmetry between Segments. These are the 'mirrors' that reflect your paint


As you paint in a segment outlined by a dotted line, your paint stroke is repeated in the other segments Exactly how the strokes are repeated is defined by the Type of Symmetry (see below)

You can set the number of segments by selecting the Set Number of Segments option in the Symmetry Menu.

If you are using Mirrored Symmetry (see below) the number of segments must be an even number.

The Type of Symmetry you have selected defines how the paint in each segment behaves. There are two types:


Mirrored Symmetry: This type of Symmetry treats the lines between the segments as mirrors that reflect the painted content.

In this example, as the arrow in the top left was painted towards the right, the right segment produced an arrow that painted itself towards the left.


Rotational Symmetry: This type of Symmetry treats the lines between the segments as slices of a clockface and anything you paint in a slice will be repeated exactly in the next slice, rotated to angle around the center of symmetry.

In this example, as the arrow in the top left was painted towards the right, the right segment produced an arrow that also painted towards the right hand edge of its segment.

The Type of Symmetry can be set using the options in the Symmetry Menu.

\section*{Manipulating Symmetry.}

When you turn Paint Symmetry on the Symmetry Puck appears in the middle of the canvas. This puck sits at the central point of the symmetry system (the point around which Rotational Symmetry will rotate).


This icon represents Mirrored Symmetry.


This icon represents Rotational Symmetry

You can click the central button of the Symmetry Puck to open the Symmetry Menu. You can also manipulate the puck itself to edit symmetry properties:
1. Click and Drag the Puck to move the center of symmetry. Hold down Shift to constrain movement to a single axis.
2. Hold down Ctrl (Windows) / Cmd (OS X) and Click and Drag the puck to rotate the axes of symmetry. Hold down Shift as well to constrain rotation to 15 degree increments.
3. Hold down Alt (Windows) / Option (OS X) and Click and Drag the puck to change the number of axes. Note that if you are in Mirrored Symmetry mode the number of Axes will always be even.

There are two options in the Symmetry Menu that control how you can manipulate the axes of symmetry:
1. Show Symmetry Control: This option sets whether the Symmetry Puck is visible. If it is not, you can show it again using the Symmetry Menu in the Tools Menu.
2. Allow Axis Drag: If this option is turned on you will be able to rotate the axes of symmetry by clicking and dragging on the dotted lines on the canvas. This is turned off by default to prevent accidental editing of the axes.

\section*{Painting with Symmetry.}

When Symmetry is on you are not limited to painting in a single segment or 'within the lines'. The lines act as mirrors, but your paint strokes can pass over them as much as you like. This means that the stroke you are painting can interact with other strokes that are being automatically created.

Most tools interact seamlessly with this system, acting as if you were manually painting multiple strokes at the same time. Some tools do not interact with Symmetry, or display other special behaviours:
1. Sticker Spray: If the Sticker Spray is set to spray with random variation the shape of your stroke will remain the same in each segment but any random property applied will be randomized for each segment independently.
2. Selection Tool: The only type of Selection that is mirrored while you create it is the Painted type. Selections override the symmetry system and if you have a selected area only paint that is created by symmetry inside that area will be applied.
3. Transform Tool: The Transform Tool ignores Symmetry.
4. Sampler Tool: The Sampler Tool ignores Symmetry
5. Fill Tool: The Fill Tool ignores Symmetry.
6. Text Tool: The Text Tool ignores Symmetry.

\section*{Gradients.}

Any system in ArtRage that makes use of Gradients allows you to either select an existing one from the Gradient Collection, or create a new one using the Gradient Editor.

\section*{What are Gradients.}

Gradients are automatically generated color progressions that blend between individual color points over a distance. For example, a Black to White gradient starts of black and over the length defined for its creation becomes white in a smooth blend.

Gradients in ArtRage can contain as many colors as you like, and can also blend between opacity values independent of those colors. You could for example have a gradient that is pure red along its length but blends from opaque to transparent.

\section*{The Gradient Editor.}

The Gradient Editor Panel is accessed by clicking on a Gradient Control. When you click the control, the Gradient Editor appears with the current gradient displayed at large size.


At the top of the panel are controls for selecting the Main and Secondary colors (see later for more information), and a menu that allows you to load and save gradients.

Beneath that is the gradient itself then controls for the selected point.


Above the gradient you will see circular points indicating the Color that has been assigned to that postion.

The currently selected point for editing is connected to the gradient.


Below, you will see circular points indicating the Alpha value (opacity) that has been assigned to that position.

Between each point is a smaller circle that indicates the Center Point of the blend between the surrounding points.

\section*{Color Point:}


When you click on any of the dots, the controls at the bottom of the panel update to provide options for that type of dot (see below for details).

You can click and drag on any dot to move it around.

\section*{Adding Gradient Points.}

You can add a new gradient point just by clicking in the area above (for color) or below (for opacity) the gradient preview.

When you add a Color Point it takes on the color of the gradient at the point it appears, so the gradient's appearance does not change. When you add an Alpha point, it takes on the opacity of the gradient at the point it appears.

\section*{Editing Gradient Points.}

There are three types of point that can be edited in the Gradient Editor:
1. Color: A point that sets the color of the gradient.
2. Alpha: A point that defines the transparency of the gradient.
3. Center Point: A point that defines the center point of a blend between two other points

Clicking one of these points in the Gradient Editor brings up a set of controls specific to that type of point.

As you move points around, their properties move with them and the gradient updates dynamically. Dragging a color point for example will move that color along the length of the gradient. The color of the gradient is calculated by blending between each point and its surrounding points.

Pressing Tab cycles to the next gradient point in the area you currently have selected. Pressing Shift Tab cycles to the previous point.

> If you drag a point very close to another point, the gradient between those points must occur over a very short distance so you get a sharp transition.

\section*{Gradient Color Points.}

The following controls are available for Gradient Color Points:
1. Delete: Deletes the point. There must be at least two points in the gradient.
2. Position: The position of the point along the entire length of the gradient. \(0 \%\) puts the point at the far left, \(100 \%\) at the far right.
3. Color: There are three options for Color, accessible via the menu button next to the Color Sample. Click the menu button to choose Main, Secondary, or Custom color, or click the Color Sample for a color picker that allows you to set custom color directly. Click and hold the sample for a Popup Color Picker.

The three color types work as follows:
1. Main: The current Paint Color is the Main Color. If a Gradient Point is set to use the Main Color, the paint color at the time the gradient is created will be used for that point.
2. Secondary: A secondary fixed color that is set inside the gradient editor directly. Because ArtRage supports imported gradients from Photoshop, the Secondary Color is required to represent the Background Color in those gradients. When the gradient is generated, the Secondary Color at the time is used for this point.
3. Custom: If you set a point to use a Custom Color, the color you set for that point will be used when the gradient is created, regardless of the current paint color.

Combinations of these three color types can create different effects. For example:
1. To create a gradient that goes from Current Paint Color to black, set the first point to Main, and the second to Custom (black). Every time the gradient is applied, the first color will be the current paint color.
2. To create a gradient that goes from black to white, set the first point to Custom (black) and the second to Custom (white). Because both points use a fixed, Custom Color, the gradient will always be black to white.

Because Main and Secondary color points can change, the preview of your gradient may look different as you change paint color.

\section*{Gradient Alpha Points.}

The following controls are available for Gradient Opacity Points:
1. Delete: Deletes the point. There must be at least two points in the gradient.
2. Position: The position of the point along the entire length of the gradient. \(0 \%\) puts the point at the far left, \(100 \%\) at the far right.
3. Opacity: The opacity value of the gradient at that point, from \(0 \%\) to \(100 \%\).

\section*{Center Points:}

Center Points are automatically generated between each Color Point and each Alpha Point. They represent the half way point of the blend between the surrounding points. By default, Center Points appear half way between the points, so the blend is evenly distributed.

When you click a Center Point you are presented with a Position slider that can be used to set the position of the point between the surrounding points.

By moving the half way point of the blend in position you can change the bias of the progression between the surrounding values.


For example if I have a Blue point and a Red point and I move the Center Point towards Red more Blue will be visible: The half way color between Red and Blue occurs closer to Red so there is less 'red space' in the blend.

Center Points cannot be deleted.

\section*{Adding a Gradient to the Collection.}

When you have finished editing your Gradient you can choose the Add To Collection menu item in the Gradient Editor. You will be asked to select a group and name for the new gradient then the file will be created and the collection updated.

\section*{Importing Gradients.}

ArtRage allows you to import Photoshop Gradients either to disk or to your collection.

To import a gradient in the Gradient Editor select the Load From Disk option in its menu. This allows you to select either Photoshop Gradient Files (.grd) or ArtRage Gradient Files (.argrad). To import to the collection, open the Gradient Collection Panel and choose the import option.

Photoshop Gradient Files can contain more than one Gradient. When you choose a grd file to import from, a panel appears listing all of the available gradients in that file. When importing to the collection you can hold down Shift and click on multiple files to select them for import. When loading a gradient in the Gradient Editor you can only select one.

\section*{Credits.}

ArtRage and the ArtRage Brush Man Logo are registered trademarks of Ambient Design Ltd. in the USA and New Zealand.

This manual is ©2013 Ambient Design Ltd.

Dramatis Personae: Andy Bearsley (Backbone Engineering, OS Support \& Toolkits), Matt Fox-Wilson (UI and Application Design and Engineering, Manuals), David Jenner (Quality Assurance and Beta Management). Uwe Maurer (Business Development). Athena Kekenes (Tool and Panel iconography and visuals). Miriam Schneider \& Pavel Puchenkov (Additional Engineering). Tycho (A Cat).

Additional network code by Mike van Bokhoven.

ArtRage makes use of the Freetype Text Rendering System. More information can be found at www.freetype.org.

Product names used in this documentation are used for purposes of clarity only. All registered trademarks are the property of their respective owners.

\section*{Additional Resources:}

Byron Callas: Stickers (Art Clippings - Fluffy, Plastic Dots, Textured Dots, Tube Dots. Character Sets - 36 Numbers. Stamps - Jellyfish). Presets (Sticker Spray - Broad Fluffer, Fluff Explosion, Fluffer Brush, Jellyfish, Jellyfish Random). Gloop Tool Sample Painting.

Hans Deconinck: Stickers (Brush Heads - Multibrush, Soft Bristles). Presets (Sticker Spray - Speckled Multibrush).

Stefano Fiore: Canvases (Art Papers - Diagonal Grain, Sandy Paper, Swirly. Canvas - Smooth Canvas. Rough - Concrete, Stucco). Grains (Canvases Coarse Canvas, Special - Stone 1, Stone 2, Stone 3, Techno 1, Techno 2). Stickers (Brush Heads - Art Brush 1-15, Ribbon 3D, Stamps - Angled Hair). Presets (Palette Knife - Blurred Frosting, Frosted Spots, Harsh Chaos, Heavy Blurred Frosting, Small Frost. Sticker Spray - Cloud Brush 2, Cloud Brush Soft, Dirty, Dirty Soft, Eclectic, Eclectic 2, Impressionist, Japanese Ink, Mimosa, Modern, Smudge, Stains 2, Stains, Van Gogh 2, Ironic, Ribbon 3D, Dense Fur, Frizzy Hair). Pencil Tool Sample Painting.

Justine Hawryluk: Colors (Oil Spectrum). Stickers (Glossy - Black Gloss, Citrus Gloss, Cyan Gloss, Emerald Gloss, Navy Gloss, Orange Gloss, Pink Gloss, Purple Gloss, Red Gloss, Yellow Gloss, Multicolor Gloss).

Colin Henry: Stencils (Grids - Borders, Circle Bands, Diagonal, Dot, Square).
Gaeton Laprade: Stickers (Art Clippings - Paint Splats. Brush Heads Airbrush Spat 3D, Airbrush Spat, Sea Foam, Shrub Brush 3D, Shrub Brush. Hair \& Fur - Hair Brush 2. Stamps - Barbwire, Bubble, Chain, Curled Leaves, Grass Brush, Holiday Lights, Marching Ants, Particles, Paw Prints, Sparkles, Wheat. Stickers - Gold Coins, Ladybug, Popcorn Strands, Shiny Star, Xmas Bulbs, Xmas Gifts, ZapPowBlam). Presets (Sticker Spray - Airbrush Spats, Airbrush Spats 3D, Gift Boxes, Gold Coins, Lady Bug, Paint Splats, Paw Prints, Popcorn Strand, Star Glitter, Xmas Bulbs, Xmas Gifts, ZapPowBlam, Barb Wire, Bubbles, Chain, Holiday Lights, Marching Ants, Particles, Particles 2, Particles 3, Sparkles, Hair Brush 2, Grass 4, Leaves, Sea Foam, Shrub Brush, Shrub Brush 3D, Tree Shrub, Wheat).

\section*{Paul Lee - Paint Roller Sample Painting.}

David Manuel: Canvases (Canvas - Essential Canvas. Paper - Hatched Paper, Sketch Paper, Watercolor Paper). Grains (Canvases - Canvas Grain, Hatched Canvas. Papers - Sketch Paper, Watercolor Paper). Stickers (Brush Heads - Clutter Brush, Crackle \& Swirl, Fluff Brush, Fluff Brush Shaded, Soft Puff, Sparse Bristles, Very Sparse Bristles. Hair \& Fur - Fur Curly Seq, Fur Curly, Fur Layering, Fur Loose Whispy, Fur Soft Gathered, Fur Soft Wave, Fur Wooly Blur, Hair Brush, Hair Frosted Tips, Hairs. Stamps - Dune Grass, Fir Branch, Mossy, Mossy 2. Stickers - Flower Children, Flower Children Red Base). Presets (Sticker Spray - Rooster Tail, Sparse Bristles, Texturing Brush,

Very Sparse Bristles, Basic Soft Fur, Bear Fur, Curly Fur, Fine Frosted Fur, Fluffy Tail, Fluffy Tail 3D, Hair Brush, Kinky Curly Fur, Loose Whispey Fur, Rough Fur, Soft Wave Fur, Wooly, Yeti Fur, Dune Grass, Mossy, Mossy 2, Flower Children, Flower Children Multicolor). Sticker Tool Sample Painting

Philip Mayes - Eraser Tool Sample Painting.
Susan Murtaugh - Felt Pen Sample Painting.
Albert Root: Stickers (Art Clippings - Artriangle, Mango And Sage. Brush Heads - Blooming, Brush Stroke, Cotton Candy, Crosshatch, Crosshatch 2, Flow, Impressionist, Modern, Texture Brush, Thick Impasto. Stamps - Dotsy, Lines, Welcome Typography, Wrapped Candy). Presets (Sticker Spray Blooming, Van Gogh, Thin Lines, Thick Impasto, Texturing Brush 2, Impressionist Artist, Crosshatch, Crosshatch 2, Calligraphic Brush, Art Triangle, Mango And Sage, Welcome Typography, Wrapped Candy, Cotton Candy, Dotsy, Modern Jazz). Chalk, Crayon, Palette Knife \& Oil Brush Sample Paintings.

Sav Scatola: Stickers (Brush Heads - 3 Bristle Heads, Sparse Dot, Oil Bristles, Raggety, Wet Brush, Sparse Dot 2. Stamps - Distant Trees, Grass, Grass 2, Pines, Sparse Oak). Presets (Sticker Spray - Oil Bristle, Sparse Dot, Bristle 1, Bristle 2, Bristle Wet, Bristle Wet 2, Dry Brush, Raggetty, Sparse Dot, Wet Brush 1, Wet Brush 2, Distant Trees, Grass, Grass 2, Grass 3, Oak Leaf, Pines).

Henry Stahle: Stencils (Stencils - Grass, Tape. Shapes - Ovals). Stickers (Art Clippings - Splat. Nature - Ants, Crows, Flies, Larvae). Presets (Sticker Spray - Ants, Crows, Flies, Larvae, Splats).

Levent Suberk: Stencils (Art Clippings - Kaleidoscope, Olive Deco, Stucco Deco, Trim. Brush Heads - Bush 3D, Bush 3D 2, Bush, Cable, Cable 2, Cloudy Sky, Slinky, Wood Burning. Nature - Gulls, Pebbles. Stamps - Blue Snake, Finger Paint, Flower Brush, Flowers, Leaf 3D, Leaves, Neon Snake, Prairie, Push Pin. Stickers - Black Pearl, Fireball, Houses). Presets (Palette Knife - Frost, Tiny Frost. Sticker Spay - Black Pearl, Fireballs, Houses, Push Pin, Wood Burning, Kaleidoscope, Olive Deco, Stucco Deco, Trim, Blue Snake, Cable, Cable 2, Finger Paint, Flower Brush, Glow in the Dark, Neon Snake, Rainbow Spring, String of Dots, Tight Rainbow Spring, Bush, Bush 3D, Cloud Brush, Flowers, Gulls, Pebbles, Prairie Grass, Shaded Leaves, Simple Leaves). Watercolor Tool Sample Painting.

Peter Villumsen - Inking Pen Sample Painting.
Tomasz Zuk: Stickers (Stamps - Dice. Character Sets - Rough Numbers, Typewriter. Brush Heads - Dry Brush, Pedzel). Presets (Sticker Spray - Dice, Numbers, Typewriter, Dense Speckle, Fine Brush, Flick Line).

This line added to see if the manual localization team fell asleep after the previous chapter.```

