

TwistedBrush Pro Studio Revision History

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Revision History

Version 21

21.00

- Added - Option to set the draw area color. Found in the Preferences dialog!
- Added - Add Brush Control button added to Brush Control dialog!
- Added - Brush Control - General ArtSet. Large select of brush enhancements.
- Added - Brush Control - Special Effects.
- Added - F9 is now the hot key for displaying the Edit ArtSet dialog.
- Added - Option "Set layer below as Clone/Trace source" has been added to the Page menu.
- Added - Toggle Layer panel option to the View menu.
- Added - Toggle All Panels option to the View menu.
- Added - Toggle All Panels option to the popup panel menu.
- Added - Pro Nu Crepper brush to the Art Pro Nu Media ArtSet
- Added - Pro Nu Neuron brush to the Art Pro Nu Media ArtSet
- Added - Pro Nu Curly brush to the Art Pro Nu Media ArtSet
- Added - Pro Creepy Blend brush to the Art Pro Effects ArtSet.
- Added - Pro Flamer brush to the Art Pro Smoke and Gases ArtSet
- Added - Pro Lighening brush to the Art Pro Smoke and Gases ArtSet
- Added - Pro Infinity Design Paint 2 brush to the Art Pro Design ArtSet
- Added - Pro Seed Thing brush added to the Art Pro - Nu Media ArtSet
- Added - Pro Soft Pastel 3 brush added to the Art Pro - Natural Media ArtSet
- Added - Pro Wild Weaver brush added to the Art Pro - Nu Media ArtSet
- Added - Tone Mapping filter added to the Brightness and Contrast category of filters.
- Added - Enhanced Detail filter added to the Sharpen category of filters.
- Added - Vibrance Filter added to the Color category of filters.
- Improved - Selecting a Color brush modifier will now only update the current color rather than all four color slots!
- Improved - No longer attempt to detect if a screen resolution is too low for TwistedBrush.
- Improved - Don't automatically hide the color palette based on attempts to detect screen resolution.
- Improved - Allow Modifier brushes to be visible in the normal Brush Select dialog.
- Improved - Updated imagemagick library. PSD support and range of file image formats supported.
- Improved - Re-organized the View menu to make more consistent across entire program.
- Improved - Full Screen mode can be temporarily disabled while the , (comma) key is held down.
- Improved - When using the M hotkey to briefly show panels closing or opening new panels is remembered.
- Improved - On the Brush Control panel don't show a control parameter scroll bar if it can't be used.
- Improved - The default values for the Contrast Overload filter have been improved.
- Improved - The pRegress brush effect has been improved to make it more compatible with

other brush effects.

- Improved - Brush effects that fade the brush size to 0 (zero) will now not draw.
- Improved - Holding the Alt key when clicking a Brush Modifier button will add all of the modifier brush effects rather than replacing effects of the same name.
- Changed - Turn off the default of writing to log.txt on start up.
- Changed - The hot key for Brush Cleaning is now . (period) instead of , (comma)
- Changed - The Brush Cleaning tool no longer has a hot key to switch to the tool.
- Changed - Selecting a brush from the ArtSet dialog will place it in the shortcut panel such that it's size, density and opacity changes are remembered.
- Changed - Selecting Save to Shortcuts from the Edit ArtSet dialog will place brushes in the shortcut panel such that it's size, density and opacity changes are remembered.
- Changed - The option Load Shortcuts from Artset will place brushes in the shortcut panel such that it's size, density and opacity changes are remembered.
- Changed - The default shortcuts ArtSet now have brush setting such that the brush sizes is remember for each brush.
- Changed - Brush effect envelopes now default to "combo" instead of "flat"
- Fixed - Lay Multiply brush effect was not working.
- Fixed - Blend Mix Capture 1 and 2 brush effects were not working in combination with Lay brush effects.
- Fixed - Layer thumbnails were not drawing properly when the canvas was partly off screen.
- Fixed - Popup menus sometimes would remain shown even when other Windows gained focus.
- Fixed - Rare case of TwistedBrush starting where the main application window could not be seen.
- Fixed - Mixing color palettes was not working with the right mouse button.

Version 20

20.07

- Fixed - Using the Ctrl + Click option on the shortcut panel would result in the last brush change not being saved.
- Fixed - Using the Auto Clean Brush feature Off with brushes that had the Smooth Stroke effect resulted in painting issues.
- Fixed - The Script Brush tool was not playing back brush strokes at the correct position.

20.06

- Fixed - Zoom to Fit functionality was not positioning canvas properly.
- Fixed - 1 to 1 zoom was not positioning the canvas properly.

20.05

- Improved - The canvas position was being reset at times when it wasn't needed.
- Fixed - Crash could occur if painting off the edge of the page with a paper texture enabled.
- Fixed - Some brush effects could result in drawing artifacts. For example Scatter Page on a page larger than the viewing area.

20.04

- Added - Quick Command panel options for toggling some common preferences. These include: "Left Mouse Button for Tools", "Precision Cursor", "Hide Circle Cursor While Drawing", "Square Cursor" and "Filter Preview Off"
- Fixed - When loading camera raw files a temporary file and location was saved as the last used import directory. It should be the location of the actual raw file.

20.03

- Fixed - Camera raw files were still not loading. Changed the way they are loaded so that there are no environment variable requirements.

20.02

- Improved - Internal improvement to keep underlying canvas the same when zooming in and

out. This aids in compatibility with some 3rd party mouse smoothing tools.

- Improved - Show visible rectangle area on Page View panel.
- Improved - Track last usage point of the Page View dialog for zoom focus.
- Changed - Ctrl + arrow keys to scroll the canvas is accomplished now with just the arrow keys.
- Changed - The direction that the canvas is scrolled when using the arrow keys has been reversed to make it more intuitive.
- Changed - The arrow keys to scroll the canvas now allow for auto-repeat.
- Changed - Moved the Zoom to Center option in the Preferences dialog to just below the Center Page option.
- Fixed - Camera RAW files were not loading.
- Fixed - The Center Page option was not working.
- Fixed - The Pan Rt, Pan Lt, Pan Up and Pan Down Quick Commands were not working.
- Fixed - Ctrl + arrow keys were not panning the canvas properly.
- Fixed - The Zoom to Center option was not working correctly.

20.01

- Added - Ability to hide and show all dialogs with a single key press. (F2)
- Added - When all dialogs are hidden, pressing and holding the (m) key will display and allow working with all dialogs.
- Added - A new Transform tool with interactive, move, resize, rotate and a combination of resize and rotate.
- Added - The Paste Tool gets a Warp Size option. This allows for stretching the pasted object freely.
- Added - Virtual mouse support for tools. Use the "[" or "]" to simulate mouse button presses and arrow keys for simulated mouse movement. This allows for exact placement when using the tools.
- Added - Fine positioning of tools with the arrow keys. When using a tool with mouse pressing the arrows keys will allow for fine tuning the position. Works in combination with the Ctrl key for changing the starting position of the tool.
- Added - Drawing Guides, Axis: All, Axis: Symmetry, Axis: Symmetry Page, Axis: Symmetry Dab, Axis: Mirror, Axis: Mirror Page and Axis: Mirror Dab. These guides allow setting the axis point for the various brushes that have the range of symmetry and mirror effects.
- Added - The canvas is now truly floating and can be panned and moved freely off the edge at any zoom level to allow for optimal positioning for painting.
- Added - Brush strokes and tools can now be started off the canvas allowing for better control of working at the edges.
- Added - Brush effect, Bsh Pat Rnd Offset added. This allows for pattern brushes to have non-repeating patterns. Note: this will result in the pattern being regenerated after each stroke.
- Added - Dialog section to the Quick Command dialog.
- Added - ArtSet and EditArtSet to the Quick Command dialog.

- Added - 5 new brushes added to the Art Pro Image Shape ArtSet.
- Added - Mitchell image resizing option added. Generally better than Lanczos3, softer and more natural and more suitable for separate sharpening for more control.
- Added - Adaptive image resizing option added. Somewhat special resizing that looks at image content to determine resizing.
- Added - Haze Blur filter in the Blur category of filters.
- Added - Darkness filter in the Brightness and Contrast category of filters. Simulates, dusk, moonlight and nighttime.
- Added - Charcoal 2 filter in the Artistic category of filters.
- Added - Denoise filter in the Noise category of filters.
- Added - Normalize filter in the Brightness and Contrast category of filters.
- Added - Sigmoidal Contrast filter in the Brightness and Contrast category of filters.
- Added - Emboss4 filter in the Stylized category of filters.
- Added - Option to save a Single Layer to a file. Only saving to PNG supported for single layer saves.
- Added - Adjust Last Filter menu added to the Filter menu. Will launch the filter dialog with the previous filter and settings.
- Added - Option to Import Any Image Format added to the File menu. Can load over 100 different formats. Use it if the other image open options don't handle the type of image you need to import.
- Improved - Brush strokes that started partly off the page were not handled cleanly. This is accurate now!
- Improved - The maximum number of brush effects has been increased to 20!
- Improved - The maximum number of brush Control sliders in the Brush control dialog has been increased to 20!
- Improved - Zooming in and out now keeps a consistent point of focus regardless if the canvas is fully viewable.
- Improved - Zooming in and out remembers the last active mouse usage (paint or tool) and keeps focus as that position.
- Improved - When selecting a brush shortcut internally the brush was built multiple time which for some brushes could lead to slower selection.
- Improved - When select a brush from the ArtSet dialog the brush was built multiple time which for some brushes could lead to slower selection.
- Improved - Pro brushes that allow for selection of patterns have been updated to optionally allow random pattern offset.
- Improved - The Shape Brush effect is improved so that either Clips or Shapes from the Shape ArtSets can be used.
- Improved - Most of the brushes in the Art Pro Image Shape ArtSet now include a Select Shape button in the Brush Control panel.
- Improved - The Rotate Brush tool will now dynamically display the angle being set.
- Improved - Don't allow saving brushes to the Project Sets - Default* ArtSets.
- Improved - Camera raw file reading has been improved and reads some newer camera raw files including the Canon 5DMkiii raw files.

- Changed - The canvas scroll bars have been removed. These don't make sense now with the true floating canvas.
- Changed - The hot key assigned to the (m) key has been changed from the ArtSet Edit dialog to the toggle for displaying all dialogs.
- Changed - The Move tool is now called Transform.
- Changed - The Invert Mouse Button icon has been removed from tool bar and placed into the Preferences dialog.
- Changed - Holding Ctrl while clicking on a brush shortcut now loads the Edit ArtSet dialog. Previously it was an alternate form to copy a brush in the brush shortcuts panel. Shift click still works for copying a brush.
- Changed - A number of less often used menu items in the File menu have been placed into an Extra sub menu.
- Fixed - Auto correct cases when ctrl or alt keys were pressed when the main TB window changed focus. Previously drawing would not be possible until ESC was pressed or TB was restarted.
- Fixed - Random offset patterns were not always being randomly offset.
- Fixed - Out of bounds index on pattern ArtSet names that could lead to unexpected results.
- Fixed - Masks were not properly redrawing on the canvas when patterns or pattern brushes were selected.
- Fixed - The Line tool Repeat label was not displaying properly.
- Fixed - The hot key for toggling 1:1 zoom was not correct. It is the semi-colon (;).
- Fixed - Setting drawing guides was not marking the page changed and therefore they weren't changed unless other changes were done on the page such as drawing.
- Fixed - When using the Resize Image Preview features the image zoom level could change making it difficult to see the results.
- Fixed - When using the Filter preview area feature the image zoom level could change making it difficult to see the results.
- Fixed - The Duotone filter was not working in a understandable way. Change to use a single tone slider.
- Fixed - The Pan tool was not holding the position of the canvas precisely when panning.
- Fixed - License key compatibility improvements for Windows 7 and Windows 8.

Version 19

19.18

- Improved - Added a message reporting when there is not enough memory to apply a filter.
- Changed - Removed links to Fine Art Printing service.
- Fixed - When using Ctrl + C to paste a new layer and memory is not available, after clearing the message box the program still acts as if the CTRL key remains pressed.
- Fixed - Brushes with the SubSample brush effect were not properly being recorded in scripts.

19.17

- Added - Direct zoom levels 1600% - 8% added as Quick Command button options.
- Fixed - Low memory cases could result in a crash when using the filter preview area option.
- Fixed - Using the Org (organize) button on the Layers panel could result in the Scratch layer being moved when it should not.
- Fixed - Many of the Scribbler brushes were not working properly.
- Fixed - The Pro Nu Scribblers 2 and Pro Nu Scribblers 3 were not working properly on layers.
- Fixed - Don't allow the Warp tool to be used on an invisible layer.
- Fixed - The Lua filter command `paint_text` could result in a crash. Note: The `paint_text` command is non-operational unless a font is first selected via the Text tool.
- Fixed - Pressing cancel on the Acquire (scanning) could result in being unable to exit.
- Fixed - When scanning an image the page was not redrawing to show the new page size.

19.16

- Added - Brush effect Auto Mask Trace. The will automatically create a mask at the start of a stroke from the information in the clone source.
- Added - Brush effect envelope Mask value added.
- Added - 5 additional Select Filter brush effects added. This brings a total of 14 filters that can be applied to a brush.
- Added - Pro Filter List X14 brush to the Art Pro - Image Filter ArtSet.
- Added - Buffer Control filters, Copy to Buffer, Swap with Buffer, Load from Buffer and Merge from Buffer added. These only appear when selecting filters for Select Filter effects for brushes.
- Fixed - Usage of drawing guides, polygon, lasso and bezier tools could result in a crash. Introduced in 19.15.
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19.15

- Added - New ArtSet Art Pro - Lines and Outlines added.
- Added - Pro Nu 4 Color Splat brush added to the Art Pro - Nu Media ArtSet.
- Added - Pro Smooth Clip and Pro Smooth Clip Array brushes added to the Art Pro - Clip

Brushes ArtSet.

- Added - Pro Silhouette Pen Fine Line to the Art Pro - Silhouette ArtSet.
- Added - Brush effects, Indexed Lineto, Indexed Smooth Stroke, Indexed Line Segment, VLines1, HLines1, Indexed Tile X, Indexed Tile Y. Indexed Space Absolute and Indexed Space Proportional. These are used to support high quality design pens.
- Added - Brush effects evelope db-ang-orig added.
- Added - Pro Silhouette Pen Design Line and Pro Silhouette Pen Precision Line to the Art Pro - Silhouette ArtSet.
- Added - Options of Mask Source and Mask Destination added to the Warp tool.
- Added - Pro Clip Designer brush added to the Art Pro - Clips ArtSet.
- Added - Pro Image Brush Designer added to the Art Pro - Image Brush ArtSet.
- Added - Pro Image Shape Designer added to the Art Pro - Image Shape ArtSet.
- Added - Art Pro - Filter Brush Collection ArtSet added. Only 3 brushes so far, but more will be added over time.
- Improved - Most of the drawing guides render much faster now resulting in significantly less slow down when enabled.
- Improved - The rendering of the Bezier tool control points and lines are much faster now resulting in significantly less slow down when enabled.
- Improved - The rendering of the Polygon Mask and Lasso Mask tool control lines are much faster now resulting in significantly less slow down when enabled.
- Improved - The Pro Pen Smooth brush has improved quality.
- Improved - The Pro Mandala Basic and Pro Mandala Gel brushes have improved quality now.
- Improved - The Pro Palette Knife is improved with smoother angles and stroke smoothing.
- Improved - The Pro Oil Paint Flat brush is improved with smoother angles and stroke smoothing.
- Changed - The indicator in the layer mini bar for a Scratch layer created has been changed.
- Changed - The brush Pro Clip Designer is now called Pro Clip Flow Line.
- Fixed - Brushes that use particle effects were not drawing properly on the left edge of the paper.
- Fixed - Brushes that had rotation effects were not drawing properly on the left edge of the paper.
- Fixed - The Order Prints dialog was limiting the size incorrectly.
- Fixed - Fixed low memory crash case when selecting a Paper layer, Scratch layer or Mask layer.
- Fixed - Fixed low memory crash when attempting to display a reference image, including when the Scratch Layer Reference was created.
- Fixed - When the viewable area of a page changes the background area was not always getting cleanup properly.
- Fixed - All of the brush effects in the Mirrors and Symmetry category of effects were improperly placing dabs resulting in poor quality on thin line brushes.
- Fixed - Many of the Dab Position effects were not being placed with the expected precision.

- Added - Options for Alpha to Mask and Mask to Alpha added to the Quick Command panel.
- Added - Layers, Clips, PgView, Effects, Msk Lay and Paper options to the Quick Command panel.
- Added - Clip Pattern, Image Filter X1, Image Filter X3, Image Filter X5 and Image Filter X9 added to the Effect Brush Modifiers.
- Added - Pro Clip Pattern Text Brush and Pro Clip Pattern Shaded Text Brush to the Art Pro - Text Brushes ArtSet.
- Added - Most tools are available in the Quick Command panel as dynamic tool usage (single use).
- Added - Script Brush options are now available in the Quick Command panel.
- Improved - The Quick Command panel is now resizable to any configuration showing as little as 1 button or as many as 20 x 30 buttons.
- Improved - Clicking on an empty area in the Quick Command panel will popup the edit dialog.
- Improved - The configured Quick Command settings are now stored in a separate file so that a ResetAll does not result in a lose of your custom configuration.
- Improved - The Quick Command panel button editing now lists the options in categories with a tree hierarchy.
- Improved - Holding the Ctrl key will now allow for Quick Command buttons to be arranged by dragging them.
- Improved - Holding the Alt key and clicking on a Quick Command button will set it to No Action (delete).
- Improved - In the Brush Control panel the word "Select" is removed from Select Pattern, Select Shape, Select Texture and Select Filter.
- Improved - In the Brush Control panel the Filter buttons now include the filter name if one is selected.
- Improved - The Select Filter brush effects can be reordered in the Brush Effects panel.
- Improved - The Glow Inner and Glow Outer filters get an option to use the currently selected color.
- Improved - The Art Pro - Image Filter ArtSet has new brushes and refinements to existing brushes.
- Changed - The default No Action text on the Quick Command buttons is now blank rather than three dashes "---".
- Fixed - Some filters, such as the Carton filter, were not honoring masks.
- Fixed - The combination of Clip brush effects and Layer brush effects were not working on the background layer.
- Fixed - The No Action option for the Quick Command panel was not selectable.
- Fixed - The non-constrained option for the Image Resize feature was not working since 19.13.

19.13

- Added - Distort by Scratch Layer filter added to the Distort category of filters.
- Added - Gallery Wrap Mirror Auto filter added to the Generate category of image filters.

- Added - Adaptive Unsharp Mask filter added to the Sharpen filter category of image filters.
- Added - Feather filter added to the Stylized category of filters. Very handy filter!
- Added - Pro Clip Brush Filter and Pro Blip Brush Filter 9x to the Art Pro - Image Filter ArtSet.
- Improved - Added a Random Offset option to the Displacement Bump set of filters.
- Improved - The Pro - Pen Pixel brush gets Anti-Alias and Dash Interval options.
- Improved - Allows brush effects Mask and Dab Pos Mode to work properly together.
- Improved - The Resize Image dialog now allows for selecting the units of measure, inches, pixels or millimeters.
- Improved - The Resize Image dialog now shows the current PPI (pixels per inch) setting.
- Improved - The Order Prints tool has been improved to support additional print features.
- Improved - Clicking on a current selected color item will unselect it and allow adjusting colors without changing any of the 4 current colors.
- Improved - Black, Grey and White color options were added to the Quick Command panel to allow quickly selecting one of those colors without changing the current set of 4 colors.
- Improved - The Layer Bar now indicates when the Mask is enabled and also when there is a paper selected or data on the scratch layer.
- Improved - The Alpha Filter option was improved to allow for fully transparent areas to have values set. Basically it makes more of the filters usable with the Alpha Filter option.
- Improved - Clip brushes can now be used brush layer effects.
- Changed - The Marble filter was changed to a different underlying algorithm to correct crash cases but also to give a wider range of effects and cleaner handling at the page edges.
- Changed - Remove the Adaptive Unsharp Mask filter. It proved to be unreliable.
- Fixed - The Marble filter could in rare cases cause a program crash.
- Fixed - The selected filter was not getting set into a Pro Image Filter brush if the preview button was off in the filter select dialog.
- Fixed - Filters with a variant value of zero were not consistently resulting in a randomized variant.
- Fixed - Saving a page to a PSD file could result in layers being incorrectly sequenced.

19.12

- Added - PSD (Photoshop files) can now be loaded and saved with basic layer information (only normal mixing modes).
- Added - Tool bar settings are now saved between instances of running TwistedBrush.
- Added - Rotate Brush option added to the Quick Command panel.
- Added - Integration of Fine Art Printing uploading and order placement right without TwistedBrush. Found on the main menu as item Order Prints.
- Added - 7 New brushes added to the Art Pro - Image Filters ArtSet.
- Improved - The Art Pro - Image Filter brushes now save the selected filter settings with the brush!
- Improved - The Pro Mask Image Filter and Pro Stroke Image Filter brushes have numerous additional options.

- Improved - Brushes can now be designed with up to 9 post stroke filters!! This becomes an easier way to create sets of reusable filter combinations.
- Improved - Pressing the Select Filter button in the Brush Control panel will pull up the last configured setting for the filter number.
- Improved - The Backgrounds filters get an option to lock alpha . Allows alpha areas to be protected.
- Improved - The Backgrounds filters get an option to randomly position the pattern.
- Changed - The Pro Image Script brushes have been moved to their own ArtSet. Art Pro - Image Scripts
- Changed - The brush effect Simple Filter has been replaced with Simple Filter 1 - Simple Filter 9.
- Fixed - Some complex brushes that use both the Size effect and Rotate effect could result in incorrect drawing.
- Fixed - The Lasso mode of the Copy tool was not placing the starting position correctly when the page was scrolled.
- Fixed - Selecting a brush category in the Brush Effects panel would result in the brush name being changed.
- Fixed - Brushes that used the Blend Mix Capture effects were not working properly. This included the Pro Oil Pastel and around 10 other brushes.

19.11

- Added - Pro Pen Calligraphy brush was added to the Art Pro Natural Media ArtSet.
- Fixed - Actions that result in a layer being moved up or down without the full size layer panel visible resulted in a program crash. Problem started in version 19.10.

19.10

- Added - The Copy Tool gets a Lasso option to allow for freehand shape selection of copy areas!
- Improved - Support added for dragging layers in the layer panel to re-order them.
- Improved - When moving layers up or down automatically scroll the layer into view in the layer panel.
- Improved - An Org (organize) button was added to the Layer panel. This will arrange the layers such that there are no gaps.
- Improved - The Layer panel shows an extra layer now as the result of reducing the size of some buttons.
- Improved - Selecting a layer in the layer mini bar will scroll that layer into view in the full layer panel.
- Improved - When duplicating a named layer add the suffix "dup" to the name.
- Improved - Adjusting size is now possible with the Stamp mode of the Paste tool when the

Shift key is hold down.

- Improved - Adjusting rotation is now possible with the Stamp mode of the Paste tool when the Alt key is hold down.
- Improved - Minor improvement to the Pro Blended Paint brush to allow a larger range of Sloppiness.
- Fixed - The layer insert actions could result in the layer name being copied to the inserted layer when it should not.

19.09

- Fixed - Some of the additions in 19.08 were not included in the build.

19.08

- Added - Art Pro - Silhouette ArtSet added.
- Added - Option to Zoom to Center added in the Preferences dialog. This will move the target of the zoom towards the center of the screen.
- Added - Auto-repeat added for the Zoom in and Zoom out hot keys (+ and -)
- Added - Display the page Width and Height in the Info panel.
- Added - Link to the Pixarra Fine Art Printing service from the Help menu.
- Added- Pixarra Fine Art Printing paper sizes added to the Set Page Size dialog.
- Added - Layer mode Silhouette added. Only of use for Silhouette brushes.
- Added - Brush effect Silhouette Mode added.
- Improved - The Page Clear and Page Fill commands now honor the layer alpha lock.
- Improved - Clip brushes were not conforming to the alpha channel restrictions for Liquid and Blob brushes.
- Fixed - The random size and rotation setting for a number of brushes in the Art Pro - Clip Brushes ArtSet didn't work.
- Fixed - Setting the Horizontal Amount and Vertical Amount to zero for the Pattern filter could result in a crash.
- Fixed - Mouse wheel zooming slower than it should have been and was missing actions on some mouse wheel clicks.
- Fixed - Using the Copy Merge option with the Copy tool could result in a crash if the selection rectangle was off the page.
- Fixed - The Page Summary totals was counting layer again each time a page was loaded.
- Fixed - Hot keys were not available after using buttons on the layer panel.

19.07

- Fixed - Pattern brushes and cloner brushes were not working since 19.06.
- Fixed - Pattern brushes, cloner brushes and brushes that grad a color had some tiny positional issue that could lead to the pattern or clone image jumping a pixel or two in position while drawing.

19.06

- Added - Box Blur filter. Somewhat faster than gaussian blurs with the added option of doing seamless blurring as well.
- Added - High Pass filter added to the Process filter category.
- Added - Contrast High Pass filter added to the Brightness and Contrast filter category.
- Added - Layer blending modes AND, OR and XOR added.
- Added - Pro Liquid Warp brush to the Art Pro Liquid ArtSet.
- Improved - Small performance improvement on all filters on multi-processor and multi-core systems.
- Improved - The brushes in the Art Pro Liquid ArtSet have been updated to make the Symmetry control optional.
- Improved - The brushes in the Art Pro Liquid ArtSet have all been updated to include a Color Lock option.
- Improved - The five different Backgrounds filters now supports opacity and mix modes.
- Improved - The Clip Fill filter now supports opacity and mix modes.
- Improved - The four Add Noise filters now supports opacity and mix modes.
- Fixed - The Page View panel was not updating after finishing a stroke.
- Fixed - The Skin Enhance filter was not working correctly.
- Fixed - Art Pro Scribbler brushes were not working since the release of 19.05.

19.05

- Added - Pro LF Pen Smooth to the Art Pro - Large Format ArtSet.
- Improved - Significant performance improvements for all brushes larger than around 40 pixels in size on multi-processor and multi-core systems. Very large brushes are over 2x as fast!!!
- Fixed - The Set Page Size dialog was not saving the PPI setting when the unit of measure was Pixels.

19.04

- Added - Pro Nu Flow Line brush added to the Art Pro Nu Media ArtSet.
- Added - "Alpha Add From Mask" and "Alpha Sub From Mask" commands added to the Mask menu.
- Added - Printer page layout added to allow setting image print size and general position on print page.
- Added - Tighten filter added in the Sharpen category of filters. Useful after upscaling an image or perhaps for blurry photos.
- Improved - An option to disable the warning about editing system ArtSets has been added.

- Improved - Always show the Book and Page number in the application title even when the book and pages are named.
- Improved - Small update to the Pro Blended Paint brush.
- Improved - Allow entering any PPI (pixels per inch) in the Set Page Size dialog.
- Improved - Option added to resize image to fit in new page size in the Set Page Size dialog.
- Improved - Added option to the Set Page Size dialog to get page size from the printer driver based on printer setup selections.
- Improved - Added display of page size in mega pixels for an easy way to determine the size.
- Updated - The Project Defaults ArtSet was updated.
- Fixed - Lua scripts with filters would not always play back properly.
- Fixed - Using the Undo hot key (Ctrl + Z) when the Undo system is paused, such as when on a scratch layer, could result in an application lockup.

19.03

- Improved - Fine line accuracy when zoomed in has been improved.
- Updated - A number of Pro Pen brushes were updated to account for other changes in this release.
- Changed - The Smooth Stroke feature under the Control menu is no longer used.
- Changed - The Smooth Stroke brush effect was changed to implement a stroke smoothing system similar what occurs for the particle system pMoveSmooth effect.
- Changed - The brush effect Disable Smooth Stroke no longer has any effect.
- Fixed - The Pro Pen Artist brush had incorrect rotation leading to rough edges.

19.02

- Added - The Pro LF Pen Artist brush added to the Art Pro - Large Format ArtSet
- Added - Anti-Alias brush effect added.
- Improved - Brush dabs (tips) without a shape effect could be misformed resulting in a lack of smoothness in fine lines.
- Improved - Higher resolution dab positioning.
- Improved - Brush effects Spac Center Pro and Spac Center Abs with a value of 0 now have no effect.
- Improved - The following brushes now are anti-aliased: Pro Basic Paint, Pro Pen Artist, Pro Pen Sketching, Pro Pen Fine Line, Pro Pen Gel, Pro Pen Smooth, Pro Pen Taper, Pro Auto Mask Basic, all Art Pro Scribbler brushes, Pro Pattern. Pro Pattern Clip, Pro Oil Paint, Pro Oil Pastel, Pro Marker, Pro Market Felt, Pro Infinity (optional), Pro Difusser (optional)
- Improved - A number of Natural Media brushes were improved for better default settings.
- Changed - In the brush modifiers Effects - Basic ArtSet the Subsample modifier was changed to to use the Anti-Alias brush effect.
- Fixed - The Pan tool (including holding spacebar to pan) was not working properly when zoomed far in.
- Fixed - Line mode of the Bezier tool was not treating the stroke as a single stroke.

19.01

- Added - Art Pro - Image Filters ArtSet added. Very powerful set of brushes.
- Added - 4 new brushes added to the Art Pro - Nu Media ArtSet.
- Added - Brush Effects VM Fine Tune 1, VM Fine Tune 2, VM Fine Tune 5 and VM Fine Tune 10 added.
- Added - Auto mask stroke brush effect.
- Added - Auto mask clear effect.
- Added - Brush effects Select Filter and Brush image filter.
- Added - Additional brushes to the Art Pro - Text Brushes ArtSet.
- Added - Brush effect Script Brush script.
- Added - A basic Screen Capture automation script added. Capture screen to named file. Found at File > Automation
- Improved - The Bezier tool Stroke command works much faster now and works with all brushes.
- Improved - Stroke scripts now process layered strokes prior to merging into the source layer. This makes stroke scripts much more versatile.
- Improved - The brush effects modifiers ArtSet has many of the brush effect sets modified to make use of adjustable settings.
- Improved - Ensure global hot keys are available after setting tool parameters.
- Improved - The Brush tool hot key (S) was only activating the popup tools option not brush drawing, this was changed to allow for drawing.
- Improved - Minor addition to the Pro Nu Metal brush.
- Improved - Strong warning added when attempting to save to one of the key application ArtSets.
- Updated - Camera raw file system updated to support additional cameras.
- Fixed - Searching in the Select Brush dialog would result in a Pro Presets choice in the left most panel. Clicking it results in an error.
- Fixed - Undo was not working properly with brushes that use the bStrokeScript effect.
- Fixed - Pixel Mode brush effect would result in subsequent effects being ignored for that brush.
- Fixed - Lua based filters were not properly recording into scripts.
- Fixed - Lua function buffer_from_mask was not working correctly.
- Fixed - Setting a layer or page as a cloning source was affected by the mask when it should not be.

19.00

- Added - Bezier Curve tool added to the main tool bar.
- Added - Art Pro - Auto Masking Paint ArtSet added.
- Added - Brush Effect modifier Art Pro - Auto Mask added to the Effects - Basic modifier ArtSet.

- Added - Clone Source Page and Cloner Source Layer added to Quick Command Panel set of possible commands.
- Added - 3 Oil Brushes added to the Art Pro - Image Brush ArtSet.
- Added - Popup menu option to toggle the Brush Effects panel from the Brush Shortcut panel.
- Added - Pro Un-Erase brush added to the Pro Natural Media ArtSet.
- Added - Save Preset and Load Preset buttons added to the Brush Control panel for easy saving and loading of brush settings.
- Added - ARND button is added to the Brush Control panel to randomize the Pro brushes control sliders.
- Added - Pro Nu Stippling Brush in the Art Pro - Nu Media ArtSet
- Added - Pro Glass Block and Pro Stipplizer brushes to the Art Pro - Effects ArtSet
- Added - Automation script added - PNGFilesToLayers
- Added - 4 Engraving brushes and 1 half toning brush added to the Art Pro - Cloning ArtSet.
- Added - Pro Blob Holes brush added to the Art Pro - Blob Modeling ArtSet.
- Added - Art Pro - Animated ArtSet. Just Butterflies brush so far.
- Added - Paper Presets are now supported. Allows for saving by name your custom paper settings.
- Added - 11 paper presets added.
- Added - Pro Watercolor Dry6 brush added to the Art Pro - Natural Media ArtSet.
- Added - Pro Blob Liquid Modeler and Pro Blob Liquid Sharper brushes to the Art Pro - Blob Modeling ArtSet.
- Added - Auto mask and Auto mask tolerance brush effects added.
- Added - Ctrl + Click in the brush shortcuts panel will save the current brush to the clicked shortcut slot.
- Added - Colorize layer mix mode.
- Added - Lay Colorize brush effect.
- Added - Pro Colorize brush change to use the new Lay Colorize effect and Pro Color brush is added that used the Lay Color effect.
- Added - Pro Blended Paint to the Art Pro - Natural Media ArtSet.
- Added - Pro LF Blended Paint to the Art Pro - Large Format ArtSet.
- Added - Brush effects Set Var 1 - Set Var 10.
- Added - Brush effects envelops `getvar1 = getvar10`
- Improved - Minor adjustments to the Pro Pen Smooth brush.
- Improved - For the Brush Effects and Brush Envelopes selector popup set focus so that keyboard and mouse scroll wheel is immediately usable.
- Improved - When editing animations retain the drawing grid from frame to frame.
- Improved - The mouse button toggle notification messages can now be disabled.
- Improved - GIF Animations recorded above 10 frames per seconds will toss away frames allow for playback in browsers with the intended speed.
- Improved - The Automation system is no longer considered experimental.
- Improved - Script brush are much faster now, especially for scripts that use multiple brushes.
- Improved - The Art Pro - Image Shape ArtSet brushes now can work with most of the brush modifiers shapes.

- Improved - Most of the Art Pro - Image Brush ArtSet brushes can be combined with brush shapes now.
- Improved - The Art Pro - Blob Modeling ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Clip Brush ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Cloner ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Design ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Effects ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Image Brush ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Image Shapes ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Large Format ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Liquid ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Mandala ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - The Art Pro - Fire and Gases ArtSet has been updated to take advantage of optional brush control sliders.
- Improved - When reverting to a restore point don't zoom to fit the page.
- Improved - Default the Blob mode to Alpha Lum 4 instead of Alpha Lum 5.
- Improved - Layered Mode added to a couple of Blob Modeler brushes.
- Improved - Added Lock Color option to the Pro - Blob Blender brush.
- Improved - The special layers (Paper, Reference and Mask Edit) retain their opacity settings between use.
- Improved - The Inner Glow filter now working in combination with the current mask in addition to the transparent areas.
- Changed - Palette editing is now accomplished with shift + click rather than right click.
- Fixed - In the Quick Command Edit dialog if a item is not selected and OK is pressed a crash would occur.
- Fixed - The Unmask Add and Unmask New options of the selection tool were not working.
- Fixed - Attempting to load a TBR file as a reference image would result in a program crash.
- Fixed - In the Animation Controller the Layer buttons, such as Copy Layer, would not work without first painting on the layer.
- Fixed - The stylus eraser was not properly retaining the alpha or size settings.
- Fixed - The TileX and TileY brush effects could not properly tile across the entire page in some cases. This fix corrects a number of brushes.
- Fixed - The Pro Palette Brush and Pro Watercolor Dry 1 brushes in the Art Pro - Natural Media

ArtSet had incorrect rotation.

- Fixed - The Copy tool was not properly copying the last row or column of an image.
- Fixed - Pro Pattern brushes were not working properly in combination with masks.

Version 18

18.18

- Added - Basic Animation supported added. Accessed from the new top level menu named Animation.
- Improved - When zooming in and out with the mouse wheel or + or - keys retain the actual position on screen of the area of interest.
- Improved - Books can now have up to 1000 pages.
- Improved - When starting Page Explorer or selecting a new book in the Page Explorer give a indicator in the title bar that the thumbnails are being built.
- Improved - Support key repeat for the next and prev keys (Page Down and Page Up) to allow flipping through pages more quickly.
- Improved - Automatic zoom to fit has been refined to only do it in cases when a new file is being imported and not in cases the interrupt work flow such as when paging up and down or when working with filters or solutions.
- Fixed - When zooming out with the mouse wheel quickly there could be some visual artifacts on the drawing area background panel.
- Fixed - Using the Set Preview Area with the Motion Blur filter or any filter without a checkview check box would result in a crash.
- Fixed - When deleting a page not all the page elements were deleted.
- Fixed - When moving a page up or down in the Page Explorer not all page elements were moved.
- Fixed - The Pro Watercolor Dry 4 Pro, Watercolor Dry 5 and Pro Watercolor Wet 3 brushes had incorrect default size values.

18.17

- Added - Pro Air Flow Brush to the Art Pro - Natural Media ArtSet.
- Added - Pro Twister to the Art Pro - Smoke and Gases ArtSet
- Added - Many fire and plasma brushes added to the Art Pro - Smoke and Gases ArtSet.
- Added - Lineto Reset brush effect.
- Added - Pro Spiro Line 2, Pro Snaker, Pro Spinner, Pro Fractal Snaker and Pro Fractal Spinner to the Art Pro - Design ArtSet.
- Added - Pro Img Shp Shaded, Pro Img Shp Pattern Shaded, Pro Img Shp Cloner Shaded, Pro Img Shp Shaded Rotate, Pro Img Shp Pattern Shaded Rotate and Pro Img Shp Cloner Shaded Rotate brushes.
- Added - Pro Snow Laden Tree, Pro Foliage, Pro Foliage 5, Pro Leaf 1, Pro Leaf 2, Pro Leaf 2, Pro Twigs and Pro Butterflies added to Art Pro - Plants and Trees ArtSet.
- Added - HSL Adjustments brush effects modifiers to the Effects - Color Modifier ArtSet.
- Added - Brush effects pRot To Dir and pRot to DirInv to rotate the brush to the current particle direction.
- Added - Brush effect Spac text clip added for supporting variable pitched spacing for Text

brushes.

- Added - Brush effect envelope db-ang3.
- Added - Brush effect Shaded Direction and Shaded Length.
- Improved - Pressing and holding the Shift key will constrain the painting tool to a straight line.
- Improved - The Dab Mode Rate brush effect is now set at a scale of 10x faster.
- Improved - When the Dab Mode Rate brush effect is in use don't draw triggered by movement, only by the flow rate.
- Improve - Most Pro brushes have been updated to set the brush rotation to 0 (no rotation). This results in improved quality and performance.
- Improved - The Dab Pos Mode effect is now compatible with Lay brush effects.
- Improved - Text brushes now support variable pitch spacing and also been updated to take advantage of the Brush Control option (checkbox) features.
- Fixed - The Tool Shortcut is Always Dynamic preference was not working properly.
- Fixed - The Dab Mode Rate brush effect and brushes that use it was not working properly on non-tablet installations.

18.16

- Added - Art Pro - Smoke and Gases ArtSet added.
- Added - Pro Image Shape Particle 1, Pro Image Shape Particle 2 and Pro Image Shape Particle 3 added to the Art Pro - Image Shape ArtSet
- Added - Pro Image Brush Particle 1, Pro Image Brush Particle 2 and Pro Image Brush Particle 3 added to the Art Pro - Image Brush ArtSet.
- Added - Pro Shape Particle 1, Pro Shape Particle 2 and Pro Shape Particle 3 added to the Art Pro - Design ArtSet
- Added - Pro Clip Particles to the Art Pro - Clip Brush ArtSet
- Added - Pro Nu Spray Wave and Pro Nu Spray Shot to the Art Pro - Nu Media ArtSet.
- Added - TwistedBrush Automation System! Experimental but functioning. Found at menu File > Automation.
- Added - Tool Shortcut is Always Dynamic preference added.
- Added - Pro Eraser Text Brush added to the Art Pro - Test Brush ArtSet.
- Added - Brush effects pRot, pAdj Rot, pRot Init, pRnd Rot and pRnd Rot Init added.
- Added - Brush effect Dab mode rate added. Allows for Dab Mode and Dab Pos Mode brushes to paint without moving the cursor (like an air brush)
- Improved - The Brush Control panel now supports the ability to turn off and on control parameters.
- Improved - Remember the last text entered for Text brushes
- Improved - When selecting a brush effect in the Brush Effect panel clear out the envelope, freq and amount fields if the brush effect doesn't use them
- Improved - Particle emitter have been changed to not filter drawing, just emitting, when it's not time to emit a new particle.
- Improved - The Paste tool, clip brushes and text brushes have improved performance with

rotating.

- Improved - RAW camera reading has been updated to use version 1.444 of ddraw.
- Changed - Remove unused Text Clip Brush effect.
- Changed - The Hide Circle Cursor option has been changed to Hide Circle Cursor while Drawing.
- Fixed - Don't display the Clips panel when Text Clip brushes are selected.
- Fixed - The New Combo Palette popup menu action was clearing the current palette when it shouldn't
- Fixed - bStrokeScript and ubStrokeScript brush effects, if referencing an incorrect script file would lose recent changes to the brush.
- Fixed - Paste tool, clip brushes and text brushes could crash in rare cases when rotating.
- Fixed - Using the Import Brush Code or Export Brush Code from the brush shortcut popup menu would trigger a color selection mode for reference images.
- Fixed - Closing the Brush Control panel when a Text Brush is selected would result in a crash on the next brush selected.
- Fixed - Selecting a Hue Adj, Sat Adj or Luminance Adj brush effect when the Brush Control panel was not visible would result in a crash.
- Fixed - Selecting a Text Clip Once or Text Clip Repeat brush effect when the Brush Control panel was not visible would result in a crash.

18.15

- Added - Art Pro - Text Brushes ArtSet added!! Allows painting with text.
- Added - Brush effects Text Clip Once, Text Clip Repeat and Text Clip Brush.
- Improved - When using the Color Picker with an ImageBrush also capture the color in addition to the image beneath the cursor.
- Improved - Selecting of tools in normal and dynamic mode has been improved so that anytime a tool shortcut key is pressed and the tool is used while the key is down it will be considered a dynamic tool usage regardless of how quickly this is done.
- Improved - Don't allow tool selection while drawing.
- Changed - Some of the Help menus have been changed.
- Changed - Reinstate the feature that allows either mouse button to activate a tool when the tool is being used in dynamic mode
- Changed - Default on new installations is to not disable Aero themes when TwistedBrush starts.
- Fixed - Script recording was not recording the Color Picker action when the capturing from the current layer or trace layer.
- Fixed - The Brush Control panel was not always properly predrawn when switching brushes in Aero themes.
- Fixed - The Center Cursor shortcut Shift + P was only working at 1:1 zoom level.
- Fixed - Clip Array brushes, Image Brush Array brushes and Image Shape Array brushes were not working properly.

- Fixed - Skip 2 If brush effect was not working properly resulting in a number of brushes not working properly.

18.14

- Added - Exposed the option to disable the Windows Aero themes on start-up. Found in the Preferences dialog. Previously the Aero themes were always disabled.
- Improved - Tool selection with shortcut keys is improved. Press a key to select a tool, press and hold the key and use the tool will use the tool in dynamic mode.
- Fixed - The Grid Snap drawing guide was not working when it was not displayed for performance reasons.

18.13

- Added - Clear button added to the Drawing Guide tool to clear the set drawing guides.
- Added - Load from File as Reference Image menu option added to the File menu.
- Added - The Page Summary dialog gets a Reset button.
- Added - The Shortcut Key F2 will now launch the Page Explorer
- Added - Pro Clip Designer brush in the Art Pro Clips ArtSet.
- Improved - A number of drawing guides have rendering performance improvements. These include not displaying them when the size would be too small and only rendering the areas that are visible.
- Improved - Script Brush strokes can now be Undone just like any other stroke. This makes them much more usable.
- Changed - The multitude of directly selectable Zoom levels in the View menu have been moved to the Zoom submenu.
- Changed - The Opacity slider for the Magic Wand Mask tool is now called Level.
- Changed - When recording scripts for the Script Brush tool the Undo system is disabled.
- Changed - Don't clear the current palette when using the New Palette option.
- Fixed - Modifier ArtSets were appearing in the User Created ArtSet category when they should not have appeared at all.
- Fixed - The tool tip popup help was not correct for the page and book navigation icons.
- Fixed - Added Shortcut Key (F1) to the Help > User Guide menu item.

18.12

- Added - Layer locking is now possible. A layer can either be not locked, alpha channel locked or fully locked. Previously no alpha channel locking was supported.
- Added - The Hue adj, Sat adj and Luminance adj brush effects when exposed in the Brush Controls will have a color preview bar.
- Added - Pro Nu Puddy Paint to the Art Pro - Nu Media ArtSet.

- Changed - The Pro Img Shp Basic brush has the erase option removed since it is not compatible with the brush layer options used in that brush.
- Fixed - Pattern modifier ArtSets were appearing in the wrong category in the Brush Selection dialog.
- Fixed - Brush modifier ArtSets were not always appearing in the in the ArtSet list while in the ArtSet Edit dialog and they were also appearing in the Brush Select dialog when they should not.
- Fixed - Numerous Pro brushes where not working properly. Specifically those with optional features such as Directional Rotate On/Off for Image Brushes.

18.11

- Added - Batch processing!! Automatically apply a script to multiple files.
- Added - New menu Reset All Pop-up Messages added to the File menu to restore all hidden pop-up messages.
- Improved - Art Pro - Image Shape brushes will now automatically convert clip luminance value to alpha values for clips that are fully opaque. This does not alter the stored clip, only the version loaded for the shape brushes.
- Improved - All help resources are now online rather than integrated in the application.
- Improved - Alpha channel fidelity improvements when using clips and some filters.
- Improved - The Pro Img Shp Basic brush gets a wash option and fix for the eraser mode option.
- Improved - The Last Settings for Lua filters are now suffixed with the script name so that last settings will be saved per script.
- Changed - Installation default for the mouse button control is changed to use left mouse button for tools (more standard).
- Changed - Don't allow hiding the mouse button control message when switching between left and right mouse buttons used for tools.
- Fixed - Lua filter scripts and integrated Lua filter scripts were not recording properly in the TwistedBrush script recording system.
- Fixed - Entering a name in the Layer panel and then closing the Layer panel before selecting something else would result in the layer name not being saved.

18.10

- Added - New ArtSet Art Pro - Pattern added. With more powerful and easier to use pattern brushes that previously available,
- Added - Clip Fill filter added to the Generate category of filters.
- Added - Detail Enhance filter to the Photo category of filters.
- Added - New brush effects Luminance Rnd, Luminance add, Luminance sub, Hue adj, Sat adj and Luminance adj.
- Added - New brush effects, Bsh Pat Scale, Select Pattern, Select Rotation, Select Shape and Select Texture.

- Added - New brush effect, Clip Pattern.
- Added - It is now possible for the Brush Control panel to have a button for selecting a Pattern, Rotation, Shape or Texture.
- Improved - The Brush O Matic brush in the Art Pro - Design ArtSet has been updated for better pattern handling.
- Fixed - When selecting and canceling a brush effect type in the Brush Effects panel for an effect that has brush control settings do not lose the brush control settings.
- Fixed - The Saturation brush effects where not correct when saturation was set as full.
- Fixed - The Contrast Mask filter and other other filters that rely on it could crash at some very specific image sizes.
- Fixed - With certain special brush types selected were selected the Filters dialog would not work properly to beyond the first preview.

18.09

- Added - Graphite filter added to the Artist category.
- Added - Drawn filter added to the Artist category.
- Added - Edge 6 filter added to the Stylized category.
- Added - Skin Enhance filter added to the Photo category.
- Added - Tone filter added to the Color category.
- Added - Contrast Luminance Map filter added to the Brightness and Contrast category.
- Added - Contrast Overload filter added to the Brightness and Contrast category.
- Added - Contrast Soft Light filter added to the Brightness and Contrast category.
- Improved - The various Hue and Saturation brush effects have been updated to give more controlled results, especially when used in combination with each other and the Luminance brush effect.
- Improved - The Combo and Global brush envelopes now are mapped to the full range of values. Previous percentages of 0 to 99 were available. The percentages 0 to 100 are now properly available (in increments of slightly more then 1%).
- Improved - The various controls sliders, lists etc in the Filter dialog box have been improvement to be more accurate.
- Improved - The Clear Page and Fill Page features are now called Clear Layer and Fill Layer and have been moved to the Edit menu.
- Changed - Adjusted the default value for the Histogram Stretch filter to be that of a value of more common usability.
- Fixed - The buffers in Lua filter scripts were not being cleared properly which could result in a crash or old image data being present in a filter.
- Fixed - Lua Integrated filters were not showing the additional information area properly.

18.08

- Added - Zoom Fit has been added to the Quick Command feature.
- Added - Brush effect Luminance added.

- Improved - Added some additional common PPI sizes for the Page Size dialog. Including 100, 110, 120, 180, 240, 400 and 500. These are in addition to the sizes that were already available.
- Improved - The random frame solutions now can be used on any layer without the need to flatten the image.
- Improved - The history palette is now shown as an 8x8 grid of colors rather than 16x16. This makes it much easier to find a select a specific previously used color.
- Changed - The default values for the Alpha Edge Color filter have been updated.
- Fixed - Allow for more space for the text "Select the position of current image on the new page." on the Set Page Size dialog.
- Fixed - Deleting pages in the Page Explorer would not properly clear the page title.
- Fixed - The Paint Bucket tool in Erase Connected mode could result in a crash.
- Fixed - The Layer Mask layer mixing mode was not appearing properly on screen with many brushes while a paint stroke was in progress.
- Fixed - Lua function print_buffer_clear() had an issue that could lead to stability problems in scripts that use it.
- Fixed - Don't display the layer transparency warning during script playback when layers are moved to and from the background.

18.07

- Added - ArtSetArt Pro Large Format added. Brushed designed for huge brush sizes.
- Added - ARule of Thirds Grid option has been added to the Crop tool.
- Added - Alpha Edge Color filter added to the Color category.
- Improved - When Entering a name for a Combo palette check for user supplied prefix of "Combo - " and remove it from the name otherwise that prefix will be duplicated.
- Improved - Significant improvement in the automatic disposal of Undo steps when memory is low at the time the memory is needed!
- Improved - Undo memory was not being freed as soon as it could be resulting in some actions failing if memory was low.
- Improved - When using the Save Base Palette pop-up menu option if the palette file exists present a overwrite confirm dialog.
- Improved - Pressing the space bar while using any of the rectangle or ellipse based tools will hide the coordinate information box.
- Improved - Don't allow pasting into an invisible layer.
- Improved - Don't allow loading from file into an invisible layer.
- Fixed - Eraser brushes on layer 1 (background layer) were not honoring masks.

18.06

- Added - Pro Pen Fine Line brush added to the Art Pro - Natural Media ArtSet.
- Added - Pro Soft Pastel 2 and Pro Oil Paint 3 brushes added to the Art Pro - Natural Media ArtSet.

- Added - Swap with Current Color pop-up menu added to the current selected color bar.
- Improved - When loading a page, default zoom level will now be to fit the page into the viewable area. Previously it was always at the 100% zoom level.
- Improved - Pressing and holding the Alt key with Lasso Mask tool will constrain the next segment to a line.
- Improved - When using the Search feature of the Brush Select dialog the Brush Category, Brush Variation and Effect Envelope fields will also be searched.
- Improved - When using the Search feature of the Brush Select dialog the currently selected brush if part of the search result set will appear with a yellow background to make known that it is part of the search results.
- Fixed - The Polygon Mask tool was not canceling when selecting a different tool.
- Fixed - The Palette menu commands, Create 1 Color Span, Create 2 Color Span, Create 3 Color Span, Create 4 Color Span, Create Hue Span From Current Color, Create From Image (Spot) and Create From Image (Average) were not working properly with Combo Palettes.
- Fixed - The Layer Panel, Clips Panel and Page View Panel were not honoring the Dialog Visible Adjust option when it was disabled.
- Fixed - The Polygon Mask was not accurately allowing the placement of the end point of a segment.
- Fixed - In the Filter dialog when doing adjustments for Lua based filters with a mask present the canvas was updating too frequently resulting in a flicker.
- Fixed - Lua Script filter list in the Filter dialog could not be navigated with the up and down arrow keys.
- Fixed - The gussy filter with a Blur value of 0 was not working.

18.05

- Added - New palette type added - Combo. This palette type will allow for easily selecting and saving all four colors from the color bar!
- Added - Additional pop-up menu options for palettes. New Palette, New Combo Palette, Save Base Palette and Clear Palette.
- Added - New default palette added in P3 position. Combo - Default 16.
- Added - Three new scribbler brushes. Pro Nu 4 Color Scribbler 1, Pro Nu 4 Color Scribbler 2 and Pro Nu 4 Color Scribbler 3,
- Improved - The default Elevation value for the Emboss2 filter has been adjusted to a more usable value.
- Improved - Added Save Restore Point and Revert to Store Point to the Quick Command panel.
- Improved - All pop-up menus have a Cancel option added. Additionally some pop-up menus have been rearranged to make more common choices easier to select.
- Improved - The Pro Nu Sketched Scribbler 2 and Pro Nu Sketched Scribbler 3 have been updated to be usable with the currently selected color.
- Fixed - One step undo was not working after a Revert to Restore Point action.
- Fixed - It was not possible to delete a book name.

18.04

- Improved - The Apply and Continue feature was added back to the Filter Dialog.
- Improved - Exit the special layers (Paper, Scratch and Mask Edit) when restore points are stored.
- Improved - When moving a layer with transparency into the background layer present a warning message and choice if this action should be continued since the transparency will be lost.
- Fixed - Using the filter preview area on a special layer (Paper, Scratch and Mask Edit) was not working.
- Fixed - Don't auto save when special layers (Paper, Scratch and Mask Edit) are active.
- Fixed - Undo was not working properly with special layers. This change will disable the undo system while working on special layers. This may be enhanced in the future to fully support undo within the special layers.

18.03

- Added - Standard Banner Ad sizes added to the Set Page Size dialog.
- Added - Mirror Filter added.
- Improved - For the special layers (Paper, Scratch and Mask Edit). Don't allow transparency.
- Improved - For the special layers (Paper, Scratch and Mask Edit). Don't allow layer actions, layer up, layer down, merge or duplicates.
- Improved - For the special layers (Paper, Scratch and Mask Edit). Don't allow Blob and Liquid brushes.
- Improved - When using the Paper Select dialog show the special Paper layer as selected for a visual cue.
- Improved - Clicking on an active special layer (Paper, Scratch and Mask Edit) in the Layer Mini bar will now toggle it off rather than do nothing.
- Improved - Select a special layer (Paper, Scratch and Mask Edit) from the Layers panel will now activate the special layer.
- Changed - Don't give a warning message when using the Paper Select dialog about the layer being deleted.
- Fixed - Zoom levels were not being properly preserved when switching to and from the scratch layer.
- Fixed - Background Removal solutions were allowed to run on the background layer when they shouldn't. This could result in a crash.
- Fixed - When setting a new page size the special layers (Paper, Scratch and Mask Edit) new area were not properly initialized.

18.02

- Fixed - Using the Page Exploring when the special layer (Paper, Scratch or Mask) was selected could result in a crash.

- Fixed - The Paper Select dialog was creating the paper layer at the wrong layer location.

18.01

- Fixed - The eraser brushes were not working.

18.00

- Added - A new Polygon Mask tool has been added.
- Added - A new Lasso Mask tool has been added.
- Added - The Filter dialog now includes an option to select a rectangle area for previews. This is useful for very large pages.
- Added - The Lua filter scripts now support a variant slider type. This allows for a greater range of values.
- Added - New preference, Dialog Visible Adjustment. Allows turning off the automatic movement of dialog boxes and panels. Useful for those with dual monitors.
- Added - Special Layer added. Mask Edit Layer allows quick and easy highly refined mask editing.
- Added - The three special layers (30, 31, and 32) now are shown with icons. P - Paper Layer, S - Scratch Layer, M - Mask Layer. Selecting one of these special layers from the layer mini bar will immediately enter the edit mode for that special layer.
- Added - Brush Code Import and Brush Code Export menus added to the Brush Shortcut pop-up menu.
- Improved - The Rectangle Mask tool now includes options for Replace, Add, and Subtract as well as an inverted rectangle option.
- Improved - The Ellipse Mask tool now includes options for Replace, Add, and Subtract as well as an inverted ellipse option.
- Improved - Scratch Layer: Editing mode of the scratch layer is now persistent so that it is no longer required to hold the A key to remain on the scratch layer.
- Improved - Scratch Layer: Textual indicator at the top of the page when editing the scratch layer was added.
- Improved - Scratch Layer: Switching to and from the scratch layer can now be done via the A key, layer menu, or Quick Command button.
- Improved - Scratch Layer: When exiting the scratch layer a Reference Image titled Scratch Layer Reference is automatically created / updated! Allows for easy color selections.
- Improved - Scratch Layer: The scratch layer's zoom and page position is remembered the next time you go to edit the scratch layer.
- Improved - Scratch Layer: The scratch layer is automatically named Scratch layer.
- Improved - Scratch Layer: The visibility of the scratch layer is now always turned off when exiting the scratch layer.
- Improved - Scratch Layer: When creating the scratch layer via toggling into the scratch layer edit mode the layer is automatically filled with fully opaque white. If desired the layer can be cleared for transparency.

- Improved - The Frame Maker filter now allows for a much great range of variations.
- Improved - The Quick Command panel buttons are now color coded to make it easier to quick find the desired button.
- Improved - The Layer Panel Launcher has been replaced with a more general Panel Launcher. This is the little bar that appears under the color palette area.
- Improved - The Paper Layer (previously called Texture Layer) now can more easily be manually edited in addition to the paper select dialog.
- Improved - Non-blending brushes work more logically with soft mask edges.
- Improved - Up to 256 layers can now be created. This is increased from the previous maximum of 32 layers.
- Improved - In the Layers panel the Click to Create Layer text now includes the layer number for reference.
- Changed - The Filter dialog no longer supports the Apply and Continue option.
- Changed - Hot keys for changing pages in a book are now Page Up and Page Down keys instead of the Left and Right arrow keys.
- Removed - The Unmask Grid Cell tool has been removed.
- Removed - The menu Mask > Mask Filter has been removed since it is now easier and more powerful to use the special Mask Edit layer.
- Removed - The menu Layer > Set Scratch Layer has been remove. The scratch layer will always be at layer position 31.
- Removed - Removed the hot keys Up and Down arrows for changing books. It was too easy to accidentally press these.
- Fixed - The Quick Command panel was not always properly sized.
- Fixed - The Move tool was not working correctly when ESC was used to cancel the Move action.
- Fixed - Don't remove the Scratch Layer when flattening a page.

17.28 - Available Now

- Added - New advanced filters Cartoon, Painted and Illustrated added to the Artistic filter category.
- Added - New advanced filter Frame Maker added to the Generate filter category.
- Added - Buffer commands added to the Lua Filter scripts in the paint category. Up to 32 buffers can be used. New commands include `paint_buffer_from_layer`, `paint_buffer_to_layer`, `paint_buffer_copy`, `paint_buffer_clear`, `paint_buffer_merge_layer`, `paint_mask_to_buffer`, `paint_mask_from_buffer`. This is very powerful addition.
- Added - Numerous commands add to the Lua Filter scripts in the paint category. `paint_flip_horizontal`, `paint_flip_vertical`, `paint_clear_page`, `paint_fill_page`, `paint_mask_on`, `paint_mask_clear`, `paint_mask_invert`, `paint_create_from_mask`, `paint_alpha_create_from_mask`, `paint_mask_create_from_image`, `paint_mask_create_from_image_luma`, `paint_mask_create_from_alpha`, `paint_flood_fill`, `paint_rectangle`, `paint_ellipse`, `paint_text`, `paint_gradient`, `paint_mask_ellipse`, `paint_mask_rectangle`, `paint_mask_wand`, `paint_copy`, `paint_paste`, `paint_warp`, `paint_rotate_brush`
- Improved - The Edge4 and Edge5 filters have been improved with new options.
- Improved - Indicate "Density not used for this brush" when appropriate.
- Improved - Constrain the Line tool to make horizontal or vertical lines with the shift key.
- Changed - Shortcut keys Ctrl + F1 - Ctrl + F12 no longer activate the quick command buttons.
- Fixed - When using the Copy to Shortcut feature in the ArtSet Editor dialog the current brush was not being update for the new ArtSet.
- Fixed - Added the layer merge types HSL_HUE, HSL_SAT, HSL_LUM and HSL_COLOR to Lua scripting.
- Fixed - The Tile X and Tile Y brush effects were placing dabs incorrectly. This was broken in release 17.25 and impacted the Seamless brushes and many other brushes that use the Tile_X and Tile_Y brush effects.

17.27

- Added - Option to create a reference image from a Clip was added. Located in the pop-up menu on the clip panel.
- Added - The Paste tool now supports Transform Size and Transform Rotate modes. Allow isolated transformations of size or rotation.
- Added - The Paste tool now has a Centered option to place the pasted image into the center of the page.
- Added - New filter added. Adjust RGBA in the Color category.
- Added - Two new Edge filters added. Edge4 and Edge5. Very fine edge filters in the Stylize filter category.

- Improvement - The Paste tool now supports rotation precision to 100th of a degree!
- Improvement - The Glow filter now includes a Burn option for a more intense effect.
- Changed - The Paste tool Transform Mode is now call Transform Size and Rotate.

17.26

- Improvement - Hide the Density slider when a brush is selected that does not make use of the density values.
- Change - The Pro HSL Sat brush is changed to not save the color information.
- Fixed - Smooth Felt Brush in the Markers ArtSet was not working properly.
- Fixed - The Surface Blur and Noise Reduction 2 filters were not working in 17.25. Additionally many solutions use those filters and therefore didn't work also.

17.25

- Added - New ArtSet added. Art Pro - Scribblers with a total of 11 brushes.
- Added - 4 new layer mix modes. HSL Hue, HSL, Sat, HSL Lum and HSL Color
- Added - 4 new brush effects. Lay HSL Hue, Lay HSL Sat, Lay HSL Lum and Lay HSL Color.
- Added - 4 new brushes added to the Art Pro - Photo Edit ArtSet. Pro HSL Colorize, Pro HSL Hue, Pro HSL Sat and Pro HSL Lum.
- Added - A new brush was added to the Art Pro - Natural Media ArtSet. Pro Pen Sketch.
- Added - A new option was added to hide the circle cursor when the precision cursor is active.
- Added - A new brush effect added Fill. Fills the page evenly with dabs.
- Added - Pro Clip Fill brush added to the Art Pro - Clips ArtSet.
- Added - Pro Image Brush Fill brush added to the Art Pro - Image Brush ArtSet.
- Added - Pro Image Shape Fill brush added to the Art Pro - Image Shape ArtSet.
- Added - Horizontal Flip and Vertical Flip options added to the Clip Panel. Access from the right click pop-up menu.
- Changed - The scribbler brushes have been moved from the Art Pro - Nu Media ArtSet to the new Art Pro - Scribblers ArtSet.
- Improved - The Art Pro - Natural Media, Pro Artist Pen has been improved with smoother edges.
- Improved - Most clip brushes have received a significant performance improvement.
- Improved - Camera RAW file reading improvements.
- Fixed - Art Tools - Pens, Velvety Smooth Pen, Thick Smooth Pen, Flowing Pen 3 and Flowing Pen 4 were not working properly.
- Fixed - The Tile X and Tile Y brush effects were not always properly distributing the dabs on the page.

17.24

- Added - 3 Scribbler brushes added Pro Nu Scribbler 1, Pro Nu Scribbler 2 and Pro Nu Scribbler 3. Found in the Pro Nu Media ArtSet.

- Added - The options for Horizontal Flip and Vertical Flip to the Quick Command panel.
- Added - Added brush effects Scribbler 1, Scribbler 2, Scribbler 3 and Scribbler 4.
- Improved - Don't automatically stop Time-Lapse Recording when switching pages or changing page sizes. However, recording will only resume when the page size matches the original page size used when the recording started.
- Improved - Added controls (buttons) to the Time-Lapse Recording dialog to allow manually forcing frames to record in 1, 5, 10 and 20 frame groups.
- Improved - Constrain the Line tool to straight lines when holding down the Shift key.
- Fixed - The Color Contrast filter was not honoring masks.
- Fixed - The Gallery link in the Help menu was not linking directly to the gallery anymore.
- Fixed - The Auto Clean tool (turned off) was not working correctly.
- Fixed - After scanning an image (with Acquire) the page was not being re-drawn.

17.23

- Added - Two perspective brushes added to the Pro Clips ArtSet and the Pro Image Brush ArtSet.
- Added - Brush effect envelop added. Dst h.perspc. This will give a value tied to the perspective drawing guides.
- Fixed - When using the Time-Lapse Painting feature changing the page size with the Crop or Border features could result in a crash. Now recording will be stopped.
- Fixed - The brush Fractal Paint 028 was not painting anything.
- Fixed - The Pro Image Brush Stamper brush was defaulting to tiled when it should not.
- Fixed - Bld Tint now smoothly supports the range from no tinting to full tinting.
- Fixed - The Pro Image Brush brushes that support tinting now smoothly supports the full range from no tinting to full tinting.

17.22

- Added - Pro Watercolor Wet 4 brush added to the Art Pro - Natural Media ArtSet.
- Added - Pollock filter moved to the new Auto Paint category.
- Added - Horizontal Lines filter added to the new Auto Paint category.
- Added - Vertical Lines filter added to the new Auto Paint category.
- Added - Mosaic 2 filter moved to the Pixelate category.
- Added - Mosaic 3 filter moved to the Pixelate category.
- Added - Simplified filter moved to the Stylized category.
- Updated - The security system has been updated.
- Improved - Reduced the frequency that the Clips panel will automatically display.
- Improved - Lua Filters can now be properly recorded in scripts.
- Improved - Lua Filters can now be integrated and accessed as normal filter via menus and use the preset systems as well. This is not exposed to users and is accomplished with software changes.
- Improved - When using a Lua Filter don't update the Brush Effect panel and Brush Control

panel. This reduces screen updates when adjusting the filter sliders.

- Fixed - The Bleed brush effect was not working correctly. It was unbalanced bleed colors too much from one location and not the others.
- Fixed - When Importing a Clip bank if select No and Cancel on the Delete Clips prompts don't continue with the operation.

17.21

- Added - Three new watercolor brushes added. Pro Watercolor Dry 4, Pro Watercolor Dry 5 and Pro Watercolor Wet 3.
- Improved - A number of small improvements have been made to the newly named Record Time-Lapse Painting feature.
- Changed - Record to AVI features is now called Record Time-Lapse Painting.
- Changed - Minor reorganization to the Art Pro - Natural Media ArtSet.
- Fixed - A handful of brushes in 4 ArtSets has used the ImageBrush effect when they shouldn't have. This resulted in the Clips panel showing when it wasn't needed.

17.20

- Fixed - The Page View panel was not updating properly in some cases.
- Improved - Reset All will now clear the Adobe Plug-ins list.
- Changed - Resizing the Page View panel is now handled with a right click on the Page View panel to cycle through 4 different sizes.
- Fixed - If a previously selected Plug-ins directory was removed from the computer file system a crash could occur when selecting the Plug-ins option from the Filter menu.

17.19:

- Improved - Reset All will now clear the Adobe Plug-ins list.
- Changed - Resizing the Page View panel is now handled with a right click on the Page View panel to cycle through 4 different sizes.
- Fixed - If a previously selected Plug-ins directory was removed from the computer file system a crash could occur when selecting the Plug-ins option from the Filter menu.

17.18:

- Added - Page View panel. Dynamic full view of the page with panning support to aid when zoomed in.
- Added - Clip bank import and export feature added. Bundles all clips from a bank into a single file.
- Improved - Small performance improvement for the Fractal 01 Lua Script Filter.

- Improved - Quick Start pages have received visual enhancements to improve readability.
- Fixed - The Paint Bucket tool was inadvertently alpha locking and alpha unlocking layers in some cases.
- Fixed - When saving a brush to an ArtSet with a different color storage setting than the current brush the brush color after exiting the ArtSet edit dialog was not correct.
- Fixed - The Clips panel could get into a state where it would show 2 instances and appear when it shouldn't.
- Fixed - Setting the Scale slider too low for the Background filter could result in a crash.
- Fixed - The Art Pro - Photo Edit brush Pro Fix Dynamic Angle was not working correctly.

17.17:

- Added - Pro Clip Array, Pro Image Brush Array and Pro Image Shape Array brushes added.
- Added - Brushes Pro Nu Infinity Paint, Pro Design Infinity Paint and Pro Mandala Infinity Paint.
- Added - Brush effect "Select Clip". Selects a clip from the current clip bank.
- Added - Brush effect envelopes "clip rnd" and "clip next" added.
- Improved - Major speed increase for the Pro Fractal, Pro Infinity and Pro Infinity Paint brushes.
- Improved - The Pro Cloner Dabs 1 and Pro Cloner Dabs 2 brushes now offer an option for Dab Luminance Variance.
- Improved - The pFix Color Trace brush effect now uses a brush strength for controlling the color luminance variance.
- Improved - Added a visual indicator when selecting a clip.
- Fixed - The Pro Image Brush Spray brush was not working correctly with brush rotation.
- Fixed - The Center Page option was not working.

17.16:

- Added - Art Pro - Cloner ArtSet added.
- Added - Art Pro - Seamless ArtSet added.
- Added - Brush effect pFix Color Trace added.
- Added - 4 brushes added to the Art Pro - Photo Edit ArtSet
- Added - Brush effect envelope "peak slow" added.
- Improved - Retain the canvas position information (set with Pan tool) when zooming in and out.
- Improved - The Fractal and Infinity brushes have been improved in the Art Pro - Mandala ArtSet.
- Improved - The Fractal brushes have been improved in the Art Pro - Design ArtSet.
- Improved - The Infinity brush has been improved in the Art Pro - Effects ArtSet.
- Fixed - On new installations the default brush size and colors were not being set correctly.
- Fixed - The brush rotation indicator on the cursor was not drawing at the correct location.
- Fixed - The db-ang and db-ang2 brush effect envelopes were not handling the first dab well.
- Fixed - The Repeat control for the Line tool was not working.

17.15:

- Added - Brush effects envelopes "pg ang2" and "db ang2"
- Improved - The Pro Blooming Blender brush has been improved.
- Improved - Automatically show the Clips panel when using any Clip Brush, Image Brush or Image Shape Brush.
- Improved - Brush rotation has been improved to be consistent between clips, shapes and image brushes as well as based on brush direction or brush rotation via the rotation tool.
- Improved - The Pro Clip, Pro Image Brush, Pro Image Shape and Pro Mandala ArtSets have been updated to save the brush rotation to a default angle.
- Improved - Hide the Freq and Amp columns of the Brush Effects panel if a brush effect envelope does use those columns.
- Improved - The Art Pro - Image Brush and Art Pro - Image Shape ArtSets have received a number of improvements.
- Fixed - Corrected a typo in the Art Pro - Mandala ArtSet.
- Fixed - Pro Clip Brushes with direction rotation on where not drawing the first clip in a sequence rotated correctly.
- Fixed - The Update button in combination with editing a Color brush modifier brush was not working correctly.

17.14:

- Added - Art Pro - Liquid ArtSet added.
- Added - Art Pro - Clip Brush ArtSet added.
- Added - Art Pro - Image Brush ArtSet added.
- Added - Art Pro - Design ArtSet added.
- Added - Art Pro - Mandala ArtSet added.
- Added - Art Pro - Image Shape ArtSet added.
- Added - Pro FixDynamicAngle and Pro FixArea Sample brushes added to the Art Pro - Photo Edit ArtSet.
- Added - Pro Oil Paint Flat Brush added to the Art Pro - Natural Media ArtSet.
- Added - Brush effect Global Spin added.
- Added - Pro Infinity brush added to the Art Pro - Effects ArtSet.
- Added - Three Pro Fractal Brushes added to the Art Pro - Design ArtSet.
- Added - Three Pro Mandala Fractal Brushes added to the Art Pro - Mandala ArtSet.
- Added - Pro Lathe brush added to the Art Pro - Design ArtSet.
- Added - Pro Flower Design brush added to the Art Pro - Design ArtSet.
- Added - Brush effects envelopes icounter1 - icounter4 added.
- Added - Brush effect Init added. Runs the next effect only the specified number of times.
- Added - Brush effect "Shape Brush" added. Sets the brush shape when selecting a clip or using the Copy tool.
- Added - Brush effect "Bld tint" added.

- Added - Brush effect "Disable Smooth Stroke".
- Improved - The Pro Palette Knife brush has been improved.
- Improved - Brush effects envelopes b-ang(1-4) have been improved to work properly with multi-dab brushes.
- Improved - The Pro Soft Pastel brush has been improved.
- Improved - When loading the Shortcuts from an ArtSet or to defaults retain the original ArtSet link for each brush.
- Improved - The distance based brush effect envelopes (dst, dst x, dst pg, etc) can now be used with the brush control system.
- Improved - Using the Copy tool will set the Image brush values if an image brush is selected.
- Changed - A number of ArtSets that have been recreated as Pro ArtSets have been moved to the Legacy category.
- Changed - Pro Spiro Line brush moved to the Art Pro - Design ArtSet.
- Changed - Image Brushes no longer color the clip when an image is selected. Use the new Image Shape brushes to use a clip as a shape.
- Fixed - Brush effect envelope b-ang4 was not working properly.
- Fixed - Multi-dab blending brushes were not properly cleaning the brushes.

17.13:

- Added - Art Pro - Blob Modeling ArtSet added.
- Added - Pro Watercolor and Pro Palette Knife brushes added to the Art Pro - Natural Media ArtSet.
- Added - Pro Spiro Line added to the Art Pro - Nu Media ArtSet.
- Added - Pro Cat Tail brush added to the Art Pro - Plants and Trees ArtSet.
- Added - Brush effects envelope b-ang4 added. In most cases this should be used instead of b-ang1 - b-ang3.
- Added - Brush effects Blender Count and Select Blender added.
- Added - Brush effects envelope ilIndex added. Results in a value equivalent to the current effect dab count. Used when dabs are replicated such as with mirror or symmetry effects.
- Added - The ability for blending brushes to be used with multi-dab effects such as mirror, tile and symmetry. This requires
 - very specific brush effects to work properly.
- Added - Brush effect envelopes bnk10 - bnk19 have been added.
- Added - Pro Pen Taper added to the Art Pro - Natural Media ArtSet.
- Improved - Brush Controls can now be used to select directory based objects, bShape, bPattern etc. for sequential items. The Pro Watercolor brush makes use of this.
- Improved - The Pix Lum Vary and Pix color Vary effects result in no operation when the strength is 0.
- Improved - The Pro Watercolor Digital Wet brush has been improved.
- Improved - Many of the brush effect envelopes that use the freq value can now be exposed to the Brush Controls panel.

17.11:

- Added - 8 new brushes added to the Art Pro - Plants and Trees ArtSet.
- Added - Brush effects "Skip 2 if", "Skip once" and "Skip 2 once" added.
- Improved - The Art Pro - Photo Edit brushes have been improved so that they work with transparent areas of layers.
- Improved - Brushes with Lay effects (many of the Pro brushes) now can be used to paint on Blob and Liquid layers.
- Improved - A number of brushes in the Art Pro - Plants and Trees ArtSet have been improved.
- Fixed - Layer blending modes Color and Hard Color no longer replace pure alpha areas.
- Fixed - The f-in-fast brush effect was not working correctly.
- Fixed - Brushes with the new Lay effects (Lay Dodge, Lay Multiple etc) were not working properly with the transparent areas of layers.

17.10:

- Added - 29 new Pro brushes added to the Art Pro - Plants and Trees ArtSet!
- Added - Brush effects now can have up to 16 levels. Increased from 12.
- Added - Brush effect pEmit Radial added.
- Added - Brush effect envelope t-ang2 added.
- Added - Brush effect VM Randomize. Value modifier to randomize the strength of the following brush effect.
- Added - Added brushes Pro Basic Paint and Pro Basic Wet Paint to the Art Pro Natural Media ArtSet.
- Added - Brush effect envelopes f-in-fast and f-out-fast. Faster fading in and out.
- Added - Brush effect Disperse added. This is a 10x stronger jitter.
- Added - Brush effect Gap added. This is the reverse of the Skip effect.
- Added - Brush effects pEmit DInv 2 Alt and pEmit Dir 2 Alt added. Alternates the branched directional particles.
- Added - Brush effect Skip2 added. Skips the next 2 brush effects (instead of just 1).
- Added - Brush effect Gap2 added. Reverse of Skip2.
- Added - Brush effect pSpd Init. Sets the initial particle speed.
- Added - Core brush variations, Fine Coverage, Fine Coverage 50 percent feather and Fine Coverage 100 percent feather.
- Improved - Retain brush size and color information when switching to and from brushes with integral color and size information!
- Improved - When using the Line tool don't redraw the last line when releasing the mouse button. This allows for greater control with use of advanced brushes that have a random factor to them.
- Changed - The 3D Abs effect now results in no action when the strength is 0.
- Fixed - Using the Move tool on a locked layer would result in the layer being cleared. Now the layer lock (alpha lock) is ignored for the Move tool

- Fixed - Using the Cor Dab Spc set to a value of 0 in combination with other effects could result in a crash.
- Fixed - In Blob modes 4 and 5 when using a lowering brush switching pages and returning could result in a change in the fully lowered areas.

17.00

- Added - Brush Control feature added. Allows for brushes to have custom sliders!!
- Added - Art Pro - Natural Media ArtSet added. Covers most natural media brush with flexible brush control!
- Added - Art Pro - Nu Media ArtSet added. Beginning stages of interesting brushes.
- Added - Art Pro - Effects ArtSet added. Beginning stages of useful and flexible effects.
- Added - Art Pro - Photo Edit ArtSet added. New brushes for photo editing!
- Added - Art Pro - Plants and Trees ArtSet added. Very early stages of this ArtSet with just one great brush so far.
- Added - Art Pro - Utility ArtSet added. The location for new utility oriented brushes.
- Added - Support for reading camera RAW files added. Well over 100 camera models supported.
- Added - Color Contrast filter added to the Brightness and Contrast category.
- Added - Solutions Paint Style 01, Pastel Style 01 and Pastel Style 02 added.
- Added - New solutions added to the Image Enhancement category. Bright Detail Style 1 - 4, Bright Hyper Light Style 1 - 3 and Bright Light Details Style 1 - 4.
- Added - New solutions added to the Special Effects category. Extreme Bright Detail 1 - 2.
- Added - A new solutions category Noise Reduction added with 10 new noise reduction solutions.
- Added - Auto Levels Solution added to the Image Enhancement category.
- Added - Mask High Low filter added to the Mask Generation category of filters.
- Added - A new solution category called Channels was added with solutions for splitting and merging an image into channels components.
- Added - New brush effects Shift Dab Up, Shift Dab Down, Shift Dab Right, Shift Dab Left, Shift Dab Angle and Rebase Dab Pos. These are used for the new Photo Repair brushes.
- Added - Brush effects pRnd Ang Init and pRnd Pos Init added.
- Added - D Blender brush added to Duarte's Brushes ArtSet. Thank you for the contribution!
- Added - Conte Style 01 solution added to Artistic category of solutions.
- Added - Colored Pencil Style 01 solution added to Artistic category of solutions.
- Added - Brush effect Repeat added.
- Added - pMove Smooth brush effect added.
- Added - pRegress brush effect added.
- Added - Brush effects, Lay Multiply, Lay Screen, Lay Darken, Lay Overlay, Lay Hard Light, Lay Soft Light, Lay Dodge, Lay Burn, Lay Add, Lay Subtract, Lay Color and Lay Hard Color added.
- Improved - Added a pixel isolation mode to the Mask Detail filter.
- Improved - Added an Auto Levels option to the Levels filter!
- Changed - Don't remove disabled effects from brushes when using the Optimize ArtSet

feature.

- Changed - Return to using the higher quality, but slower Gaussian blur filter. The faster one has some poor quality side effects.
- Changed - All Scatter and Jitter brush effects now result in no action when the strength is zero.
- Changed - All particle random position and angle effects no result in no action when the strength is zero.
- Changed - All Bld Mix brush effects result in no action when the strength is zero.
- Changed - The default shortcuts have been completely updated to include mostly Pro brushes.
- Removed - The ArtSets Art Pro Watercolor, Art Pro Soft Pastel and Art Pro Oil Pastel have been removed.
- Fixed - Using the Fixed Size Edge and Rectangle options for the Vignette filter could result in a crash on some image sizes.
- Fixed - Using the mask wand tool off the top of the image would result in a crash.
- Fixed - When selecting brush sizes larger than 600 pixels for brushes with a texture a crash would occur.
- Fixed - The Lay Normal brush effect was not working correctly.
- Fixed - The core brush attribute Prime Primary Color was not working correctly for dynamically sized brushes.
- Fixed - A number of brushes including Cartoon brushes were not working properly on layers.
- Fixed - The dynamic status panel was not updating when a system was not restarted for over 21 days.

16.24

- Added - Added the Lay Transparency brush effect. This allows for proper transparency of brushes that make use of lay effects.
- Added - Two new modes added to the Contrast Mask filter and the Photo Detailer filter.
- Added - Detail Enhance solution added to the Special Effects category.
- Added - Solutions Recover Detail Clean, Recover Detail Neutral and Recover Detail Vivid added to the Image Enhancement category of solutions.
- Added - Solution Extreme Detail Neutral and Extreme Detail Vivid added to the Special Effects category of solutions.
- Improved - The Hyper Contrast filter has some performance improvements. This helps a number of other filters that internally use this filter.
- Improved - The Search feature of the Select Brush dialog will now also match against brush effects.
- Changed - The brush effect Alpha Lay has been removed since it no longer is needed. Brushes that used it have been updated.
- Fixed - The Pro Watercolor brushes could lead to incorrect results on other layers if the other layer had an LayAlpha mix mode.
- Fixed - A number of brushes from different ArtSets were not functioning properly due to changes introduced 2 releases back.

16.23:

- Added - Added 2 new layer mix modes, Color and Hard Color! Very useful.
- Added - Reduce filter added to the Distort category. This gives better results than the Zoom filter for reducing the size of the image data.
- Added - Inlay Bottom Left and Inlay Bottom Right solutions added to the Layout category.
- Added - New solutions, Glow Style 02, Ink Style 02 and Drawn Style 05.
- Added - Added 9 Skin Enhancement solutions.
- Improved - Improvements to the Frame solutions for better handling of where the paper edge meets the mat.
- Improved - When setting the paper color set the background layer color automatically.
- Changed - The brush size will now be treated as an absolute size when recording solutions rather than proportional.

16.22:

- Improved - The Portrait Style 01 - 09 solutions have been complete reworked and give much nicer results on a wider range of photos.
- Fixed - The Move action was not properly re-recording in scripts. For example if attempting to record a usage of one of the Layout Solutions.

- Fixed - The Angle slider for the Motion Blur 2 filter was not working correctly.

16.21:

- Added - New Artset Collections - String Art 01.
- Improved - The Value Blur filter is nearly twice as fast! This means all the other filters and solutions that rely on this important filter also will get a performance boost.
- Improved - The Noise Reduction filter is nearly twice as fast!
- Improved - The Noise Reduction RGB filter is more than twice as fast!
- Improved - The Noise Reduction 2 filter is around twice as fast, almost 3x on multi-processor systems!
- Improved - The Anti-alias filter is around twice as fast!
- Improved - The performance of the Line Art Cleaner filter has been moderately improved.
- Improved - The performance of the Basic Threshold filter has been moderately improved.
- Improved - The performance of the Hyper-Contrast filter has been moderately improved.
- Improved - The performance of the Adaptive Blur filter has been moderately improved.
- Improved - The performance of the Fader filter has been slightly improved.
- Improved - The performance of the Borderizer filter has been improved.
- Improved - The performance of the Clamp filter has been improved.
- Improved - The performance of the Mask Detail filter has been improved.
- Improved - The performance of the Gaussian Blur filter has a small improved. This also helps a handful of other filters indirectly.
- Improved - The performance of non-blending brushes has been improved by up to 15%!
- Improved - Many CPU intensive actions through out TwistedBrush gained around 5% improvement in performance. This includes large or complex brushes. This is independent from the other improvements listed and therefore accumulative in many cases.
- Fixed - Using the Bristles brush effect in combination with the Size brush effect could lead to a program crash.

16.20:

- Added - New ArtSet added. Process - Special Effects 02 added. In the Effects category of brushes. Includes a variety of Infinity and Black Hole brushes.
- Added - New ArtSet added. Collections - Fractal Particles 01.
- Added - Motion Blur 2, Radial Blur 2 and Zoom Blur 2 filters added.
- Added - Added an Liquid Infinity shaper brush to the Liquid - Shaper ArtSet.
- Improved - The layer opacity now adjusts the transparency of Liquid and Blob layers (and any of the Alpha mix modes)!!
- Improved - Allow the Color History palette to be cleared with the menu Palette > Clear Color Palette.
- Improved - Don't update the color history palette if the color is already in the last 16 (first row) colors.
- Improved - Significant performance improvements on systems with multi-core processors for

the Perspective, Warp, Warp Edge, Warp 3 Point, Stretch, Stretch Edge, Horizontal Pivot, Vertical Pivot and Skew filters and any solutions that make use of them.

- Improved - Significant performance improvement on the final placement of with the Paste tool on systems with multi-core processors.
- Improved - Significant performance improvement for the Clip brushes on systems with multi-core processors.
- Improved - Significant performance for the image resize functionality on systems with multi-core processors.
- Improved - Performance improvements for the Move tool when wrap is enabled on systems with multi-core processors.
- Improved - Performance improvements for the Ellipical, Lens, Marble, Pinch, Ripple, Spin, Spin Wave, Wave, Wow and Zig Zag Distort filters on systems with multi-core processors.
- Improved - Hugh performance improvements for the Offset filter.
- Improved - Performance improvements for the Displacement Bump filter on systems with multi-core processors.
- Improved - Performance improvements for the Frosted Glass filter on systems with multi-core processors.
- Improved - Some performance improvement on the final placement of text with the text tool.
- Improved - Some performance improvement for the Warp Image tool on multi-core processors.
- Improved - Placement of text is more accurately shown between moving and the final placement.
- Improved - Minor quality improvements to the image brushes.
- Improved - Some quality improvements for all brush shapes due to a internal change in resizing method used.
- Improved - Improved quality when scaling the Background, Texture Emboss and Texture Bump filters.
- Improved - Added some usage instruction/hints in the Fractal ArtSets.
- Changed - Default the Image Resize functionality to Lanczos3 instead of Bicubic.

16.19:

- Added - The Copy tool gets an option for Copy Merged.
- Added - Facebook and Twitter links added to the Help menu.
- Improved - Updated the Color History Palette only with colors that are actually painted with.
- Improved - Changed to warning for automatically switching to a Liquid or Blob layer more clear.
- Fixed - When merging layers with alpha mix modes ensure the colors don't bleed in pure alpha areas. For example merge a Alpha Smooth 2 layer into a new blank layer and then copy and use the paste tool and resize larger and a color would bleed beyond the object edge.
- Fixed - Merging 2 liquid layers (Alpha Smooth 2) together was not working correctly.

16.18

- Improved - Most brushes can be used to paint objects on the liquid and blob layers.
- Change - By default setting a layer to a blob layer will use Alpha Smooth Lum 5 instead of Alpha Smooth Lum 3.
- Fixed - The handling of the maximized windows state at start-up could result in the main application window not being shown when selected from the task bar.
- Fixed - Fixed a case of a Invalid Gadget Canvas Handle crash that could occur after using a right click pop-up menu.
- Fixed - Incorrect warning text when attempting to use a Liquid Paint brush on a non-Alpha Smooth 2 layer.

16.17:

- Added - Liquid Paint ArtSets added! Liquid Modeler, Liquid Shaper and Liquid Paints.
- Added - Collections - LNAChains 101 ArtSet added. Thanks LNA for the fine contribution!
- Added - Brush effect Lay Smooth2 added.
- Added - Layer mode Alpha Smooth2 added.
- Added - Brush effect Liquid Mode added.
- Added - Solutions Photo Edge 01 and Photo Edge 01 Shadow added to the Border category.
- Added - Quick Start page for Clips added.
- Improved - When attempting to using a blob brush on a non-blob layer allow for the layer to be automatically switched.
- Improved - For Blob (and Liquid Paint) layers automatically lock the alpha channel for the Gradient tool and the Background filters.
- Improved - The quality of the Paste tool has been improved. Back to using a fixed Lanczos 3 algorithm.
- Improved - When changing the page size use the current paper color for the new area edges.
- Changed - The opening splash screen was changed.
- Fixed - The pop-up menu on the layer mini bar was not properly detecting a blob layer for Lum types 4 and 5.
- Fixed - The Paint Bucket tool in paint connected mode was altering the alpha channel when it should not.

16.16:

- Added - Grayscale Visually Solution added.
- Added - An option is added to the plug-in filter to lock the alpha channel to improve compatibility with some plug-ins.
- Added - Brush effect "Filter on first" added. This will result in filtering the dab if it's the first dab in a stroke.
- Added - Brush effect envelop "B-ang3" added. Designed to work with the Rotate effect and spaced dabs.
- Added - Brush effect envelop "B-ang clips" added. Designed to work with the Rotate effect

and clip brushes.

- Added - Clip Dragged Spaced Directional brush added to the Clips : Basic ArtSet. The clip is rotated as in the direction of the stroke as you paint.
- Added - Charcoal Style 02 Solution added to the Artistic category.
- Added - Save the last filter settings as a preset called Last Settings for all filters except Lua scripts and plug-ins.
- Added - WM Map brush effect added. This is a value modifier effect (modifies the following effect). Maps the resulting value if matching the frequency column to that of the amplitude column.
- Improved - When selecting a plug-in folder automatically add it to the folder list so that Add button doesn't have to be pressed.
- Improved - Only scan the plug-in folders after the plug-in folder selection dialog is used. Improves performance of selecting the Plug-in filter type.
- Improved - Give a warning message when trying to save a Filter Preset for a plug-in.
- Fixed - Plug-ins with sub-menus were not showing the full list of sub-menus items in the plug-ins list.
- Fixed - Some plug-ins were reporting that an editable alpha layer was needed.
- Fixed - Some plug-ins were erasing the alpha channel values resulting in a blank image.
- Fixed - Memory leak when selecting Load File as New or Load File Into for some file types.

16.15:

- Added - Support for Adobe Photoshop™ compatible filters (8bf) has been added!
- Added - A group of 11 Chromatic Aberration reduction solutions are added to the Image Enhancement category.
- Added - Two new filters added. Glow Inner and Glow Outer. Found in the Filter > Stylize menu.
- Added - Added option in Mask menu to Create Mask from Image Visual Luminance.
- Added - Four Drawn Style Solutions added to the Artist category.
- Added - A Special Effects Solution category added with three Neon Style Solutions.
- Added - Five Hyper Image solutions added to the Special Effects category.
- Added - Added a Sketch Style 01 solution to the Artists category.
- Added - Added Glow Style 01 solution to the Special Effects category.
- Fixed - Gaussian Blur was not working in some cases.
- Fixed - The Duotone filter was not making full use of the color range.
- Fixed - When moving the layers either up and down from the background the resulting image on layer 2 would not properly allow for the alpha channel to be changed when a mask was active.

16.14:

- Added - The Art Pro - Soft Pastels ArtSet is added!
- Added - A new category of Solutions added. Background Removal. For removing solid color backgrounds.

- Added - Brush effect VM Range is added. This is a value modifier that will allow clamping the value of the follow effect to the range specific in the Freq and Amp columns.
- Added - Brush effect envelopes, Cur Lum, Cur Luma, Cur R, Cur G and Cur B. These are based on your currently selected color.
- Improved - Some improvements to the floating tools to increase robustness.
- Improved - Show a visual indicator in the Clips panel for empty Clip slots.
- Fixed - The Screen Capture options in the Edit menu were not working correctly.

16.13:

- Added - Clips feature!! Accessed from the Copy tool or Paste tool.
- Added - Clip Brush - Basics ArtSet.
- Added - Brush effect "Clip Brush" added.
- Added - Brush effect "Skip If" added.
- Improved - Image Brushes are tied to the new Clips feature. Selecting a Clip will load the image into the image brush.
- Fixed - The new rotation indication would sometimes leave an artifact on the screen until redrawn.
- Fixed - At 90 degrees the rotation indicator was not being shown.
- Fixed - The Art Pro - Oil Pastel ArtSet had no descriptions.

16.12:

- Added - Art Pro - Oil Pastel ArtSet added.
- Added - A tick mark is now shown on the brush cursor to indicate the rotation of the brush.
- Added - Added brush effects Density Max and Opacity Max.
- Added - Added Blend Mix Capture2, Blend Mix UnderLayer2, Blend Mix History2 and Blend Mix Trace2 brush effects. Covers a wider range than the similarly named effects.
- Added - Brush effects Bld luma darker and Bld luma lighter added.
- Improved - The brush effects Density Min, Density Max, Opacity Min and Opacity Max now limit the dynamic pen pressure and sliders in the same way the Size Min and Size Max effects do.
- Improved - In the Brush Effects panel for the Frequency and Amplitude menu popups increase the width of the target areas to make it easy to select the values (0 - 9).
- Improved - Improved the performance of the Paint to AVI feature.
- Improved - The Paint to AVI feature will now only record when changes occur. Something like an auto pause feature. Note: at least one frame per minute will still be recorded.
- Improved - Clicking outside of the Brush Select dialog when not in ArtSet Edit mode will close the dialog.
- Improved - The Stats mode now shows the core brush attributes. This will be useful for brush designers.
- Fixed - Selecting a paper texture when there is already image data in layer 32 results in a warning box. If Cancel is selected for the warning box TwistedBrush would suddenly exit.
- Fixed - When using the About Color Palette menu option selected from the color palette menu

popup moving the cursor over the color palette would select a color even when the mouse button wasn't depressed.

- Fixed - In the Paper Select dialog the slider text values were not always updated properly.
- Fixed - Most of the "Cor " brush effects did not allow setting values properly to the maximum range.

16.11:

- Added - Auto clean toggle and clean brush action were added to the quick command panel.
- Added - New brush effect, Bristles.
- Added - Pro Watercolor Wet Base brush added to the Art Pro Watercolor ArtSet along with 10 diffusion modifiers.
- Added - Scale option added to the Texturize Bump and Texturize Bump filters.
- Added - Invert option added to the Texturize Bump and Texturize Bump filters.
- Improved - ArtSets are now grouped into 19 different categories.
- Improved - Paper selection has been completely redone. Now paper can be adjusted by scale, weight, adherence, contrast and inverted.
- Improved - Give a warning message when attempting to use a color palette creation menu on dynamic palettes.
- Improved - When a tool is selected always show the cursor with a red outline as an indicator that a tool and not the brush is selected.
- Changed - Renamed the Pro Watercolor Base brush to Pro Watercolor Dry Base.
- Changed - Art Pro Watercolor Dry Base is now listed in the default brush shortcuts.
- Fixed - Typos in the the Art Pro - Watercolor ArtSet.
- Fixed - In the Brush Effects dialog for the Blend and Color Sources there was a duplicate Blend blmage entry.
- Fixed - When using the option to Start in Page Explorer the previously selected page would be cleared.
- Fixed - When using a dynamic color palette don't adjust the color when the cursor movement is of the palette.
- Fixed - When luminance was set at 0 or 100 the hue and saturation values were lost when switching to a new brush.
- Fixed - When using Auto Brush Cleaning off, when switching to a brush that has colors saved with it make sure the brush is cleaned in that case and the correct color is selected.
- Fixed - Using filter presets would set the currently selected color when it should not have.

16.10:

- Added - Art Pro - Watercolors ArtSet added.
- Added - A new ArtSets from Lee-N-Ardo. Collections - LNAFur 101. Abig thanks to LNA for the contributions!!
- Added - Two new ArtSets from Lee-N-Ardo. Collections - LNASkin 101 and 102. Abig thanks to LNA for the contributions!!

- Added - Alpha Lay new brush effect. For use in combination with other Lay brush effects to allow for transparency with many of the Lay brush effects.
- Added - Shape Blur new brush effect. Allows for setting a blur factor for brush shapes. Gives significant flexibility for brush designers.
- Added - Blend Mix Capture, Blend Mix Underlayer, Blend Mix History and Blend Mix Trace brush effects added. These mix the source buffer with the blending buffer. Useful when used in combination with the Lay brush effects.
- Added - Added one new texture - Full Coverage. Mostly for internal utility purposes.
- Improved - The Value Blur filter has received both performance and quality improvements. This is a core blur type that is used in a number of other filters and solutions in TwistedBrush.
- Improved - Do not reload pigment onto brushes when the size dynamically changes during a stroke. This results in a smoother color flow when the brush sizes change.
- Improved - The Bleed brush effect has been improved when moving over fully transparent areas.
- Improved - Added an Extreme option to the Surface Blur and Noise Reduction 2 filters.
- Improved - The Bld brush effects work in combination with the new Blend Mix brush effects. These can lead to some powerful combinations.
- Improved - The Color Picker no longer switches colors when selecting a fully transparent area of the layer. Previously it was changing the color to white.
- Improved - The Resat (re-saturation) brush effect now works with blending brushes.
- Fixed - There were some typos in the Cloners - Artistic 2 ArtSet.
- Fixed - The Surface Blur and Noise Reduction 2 filters were not working below a size value of 5.
- Fixed - When using variable size brushes that blend it was possible that the brush was not fully cleaned at the start of the next stroke.
- Fixed - When dismissing the Brush Options dialog moving the cursor over the color palette would change the current color.

16.09:

- Added - A collection of Layout solutions added. Allows for laying out the layers side by side.
- Added - 3 new ArtSets from Lee-N-Ardo. Collections - LNAHair 101, Collections - LNA Mermaids and Collections - LNA Mermaid Tails. A big thanks to LNA for the contributions!!
- Improved - Gaussian Blur is much faster now (at higher blur levels). This also improves many other filters and solutions that rely on the gaussian blur
- Fixed - Selecting a layer did not result in the indicator being set for a page change. This can have some adverse effects when canceling certain actions such as Solutions.

16.08:

- Added - Support for floating panels. Accessed from View menu, hotkeys F4 - F8 and right clicking (for pop up menu) on the brush panels.

16.07:

- Added - Zoom Fit menu option now available under the View menu. Automatically selects the zoom level that will fit the entire image on the screen without scrolling.
- Added - Drawing guides Ruler Rect: Inches and Ruler Rect: Centimeters added. Define a rectangle area on the page for a set of rulers to appear.
- Improved - Zoom out is now handled at smaller increments, allowing for zoom out ratios of 80%, 67% etc.
- Improved - The maximum Zoom out ratio is now increased to 8% where previously it was at 12%.
- Fixed - At some levels of zoomed out the right or bottom edge were not rendering properly on screen.
- Fixed - The ruler text had an inconsistent thickness when the cursor passed over the unit counters.

16.06:

- Added - Ruler: Inches and Ruler: Centimeter drawing guides added.
- Fixed - The Move action recorded in older scripts were not playing back correctly.
- Fixed - The Texturize Bump filter recorded in a script prior to release 10 was not playing back well. This has been improved.

16.05:

- Added - Blob - Styler 01 and Styler 02 ArtSets added.
- Updates - The Effects - Blob ArtSet was updated for consistency.
- Fixed - On some system configurations the drawing of the layers panel and layer mini bar was very slow and made some actions sluggish when more than a few layers were present.

16.04:

- Added - A couple of brushes to the Art Tools - Airbrushes ArtSet.
- Added - A new brush effect Spc Cen Abs Fine was added. Allows for smaller increments of dab spacing from the brush center.
- Added - 2 brushes each to the Blob - Modeler and blob - Surface Modeler ArtSets.
- Added - A new brush effects modifier ArtSet Effects - Blobs was added to aid in creating blob brushes.
- Improved - Merging of layers with the same Alpha mix mode is now handled better. This includes allowing blob layers (Alpha Smooth Lum) to be merged.
- Improved - Performance when moving between floating dialogs and the main application has been improved.
- Improved - Some improvements to cases of the application not redrawing fully after a login.
- Fixed - The Quick Command entry for Toggle Mask was not correct and not working.

- Fixed - The Collections - Seamless Paint and Collectins - Seamless Design had incorrect brush effect modifiers.
- Fixed - Brushes with the global brush effect envelope were being updated in ArtSet edit mode when they shouldn't.

16.03:

- Added - New brush effects modifier ArtSet added. Effects - Seamless Tiles.
- Added - ArtSet Collections - LNARocks 101. A special thanks to Lee-N-Ardo for contributing this ArtSet!!
- Added - ArtSet Collections - Seamless Design added.
- Added - ArtSet Collections - Seamless Paint added.
- Added - New Solution, Smart Saturation Level 0.
- Added - 2 new brush effects added Tile X and Tile Y. Used for painting seamlessly tiling pages.
- Improved - Allow for smaller increments on the Grid Snap drawing guide. Previously 10 pixels was the smallest.
- Improved - For drawing guides smaller than 10 pixels draw as a multiple of the size below 10 pixels.
- Changed - For the Quick Command descriptions for Enable Mask change to Toggle Mask. This better matches the button text.
- Changed - Removed the icons for Delete Book and Clear Book from the Page Explorer. It is too easy to confuse them with Delete Page. The menu must now be used to delete or clear a book.
- Fixed - The Paste tool could result in a crash. Problem introduced in 16.02.
- Fixed - Some brushes in the Mandala Paint 1 and Mandala Paint 2 ArtSets incorrectly had colors stored when they should not.

16.02:

- Added - New filter added, Mask Detail. Allows generating a mask of the details in the image.
- Added - New solution added, Zap Jaggies. Used to anti-alias.
- Added - New Border Solutions. Varied Bands, Small, Medium and Large.
- Added - New Border Solution. Color Band 3 (Random) and Color Band 2 (Random)
- Added - Background 3D Solution. Background 13.
- Added - 20 new Edge Solutions added to the Borders category.
- Added - Lua script commands get_mask() and set_mask()
- Improved - Give a warning and don't allow Background 3D and Box and Fold Solutions to run on the background layer.
- Improved - The Patterned Cube 01 Solution was improved to run properly on the background layer.
- Improved - The Vignette filter gets a new flag. Current Color. For using the current brush color for the vignette (when color is enabled).

- Improved - The Color Picker action is now recorded in scripts.
- Improved - The Paste tool now uses Lanczos3 instead of bi-cubic for resizing.
- Fixed - The Borderize filter was missing the pixel row on the left and bottom.
- Fixed - Doing a Copy Merged Selection action with a mask enabled would result in a crash.
- Fixed - The following filters were altering the color in transparent areas of the layer - Offset, Sine Distortion, Wow, Rotate, Waves, Tilt, Twirl and Zoom.
- Fixed - The Warp 3 Point filter had a mislabeled control.

16.01:

- Added - Page Resize and Image Resize are now supported in Solutions.
- Added - New filter Clamp added. Found in the Color category.
- Added - Tile 02 and Patterned Cube Solutions in the Generative category.
- Improved - On Vista 64 Editions TwistedBrush will get up to 4GB of memory where previously the limit was 2GB! This allows much greater capability for those working on huge images.
- Changed - Improved the text in the Brush Select dialog when a filter or search is done that ends up with no results.
- Changed - The Channel filter which was added in 16.0 has been disabled until a time when it is reworked.
- Fixed - The Rectangle tool was drawing the rectangles 1 pixel too wide.
- Fixed - The Mask Ellipse tool was not automatically enabling the mask after using the tool.
- Fixed - The auto removal of undo steps when memory is low was not working properly resulting in premature out of memory messages.

16.00:

- Added - Solutions! A new feature to easily apply sets of actions to your images to add borders, frames, image enhancements, etc. Accessed from the main menu!
- Added - Over 100 solutions added, covering areas such as artist effects, frames, boxes, 3d backgrounds and image enhancements!
- Added - Nearly 300 new brush shapes added in ArtSets Shapes- Collections 01 - 05. Access these from the Shape Modifiers!
- Added - Solution script recording mode added to the Script Recording dialog. Recorded script in proportional size and position. Very useful for recording actions that can be applied to different sized pages.
- Added - Step and Skip options on script playback to allow single stepping and skipping script commands.
- Added - The color mixing palettes now have versions without the grid lines. You will need to select the color palette with the suffix "Smooth" from the load color palette dialog.
- Added - Filters Smart Blur, Noise Reduction and Noise Reduction RGB.
- Added - Filters Surface Blur and Noise Reduction 2 added. (Bilateral filter)
- Added - Channel filter. To isolate the RGB channels. Found in the Filters | Color menu.
- Added - Reflection filter. Works on the transparent regions of your layer, with falloff.

- Added - Stretch Edge filter. Similar to the Stretch filter but allow stretching from any combination of the 4 edges.
- Added - Fader filter. Allows adjusting the alpha, saturation or luminance of the image or object on a gradient.
- Added - Warp Edge filter. Allows distortion of one edge by perspective, skew and inset all at once.
- Added - A new mode of HSL Range added to the Wand Mask tool. Considers hue, saturation and luminance.
- Added - New category of filters Mask Generation. The filters in this section will generate masks based on image information. This gives finer control than what is possible with the Wand Mask tool.
- Added - New filter, Mask Generate HSL. Create a mask from image HSL values with separate tolerances for each channel (H, S and L).
- Added - New filter, Borderize. Found in the Stylized section. It is used for creating borders from the existing image data.
- Added - Filter Warp 3 point. Allows adjusting the x and y position of 3 corners of an object.
- Improved - The Vignette filter gets a new flag for fixed sized edges.
- Improved - The Vignette filter is improved for working with transparent layers.
- Improved - Script playback is improved when working with layers.
- Improved - The Alpha Filter actions are now recorded in scripts.
- Improved - The Bevel Filter gets a new flag for proportional size edges.
- Improved - The Page Resize action is now recorded in scripts.
- Improved - The line tool script recording only records the final line instead of each incremental line position as it's drawn.
- Improved - The line tool has a repeat option now to randomly repeat the line up to 100 times on the page.
- Improved - On the Script Player dialog the running script log now includes the total line count as well as the current line the script is processing.
- Improved - The Gaussian filter gets a new proportional flag.
- Improved - Allow layers of different mixing modes to be merged. A confirmation is given.
- Improved - When using the Mask Filter show the mask fully opaque as a grayscale image to allow for better visualization of the filter previews.
- Improved - Export and Import buttons added to the Script Play dialog to make it easier to save or load scripts from other locations.
- Improved - Reduction of redundant commands recorded in scripts.
- Improved - The Perspective, Warp, Stretch, Horizontal Pivot, Vertical Pivot and Skew filters get an options flag call Isolate Object that allows for automatically finding the image data on a layer and basing the distortion on it's location.
- Improved - Added Proportional flag to the Generate Noise filter.
- Changed - The Vignette filters blur amount is now proportional to the size of the page.
- Changed - Adjusted the default settings for the Unsharp Mask filter to be more moderate.
- Changed - Completely reworked the Drop Shadow filter.
- Fixed - In the Brush Effects panel the Blend Trace effect was hiding the envelope columns

when it shouldn't.

- Fixed - Full scene script recordings were not always playing back properly.
- Fixed - The Auto Dismiss toggle of the popup tools panel was not updating on some systems.
- Fixed - The Vignette filter was not properly covering the full range of the image in rectangle mode.
- Fixed - The brush cursor was not showing during script playback.
- Fixed - The position readouts for the Rectangle and Ellipse tools were not correct when not at the normal zoom level.
- Fixed - After using the standard Windows Color Select dialog on the color squares mouse movement continued to adjust the sliders.
- Fixed - Using filters when a mask was present could result in fully opaque areas of the image becoming slightly transparent in areas even where there was no mask.
- Fixed - Doing a Copy when a mask is present could result in fully opaque areas of the image becoming slightly transparent in areas even where there was no mask.
- Fixed - Various tools were not drawing at full opacity. Tools include, rectangle, ellipse, gradient and flood fill.
- Fixed - When merging a fully opaque layer into another layer with the normal mixing mode some color resolution was lost.
- Fixed - The Adjust HSL filter was giving slightly wrong results.
- Fixed - The Lua Script command `gethsl()` was giving slightly incorrect results.
- Fixed - Layer Masks were not properly handled when merging a page (for export or copy merged).

Version 15

15.77:

- Added - Levels filter added to the Brightness and Contrast category of filters.
- Added - Radiant 2 filter added to the new Photo category.
- Added - New filter category Photo.
- Improved - In the Page Explorer show the text "No Thumbnail" when no thumbnail is available for a page.
- Improved - In the Page Explorer show the text "Empty Page" when there is no page created yet.
- Changed - Brightness Histogram Stretch is now called Histogram Stretch.
- Changed - Brightness Histogram Equalize is now called Histogram Equalize.
- Changed - Moved the Radiant, Photo Pop and Photo Detailer filters to the new Photo category.
- Removed - Histogram Stretch, Histogram Equalize and Brightness Histogram Stretch HSL have been removed.
- Fixed - Histogram Stretch and Histogram Equalize had a problem with some images.
- Fixed - Undo were not properly working after a layer duplicate action. Introduced in previous release with changes to the duplicate layer feature.
- Fixed - Selecting a color from the popup tools on a netbook class of computer was resulting in a crash.
- Fixed - Cases where the saved TBR files could have an extra pixel per line saved.
- Fixed - Protect against possible error in reading corrupt image file.

15.76:

- Added - Popup modifier tools auto dismissal option.
- Added - Added Quick Command button for the Color Picker.
- Improved - Cleaner looking removal of the popup modifiers panel.
- Improved - The layer duplicate action places the duplicated layer right above the source layer.
- Fixed - The brush effect Auto Merge and the menu command Merge and Continue were not properly clearing the undo steps resulting in erratic behavior when attempting to undo those actions.
- Fixed - After selecting a color palette from the Load Palette dialog the mouse was still in select color mode when over the color palette.
- Fixed - When the mouse button invert option was on the color palette tabs selection was inverted also but it shouldn't be.
- Fixed - The layer duplicate action didn't work on very large pages.

15.75:

- Added - ArtSet Collections - Duarte's Brushes. A special thanks to Duarte for sharing his fine brushes!!

- Added - Brush tool. Give right mouse button access to the new brush modifier popup.
- Added - Brush modifier tools popup!!
- Added - Brush modifier Quick Command option.
- Added - 8 additional buttons to the Quick Command panel.
- Improved - The appearance of the Quick Command panel has been improved.
- Improved - Show the cross hair for the precision cursor as either black or white to improve visibility.
- Improved - The help text for the mouse button select icon.
- Improved - Save the setting of the invert mouse icon between instances.
- Improved - Allow non-image data changing tools such as Pan to function on invisible layers.
- Improved - When the entire canvas is visible (zoomed out) in the draw panel the Pan tool can be used to reposition the canvas on the screen.
- Improved - For panels and dialogs whose position is remembered between instances (Layers, Quick Command, Brush Effects and Filters) make sure they appear on screen.
- Fixed - The ScapeScape Planet brushes were not working properly.
- Fixed - The Toogle Tools Panel option from the Quick Command panel was not working properly.
- Fixed - On the initial install the default tool (Pan) was not properly selected.
- Fixed - There were cases when using the dynamic tools such as spacebar for Pan where the brush cursor wasn't being shown when it should be.
- Fixed - Added the hot key text to the menu items for page and book switching.
- Fixed - On Vista 64 bit systems when exiting a message Wrong Thread would appear.
- Fixed - When dismissing a popup menu by clicking on the canvas a dab would be drawn when it shouldn't.
- Fixed - Filters were not recording in scripts.

15.74:

- Enhanced - Significant reduction in the overhead for repeated script playback of the Script Brush Tool when clicking and dragging resulting in much improved performance for small scripts. (Pro)
- Enhanced - Don't update the page between during script playback for the script brush. Visually less distracting and results in better performance. (Pro)
- Improved - When starting the Page Explorer the currently selected page will show in the middle row rather than the top row.
- Improved - When using the Move Page actions in the Page Explorer keep the selected page visible when moving the page off the currently shown pages.
- Improved - In the Page Explorer clicking on the scroll bar (not the arrow) will page down a full page of thumbnails.
- Improved - The Space bar is now tied to the Pan tool. This is more standard with graphic software. The P key still works as well.
- Improved - Support for Netbook resolutions (1024x600). Dynamically detects this resolution and adjusts the UI.

- Changed - The Scratch Layer is now activated with the Akey instead of the Space bar.
- Changed - Default the option for Full Intensity Hue slider to on. This can be altered in the Preferences dialog.
- Fixed - Right clicking and moving the mouse off the canvas when the Script Brush Tool was selected would result in the script being run when it shouldn't. (Pro)
- Fixed - Script brushes (not Script Brush Tool) were not repeating properly. (Pro)
- Fixed - The Bristles Size 1 brush modifier in the Art Tools - Watercolors Real Artset was incorrect. (Pro)
- Fixed - The Real Watercolor Core brush in the Art Tools - Watercolors Real ArtSet was incorrect. (Pro)
- Fixed - Starting the Page Exploring with page 500 selected would result in invalid pages being shown.
- Fixed - The Page Flip and Page Rotate commands were not properly undoing. Now an undo restore point is saved for these operations.
- Fixed - Prevent brush strokes at the same time as tool actions.

15.73:

- Added - ArtSet Art Tools - Watercolors Real.
- Added - ArtSet Collections - Fractal Paint 02
- Added - 16 new brushes to the Art Tools - Watercolors 2 ArtSet.
- Enhanced - The Script Brush Tool has been enhanced for ease of use.
- Enhanced - In the EditArtSet dialog the Optimize feature will now remove the disabled effects from the brushes in addition to condensing the effects to the top of the list.
- Fixed - Brush effect "Cor Dabit Len X 100" was not working properly.

15.72:

- Added - New brush effect added. Rebase Stroke Start. (Pro)
- Added - Anew category of brush effect envelopes called Colors. Includes the following envelopes, "surf lum", "surf r", "surf g", "surf b", "surf a", "under lum", "under r", "under g", "under b", "under a", "trace lum", "trace r", "trace g", "trace b" and "trace a". (Pro)
- Added - Hundreds of fractal based brushes in the ArtSets. Collections - Fractal Design XX, Collections - Fractal Dab XX, and Collections - Fractal Paint XX. (Pro)
- Improved - A number of the warning messages in the Page Explorer have been improved to make more clear.
- Improved - The Brush Options dialog has a few small improvements.
- Fixed - When using the Edit button in the EditArtSet dialog don't automatically update the Brush Name in the Brush Options dialog.
- Fixed - Using the Palette menu options to create color spans from the currently selected colors resulted in incorrect ranges.
- Fixed - Duplicating the background layer would leave the alpha lock setting on which could be confusing.

15.71:

- Added - ArtSet Collections - Fractal Design 01. (Pro)
- Added - Color Modifier ArtSet. Colors - Combos 01. (Pro)
- Added - Mask and Unmask Artist Sketch Pen added to the Art Tools - Masking Tools ArtSet. (Pro)
- Improved - When a tablet is not detected do not save stylus settings for brushes. (Pro)
- Improved - When using the File > Load From File as New command if the image has transparency it will be loaded into layer 2, otherwise it will be loaded into the background layer.
- Improved - When using the File > Load from file into command if the image being loaded is larger than the current page the option to increase the page size is now given.

15.70:

- Added - ArtSet Collections - LNA Mtns 101. A big thanks to LNA for his work and contributing it to TwistedBrush!! (Pro)
- Added - Menu item Help > Video Guides. (Pro)
- Added - Added the "Core" category of brush effects. These brush effects override the core integral brush settings. The effects include: "Cor Dab Spc", "Cor Dab Spc Adj", "Cor Dabit Alpha", "Cor Dabit Size", "Cor Dab Den", "Cor Dabit Den", "Cor Dab Soft", "Cor Color Var", "Cor Dabit Len", "Cor Dabit Len X 100", "Cor Bld Mode", "Cor Bld Pri Clr", "Cor Bld Remix", "Cor Prime Clr".
- Added - New brush effects modifiers ArtSet added. Effects - Layers. For adding layer effects to brushes. (Pro)
- Added - Additional brush effect modifiers added to the ArtSet Effects - Shading. (Pro)
- Added - Additional brush effect modifiers added to the ArtSet Effects - Basics for overriding the core texture length. (Pro)
- Improved - Significant reduction (elimination) in delay between brush strokes for brushes that use any Lay* effect. This improvement impacts around 10% of the currently available brushes!!
- Improved - The Paste Tool was improved to perform more quickly on large pages.
- Improved - The brush modifiers for Mask and Unmask effects have been updated to match how the standard masking brushes work. (Pro)
- Fixed - When using the option to Load Shortcuts from ArtSet now all the shortcut brushes will be mapped to the loaded ArtSet as would be expected. (Pro)
- Fixed - When using the move tool a single click without moving the mouse would result in the undo stack being incorrect. (Pro)

15.69:

- Added - Brush effects Square Grid and Rect Grid. (Pro Studio only)

- Added - Rect Grid and Square Grid effect brush to the Effects Brush Modifiers ArtSet. (Pro Studio only)
- Added - Rect Grid and Square Grid brushes to the Lines and Outlines ArtSet. (Pro Studio only)
- Added - New ArtSet Collections - Brush 0 Matic. Inspired from a brush of the same name by Ken Wilson. (Pro Studio only)
- Added - New ArtSet Collections - Plaid Designer. A series of brushes to aid in creating plaid patterns. (Pro Studio only)
- Improved - The menu File > New, File > Load File as New and Edit > Paste as New now have improved warning messages and an option to export the current page image before continuing.

15.68:

- Added - Brush Options quick start page.
- Added - Remember the last selected tool between instances of TwistedBrush. The settings for the selected tool are not yet retained.
- Added - The Art Tools - Masking Tools ArtSet gets a number of new brushes for blending masks!
- Improve - Nice improvement to the color quality of JPEG images. Previously JPEG images could end up with reds being a bit muted. The size of the JPEG images will increase in many cases with this improvement.
- Improved - The memory used for saving undo steps has been reduced for most operations. Around 20% improved for non-mask operations and around 80% for mask operations (except for mask brushes).
- Improved - Small performance improvement between brush strokes.
- Improved - Performance improvement for Mask Wand when doing dynamic adjustments.
- Improved - Small performance improvement undoing multiple steps when holding down the Ctrl+Z key in repeat mode.
- Improved - The Move tool has three new options. Copy, Mask Source and Mask Destination. These options when used in combination with masks greatly enhance the flexibility of what the Move tool can do!
- Improved - Mask type brushes can now have blending capabilities.
- Fixed - When using the Mask Filter feature the Undo stack became incorrect.
- Fixed - Using the Move tool on the background layer would result in non-paper color being exposed beneath the moved page.

15.67:

- Added - Popup message giving one time guidance on the tool usage.
- Added - 3 Quick Start help pages for simple getting starting topics.
- Improved - Pressing Shift while clicking on a color bar color will copy the currently selected color to that color slot. Similar to how a brush can be copied in the shortcuts panel.
- Changed - The initial tool selected is now the Pan tool. Previously it was the color picker. This

is changed to reduce the chance to new users having difficulties get started.

- Changed - The color controls on the left hand panel have been reorganized to make them more centrally located.

15.66:

- Updated - Some minor changes and updates to the preset page sizes in the Page Size dialog.
- Changed - Support for Windows 95/ME/98 has been retired.
- Fixed - The memory stats on the information panel were not reporting correct memory data on some system configurations.
- Fixed - The layer blending modes Alpha shader Texture2 and Alpha Highlight Texture2 were not merging properly.
- Fixed - Resizing the main window when the tools were hidden would result in some tools being drawn where they shouldn't.

15.65:

- Removed - The popup screen when closing the trial has been removed.
- Fixed - Mask brushes were not working properly in the limited release 15.64.

15.64:

- Improved - When using F3 to hide the tool panel also hide the tools bars and tool options areas to give additional painting area.
- Improved - Many performance improvements throughout impacting many aspects of the program!
- ...includes a few changes that will have a big improvement on usability because of the greatly reduced time needed to save a page when continuing to work on the page.
- However numerous other changes are included in this line item like the color picker now works instantly even on large pages, and many minor improvements are also present that impact painting, tools and filters.
- Changed - On the Page Size dialog change the text DPI to Pixels/Inch.
- Changed - The popup message when saving is no longer used. In it's place the standard Windows hourglass is used.

15.63:

- Improved - A couple of the procedural textures were updated to give a wider range to density control.
- Improved - Significantly reduce the amount of memory used when saving BMP, PNG, JPG

and TGA files.

- Improved - TBR (TwistedBrush image files) are now saved with a minimal memory usage and much faster but the files are not compressed as much as before.
- Improved - Masks for a page are now stored integrated in the TBR file which results in less memory use on saving and faster page saving and loading.
- Improved - Significant reduction in the time it takes to switch pages.
- Improved - Reduction in the time it takes to flatten an image.
- Changed - When selecting a brush from an ArtSet the brush options are now retained when the brush is placed in your shortcuts. These options control what aspects of the brush are saved in the shortcuts when the Autosave Shortcut Brushes feature is enabled.
- Changed - Changed The default shortcuts to consistently have the brush options set equal to the settings in the source ArtSet.
- Changed - When Loading a File as New place the image on layer 1 rather than layer 2. This is more efficient with memory.
- Fixed - A case where TBR files were saved without compression resulting in a large file size.
- Fixed - If an autosave fails, for example if out of memory, don't keep attempting to save immediately again.

15.62:

- Added - A new collection of Patterns, Utility 1. These are accessed from the brush modifier icons like all the patterns.
- Added - Two new collections of 60 new procedural brush textures each can be accessed from the brush texture modifier!
- Added - A collection of 53 new procedural brush shapes each can be accessed from the brush shape modifier.
- Added - A new ArtSet called Collections - Foliage has been added.
- Added - 60 new patterns (Utility) are added to the Filters, Backgrounds, Texture Emboss, Texture Bump and Displacement Bump.
- Added - A new ArtSet Collections - Lathes with a handful of brushes.
- Added - Real Color Wheel Palette CMYK. A special thanks to Don Jusko for making this palette available in TwistedBrush!
- Added - A new ArtSet called Collections - Structures 02. This is the second ArtSet of structures. A special thanks for Lee and Spuddy for contributions to this ArtSet!
- Added - 9 new brushes added to the Collections - Skyline ArtSet.
- Added - Brush effect "VM Invert". This is used to invert the value of the following effect. (VM stands for value modifier).
- Added - 4 new brush effects. Line Up, Line Dn, Line Rt and Line Lt.
- Added - Procedural brush textures support is added. This will allow for more brush textures without increasing the program download size.
- Added - Procedural brush shape support is added. This will allow for more brush shapes without increasing the program download size.
- Improved - The variability of textures used in texture brushes is improved.

- Improved - Allow the background layer to be moved up and layer 2 to be moved down.

5.61:

- Added - Collections - Structures 01 ArtSet. A collection of brushes for creating man made structures.
- Improved - When a blending paint stroke began off the page the current color was not filled on that area of the brush resulting in the brush acting like an eraser on the page edge.
- Changed - The Collections - Skyline ArtSet has a number of brushes moved to the new Collections - Structures 01 ArtSet.
- Fixed - The filter Histogram Stretch was not working properly on layers.

15.60:

- Added - Real Color Wheel Palette by Don Jusko added as a standard palette. This is one of the default palettes now in position P2. A special thanks to Don Jusko for creating this 256 color version of his Real Color Wheel Palette and allowing it to be included in TwistedBrush!!
- Added - Collections - Skyline ArtSet added. A special thanks to Spuddy (Dave) for contributions to this Artset and discovering and creating the Skyscraper line of brushes!!
- Added - The original Extra Smooth Charcoal was added back to the Art Tools - Charcoals ArtSet. It is named Orig Extra Smooth charcoal.
- Added - Quick Commands for Adjusting Size, Density, Opacity, Hue, Sat and Luminence. Also one for Pan. These are linked to the tools of the same function.
- Added - 6 brush effects. VLine1, VLine2, VLine3, HLine1, HLine2 and HLine3. These are variations for drawing horizontal or vertical lines.
- Improved - Reference images are preserved when closing TwistedBrush and restored when TwistedBrush is started again.
- Improved - A number of the brushes in the Art Tools - Pens ArtSet now have the Size Min effect disabled to maintain compatibility with previous versions of the brushes.
- Changed - The default Quick Command buttons.
- Fixed - The filter Histogram Stretch was not working properly on layers.
- Fixed - When using the Copy tool and selecting an area that extends beyond the edge of the page the Paste size setting was not correctly set.

15.59:

- Added - Smooth Stroke brush effect. A useful effect for smoothing out strokes drawn with a mouse.
- Added - Smooth Stroke brush modifier added to the Brush Effects ArtSet.
- Added - Menu option to Clear Shortcuts. From the ArtSets menu and the popup menu from the ArtSet name.
- Added - Artist Sketcher Pen added to the Art Tools - Pens ArtSet.
- Added - The installation now adds a desktop shortcut to the internet based FAQ.

- Improved - The Set Page Size feature is now non-destructive to the image. This allows increasing the size of the page without altering the page content.
- Improved - The masking brushes in the Art Tools - Masking Brushes no longer rely on the currently selected color. This allows for more consistent usage of these important brushes.
- Improved - Small improvements to the warning dialog before the shortcuts are updated with the current ArtSet in the Edit ArtSet dialog.
- Improved - Allow the brush shortcuts panel to have unassigned brush slots.
- Improved - Allow the confirmation dialog for resetting the ArtSets to be bypassed.
- Improved - What saving brush shortcuts to an ArtSet make sure the new ArtSet shows up in the Artset list in the Brush Select dialog without needing to press the Show All button.
- Improved - Give a failure message when using the brush effects modifiers to add effects to a current brush when there is no space for additional effects.
- Improved - The brush effects "Size Min" and "Size Max" are not fully enforced even when using the size selection slider.
- Improved - Significantly reduced the need to search ArtSets when loading the Brush Select dialog. This means the Brush Select dialog will much more frequently load quickly.
- Improved - Reduce the number of brushes that are shown in the New Brushes search in the Brush Select dialog.
- Improved - The Extra Smooth Charcoal brush in the Art Tools - charcoals has been improved and more smooth and expressive.
- Fixed - The menu File | ResetAll was not resetting the Brush Shortcuts.
- Fixed - When using variable sized brushes controlled by tablet pressure there were cases when the beginning of the stroke could be the wrong size.
- Fixed - Some brush sizes were not properly drawing. For example brushes of size 2.

15.58:

- Added - Metallize Lua Filter script.
- Added - Simplify Lua Filter script.
- Added - 1 brush added each to the following Artsets: Art Tools - Cover Paints, Art Tools - Pens and Effects - Basics. Each related to an anti-aliased brush.
- Added - Brush Shape Dab Position to the Collections - Shape Paint ArtSet.
- Added - 2 brushes added to the Art Tools - Eraser ArtSet. Anti-Aliased Eraser and Ribbon Eraser.
- Added - 4 Brushes added to the Art Tools - Pens ArtSet. Artist Pen 1 - 4.
- Added - 4 Brushes added to the Art Tools - Blenders ArtSet. Charcoal Blender, Charcoal Brusher, Dark Blur and Light Blur.
- Added - 3 Brushes added to the Art tools - Oil Paints Artset.
- Added - 3 Brushes added to the Art Tools - Charcoals ArtSet.
- Improved - The masking brushes in the Art Tools - Masking Brushes no longer rely on the currently selected color. This allows for more consistent usage of these important brushes.
- Improved - The Lua Filter scripts LSystem and checkbox have been updated with new improved versions. A special thanks to RJP74 for the updates!

- Improved - A number of the Lua scripts have been updated to take advantage of new features in the Lua Filter language. A special thanks to rjp74!!
- Improved - Additions to the Lua Filter script Fractal 01.
- Improved - Any time a copy is done the Paste tool (with stamp mode) will be prepared to paste the same area as what was copied. Previously only the Copy tool would do this, now all copy commands will do this.
- Improved - Quality and performance improvements for the subsample brush effect. The subsample brush effect is useful for adding anti-aliasing to a brush.
- Improved - Quality improvements for the line smoothness.
- Improved - The Bld_* brush effects have been improved to support more correct blending to keep a number of these effects from resulting in the paint turning darker than the source paint.
- Fixed - The brush icons in the shortcut panel could become corrupt with the video mode is switched (if the computer is awoken from hibernation).
- Fixed - Dynamic brush sizing was not working in combination with the SubSample brush effect. This had impacted a small handful of brushes.

15.57:

- Added - Lua Filter script function `is_escape()` to check if the Esc key is currently held down. Useful for script writer to allow their script to be aborted.
- Added - Lua Filter scripts, Fill N, LSystem, White to Alpha and SimpleGrid. A special thanks to RJP74 for the contribution!!
- Added - Two new Lua Filter scripts Mosaic 01 and Mosaic 02.
- Improved - The Fractal 01 Lua filter script (revision 4) received numerous additions and improvements.
- Improved - Updates to the Lua Filter scripts CheckBox, Snowflake and Star. A special thanks for RJP74 for the contributions!!
- Improved - Pressing ESC during a TB script play will end the script playback. Handy for TB scripts triggered from script brushes or Lua scripts.
- Improved - Very small reduction in the height of the Filter dialog box.
- Improved - Force the background layer to always have the alpha channel locked. This takes care of a few visual anomalies that could previously arise.
- Improved - Reduced the contrast between active and inactive brush effects in the Brush Effects dialog.
- Changed - Rollback this change from a couple of releases ago. "Don't buffer up events on the filter dialog. This improves the cases where a filter is applied repeatedly because one of the sliders was adjusted repeatedly."
- Fixed - The Filter dialog information box was not being properly cleared.

15.56:

- Added - A Lua Filter function `paint_filter()`. Allows for scripting other filters.
- Added - Lua editor improvements: Resizable window, row and column position indicator in a

status bar and word wrapping off.

- Added - New Lua Filter controls for drop down list. --@TBCONFIG STYLE: is the directive for including up to 20 items in a drop down list.
- Added - The Filter dialog has a new Info area for showing additional information on each filter. The content (information) will follow in later releases.
- Added - New Lua Filter directive for displaying information to the user. --@TBCONFIG INFO:
- Improved - On the Page Summary dialog make the summary area readonly.
- Improved - On the Brush Selection dialog make the ArtSet description area readonly (when not in ArtSet edit mode)
- Improved - In the Filter dialog if a preview has already been processed (rendered) don't undo it and re-process the same thing when the Apply and Continue or Apply and Exit buttons are pressed.
- Improved - Many improvements to the Lua Filter script Fractal 01.
- Fixed - The texturize and texturize2 layer blending modes were very slow when mixing with transparent areas because of an unhandled situation.

15.55:

- Added - A Lua Filter script added. Ellipse_and_Circle_var_2. Special thanks to Ken Wilson for the work and contribution!
- Added - A Lua Filter script added. Page_border_2. Special thanks for Zig for first version of this script!
- Added - A Lua function output_debug_string(). This will output the string to a running OutputDebugString monitor on Windows. Commonly this will be DebugView which is a Microsoft utility that is available here.
- <http://technet.micro...s/bb896647.aspx>
- Added - A Lua filter script added Rounded Rectangle. Special thanks for RJP74!
- Added - A Lua filter script added Snowflake. Special thanks for RJP74!
- Added - A Lua filter script added Fractal 01.
- Improved - Don't buffer up events on the filter dialog. This improves the cases where a filter is applied repeatedly because one of the sliders was adjusted repeatedly.
- Improved - Hide and disable parts of the Brush Effects panel when a brush effect is selected that results in the other columns being ignored.
- Improved - Using the Apply and Continue button in the filter dialog will retain the current settings and be ready for additional applications of the same filter.
- Improved - When using the SaveAs option in the Lua Editor select the new script automatically when returning to the filter dialog.
- Improved - When in image brush is selected clicking in a reference image will capture the image brush from that area of the reference image as the scaling currently shown in the reference image window.
- Fixed - Situation where a crash could occur when changing layer position. Problem was recently introduced.
- Fixed - When editing a Lua script the directives for the UI components were not being

re-evaluated.

15.54:

- Added - A Lua Filter script added. Star. Special thanks to RJP74 for the work and contributions!
- Added - New Lua Filter script functions allow for painting with standard brushes. New functions include: `paint_open`, `paint_close`, `paint_stroke_start`, `paint_stroke_stop`, `paint_stroke_pos`, `paint_select_brush`, `paint_brush_size`, `paint_brush_density`, `paint_brush_opacity`, `paint_brush_color`, `paint_set_color_banks`, `paint_line`, `paint_spline`, `paint_dab`
- Added - A few sample scripts that demonstrate usage of the new Lua paint functions. Pollock, Radial Paint, Scribble Spline.
- Improved - Cleanup the brush effects in the new ArtSet Cloners - Color Trace.
- Improved - The line tool with the curve option more efficiently records the line for script recording.
- Improved - Some improvements to TB script playback speed.
- Improved - Lua scripts with errors now display an error message when attempting to run them.
- Fixed - Some of the toolbar icons had artifacts.
- Fixed - The popup help window from the dynamic help panel could be shown partially off the screen.
- Fixed - The popup help window could become hidden if clicking on a different popup panel (layers panel for example)
- Fixed - The Line tool was not properly recording brush settings for script recording.

15.53:

- Added - Dynamic information panel. Includes, context help topics, cursor information and memory information.
- Added - Cloners - Color Trace ArtSet.
- Added - 5 Lua Filter scripts added. Spiral, Radial, Checkbox, Lissajous, and Spirograph3. Special thanks to RJP74 for the work and contributions!!!
- Added - Brush effect `SetStrokeColor`. Sets the color for use in the stroke from the current effect color. A common use will be for brushes that capture a color from a trace image and then use that color for the rest of the stroke.
- Added - Bitwise operation functions for Lua scripting. `bit_not`, `bit_and`, `bit_or`, `bit_xor`, `bit_shfr` and `bit_shrl`.
- Improved - Changed the brush width slider range for the Oil Paint filter to cover the usage range.
- Improved - The Radial, Polar and Sector drawing guides are now based on 24 parts rather than 19 which allows for a more uniform usage of those aids.
- Improved - Small visual improvement to the tool bar icons (drop shadow).

- Improved - On a new install allow for room for the Windows task bar when setting the initial size of the application.
- Changed - On a new install default the initial page size to the area that fills the drawing space.
- Fixed - When pasting an image As New or loading an image As New the background layer was not properly set to opaque.
- Fixed - Attempting to close a modeless dialog (layers panel for example) when the Quick Start dialog was open would result in the Quick Start dialog closing.
- Fixed - The Process - Photo Retouch Multiply brushes were not working. Blending brushes with a Bld Multiply effect were not working properly.

15.52:

- Improved - Positioning text with the Text tool is now faster (but no longer shown anti-aliased until the mouse button is released).
- Improved - Significantly reduced the likelihood of accidental layer mini bar selections and layer creations. Action is now triggered by both the click and release (mouse button up and down) on the same layer in the mini bar. Because of its location close the settings panel and the drawing page it was not uncommon to accidentally create or select a layer.
- Improved - The readability of the RGB and HSL textual readouts.
- Changed - Default the Line tool to not connected.
- Fixed - Using the warp tool would cause the image data to darken quickly. A number of other tools also had this problem but not at the rate of the warp tool.

15.51:

- Added - The Line tool now has a curve option for drawing curve lines (bezier spline).
- Improved - The Line tool now also supports a mode where it is detached from the previous line end point. In other words click and drag to draw the line segment.
- Improved - Pressing the Ctrl key when using the Line tool will allow you to adjust the position of the line.
- Improved - The Create Blob from Image operation now makes the conversion less close to the threshold between transparent and black so that there is less chance to get transparent regions when applying filters or resizing.
- Fixed - Typo in the Brush Effects Panel. Sprays and Bursts.
- Fixed - Case of a white outline on a paste tool usage following the steps of, rect tool, copy tool and paste tool. Other occurrences might be corrected too since new layer and clear layer actions were not fully prepping the image for later operations.

15.50:

- Improved - Reduce time it takes to save pages.
- Improved - Reduce time it takes to save restore points.
- Improved - Auto restore points are now integrated into the Undo functionality so that when

there are no more undo steps to undo the previous saved version of the page will be loaded. This allows for clearer recovery for operations such as crops and layer deletes and also allows for some level of recovery to older data after switching pages.

- Improved - Previously in the Page Explorer selecting to load the currently loaded page would result in a page being reloaded and the undo information being lost.
- Improved - Present a warning when switching pages if undo information will be lost.
- Improved - Give a more descriptive warning on new page actions.
- Improved - Give a more descriptive warning on setting page size actions.
- Improved - When saving a color modifier brush default the brush options to having just the Save Color Info. box checked.
- Improved - Increased the size of the Exit button on the EditArtSet dialog.
- Removed - The menu File > Revert to Automatic Restore Point has been removed since the functionality is now integrated into the Undo system.
- Fixed - The HSL color sliders were not properly updated when a color from the brush color modifier was selected.
- Fixed - When deleting a layer the undo steps were not cleared resulting in undefined behavior.
- Fixed - Attempting an undo after setting a cloner source would result in a crash.
- Fixed - Cases where the brush attributes options could still revert to all enabled even after manually turning some of the brush attribute options off.

15.49:

- Added - Color Icon button added to the EditArtSet dialog to automatically create a brush icon based on the current 4 colors.
- Added - New button added to the EditArtSet dialog to allow creating ArtSets right within the dialog.
- Added - Option that allows control of the showing of the shortcut brush icons. Found in the Preferences dialog.
- Added - Right mouse click on a brush modifier icon will display the ArtSet edit dialog for that modifier type.
- Improved - Show the cursor when using the Warp tool.
- Improved - With the Auto Save Shortcut brushes option on the brushes options will be enabled only on first selection of the brush from an ArtSet rather than each time the shortcuts are saved. This has the advantage of allowing the brush options to be overridden for brushes in the brush shortcuts panel.
- Improved - Multiple additions and improvements to the Quick Start topics.
- Improved - When setting a shortcut brush without Save Brush Info but with Save Color info the brush icon will automatically be saved as the 4 current colors.
- Improved - Reduced download size requirements for the ArtSet icons.
- Changed - The help menu topics now point to the topics moved to the forum from the User Guide.

15.48:

- Added - Adjustable Transparent Windows Lua Filter. Found in menu Filters > Lua Script Filters
- Improved - Many new and improved topics in the Quick Start guide.
- Improved - The image in the splash screen is changed to a random selection of 4 TwistedBrush paintings. A special thank you to Jewel (Jeweled), Sunny, Ralph (Rabnoolas) and Paul (Lancelott) for allowing their work to be shown here.
- Improved - The Quick Start dialog get Next and Prev buttons added to make it easier to scroll through the topics.
- Improved - The Quick Start guide topics are included at a higher quality.
- Improved - When selecting a parent node in the Quick Start dialog the subtopics will automatically be expanded. Basically the same as pressing the little + indicator.
- Improved - Trapping of cases where files could not properly be opened due to system access problems.
- Improved - JPEGs are saved at a significantly higher quality than before. This does result in a file size increase for your exported (as jpg) images.
- Fixed - Layer Mask mix mode was only working at normal zoom levels.

15.47:

- Added - Stretch Filter. Found at the menu Filters > Distort > Stretch.
- Added - Horizontal Pivot Filter. Found at the menu Filters > Distort > Horizontal Pivot.
- Added - Vertical Pivot Filter. Found at the menu Filters > Distort > Vertical Pivot.
- Added - Skew Filter. Found at the menu Filters > Distort > Skew.
- Added - The EditArtSet dialog gets a new button labeled Clean ArtSets. This will clean all unused data from all ArtSets. Only has value for personel ArtSets created prior to 15.47 and only if you intend to manually edit or search .pre files. In other words it's a very specialize feature for users doing advanced brush editing.
- Improved - The Radiant filter gets a Stregth slider. This allows for much better control over the amount of the effect. Prior to this the filter would act as 100% strength which was often too much.
- Improved - Don't allow the Opacity or Mix mode of the Layer panel to be adjusted for the background layer.
- Improved - All Artsets have been cleaned of unused data.
- Improved - Small visual improvements to the ArtSet name panel that appears above the brush shortcuts.
- Improved - The Perspective and Warp filters now allow adjusts off the edge of the page.
- Improved - The visual quality of the Quick Start Guide pages was improved.
- Improved - The Quick Start Guide get a Topic title bar.
- Improved - New topics added to the Quick Start Guide.
- Improved - Small reduction of storage requirements for the Quick Start Guide.
- Improved - The ordering and naming of the Paint Bucket modes were changed to be more logical and consistent.

- Improved - The naming of the Wand Mask modes were changed to be more consistent with the new terms used in the Paint Bucket tool.
- Fixed - Many typos, fonts sizes and layout changes in the Quick Start Guide.
- Fixed - When loading a new page or pasting as new there were cases when the layer mix modes were not properly cleared to defaults.
- Fixed - Image Brushes were not working properly when the brush size was dynamically changed such as with a stylus pressure.

15.46:

- Added - Contrast Mask filter. Used for bringing details out of the shadow and highlights.
- Added - Adjust Color Balance filter. Found in the menu Filters > Colors > Adjust Color Balance.
- Added - Photo Detailer filter. Found in the menu Filters > Brightness and Contrast > Photo Detailer. Enhances overall detail (without sharpening) and brings details out of the shadow and highlights.
- Improved - The Gaussian Blur Filter has some performance improvements.
- Improved - The Gaussian Blur filter now allows for dynamic previews.
- Improved - The Gaussian Blur filter has the Amount slider scale reworked for coverage more realistic usages ranges.
- Improved - Significant improvements in quality and control of the Vignette filter that was introduced in the previous release.
- Improved - The Radiant filter gets some performance improvements and now has a slider adjustment for softness.
- Improved - Small performance gain on the Blur More filter.
- Improved - When placing text with the Text tool the text being dragged will look exactly like the text the will be finally placed. This allows for fine placement of text which was hard to do previously.
- Improved - Small performance gain when using the Paste tool.
- Changed - The default Outline Strength value for the Outliner 2 filter has been reduced. This does not change the range of control just the default setting.
- Changed - Replaced Dry Pastel brush in the default shortcuts with Gentle Round Eraser.
- Changed - Replaced Wet Watercolor brush in the default shortcuts with Wet Finger Paint Blender.
- Fixed - The Copy command (not tool) could lead to application instability and later a crash. This is the Copy command from the Edit menu or Ctrl+C. This is an important fix that has been in TB for a long time.
- Fixed - In rare cases the Copy tool could lead to a memory leak.
- Fixed - In rare cases the Copy Merged operation could lead to a memory leak.
- Fixed - Extra spaces and the beginning or end of fields in the brush codes would cause the brush import to be incorrect.
- Fixed - Seed 53 for the Pattern Explorer filter was the incorrect size making it inconsistent with the rest of the seeds.

- Fixed - The Text was still in some cases draw text with a white outline.
- Fixed - The Warp tool could result in the warped image data outlined in a different color when warped to pure alpha areas.
- Fixed - Selecting areas off the edge of the page with the Copy tool would result in incorrect copying.

15.45:

- Added - Filter Patternizer. Found in the menu Filter > Distort > Patternizer.
- Improved - The Lasy Mask mode will not work on the next visible layer below it. Previously it had to be the exact layer below it.
- Fixed - The Layer Mask mode was not working properly.

15.44:

- Added - Pattern Explorer Filter. Found in menu Filters. Used for generating a huge variety of patterns.
- Added - Filter Presets which give the ability to save and reuse filter settings. Found in the Filter dialog when the dialog is expanded with the more>> button.
- Added - Edge3 Filter. Found in menu Filters > Stylized > Edge3. Functionally the same as the Charcoal filter but serves as a good edge detection filter.
- Added - Vignette Filter. Found in menu Filters > Stylized > Vignette
- Added - Alpha Non-Contiguous mode to the Mask Wand tool.
- Added - When selecting a purely transparent area with the Non-Contiguous mode of the Mask Wand tool the action will be treated as Alpha Non-Contiguous.
- Added - Alpha Replace mode to the Paint Bucket tool.
- Added - When selecting a purely transparent area with the Replace mode of the Paint Bucket tool the action will be treated as Alpha Replace.
- Improved - The warning screen for Image Resize now appears after the new size has been selected.
- Improved - When selecting the More or Less buttons on the Filter dialog don't reset the filter settings.
- Improved - The Quick Start guide content received a number of additions and corrections.
- Fixed - A couple of filters were not properly processing the very edge of the page. Glow and Hyper-Contrast filters were impacted.
- Fixed - When using the Rectangle tool drawing the selection off the top or left edge of the page would result in the rectangle not being drawn.
- Fixed - The Kaleidoscope filter was not making full use of the x and y offset sliders.
- Fixed - Sine Distortion filter was not making full proper use of the slider ranges.

15.43:

- Added - A Stamp mode to the Paste Tool for fine control over size and rotation of the pasted

object.

- Added - Size and rotation readout for the Paste tool when in Transform mode. Transform mode is the default behavior from previous versions.
- Improved - The Line tool now allows dragging the end point.
- Improved - When using the Copy tool the size of the copied object will be recorded for use in the Paste tool when in Stamp mode.
- Fixed - Using blending tools on transparent areas was not smoothly blending into the transparent areas.
- Fixed - The Paste Tool was drawing an outline around the pasted object when placed.
- Fixed - A number of filters were drawing an edge on the border between colored and transparent areas. Filters improved include. Elliptical, kaleidoscope, Lens, Marble, Perspective, Warp, Tilt, Twirl, Wow, Zig Zag, Zoom, Wave, Waves, Spin Wave, Spin, Sign Distortion, Rotate, Ripple, Pinch, Arithmetic Mean, Midpoint, Radiant and Displacement Bump. This may still be an issue for Gausy, Mosaic, Minimum and Scribble.
- Fixed - The Warp tool was drawing an outline around the warped image on the border between colored and transparent areas.
- Fixed - The Text tool was at times drawing a thin outline around the text painted on the canvas.
- Fixed - Occurrence of the crop rectangle disappearing when the confirmation dialog was shown.
- Fixed - Some typos on the confirmation dialogs.
- Fixed - When doing a paste the layer dialog setting were not being reset to defaults for the new layer.
- Fixed - When Duplicating an invisible layer the resulting new layer would not show the layer visibility icon properly in the layer dialog.
- Fixed - When zoomed out there were cases when the checkered pattern used for transparency could display incorrectly.
- Fixed - The Rubber mode of the Warp tool was not properly able to be undone.

15.42:

- Improved - The Adjust Brush tool now uses radio buttons instead of push buttons for selecting the mode.
- Improved - The quick start pages are now shown with anti-aliased text and with 256 colors. The size of the download package increases a little with this but still smaller than 15.40.
- Improved - When using the Adjust Brush tool show the readout as soon as the right mouse button is pressed.
- Improved - A number of improvements to the Adjust Brush adjustment control to make it more intuitive.
- Fixed - Using the hot keys to enable the dynamic tools could result in cases where even after releasing the key the tools was still considered to be in a state of active in dynamic mode and both the left and right mouse buttons would only function for that tool until ESC was pressed or the program restarted.
- Fixed - Cases where during tool drawing the screen would refresh and hide the on canvas

tool controls.

15.41:

- Added - The Size Brush tool now has modes for adjusting density, opacity, hue, saturation and luminance.
- Added - Option check boxes to not show many of the confirmation dialogs.
- Added - Ratio readout when using tools that draw a rectangle shape.
- Improved - The brush size tool now starts with the current brush size.
- Improved - Pressing the Ctrl key when using the brush size tool will move the location of the brush sizing indicator.
- Improved - Altering the brush size is now constrained to right and left mouse movement rather than allowing both right/left and up/down. Allow both resulted in difficulty controlling the sizing.
- Improved - When using the brush size tool update the brush size slider in addition to the visual cursor indicator.
- Improved - Most of the filters that had a Preview button now have a check box for enabling dynamic previews.
- Improved - Adjusted the default settings for the Dust and Scratches filters to allow for more intuitive adjustments.
- Improved - A number of changes to make better attempts to keep the undo system working even when memory is very low.
- Improved - The Quick Start guide received numerous updates and smaller file sizes to reduce the program download size.
- Changed - Size Brush tool is now called Adjust Brush tool. Since other brush attributes can be adjusted now with this tool.
- Fixed - Cases when using the rectangle or ellipse tool with the CTRL where the size of the shape would change.
- Fixed - A number of filters were allowing the background layer to show the transparency pattern.
- Fixed - The Dust and Scratches filter was not working.
- Fixed - Don't allow brush sizes greater than 999 when using the size brush tool.

15.40:

- Fixed - Brushes with a Layer effect were not working on the background layer.
- Fixed - The texturize blend mode was not honoring the opacity setting.

15.39 is a limited release

- Improved - Changing the brush size dynamically with the stylus now responds much more nicely especially when working with blending brushes.
- Improved - Changed the default settings for the Unsharp Mask Filter to be stronger and more

intuitive as to what to adjust.

- Improved - Moderate rendering performance improvements when working multiple layers.
- Improved - Minor drawing performance improvement when laying a stroke on a fully transparent area.
- Changed - The default page layout is now in the upper left rather than centered in the work panel. This is still selectable from the preferences dialog.
- Changed - The Outline Strength slider control has been reversed to be more intuitive and consistent.
- Fixed - Blending brushes on transparent edges was not fully corrected in 15.38.
- Fixed - Some brushes when used on the background layer were showing the transparency pattern.
- Fixed - The Outliner1 and Outliner2 Filters were not working correctly.
- Fixed - The Texturize blend mode was too different than previous releases.

15.38 is a limited release

- Improved - Brushes with the Bld Multiply brush effect now mix properly on transparent areas of layers.
- Changed - The Negation blending mode was changed to act just like the exclusion mode. This is not identical to earlier version but closest.
- Fixed - The hard light blending mode was incorrect in 15.37.
- Fixed - The soft light blending mode was incorrect in 15.37.
- Fixed - The Texturize blending mode was incorrect in 15.37. Note: it will still be a bit different than earlier version but overall improved.
- Fixed - The Texturize2 blending mode was incorrect in 15.37. This also fixes the Alpha Highlight Texture blending mode which relied on the Texturize2 mode.
- Fixed - Texturize3 has returned. It is required for proper functioning of the paper textures.
- Fixed - The Subtract blending mode was incorrect in 15.37.
- Fixed - The layer mini-bar was not updated when selecting a paper texture.
- Fixed - When using a mouse to paint in some cases the last portion of the stroke wouldn't draw when the mouse button was released but would after the mouse was moved.

15.37 is a limited release

- Improved - The layer blending modes have been re-engineered. This corrects a number of limitations and makes the mixing modes respond more like industry standards. Also corrected is the numerous cases where the Merge layer operation would result in a different result than seen prior to the merge. These changes may result in existing pages that use layer blending modes appearing different if loaded into TwistedBrush.
- Improved - Painting on transparent areas has been re-engineered (for brushes without a BLD effect) resulting in more correct mixing of paint on partly transparent areas.
- Improved - Blending on transparent areas has been re-engineered and corrects the cases where the currently selected color could appear on the edges of areas being blended.

- Removed - As part of the layer blending re-engineering the following blending modes are no longer supported. Glow, Reflect, Texture3 and Alpha Overlay Outline. For existing pages that use these modes the results may look different and if the layer in question is edited the mode will be changed.
- Fixed - The font tool dialog would not work properly after having done a crop or page resize.

15.36:

- Improved - When the undo steps automatically get cleared now the current page is saved to a single auto restore point that can be reverted to from the File menu.
- Improved - All cases where restore points were automatically stored are centralized to a single auto restore point that can be reverted to from the File menu.
- Improved - Auto restore points are saved at times when the entire page is cleared. For example on a File > New menu selection.
- Fixed - Importing brush codes created prior to 11.1 may not import correctly. The brush effects slots 9, 10, 11 and 12 were not being cleared in this case.
- Fixed - When a layer had the alpha lock enabled cropping, resizing, rotating left and rotating right would result in the image data for that layer being lost.

15.35:

- Added- Mask Wand Alpha Contiguous mode. This is similar to the Alpha Flood mode introduced recently.
- Added - When recording a script, display a warning message when using a brush that TwistedBrush detects as not properly scriptable.
- Improved - When setting a cloning source there were times when the clone source was being saved to disk more than once.
- Improved - The handling of distort filters interacting with masks over transparent areas of layers.
- Improved - Recovery and reporting if the font selection dialog fails.
- Improved - When starting a Flood operation on a purely transparent location on a layer the Flood will be treated as an Alpha Flood operation and therefore driven by the alpha values and not color luminance.
- Improved - Mask Wand Contiguous mode when starting the operation on a purely transparent location on a layer the selection will be treated as an Alpha Continuous operation and therefore driven by the alpha values and not color luminance.
- Improved - Mask Wand Contiguous mode will now better handle not crossing transparent boundaries.
- Improved - Reduced draw in when displaying the purchase info dialog for the trial.
- Improved - The Fill Page action now honors masks more correctly.
- Improved - The Rectangle tool was changed to have more consistent transparency behavior with the rest of the system.
- Improved - When using dynamic memory calculations for undos preserve a small amount so

that small and medium size pages will have undos available on systems with very limited memory.

- Fixed - When using the Paint Bucket (flood fill) on a transparent area the blue areas of the image may get filled when they shouldn't have.
- Fixed - The Flood option on the paint bucket tool was not interacting correctly with masks over transparent areas of a layer.
- Fixed - There were cases that if a cloning brush was selected and a clone source was set that it didn't persist to a new page.
- Fixed - The color picker was not working when cloner brushes were selected.

15.34:

- Improved - Crash protection if unable to access the registry to check for license information.
- Changed - The create palette from image features now only work off the visible portion of the image.
- Fixed - Non-blending brushes that are turned into blending brushes via brush effects did not properly capture the underlying image data on the first stroke after selecting the brush. This has never been correct.
- Fixed - When using the stylus eraser if a different brush was selected the resulting brush when done erasing was incorrect.
- Fixed - Create palette from image did not work properly when zoomed in or out.
- Fixed - Brushes with a blending attribute were not working properly with the line tool. This has been an issue for a long time.

15.33:

- Fixed - Blending brushes were not properly cleaned when zoomed in or out.
- Fixed - Reworked the stylus brush implementation introduced in 15.30 since it was having negative impact on a number of brush types.

15.32:

- Fixed - Blending brushes were not properly cleaned when using a tablet and auto tablet compatibility was triggered.

15.31:

- Fixed - Brushes with any blending behavior were not properly cleaned between brush strokes. This was introduced in
- Fixed - When creating a new page that is too large for the amount of available memory a crash could occur.

15.30

- Added - Pressing ESC while drawing / placing a tool will cancel the operation for most tools.
- Added - 8 brushes to the Collections - Designers ArtSet.
- Improved - The text tool now supports dragging the text prior to placement.
- Improved - The Rubber mode of the Warp tool has some performance improvements.
- Improved - Allow setting the size of the stylus eraser.
- Improved - Remember stylus eraser size and alpha settings between uses.
- Improved - Setting the unit of measure in the Set Page Size dialog is now remembered.
- Improved - In the Set Page Size dialog when Inches or Millimeters is selected as the unit of measure and a different DPI setting is selecting the physical (printed) page size will be adjusted to reflect that change. In other words the number of width and height in pixels will not be changes.
- Changed - Resize Page dialog is not called Set Page Size. The menu to get to the dialog was already worded as Set Page Size.
- Fixed - Italic and Bold modifiers can now be selected for fonts.
- Fixed - Some fonts weren't properly selected.
- Fixed - Italic and bold selected modifiers weren't remembered when returning to the font selection dialog.
- Fixed - When using the stylus eraser some cases could occur where the previous brush was not reset when done erasing.
- Fixed - When just changing the unit of measure in the Resize Page dialog the page was processed as a new page even when the page size didn't change.
- Fixed - Setting the DPI for a page wasn't being saved if no other changes were being made to that page

15.29:

- Added - User selectable options for the mask display colors and transparency. Found in the preferences dialog menu Edit > Preferences.
- Added - 2 new pens to the Art Tools - Pens ArtSet. Flowing Pen 3 and 4.
- Added - Insert Layer action added to the Quick Command list.
- Added - Acounter in Stats mode for how many times tablet compatibility mode has been triggered.
- Improved - Small improvement to line smoothness (not anti-aliasing) for fine lines.
- Improved - Stability when saving a page when memory is low and working on large pages.
- Improved - Checking for out of memory when starting a flood fill operation.
- Improved - When setting Stats mode or Tutorial mode in the preferences dialog show the changes on the canvas immediately.
- Improved - Many of the brushes in the Art Tools - Pens ArtSet were saved with a predefined color (black). These are now changed to not override the current color.
- Changed - Reduced the chances of the tablet compatibility mode being automatically set at the start of a stroke.
- Fixed - The undo system was too aggressive with use of memory especially on large pages

which allowed all memory to become exhausted and could result in a program crash.

- Fixed - The layer blend mode Soft Light was not working properly.
- Fixed - The Merge and Merge and Continue layer actions from the Quick Command dialog were not giving warning and didn't leave the layer merged into in the correct state.
- Fixed - The Duplicate Layer Quick Command action was not properly updating all the program states.
- Fixed - Memory leak when a copy (clipboard) operation fails. This could happen on very large pages because Windows has a maximum size for clipboard data.
- Fixed - A number of program crash cases when memory becomes low and new memory allocations are needed. This also results in a less aggressive utilization of memory.
- Fixed - When the message "Unable to paint on an invisible layer" was display in response to a tool usage the mouse button state was invalid and could result in odd behavior in later actions.
- Fixed - If out of memory creating the image filter dialog don't continue with the filter.
- Fixed - Program crash cases when very low on memory and attempting a capture and image but or select color from the canvas.

15.28:

- Added - New ArtSet - Collections - Designers.
- Added - 9 new brushes added to the Collections - 3D ArtSet.
- Added - Quick Command support for Duplicate Layer.
- Added - Quick Command support for Alpha Filter.
- Added - New Alpha Flood option added to the Flood Fill tool. Alpha Flood act upon the alpha channel for color tolerances ignoring the colors.
- Added - Calligraphy Pen 2, Calligraphy Pen 3 and Calligraphy Pen 4 to the Art Tools - Pens ArtSet.
- Improved - Brush blending now honors masks when picking up color from the canvas.
- Improved - Capturing image brushes now honors masks.
- Improved - Flood and Flood Eraser have been improved when working on a layer where a transparent boundary area is crossed.
- Changed - Flood to Alpha option for Flood Fill is now called Flood Eraser and will act as an eraser would. Clearing the alpha values on layers and setting colors to the paper color on the background.
- Changed - Replace to Alpha option for Flood Fill is now called Replace Eraser and will act as an eraser would. Clearing the alpha values on layers and setting colors to the paper color on the background.
- Changed - Calligraphy Pen 4 replaced Flowing Pen 2 in the default brush shortcut set.
- Fixed - Exporting brush codes was not working in Windows Vista.
- Fixed - The Share Image Online Helper from the File menu was not working properly in Windows Vista.
- Fixed - The brush effect Grid would result in a crash if used with a effect strength of zero (or combo,0,0)

15.27:

- Added - ArtSet - Image Brush Array - Basics. Brushes for working with arrays of image brushes.
- Added - ArtSet - Collections - Tree Builder 1. Brushes for constructing trees. Included are brushes for Paper Birch, Cherry Birch, River Birch, Silver Birch, Sugar Maple, Red Maple, White Oak, Gnarly Oak and Bonsi Trees.
- Added - Brush modifiers ArtSet - Colors - Image Array 1. Includes image array for dollars and rocks.
- Added - 3 new ribbon like pens added to the Art Tools - Pens ArtSet.
- Added - Brush effect blmageArray and ublImageArray. Loads an image array (like an array of image brushes) from the blmageArray or ublImageArray directory.
- Added - Brush effect Select blmage. Selects an image from the loaded image array for use like an image brush.
- Improved - For directional particle emitters detect the stroke direction sooner resulting it more predicable stroke start locations.
- Changed - The Flowing Pen 2 replaces the Soft Tapered Pen in the default shortcuts.
- Fixed - When using a tablet stylus and just tapping the canvas the pressure of 100% was used when it should not have been.
- Fixed - Disabled brushes effects envelopes were still being processes which could impact performance as in rare cases impact the brush stroke.

15.26:

- Changed - Roll back change to show the mask completely hiding the image between it.
- Fixed - The masks were not showing a visible difference between 50% and 100% mask coverage.

15.25:

- Added - ArtSet - Art Tools - Bristles Brushes.
- Added - 8 brushes to the Art Tools - Pens ArtSet.
- Added - 1 Brush to the Collections - Mandala Paints 2 ArtSet.
- Added - 1 Brush to the Art Tools - Felt Markers ArtSet.
- Added - Brush Effect 3D Abs in the 3D and Highlights section. This is an easier to use brush effect for getting 3D brush strokes.
- Added - Brush Effect Blend Cap3. Uses the effect strength to control the blending between the current brush and the current surface when the current surface is captured.
- Improved - When the Brush History option is on save the brush at the end of the brush stroke rather than the beginning. This results in better stroke action at the start of strokes.
- Changed - Alt + click when using an image brush will capture the merged image under the brush. Previously it would capture the entire page into the image brush.

- Changed - Alt + Shift + click when using an image brush will capture the entire page merged into the image brush.
- Changed - The button labeled Done to Exit in the Filter dialog.
- Changed - Show the mask at the full range of opacity over the underlying image.
- Changed - Reduce the length of time that brushes are flagged as new.
- Fixed - Dynamic tool selections were very sensitive to when the hot key was pressed and released to work with out drawing oddities.
- Fixed - In tablet compatibility mode stylus pressure could have moments of inconsistent pressure.
- Fixed - When using a tablet at the start of the strokes it was possible for pressure to be incorrect.

15.24

- Changed - The Copy Tool now operates as a right click and drag to select the area you want to copy. Previously it would copy the current size of the brush.

15.23:

- Fixed - The shortcut keys listed in the Control menu for adjusting size, density and opacity did not match the actual shortcut keys.
- Fixed - The Alpha Filter was not working properly is a mask was enabled.

15.22:

- Fixed - The Font tool was broke in 15.21.
- Fixed - Script playback was broke in 15.10.

15.21:

- Added - Alpha channel filter. From the menu Layers > Alpha Filter any of the image processing filters can be applied to the alpha channel. Makes feathering or stylizing the edges of objects on layers easy.
- Added - New option to show the hue slider at full intensity or adjusted to the current saturation and luminance. The option is found in the perferences dialog.
- Added - Brush Effect Pos Stroke Start. Will force a dab to the stroke initial position.
- Added - 4 new brushes to the Art Tools - Gouache Artset.
- Added - 1 shape brush modifier (Hard and Soft) to the Shapes - Basics ArtSet.
- Improved - Turn off snap to grid when drawing the drawing guides.
- Improved - The Paste Tool now overlays the alpha channel of the image being pasted instead of replacing the alpha values.
- Improved - The Paste Tool now allows dynamically altering the size and rotation of the image being pasted by dragging the mouse while right clicked!

- Improved - The Paste Tool now allows for moving the placement of the image being pasted by pressing Ctrl and continuing to right click the mouse.
- Changed - The Paste tool on a single right click (without dragging the mouse) will default the size and rotation of the image being pasted to that of the last paste size and rotation.
- Changed - The Copy Tool and Paste Tool now use the mouse center when the snap to grid drawing guide is enabled. It used to use the mouse position as the upper left of the data.
- Changed - The hot keys for adjusting size. Now it's E to increase size and D to decrease size.
- Changed - The hot keys for adjusting density. Now it's Shift+E to increase density and Shift+D to decrease density.
- Changed - The hot keys for adjusting opacity. Now it's Ctrl+E to increase opacity and Ctrl+D to decrease opacity.
- Changed - The hot key Q is now used for selecting the Copy tool.
- Changed - The hot key W is now used for selecting the Paste tool.
- Fixed - The new brush modifier Rotate Towards Brush Direction was not smooth enough. Changed.
- Fixed - Loaded masks from file were no properly able to be undone which resulted in odd behavior when undoing other operations after loading a mask from file.
- Fixed - The Background filters were not properly honoring the mask on transparent layers resulting in the mask area becoming fully opaque.
- Fixed - The ellipse tool was not properly honoring masks or paper texture.
- Fixed - The new filters added in 15.20 were not properly honoring masks or paper texture.
- Fixed - Moving a page up in the Page Explorer would result in the page name (if named) being duplicated with the previous page.
- Fixed - When using the hot key Ctrl + M to merge the current layer and continue the layer thumbnails were not updated.

15.20:

- Added - Art Tools - Gouache ArtSet.
- Added - 6 new brushes to the Art Tools - Watercolor 2 ArtSet.
- Added - 1 Brush - Rotate Towards Brush Direction to the Effects - Basics brush modifier Artset.
- Added - Filter Hyper Contrast. Found in menu Filter > Brightness and Contrast > Hyper Contrast.
- Added - Filter Photo Pop. Found in menu Filter > Brightness and Contrast > Photo Pop.
- Added - Filter Bas Relief. Found in menu Filter > Stylize > Bas Relief.
- Added - Filter Color Pencil. Found in menu Filter > Artist > Color Pencil.
- Added - Filter Crayon. Found in menu Filter > Artist > Crayon.
- Added - Filter Pointillism. Found in menu Filter > Artist > Pointillism.
- Added - Filter Charcoal. Found in menu Filter > Artist > Charcoal.
- Added - Filter Color Pencil 2. Found in menu Filter > Artist > Color Pencil 2.
- Added - Filter Watercolor and Ink. Found in menu Filter > Artist > Watercolor and Ink.
- Added - Filter Glow. Found in menu Filter > Stylize > Glow.

- Added - Filter Emboss3. Found in menu Filter > Stylize > Emboss3.
- Added - Filter Outliner 1. Found in menu Filter > Stylize > Outliner 1.
- Added - Filter Outliner 2. Found in menu Filter > Stylize > Outliner 2.
- Added - Filter Radiant. Found in menu Filter > Stylize > Radiant.
- Added - Brush effects envelope rnd rng. Generate a random strength values between the frequency value and strength value.
- Added - New brush effects category - Dab Spacing and moved 5 effects from the Flow Control category to the Dab Spacing category.
- Added - Lua command. merge(merge_mode, opacity). Like the flush() method but a merge mode and opacity can be specified for the merging of the destination buffer back into the source buffer. The valid merge modes are defined as MERGE_NORMAL, MERGE_MULTIPLY, MERGE_SCREEN, MERGE_DARKEN, MERGE_LIGHTEN, MERGE_DIFFERENCE, MERGE_NEGATION, MERGE_EXCLUSION, MERGE_OVERLAY, MERGE_HARD_LIGHT, MERGE_SOFT_LIGHT, MERGE_DODGE, MERGE_BURN, MERGE_REFLECT, MERGE_GLOW, MERGE_ADD, MERGE_SUBTRACT, MERGE_TEXTURIZE, MERGE_TEXTURIZE2, MERGE_TEXTURIZE3.
- Improved - Brush stroke smoothness at the standard level of zoom and much improved when zoomed out.
- Improved - Automatically enable and display the mask anytime the mask is changed from tools or brushes.
- Improved - Further improvements to the b-ang brush envelope to rotate the brush at the start of the stroke to the direction of the brush stroke.
- Fixed - When an effect is disabled in the Brush Effects Panel and the selection dialog is used but Canceled or Closed without making a selection the effect became reenabled.
- Fixed - Possible crash or instability case when drawing an ellipse mask smaller than 2 pixels in diameter.
- Fixed - The layer mix mode Dodge was slightly wrong.
- Fixed - The Texturize layer mode was not working properly when merged or zoomed in or out.

15.10:

- Added - Hue wheel Lua Filter. Thanks RJP74
- Added - Lua filter method get_cmyk(x,y) and set_cmyk(x,y,c,m,y,k)
- Added - Brush effect envelope b-ang2. More predictable dynamic brush rotation than b-ang.
- Improved - Brush Effects panel - complete overhaul. Combo boxes are gone. Effects and envelopes are split into categories with a popup tree view. Effect rows can be reordered by dragging them and effect rows can be disabled and reenabled with a single click.
- Improved - Minor performance improvement for the Value Blur filter.
- Improved - Brush effect envelope b-ang. Allows the stroke to start painting earlier even when the freq setting is set high.
- Improved - The position of icons in the the menu bar to put Undo and Redo in closer position to the page and moved the page navigation icons to the left to reduce the chance of them accidentally being pressed.

- Improved - The Horizontal Mirror Lua filter now supports an adjustable slider for setting the mirror horizon.
- Fixed - The Value Blur filter had no fall-off which means the entire page was blurred a small amount.
- Fixed - Case where the buttons on the Quick Command panel would stay depressed.

15.08:

- Changed - Show the Hue color slider at full saturation and normal luminance rather than reflecting the current saturation and luminance settings.
- Fixed - Selecting About from the Help menu resulted in a crash.

15.07:

- Added - Anti-Alias filter. found in the menu Filter > Blur > Anti Alias.
- Added - Adaptive Blur filter. Found in the menu Filter > Blur > Adaptive Blur.
- Added - Detail Blur filter. Found in the menu Filter > Blur > Detail Blur.
- Added - Value Blur filter. Found in the menu Filter > Blur > Value Blur.
- Added - Line Art Cleaner filter. Found in the menu Filter > Color > Line Art Cleaner.
- Added - Basic Threshold filter. Found in the menu Filter > Color > Basic Threshold.
- Added - Adjust HSL filter. Found in the menu Filter > Color > Adjust HSL.
- Added - Adjust Lab filter. Found in the menu Filter > Color > Adjust Lab.
- Added - Flag (checkbox) user control directive to the Lua script filter language.
- Added - message_box() function added to the lua script filter language.
- Added - single_buffer() function added. This will result in both gets and sets working from the same buffer.
- Fixed - Deleting the last script in the Lua script filter list would result in a program crash.
- Fixed - Gradient support masks and paper textures again. 15.05 broke this when true alpha overlays were added. Now all combinations work together!
- Fixed - The ellipse tool could result in invalid data being drawing.
- Fixed - When using the Lua Editor the main windows was not disabled when returning to the Filter dialog.
- Fixed - Using Alt + click with an image brush on a large page could result in a program crash.

15.06:

- Fixed - Lua Script Filters were clipping the bottom and right edge of the image.

15.05:

- Added - Lua Script Filters. Found under the Edit menu. Scripting for filters using the Lua programming language. Pretty compatible with gluas plugins which a handful of other digital art programs also support. The User Guide entry for the Lua Script Filters is started and can

be found here. <http://pixarra.editm...uaScriptFilters>

- Added - Quick commands for Flatten and Merge Visible Layers.
- Improved - Replaced the Smooth - Hue Saturation color palette. The incorrect version was included in 15.04.
- Improved - Small increase to the size of the color palette area.
- Improved - The color areas of the color sliders are shown slightly larger without the gray separators.
- Improved - The contrast of the text on the Hue and Sat sliders.
- Improved - Save a single copy of the restore point files for resize and load rather than per page since they only have value for the currently loaded page.
- Improved - Gradient tool Alpha to Color1 and Color1 to Alpha now overlays the gradient over the current layer therefore saving steps for the user.
- Changed - Some minor menu text change for restore points.
- Fixed - Reverting to a restore point was resulting in being asked a confirmation twice.
- Fixed - Automatically saving of restore points was not working as intended. When an existing page is opened a restore point will be saved. Now if your page is saved via auto save you can still revert back to the page load restore point.
- Fixed - The Ellipse tool opacity slider now works.
- Fixed - The Cut icon on the menu bar had a minor defect.

5.04:

- Added - Palettes the begin with the name prefix of Smooth will be presented with smooth gradient colors for finer color selections.
- Added - Color palette Smooth - Hue Saturation.
- Added - Menu item File > Revert to Last Loaded Page. Useful to purge all change done to the current page.
- Added - Confirmation before all Revert to restore point menus.
- Added - HSL (Hue/Saturation/Luminance) sliders to the main work panel.
- Improved - Dynamic palettes now have a smooth color gradient and no separating lines in the color palette area. Except the history palette is not presented this way.
- Improved - Preserve the position of the brush effects panel and layer panel between TwistedBrush sessions.
- Improved - Preserve the shown state of the layer panel between TwistedBrush sessions.
- Improved - Preserve the position and shown state of the quick command panel between TwistedBrush sessions.
- Improved - Preserve the position of the filter dialog between usages of it.
- Improved - The tools bar settings are preserved when switching from tool to tool for all the tools.
- Improved - The previous Luminance slider is now part of the HSL sliders and behaves as a standard luminance component of HSL.
- Changed - The two hue span dynamic palettes to not include a luminance gradient within the palette.

- Changed - The two hue span dynamic palettes to have a more standard hue progression.
- Changed - Reduced size of the palette area to make room for the HSL sliders.

15.03:

- Added - Cloning option added to set as a cloning source the current layer. Found in the menu Page > Set Layer as Cloning/Trace Source.
- Added - A Pick color button to the Colorize and Duotone filters.
- Added - 2 positionable Line erasers and a positionable Hole Punch to the Art Tools : Eraser ArtSet.
- Improved - For the generate filters the default mix mode, which is Normal, is now the first mode in the list.
- Improved - When setting a cloning source if the background is transparent preserve the transparency in the cloning. (only supported when the page is loaded, in other words can not be used from the Page Explorer)
- Improved - When using the flood fill tool in repeat mode treat the repeated flood fills as a single operation that can be undo with a single undo.
- Improved - Improved performance of flood fill adjust and repeat modes.
- Improved - Handling to of the Tolerance slider for flood fill and wand mask tools.
- Improved - For the Colorize and Duotone filters default the color to the currently selected color.
- Improved - For the wand mask tool in repeat mode a single undo will undo the last set of repeated wand mask applications.
- Improved - All the brushes in the Lines and Outlines ArtSet now use the Dab Mode Position effect instead of the combination of Dab Mode, Clear Lay and Norm Lay effects. This allows for more flexible modifications of these brushes, for example adding an eraser effect will work now.
- Improved - Internally restructuring in preparation for possible improvements to the Brush Effects panel and a decrease in the installable program download size.
- Changed - The cloning option Page > Set as Cloning/Trace Source is now called Set Page as Cloning/Trace Source and sets as the cloning source the merged page.
- Changed - Increased the width of the effects column in the Brush Effects panel.
- Fixed - The hue range option for the wand mask was not properly covering ranges crossing the 0 degree.
- Fixed - Focus was not properly shifting away from combo boxes in the tool bar after a selection was made and clicking occurring on the canvas.
- Fixed - A single right click with the crop tool would result in bad behavior or a crash.
- Fixed - When using flood fill in repeat mode if positioning the cursor off the screen a crash could occur.
- Fixed - When moving to previous or next page and the current page doesn't exist and no changes were made don't save (create) the page.

15.02:

- Added - 19 new blender brushes added to the Art Tools : Blenders Artset.
- Improved - The icons for the existing blender brushes have been improved and more easily so the strength of the blend.
- Improved - For the generate filters with a mix mode default to Normal instead of Add.
- Improved - The interactive control via mouse dragging for flood fills now covers the entire range allow 0 - 100% coverage.
- Improved - The numeric readout for flood fills are shown as a percent rather than a value from 0 - 50000.
- Improved - Pressing and holding down the shift key while dragging the mouse will fine tune the flood fill tolerance level.
- Improved - The interactive control via mouse dragging for wand mask now covers the entire range allow 0 - 100% coverage.
- Improved - The numeric readout for wand masks are shown as a percent rather than a value from 0 - 50000.
- Improved - Pressing and holding down the shift key while dragging the mouse will fine tune the wand mask tolerance level.
- Improved - The 2 stamping image brushes from the Image Brushes : Basics ArtSet now allow for positioning of the image dab by dragging the mouse.
- Improved - Display the layers panel with less drawin (flashing).
- Improved - Not focusing away from the layer mix mode combo box allowing easy arrow controls for changing mix modes.
- Fixed - On the Filter dialog when using the More>> or <<Less button the filter would be applied when it should not have been.
- Fixed - The Hue range mode for the Mask wand was not correct.
- Fixed - The Hue, Saturation, Value adjustment filter was incorrect.
- Fixed - The mask wand range for Color, Lumiance and Hue were broken in 15.01.

15.01

- Added - Layer mode Alpha Smooth Lum5. It's like Alpha Smooth Lum but with smoothed edges.
- Added - Adjust Mode for the flood fill tool to interactively decrease or increase the flood fill tolerance by dragging the mouse left and right.
- Added - Repeat Mode for the flood fill tool to repeat the flood fill as you drag the mouse while using the tool.
- Added - Adjust Mode for the Mask Wand tool to interactively decrease or increase the mask tolerance by dragging the mouse left and right.
- Added - Most of the Generate filters have a Color option now. Default is white which produces the full jue of random color. The other option is Current color which is how they use to always work, basing the random hue from the current color.
- Added - Most of the Generate filters have a Mix Mode option now. This allows for much easier experimentation of generated patterns combined with your current image without needing to use layers. There are 18 mix modes available here some are the same as used for layers

but there are some differences.

- Added - Helper buttons to the tool effects panel to make it easier to swap position of effects.
- Added - 12 brushes to the Blob: Modeler ArtSet for adding and subtracting basic lines and outlines.
- Improved - Handling of Blob Surface ArtSet brushes on Alpha Smooth Lum4 and Lum5 modes.
- Improved - The Rotate filter wasn't allowing the case of no zoom. No zoom is the default and is correct now.
- Improved - Increased the number of tolerance levels for flood fill from 100 to 50000.
- Improved - Increased the number of tolerance levels for mask wand from 100 to 50000.
- Improved - Reorganized the menu section Filter > Generate to put like generation filters next to each other.
- Improved - For color palettes that support mixing. Perform mixing regardless if the left mouse button is depressed as long as the right mouse button is depressed. Allows for more natural mixing with tablet pens.
- Removed - The Swap Effects items from the Brush menu. This is handled from the tool effects panel directory now. The hot keys for swapping effects are still available.
- Fixed - Correct issue introduced in 15.0 with the Layer Mask blending mode.
- Fixed - When resizing an image (or rotating) if a cloning source was already set a crash would occur.
- Fixed - The tolerance label for the mask wand was incorrectly showing a value of 100 when first selected.
- Fixed - Selecting menu Filter > Generate > Noise would result in a crash.
- Fixed - For the Stipple artistic filter the first blur type was listed as YPMean. That was incorrect it was really Arithmetic.

15.00

- Changed - New name for TwistedBrush. Now named TwistedBrush Pro Studio.
- Added - Description on the Lines and Outlines ArtSet and Line Paint ArtSet to include information about usage of the Ctrl key for dragging.
- Added - Brush effect envelop added - dst pg. Strength increase based on the distance from the center of the page. Handy for brush designers for Mandala type brushes.
- Added - Brush effect Dab pos mode. Allows for dab positioning on the current layer for more flexible lines and outlines. Does the work of the effects Dab mode, Clear Lay and Lay normal and does it better.
- Added - Imager Filter Hyper Saturation. Found under at menu Filter > Color > Hyper Saturation
- Added - New layer blend mode Alpha Smooth Lum4. Similar to Lum3 but with smoothed edges.
- Added - Brush effect Lay Smth Lum4. A smoothed edge version of Lay Smth Lum3.
- Fixed - A few brushes in the Collections - Lines and Outlines were incorrect. (Circle Shape Rotate)
- Fixed - When using undo and redo it was possible for more than one layer to appear selected

in the layer mini bar.

- Fixed - Cases where the Layer Mask mix mode was considering colors in pure transparent regions when it shouldn't resulting in incorrect masking.
- Fixed - When the About dialog is show don't automatically shift focus away from it during mouse movement.

14.4:

- Added - New ArtSet - Collections - Mandala Paint 1.
- Added - New ArtSet - Collections - Mandala Paint 2.
- Added - New ArtSet - Collections - Line Paint.
- Added - New brush effects envelope - Global. Effects for a current brush that has a global envelope will use and store the strength of the effect globally for use in other brushes. Otherwise the it acts like the combo envelope.
- Added - When using brushes that rely on the stroke origin point such as those in the Line and Outlines ArtSet pressing and holding the Ctrl key will allow dragging the placement of the line or outline.
- Added - Pressing Alt + mouse click on the canvas when using an image brush will capture the entire page (square and up to a maximum of 999 pixels) as the image brush. Previously the Alt + click would capture the merged layers for the image brush which is the default action of the right mouse click (for image brushes).
- Added - Brush effect - Rect.
- Added - Brush effect - Adv Stroke2. More properly advances the stroke. The effect Adv Stroke remains unchanged for backward compatibility with existing brushes.
- Added - Various brushes to the Line and Outlines ArtSet.
- Improved - The Liquid Ink pen in the Art Tools - Pens ArtSet.
- Improved - Give a warning if an invalid script name is entered in the Script Recorder dialog.
- Improved - Don't automatically move focus away from controls that take keyboard input, including the text fields in modeless dialogs, text fields on the tool bar and the Layer mode combo box.
- Improved - More accurate color selection from dynamic palettes especially when using a drawing tablet.
- Changed - Collections - Mandalas was renamed to Collections - Mandala Designs.

14.3

- Added - ArtSet Collections - Mandalas.
- Added - ArtSet Collections - Lines and Outlines.
- Added - 5 brushes to the Blob Modeler ArtSet.
- Added - 2 Brushes to the Blob Paints ArtSet.
- Added - New Effects Brush Modifier ArtSets. Effects - Symmetry, Effects - Color, Effects - Jitter Position size, Effects - Shading, Effects - Multi Dab.
- Added - New brush modifiers to the Effects - Basics brush modifier ArtSet. Many others were moved to the new Effects ArtSets.
- Added - Brush effects, Symmetry and Symmetry page. Will draw the number of dabs controls by the strength of the effect (1 - 100).
- Added - Brush effect Radial page. Draws a line to from each dab to the page center.

- Added - Brush effect Page Frames2. Use the value of the effect to determine the number of evenly placed dabs along each edge of a rectangle matching the page aspect ratio.
- Added - Brush effect envelope pg-ang. This will generate a rotation value from the current dab position to the center of the page. Useful with shapes or image brushes and the rotate brush effect.
- Added - Brush effect envelope db-ang. This will generate a rotation value from the current dab position to the initial stroke position. Useful with shapes or image brushes and the rotate brush effect.
- Added - Brush effect Lay Normal. Make use of the paint layer.
- Added - Brush effect Clear Lay. Clear the paint layer. When combined with one of the "Lay" brush effects allows for a stamping mode where you can position your stamp (dab) without a trial.
- Added - Brush effect Dab mode.
- Added - Brush effect Outline Mode. Draws an outline instead of just dabs for Symmetry Symmetry pg and Page Frame 2.
- Improved - No delay when setting a cloning offset.
- Improved - Clicking the current layer in the layer mini bar will toggle the visibility of that layer.
- Improved - Better recover from cases when a palette file is missing.
- Improved - Significantly improved the quality of image brushes that are painted at a size larger than captured.
- Changed - When using brush modifiers for effects all effects of the same name will be replaced in the current brush. Previously it was just a select few.
- Fixed - The Optimize button in the EditArtSet dialog was not saving the optimizations resulting in no effect.
- Fixed - Unchecking the preview box in the Filter dialog would not show the unfiltered image.
- Fixed - A single dab (just a click) in the same location would not draw the subsequent dabs.
- Fixed - when upgrading from versions 10.2 or earlier a palette loading error could occur on startup.
- Fixed - Bottom and right edges of the page were not being painted with pattern brushes.
- Fixed - In some cases drawing wasn't correct when quickly tapping a single point on the page.

14.2

- Added - Menu option to Flatten Layers and Flatten Visible Layers from the popup menu of the layer mini bar.
- Improved - Significantly improved performance when selecting a cloning brush.
- Improved - When selecting a TBR file with the menu File > Load from File Into present a confirmation dialog indicating that the current page will be erased.
- Improved - Increase the size of the checkered pattern for transparent backgrounds and masks to avoid distortion when zooming out.
- Improved - Added a small mark to make it easier for distinguish between a layer and empty slot in the layer mini bar.
- Improved - Don't show the clone offset source brush cursor when cloning to a different page

(than the source).

- Improved - Performance of all filter previews.
- Improved - Much faster Move tool when used in the default mode of not wrapping at the edges!
- Improved - Allow hiding future occurrences of the "Unable to create cloning source..." message.
- Improved - When the screen resolution or color depth changes redraw the TwistedBrush application immediately.
- Improved - When a page is saved for any reason reset the auto save timer. Previously it was reset only during an auto save.
- Improved - When importing a TBR file don't immediately save the page afterwards.
- Improved - Minor performance improvement when saving a restore point.
- Improved - When exporting a page don't save the page prior to doing so. It adds no value.
- Changed - The Auto Save message is now a general purpose Saving message. The preferences option is still used to control if it should be shown or not.
- Fixed - In cases where a page couldn't be loaded because of lack of memory not all of the used memory by the partially loaded page was freed.
- Fixed - Cases where the separators between layers in the layer mini bar could become overwritten by the layer thumbnail for certain page sizes.
- Fixed - When resizing a image and changing the aspect ratio the layer thumbnails in the mini bar and main layer panel were not properly updated.
- Fixed - Typo in the selection popup menu.
- Fixed - Occurance of a crash when switching to a new page when using the cloning offset.
- Fixed - When exporting to a TBR file it was possible that changes to the page may not be saved to the page between the time span of the last save and the export.

14.1

- Added - New ArtSet - Collections - Angela's Various and Sundries Brushes. Thank you Angela for donating these fine brushes!
- Added - Grid Snap drawing guide. Will snap virtually all canvas actions to the grid set including brush strokes. Very handy guide!
- Added - Up to 16 references images can be active at once. Previously it was just 1.
- Added - From the page explorer if multiple images are selected the menu Page > Make Reference Image will create a reference image for each selected image up to the maximum allowed.
- Added - Make Reference Image from a selection rectangle. Accessed from the popup menu on the selection rectangle.
- Added - Zoom to actually pixels (zoom in normally) by right clicking in a reference image. Right clicking in a reference image a second time will return to be to fit mode (zoom out normally).
- Added - Preview button to the Resize Image dialog.
- Added - Allow the instruction dialog when entering ArtSet build mode to not be shown anymore.
- Added - Hot keys Ctrl + F1 through Ctrl + F12 are assigned to the 12 quick command buttons.

- Added - Six new brushes to the Art Tools - Masks Artset.
- Added - Link to the online video tutorials in the Help menu.
- Improved - Minor performance improvement on the interface.
- Improved - When using the File > ResetAll menu option also remove previous settings to not show specific notice messages.
- Improved - The Copy Grid Cell tool is now a more general purpose Copy Tool. It will copy the contents under the cursor. If the new Grid Snap Guide is enabled then the area copied will be the size of the grid cell similar to the previous functionality.
- Improved - The Paste Grid Cell tool is now a more general purpose Paste Tool. It will paste the contents of the clipboard at the cursor location. If the new Grid Snap Guide is enabled the clipboard contents won't be centered at the cursor but will snap to the nearest grid intersection.
- Removed - The image resize choices other than nearest neighbor, bi-linear, bi-cubic and lanczos3 have been removed since they do not differ enough in result than what can be achieved with the choices that remain.
- Removed - A number of older redundant brushes were removed from the Art Tools - Masks Artset. There are other more flexible ways to get the same result.
- Fixed - Grid Square Ref Image drawing guide the guides on the reference image would not be removed in some cases.
- Fixed - Dynamic brush rotation was not working for masks.

14.0

- Added - Hot key to toggle the Tutorial Display Mode option. F2
- Added - Ability to hide the left hand tools panel. Toggled with hotkey F3, menu View > Toggle Tools Panel or the Quick Command panel hot button.
- Added - Pressing the Ctrl key while setting the drawing guides will move the start position.
- Added - Three new palettes that allow for some color mixing with the palettes with the right mouse button. Mixer - Airbrush, Mixer - Blend and Mixer - Splat.
- Added - Two new drawing guides Golden Rectangle Landscape and Golden Rectangle Portrait.
- Added - Dynamic - History Blend color palette creates a blend of the last 4 selected colors.
- Added - ArtSets - Colors - Patterns - Surface 1 and Colors - Patterns - Surface 2. These are brush modifiers ArtSets like all the color ArtSets.
- Added - Brush effect Bld lum alpha. Convert the luminance into the alpha value. Very useful effect!
- Added - Pattern brush to the Blob - Modeler ArtSet.
- Added - Three texture brushes to the Pattern - Basics ArtSet.
- Added - Popup menu to Load shortcuts from ArtSet and Save shortcuts to ArtSet. Found by right clicking on the ArtSet name above the shortcut panel.
- Added - Menu items to Load shortcuts, Save shortcuts and load default shortcuts from the ArtSet menu.
- Added - Message when reversing the mouse buttons.

- Improved - In the Load Palette dialog select the palette list item for the currently loaded palette when the dialog opens.
- Improved - If a problem occurs when loading a page because of a corrupt file the backup TBR file will be loaded instead.
- Improved - Small performance improvement when saving pages.
- Improved - Detecting problems when saving a page.
- Improved - Detecting out of memory situations in a few more cases.
- Improved - Automatically switch to tablet compatibility mode as needed.
- Improved - Automate the clipboard paste on the Import Brush Code dialog.
- Improved - Automate the clipboard copy on the Export Brush Code dialog.
- Changed - The import option has been removed from the Palette load dialog. If you wish to import ACT palette files into TwistedBrush copy them to the Palettes folder under TwistedBrush.
- Changed - Selecting a color from the Dynamic - History color palette no longer updates the history palette which made it hard accurately select a color because it was a moving target.
- Changed - The default color palettes now include the Mixer - Blend and Mixer - Airbrush palettes.
- Changed - Right clicking on the shortcut tabs will not longer bring up the Brush options for the selected brush. Right clicking on the brush slot will still do this.
- Fixed - Changes to the current color palette were not being automatically saved when the application exited.
- Fixed - When selecting cancel from the Palette Load dialog the file names for the loaded palette would become incorrect.
- Fixed - When selecting colors from the palette if the mouse was dragged past the edge of the palette the wrong colors could be selected.
- Fixed - Multiple palettes of the same name loaded and edited were not being uniquely saved.
- Fixed - When selecting cancel from the Palette Load dialog the current palette edits if there were any would be lost.

13.9

- Added - Tutorial Mode preference to display a read out that is helpful when recording video tutorials.
- Added - Link to the Frequently Asked Questions from the Help menu.
- Improved - Blob Modeler ArtSets have been further refined and organized, now totaling 5 ArtSets.
- Improved - Draw popup menus without the drawing flash.
- Improved - When using the Create Blob Layer From Image retain the color information from the image. It's much easier to paint to gray than to try to recover the color later.
- Improved - Mouse click accuracy when working with floating panels such as the layers panel.
- Fixed - The Layer Create Blob From Image option was not properly updating the main layer panel if open.

13.83

- Added - Create Blob from Image option in the Layer menu.
- Added - Centering the page in the drawing space is now optional. If turned off the page will be placed in the upper left of the drawing space.
- Added - Additional brushes to the Blob : Modeler, Blob : Surface and Blob : Paints ArtSets.
- Improved - A number of brushes in the Blob Artsets.
- Improved - Smoother edges for Blob Modeler and Meta Blob 2 brushes.
- Improved - Minor performance improvement for page rendering.
- Improved - Handling of reducing the layer opacity on blob layers (Alpha Smooth Lumx).
- Fixed - On the Effects ArtSet the first Mirrored Page named effect should have been just Mirrored.

13.82

- Added - Blob - Modeler ArtSet (Previously part of Collections - Blob Modeler)
- Added - Blob - Paints ArtSet (Previously part of Collections - Blob Modeler)
- Added - Blob - Surface ArtSet (Previously part of Collections - Blob Modeler)
- Added - Brush Effect - Color Lock
- Added - Brush Effect - Blob Lock
- Added - Brush Effect - Blob mode
- Added - Brush Effect - SetAlpha
- Added - Option to lock the layer alpha channel from the layer mini bar popup menu.
- Added - Option to set the layer mix mode to Alpha Smooth Lum3 from the layer mini bar popup menu.
- Enhanced - When using Blob Modeler brushes don't allow using them on layers without the properly Mix Mode set.

- Enhanced - Don't allow merging into a layer that doesn't have a mix mode of Normal.
- Enhanced - For the layer mini bar popup menu show the text of the menu items more dynamically.
- Removed - Collections - Blob Modeler ArtSet.
- Fixed - In the Brush Selection dialog if an ArtSet file couldn't be loaded it became impossible to exit the dialog normally.
- Fixed - Using the Duplicate Layer option from the layer mini bar would not preserve the layer settings in the copied layer.
- Fixed - Using the Duplicate Layer option from the layer panel would not properly redraw the canvas afterwards.
- Fixed - Using the merge layer options from the main menu would not give a warning about not being able to undo the merge.
- Fixed - The layer Alpha Lock option was not properly protecting the alpha channel from change when using filters or the various tools such as gradients, fills, warps etc.

13.81

- Added - ArtSet - Collections : Blob Modeler!
- Added - Layer blend mode - Alpha Smooth Lum3. A version with a slightly darker shadow than Alpha Smooth Lum
- Added - Brush Effect - Lay Smth Lum3.
- Added - Brush Effect - Alpha Lock. Locks the alpha channel of a layer.

13.8

- Added - 10 additional Color Artsets allowing selection of common colors by name. The colors are split into ArtSets, Blues, Browns, Cyans, Golds, Greens, Greys, Oranges, Pinks, Reds, Violets and Yellows.
- Added - ArtSet - Collections - Meta Blobs 2. A second generation of meta blob brushes.
- Added - Two brushes to the Collections - Impressionistics ArtSet.
- Added - Brush effects Rad Scatter and Rad Scatter2. Scatter the dabs within the original size of the brush diameter.
- Added - Brush effects, Lum, Lum add, Lum sub, Lum vary and Lum pix vary. These are for adjusting the luminance during painting.
- Added - Layer modes Alpha Smooth Lum and Alpha Smooth Lum2
- Added - Brush Effects, Lay Smth Lum and Lay Smth Lum2
- Changed - The User Guide is now fully online and the help menus were updated to reflect that.
- Fixed - In the Page Explorer using the menus to operate on pages was not working.
- Fixed - Didn't allow using the menu bar to move pages back and forward in the Page Explorer if more than 1 page is selected.
- Fixed - Menus Filter > Generate > Perlin Noise and Perlin Noise2 were not working and could result in a crash.

- Fixed - When editing an ArtSet if a return (carriage return) is placed in the description the ArtSet will become corrupt.

13.7 - Numerous improvements, additions and fixes

- Added - Selection Tool. For selecting a rectangle area. Right clicking on the rectangle area will give a menu of choices for Clearing the selection, Cropping, Saving, Copying, Copying Merged, Mask Add, Mask New, Unmask Sub and Unmask New of the selected area.
- Added - Filter Mask. Apply any of the standard filters to the current mask. Access from the Mask > Filter Mask menu.
- Added - Layer blend mode Luminance Alpha. Convert the luminance of the layer to an alpha value and sets visible areas to white.
- Added - Layer blend mode Luminance Alpha Invert. Convert the lack of luminance of the layer to an alpha value and sets visible areas to black.
- Added - ResetAll option from the File menu.
- Improved - Display a message when attempting to load an ArtSet that is newer than the version of TwistedBrush that is running. This isn't allowed and can happen if you try to install an older version of TwistedBrush over the top of a newer version.
- Improved - Display the standard cursor over the drawing canvas when popup menus are shown.
- Improved - Hide popup menus before processing the command. Visual improvement.
- Improved - For tools where the area is selected as a rectangle constrain the rectangle to pixel edges. This is very helpful when zoomed in to know exactly which pixels are included in the selected rectangle area.
- Improved - Make Create Alpha From Mask and Create Mask From Alpha compatible so that they reverse each other.
- Changed - The menu Effects is now called Brush.
- Changed - Moved menu items Generate Random Brush and Toggle Random Brush Explorer from the Control menu to the Brush menu.
- Changed - Removed Reset Brush effects and Generate Random Brush from the menu bar.
- Fixed - When switching pages to a page of a different size the new page would not initially draw positioned correctly.
- Fixed - The crop tool would not properly crop the last column or row of a page if crop selection extended beyond the edge of the page.
- Fixed - Right clicking on one of the color selection squares would result in a crash in TwistedBrush Essentials and TwistedBrush Free Edition.
- Fixed - The core Cover brush Coverage 40 Feather would lead to inconsistent results. This effected around 10 brushes including the Fire Whip particle brush.
- Fixed - When selecting a new page in the Page Exploring the page name field would not be cleared if the destination page didn't have a name yet.

13.61 - Bug fix release

- Fixed - Quick Command panel could cause adverse effects elsewhere if opened and then closed.

13.6 - Various usability enhancements and fixes

- Added - Quick Command panel for quick access to common commands. Right click to config buttons. Can be toggled from the menu bar (third icon) or the View menu.
- Added - Masks are now saved automatically with pages.
- Added - Automatically save the enabled and displayed state of the mask for pages.
- Added - Link from the Help menu to the TwistedBrush User Guide.
- Added - Link from the Help menu to the TwistedBrush Resources
- Added - Ctrl + Arrow keys scroll the paper view 50 pixels.
- Improved - Don't reset the page number to 1 when switching books.
- Improved - The menu File | New will now clear the mask.
- Changed - The Print feature no longer has an icon on the menu bar.
- Fixed - The X icon in the page explorer was only deleting the last selected page instead of all the selected pages.
- Fixed - When starting TwistedBrush the scroll bars were not being shown by default when they should have been.
- Fixed - When a bad TBR file was encountered it could cause a crash. Now invalid TBR files are detected and renamed to prevent the crash.

13.5 - Create PDF SlideShow and stylus eraser support

- Added - Create PDF SlideShow option! Found in the Page Explorer under the File menu.
- Added - Ability to select multiple pages in the Page Explorer
- Added - Ability to delete selected pages in the Page Explorer
- Added - When starting TwistedBrush remember if maximized when last closed and start back up maximized.
- Added - An eraser brush is associated with the eraser element of the stylus for drawing tablets.
- Added - Auto Arrange menu added to Page Explorer under the Book menu. Fills in the empty slots by moving pages up in your book.
- Changed - Slightly reduced the size of the page created when using the Size Page to Fill Space option.
- Fixed - TwistedBrush Free Edition. Program launch menu item was missing.

13.41 - Fixed for TwistedBrush Free Edition

- Fixed - TwistedBrush Free Edition. Could get an Invalid Menu Handle error when starting
- Fixed - TwistedBrush Free Edition. In some cases the application wouldn't start due to the protection system.

13.4 - Various Improvements

- Added - Menu option to set page size to the fill the available drawing area. Under the Page menu.
- Added - Menu option to set page size to double the size needed to fill the available drawing area. Under the Page menu.
- Added - Share Image Online Helper dialog. Under the File menu. Makes it easier to post your images to the Pixarra gallery.
- Added - Drawing Guide. Grid Square Ref Image. A grid that appears both on the canvas and the reference image.
- Added - Essentials - Art Brushes. This is an ArtSet from the TwistedBrush Essentials product. They are duplicates of brushes that appear in other ArtSet but included as a nice collection.
- Added - Essentials - Wild Brushes. This is an ArtSet from the TwistedBrush Essentials product. They are duplicates of brushes that appear in other ArtSet but included as a nice collection.
- Added - 5 brushes to the Collections - Impressionistics 2 ArtSet.
- Added - One brush to Angela's Potpourri of Brushes ArtSet.
- Improved - Don't show brush modifier ArtSets in the brush select dialog. Only show them when using the brush modifier icons.
- Improved - Don't show Shortcuts ArtSets in the brush select dialog.
- Improved - Application redraw when PC wakes up from sleep state.
- Improved - Quality and speed of thumbnails for the Page Explorer.
- Changed - Slightly reduced the size of the Select Brush dialog.
- Fixed - The Bnk brush effect envelopes weren't working in brush effect slot 10.
- Fixed - After using Rotate Page 90 degrees a number of brushes could cause a program crash.
- Fixed - Mask and Crop to Virtual Page and Control Rectangle commands were not working correctly for zoomed images or if an image was scrolled.
- Fixed - The Grid Squares drawing guide could draw incorrectly at times.
- Fixed - Reference Image was getting cropped in some cases.

13.3

- TwistedBrush Essentials Release

13.2 - Various Improvements

- Added - Repeat Last Filter command. Found under the Filter menu.
- Added - Brush effects bStrokeScript and ubStrokeScript. Run the script referenced by the brush effect number from the bStrokeScript or ubStrokeScript directory after each stroke.
- Added - Brush effect Auto Merge. After each stroke automatically merge the image data down while keeping the layer still active. Automates the Merge Layer and Continue feature.
- Added - Brush effect Rotate. Dynamically rotate the brush shape, texture and image!

- Added - The selected brush for each shortcut bank is remembered.
- Added - Three brushes to the Image Brushes ArtSet
- Added - New ArtSet Effects - Stroke Scripts
- Added - New ArtSet Collections - Stroke Script Brushes.
- Improved - The size slider to made the size increase more gradual at the right side of the scale.
- Improved - Reduced the width of the filter dialog.
- Improved - When using the Step or Space brush effects don't increase the internal dab counter if the dab isn't drawn. This allows for more predicable results with these effects.
- Fixed - Crash when trying to use the Area Average resizing filter to enlarge a picture.
- Fixed - When using the feature Merge Layer and Continue don't merge into an invisible layer.
- Fixed - Dynamically sized blending or image brushes were not correct at the top and left edges of the pages.

13.1 - Line quality improvements, more brushes and fixes.

- Added - Ability to show the Filter dialog in the original or newer enhanced view.
- Added - Brush effects Hi TL Abs, Hi T Abs, Hi TR Abs, Hi R Abs, Hi BR Abs, Hi B Abs, Hi BL Abs, Hi L Abs. These allow for absolute position adjustments rather than proportional.
- Added - Resize algorithm called Area Average. Very good when reducing the size of a picture.
- Added - Brush effects Size Min, Density Min and Opacity Min. These limit the size of the brush attribute to be at least the minimum. Values can be 0 to 99
- Added - Brush effect Size Fine. Can give a smoother line when using variable size strokes.
- Added - Brushes to the Charcoal, AirBrushes, Pencils, Pens and Angela's Artistic Oils ArtSets.
- Improved - Brushes in the Shortcuts and Sumi-e ArtSets.
- Improved -The Filter dialog box further.
- Improved - Much better small brush size representations of the current brush shapes. This translates to better quality fine lines.
- Improved - Much better dynamic brush size representations of the current brush shapes. This translates to better quality fine lines.
- Improved - The pressure responsiveness for drawing tablets to give better control, especially at the begining of strokes.
- Changed - Merge Current Layer will no longer merge to invisible layers.
- Fixed - Corrections (spelling and language) to a number of the quick start screens.
- Fixed - Brush icons were sometimes updating for brush shortcuts when they shouldn't have been.
- Fixed - When using the Load Default Shortcuts option the shortcuts could get of sync.
- Fixed - Some popup menu operations on the layer mini bar where not immediately or accurately appearing on screen.

13.0 - Impressionistic 2 Brushes

- Added - Collections - Impressionistics 2 ArtSet

- Added - 3 brushes to the Cliners - Artistic 2 ArtSet.
- Added - 2 brushes to the ArtTools - Conte ArtSet.
- Added - Basics Quick Help screen.
- Added - Display warning when trying to record and AVI file that is not an even multiple of 8.
- Improved - Image processing filter dialog now allows selection any of the filters and applying them without needing to go back to the main menu to select another filter.
- Changed - Position readout for the brush sizing reverted back to top left and bottom right.
- Changed - On the Paint to AVI dialog change "Frames per Minute" to "Frames Captured per Minute"
- Changed - The AVI playback rate to 10 frames per second. It used to be 30 frames per second.
- Fixed - When using the Load Default Shortcuts menu the brush icons were not restored.
- Fixed - Names for the Tubey Twisty brushes Preset 37 - Preset 40.

12.9 - Additions and Changes

- Added - Paint to AVI feature. Record your painting process directly to a video file (AVI). It's no longer required to record to a script first to do this. Found under the Record menu.
- Added - Option to Merge visible layers. Under the Layers menu.
- Changed - Unique names for the brushes in the Tubey Twistey and Wild Random ArtSets. Thanks Zig.
- Changed - Try to keep the coordinate readouts on screen for rectangles, ellipses and brush sizing.
- Changed - The top level menu "Scripts" is now called "Record"
- Changed - The page size preset for YouTube Standard from 450x338 to 448x338.

12.8 - Various improvements, additions and fixes.

- Added - 65 Plant shapes from Ken Wilson spanning 2 Shapes ArtSets. Thank you Ken Wilson!!
- Added - Can show just the new brushes in the Select Brush and Edit ArtSet dialogs by using the new Show New button. Will show brushes going back 3 releases as new.
- Added - ArtSet Collections - Shape Paint. Brushes designed to be paired with one of the many shapes available.
- Added - Count Brushes button added in the Edit ArtSet dialog to count the total number of brushes installed.
- Added - 12 brushes in the Art Tools - Oil Paints ArtSet.
- Added - 2 brushes in the Art Tools - Oil Pastels ArtSet.
- Added - 8 brushes in the Art Tools - Pastels ArtSet.
- Added - 5 brushes in the Art Tools - Watercolors 2 ArtSet.
- Improved - Reduced download size of the installation package.
- Changed - Clear drawing guides when using the File | New option.
- Changed - Don't carry the current drawing guides over to a new blank page.
- Removed - ArtSets: Collections - Geometrics 1 Color, Collections - Geometrics 2 Color, Collections - Geometrics 4 Color and Collections - Geometrics Shaded. Use the new ArtSet Collections - Shape Paint instead.
- Fixed - Brush that used the Bleed effect were not working properly near the edges of the page.
- Fixed - Art Tools - Oil Paints had a number of brushes that were never intended to be released
- Fixed - Script playback could be different than recorded if the page size had changed since the recording.

12.71 - Minor Fix

- Fixed - The palette selection dialog could get out of sync and not have the palette names matched to the actual palette.

12.7 - Scripting recording and other improvements

- Added - New dynamic color palette - "Dynamic - Hue Span 2"
- Added - Popup menu on the current color boxes with the ability to set the color box to the current color.
- Added - Popup menu option on the layer mini bar to toggle the full size layer panel.
- Added - Option to hide user contributed palettes. The option is found on the palette select dialog.
- Improved - Numerous changes to improve the playback accuracy of recorded scripts.
- Improved - Coordinate information display location for rect, ellipses and brush sizing to keep it on screen in more cases.
- Updated - The quick help screen - Workspace.
- Changed - The new Dynamic - Hue Span 2 color palette was added as one of the 8 default palettes.
- Fixed - Dynamic brush sizing was not properly being recorded in scripts.
- Fixed - Single dab brush strokes were not properly being recorded in scripts.

12.6 - Additions and a fix

- Added - Show coordinate information on screen when stretching tool outlines for rects, ellipses and brush sizing.
- Added - When playing back a script to an AVI file the dialog is now presented for setting compression options.
- Added - Numerical indicator on the script playback speed slider in the script playback dialog.
- Added - Two preset video pages sizes on the Page Resize dialog for YouTube video sizes.
- Improved - Removed the flashing when stretching tool outlines for rects, ellipses and brush sizing.
- Fixed - When painting multiple strokes quickly with a tablet it was possible to have a stroke where the pressure was no longer being properly tracked (stuck at full pressure) until a new stroke was started.

12.5 - Numerous additions and Improvements

- Added - Art Tools - Watercolor 2 ArtSet.
- Added - Collections - Medley 2 ArtSet. Thank you Ken Wilsom for the contributions!
- Added - Collections - Medley 3 ArtSet. Thank you Ken Wilsom for the contributions!
- Added - Size Brush tool. Allows dynamically setting the size of the brush visually on the canvas. Last tool on the tool icon bar on the right.
- Added - Ability to set brushes as favorites.
- Added - Ability to filter ArtSets in the Select Brush dialog to show only ArtSets that contain favorite brushes.
- Added - Over sized (full sized) square brush shape. bshape85.png.

- Added - Alternate triangle brush shape. bshape84.png
- Added - Over sized square brush added to the Shapes - Geometrics ArtSet.
- Added - Option for a square cursor. Set in the preferences dialog.
- Added - ArtSet / Brush names label.
- Added - Popup menu on the ArtSet / Brush name label to switch Shortcut Name mode.
- Added - Popup menu on the ArtSet / Brush name label to revert Shortcuts back to the original settings.
- Improved - Collections - Angela's Water Colours ArtSet improved brushes some taking advantage of the new Bleed effect. Thank you Angela!
- Improved - Collections - Angela's Potpourri of Brushes. New brushes added! Thank you Angela!
- Improved - Asteroids and Ictroids brushes in the Collections - Spacescape Artset.
- Improved - Slightly reduce memory usage by around 5 mb.
- Improved - Slightly improved the performance when changing the brush size.
- Improved - When starting from the Open With functionality of Windows import the file into the first available page within the last used book.
- Improved - The Dynamic - Hue Span palette now also shows the current color range to black on the bottom row.
- Improved - Write page stats to the log.txt file on page loads.
- Changed - Shortcut for Generating a random brush is now Ctrl + T.
- Changed - Shortcut for toggling the drawing guides on and off is Shift + T
- Changed - Brush icons no longer shown when listing ArtSet names instead of brush names in the shortcut panel.
- Changed - Moved the paper type and paper color selections to make room for the ArtSet / Brush name label.
- Changed - Added some different brushes into the default Shortcuts ArtSet.
- Fixed - The randomness of the brushes with grain was incorrect since version 11.6.
- Fixed - Menu bar icons in the Page Explorer were not working correctly.
- Fixed - When the shortcuts were in ArtSet mode clicking the popup arrow was not active.
- Fixed - Layer thumbnails were not updated from a crop, rotate and flip operations.
- Fixed - When the shortcuts were in ArtSet mode exiting the brush select dialog without selecting a brush could result in an incorrect icon for the brush.

12.4 - Miscellaneous improvements, fixes and additions

- Added - Collections - Angela's Water Colors ArtSet. Thank you once again Angela!!
- Added - 11 New pencils to the Art Tools - Pencils ArtSet.
- Added - Resat brush effect. Resaturation of the selected color.
- Added - Bleed brush effect. Bleed the current color with the canvas colors.
- Added - Persistent stroke colors. When using the Resat or Bleed effects the color persists across the duration of the stroke.
- Added - Page and memory stats to the log.txt file. This will allow for some easier trouble shooting.

- Improved - The brush cleaner tool works with the new Resat and Bleed effects.
- Improved - Don't overwrite the color history palette on an upgrade install.
- Improved - Collections - Angela's Potpourri of Brushes.
- Fixed - Current color sometimes was not properly used as the background color when importing WMF files.
- Fixed - Crash could occur when using Windows File Explorer and selecting an image to open with TwistedBrush.
- Fixed - The popup layer for the layer mini-bar could display cut off by the top of the screen.
- Fixed - When creating a new ArtSet from the File menu the new ArtSet was not appearing in the ArtSet list.

12.3 - Miscellaneous improvements, fixes and additions

- Added - Collections - KW Medley 1 ArtSet. Contributed by Ken Wilson. Thanks Ken!
- Added - Collections - Angela's Meta Bolbs ArtSet. Contributed by Angela (Petite). Thanks Angela!
- Added - Passing an image name on the command line to TwistedBrush so that TwistedBrush can be started by the Windows "Open with" menu option when right clicking on an image in file explorer.
- Updated - Collections - Angela's Potpourri of Brushes ArtSet.
- Improved - When importing metafiles (WMF or EMF) use the currently selected color as the background color.
- Improved - When cloning using an offset the transparency of the layer will be used when painting with your clone brush.
- Improved - Performance when changing clone brushes. This no longer requires re-capturing the clone source.
- Improved - The cloning source is persistent when restarting TwistedBrush, but not the clone offsets.
- Improved - Slightly improved performance of the move tool.
- Improved - Significantly improved performance of the move tool during script playback.
- Improved - Performance for brushes that use the "Pix color Vary" effect.
- Changed - Offset cloning will now only clone from the layer active when the offset was set.
- Fixed - Crash when a page size changed due to file import, screen capture or pasting As New when a brush was selected that makes use of "Lay" effects.
- Fixed - Script recording and playback was not properly handling brush effect slots 9, 10, 11 and 12 causing playback of scripts that use new brushes to be incorrect.

12.2 - Minor release to fix a couple of bugs

- Changed - Rolled back the change introduced in 12.0 to "allow more consistent use of brushes that use the Lay effects on a transparent layer. For example many of the watercolor brushes." This was causing a problem. The current solution is to use these special brushes on non-transparent layers or the background.

- Fixed - Invalid Stream handle error. Occured when deleting a book but then exiting the Page Explorer without selecting a new book/page.
- Fixed - Another case of the book numbering in the Page Explorer getting out of sync.
- Fixed - White artifacts when drawing on transparent layers. Using blenders and filters could make them show even more. Introduced in 12.0

12.1 - Fix slow down issue and searching for brushes.

- Add - Brush search option from the Select Brush dialog and EdtArtSet dailog
- Improved - Performance of displaying the Select Brush dialog and EdtArtSet dailog.
- Improved - Show the Select Brush dialog and EdtArtSet dailog more cleanly
- Fixed - Make sure when using the Spac_* effects that the first dab is drawn on the start of the stroke.
- Fixed - Slow down over time due to the software protection system in use. Introduced in 12.0 when the licensing software system was upgraded.

12.0 - Miscellanous additions and improvements

- Added - Numerous brushes to the Collections - Meta Blobs ArtSet.
- Added - Three new brushes to the Art Tools - Pens ArtSet.
- Added - Brush effect envelope Dens. Use the full range of the density slider for strength of the effect.
- Added - Brush effect envelope Dens2. Use the full reversed range of the density slider for strength of the effect.
- Added - Brush effect. "Spac cen abs" Space brush dabs from center an absolute distance.
- Added - Brush effect. "Spac cen pro" Space brush dabs from center an proportional distance.
- Added - Brush effect. "Spac edg abs" Space brush dabs from edge an absolute distance.
- Added - Brush effect. "Spac edg pro" Space brush dabs from edge an proportional distance.
- Improved - If a name is assigned to a book or page show that in the TwistedBrush title bar in place of the book and page numbers.
- Improved - In the Page Explorer when entering a book name reflect the book name in the list immediately.
- Improved - In the Page Explorer if a page name is assigned show it under the thumbnail.
- Improved - When starting the Page Explorer highlight the currently selected book.
- Changed - Hot key for moving a layer up from Alt + Q and Ctrl + Q
- Changed - Hot key for moving a layer down from Alt + A and Ctrl + A
- Changed - Updated the version on the internal licensing system used in TwistedBrush
- Changed - Make the default directory for saving and loading images brushes ublImage.
- Changed - Widened the Brush Effects Panel so that effect and envelope names can be more fully read.
- Changed - Adjustments to allow more consistent use of brushes that use the Lay effects on a transparent layer. For example many of the watercolor brushes.
- Fixed - Problems of getting stuck in a color picker mode preventing painting.

- Fixed - In Page Explorer the page naming was not always being properly recorded.
- Fixed - In Page Explorer if there were gaps in the book numbers the book names in the list could be displayed wrong.

11.9 - Numerous new brushes and brush effects

- Added - Collections - Meta Blobs - ArtSet
- Added - Collections - Angela's Potpourri of Brushes - ArtSet. Thank you once again Angela for sharing your brushes!
- Added - Numerous brushes to the Collections - 3D ArtSet.
- Added - A few brushes to the Images Brush - Basics ArtSet
- Added - One brush to the Cloners - Artistic 1 ArtSet. Band Color Cloner
- Added - One brush to the Art Tools - Pen ArtSet. Liquid Ink.
- Added - Menu option to Clear All Drawing Guides. Undo the Control menu.
- Added - Brush effect - Lay Shd Txt2. Similar to Lay Shd but is applied as a texture to the paint surface.
- Added - Brush effect - Lay High Txt2. Similar to Lay Shd and Lay Shd Txt2 but works only on the highlights.
- Added - Brush effect - Lay Smooth. The alpha edge of the stroke is compressed giving the entire the stroke a more liquid edge.
- Added - Brush effect - Lay Txt2. Applied the entire stroke as a Texturized2 layer blend.
- Added - Layer blend modes. Alpha Shader Texture2, Alpha Highlight Texture2 and Alpha Smooth.
- Added - Brush effect - Bld bandcol. Doesn't actually mix as most other Bld effects but it does band the color based on the strength. Values in the range of 60 - 95 give the most noticeable change. That would be combo,6,0 - combo,9,5
- Added - Brush effects - Shdw top left, Shdw top, shdw top rt, Shdw right and Shdw left.
- Added - Brush effects - Hi TL. Draw immediate dab towards the top left.
- Added - Brush effects - Hi T. Draw immediate dab towards the top.
- Added - Brush effects - Hi TR. Draw immediate dab towards the top right.
- Added - Brush effects - Hi R. Draw immediate dab towards the right
- Added - Brush effects - Hi BR. Draw immediate dab towards the bottom right
- Added - Brush effects - Hi B. Draw immediate dab towards the bottom
- Added - Brush effects - Hi BL. Draw immediate dab towards the bottom left.
- Added - Brush effects - Hi L. Draw immediate dab towards the left.
- Improvements - Many changes and additions to the Collections - Frames 1 ArtSet
- Fixed - When using the right mouse click to delete a brush in the Brush Edit Dialog when exiting the state would be stuck in the color picker mode until a right mouse button was clicked.

11.8 - Various incremental improvements and fixes

- Added - Key repeats for the shortcuts for Size, Density and Opacity.
- Added - Additions and updates to Angela's Artistic Oils ArtSet.
- Added - Ctrl + B will toggle the Stats mode.

- Added - Menu option to clear the undo steps that are currently stored. Undo the Control menu.
- Added - Preference to start TwistedBrush in the Page Explorer so the page can be selected prior to loading. This is useful for those who work on very larger pictures and allow them to determine the first page to load. Found in the Preferences dialog.
- Added - Drawing Guide - Virtual Page. Interacts with the brush effects envelopes PSPDX and PSPDY. If a virtual page guide isn't set PSPDX and PSPDY continue to work across the span of the entire page.
- Added - Drawing Guide - Control Rectangle. Interacts with the brush effects envelopes CSPDX and CSPDY. If a control rectangle guide isn't set CSPDX and CSPDY continue to work across the span of the entire page.
- Added - Crop to Virtual Page operation to the Control menu. The Virtual Page is a drawing guide.
- Added - Mask Virtual Page operation to the Control menu. The Virtual Page is a drawing guide.
- Added - Crop to Control Rectangle operation to the Control menu. The Control Rectangle is a drawing guide.
- Added - Mask Control Rectangle operation to the Control menu. The Control Rectangle is a drawing guide.
- Improved - Up to 8 drawing guides can be present on a single page at a time. Previously only 1 could be present.
- Improved - Removed the TwistedBrush.env file when uninstalling TwistedBrush. This is the settings file.
- Improved - On an abnormal program shutdown don't lose the program settings. Previously the settings would be reset to the defaults. Now the setting will be reset to the defaults if a failure occurs during the startup.
- Improved - When zoomed in don't keep a border around the image. Gives a larger drawing area.
- Changed - Toggle Drawing Guides menu moved from the View to the Control menu.
- Fixed - Memory leak each time the Brush Selection Dialog was opened.
- Fixed - Clicking on very fine gap next to the Brush Shortcut Tab B6 would result in a crash.
- Fixed - Cases where the dynamic tools could be stuck on even after the hot key was released.
- Fixed - Cases where while using a dynamic tool and pressing the hot key for another tool it could switch to that tool.
- Fixed - Menu text on Zoom in and Zoom out.
- Fixed - In Stats mode the Cur Undo Mem total was not always correct.
- Fixed - The Circle Grid drawing guide was not drawing correctly.
- Fixed - When the Brush options dialog was open the cursor would be invisible over the canvas area.
- Fixed - After a crop operation the currently selected brush would not paint properly until reselected.

11.7 - More and improved Photo Cloning Brushes

- Added - Cloner : Artistic 2 Artset
- Added - Cloner - Artistic 3 Artset
- Added - Numerous additions to the Angela's Artistic Oils ArtSet!! Thank you Angela!
- Added - 5 new brushes to the Cloners - FancyArtSet
- Added - Adjust HSV filter for adjusting Hue, Saturation and Value.
- Added - Brush effect - Flt Grayscale. Apply a grayscale filter to the current blending buffer.
- Added - Brush effect - Flt Negative. Apply a negative filter the current blending buffer.
- Added - Brush effect - Flt Ths Low. Apply a threshold low filter to the current blending buffer
- Added - Brush effect - Flt Thr High. Apply a threshold high filter o the current blending buffer.
- Added - Brush Effect - Solid. Takes away the feathered edge from a brush shape.
- Added - 4 Shapes to the Shapes ArtSet.
- Improved - The menu text for the screen captures to make it more clear where the capture image will go.
- Improved - ArtSets are now sorted alphabetically not relying on Windows.
- Improved - ESC will cancel the current stroke in progress. Very handy if you have a very complex brush and draw a long stroke.
- Changed - The hot key for Edit ArtSet is now M previously was Ctrl + B and G
- Changed - The hot key for merge and continue with current layer is now Ctrl + M previously it was M
- Fixed - Updated the Edit ArtSet menu to reflect the shortcutkey for the Edit ArtSet function.
- Fixed - Selecting Layers from the Quick Help dialog was pulling up the wrong screen.
- Fixed - The brush effect Color Trace was broken in 11.6.

11.6 - Brush Sizes up to 999 pixels and pattern brush improvements

- Added - ArtSet - Angela's Artistic Oils!! A special thanks to Petite_Poisson_2 for contributing these wonderful brushes!
- Added - Brush effects envelopes Bnk0...Bnk9. Used for bshape, btexture, bimage and pattern effect so that more than 100 unique items can be reference. Now up to 1000 of each can be referenced.
- Added - Brush sizes up to 999 pixels are now supported!!
- Added - Additional brush sizes to the brush size modifier artset.
- Added - Three pattern brush color modifier ArtSets selectable from the color modifier icon.
- Added - 2 brushes to the Image Brush ArtSet. Acrylic and Fine Spray.
- Added - Patterns - Basic Brushes ArtSet. These brush can be combined with any of the patterns.
- Added - Dynamic tools. Many of the tools now work in a dynamic mode. While pressing and holding the key associated with the tool the tool can be used with either mouse button. Once the key is released the previous tool is selected. This is very useful for example with the Pan or Color Picker tools.
- Added - I selects the Color Picker tool in dynamic mode
- Added - Ctrl + I selects the Color Picker tool
- Added - L selects the Line tool in dynamic mode

- Added - Ctrl + L selects the Line tool
- Added - U selects the Rectangle tool in dynamic mode
- Added - Ctrl + U selects the Rectangle tool
- Added - O selects the Ellipse tool in dynamic mode
- Added - Ctrl + O selects the Ellipse tool
- Added - H selects the Paint Bucket tool in dynamic mode
- Added - Ctrl + H selects the Paint Bucket tool
- Added - G selects the Gradient tool in dynamic mode
- Added - Ctrl + G selects the Gradient tool
- Added - F selects the Rectangle Mask tool in dynamic mode
- Added - Ctrl + F selects the Rectangle Mask tool
- Added - J selects the Ellipse Mask tool in dynamic mode
- Added - Ctrl + J selects the Ellipse Mask tool
- Added - K selects the Magic Wand Mask tool in dynamic mode
- Added - Ctrl + K selects the Magic Wand Mask tool
- Added - N selects the Rotate Brush tool in dynamic mode
- Added - Ctrl + N selects the Rotate Brush tool
- Added - P selects the Pan tool in dynamic mode
- Added - Ctrl + P selects the Pan tool
- Improved - Allow the Pattern brush effect to work on any core brush type. Previously only worked on blending brush types.
- Improved - Allow the Cloner brush effect to work on any core brush type. Previously only worked on blending brush types.
- Improved - The size slider positions were adjusted to better match the adjustments panel width.
- Improved - Performance when selecting large brush sizes from the size slider.
- Improved - Responsiveness when doing repeated operations such as Panning. Previously the system could get a bit bogged down.
- Changed - The visible range of the frequency and amplitude in the brush effects panel to go from 0 - 9 instead of 1 - H. What previously was 1 is now 0 and what previously was H is now 9.
- Changed - Center the cursor in the view is now done with a Shift + P instead of a Ctrl + P
- Removed - The three pattern artsets have been removed. The patterns are all available now in the colors modifier. This allows for a tremendous improvement in flexibility in using the patterns.
- Fixed - In the Art Tools - Oil Pastels the new brush Oil Patels was a typo.
- Fixed - A number of modifier brushes in the Effects ArtSet were improperly named.

11.5 - Various enhancements and fixes

- Added - Shortcut keys + and - (without CTRL) will zoom in and zoom out. The position will center to where the cursor was.
- Added - Brush effects to the brush modifiers tool bar.

- Added - Support for additional keyboard configurations. AZERTY (French/Belgium) and QWERTZ (German) for example.
- Added - Zoom to 1 to 1 (100%) menu bar icon and hot key (I).
- Added - Zooming to 1 to 1 (100%) is now a toggle. Pressing it a second time will bring you back to your previous zoom level.
- Added - Redo hot key of Shift + Z. Ctrl + Y still is supported as well.
- Added - 5 Brushes to the ArtTools - Pastels ArtSet
- Added - 5 Brushes to the ArtTools - Oil Pastels ArtSet.
- Improved - When using the mouse wheel to zoom in and out. The position will center to where the cursor was.
- Improved - The Unsharp Mask filter has a much greater range of effect.
- Changed - The hot keys for increasing and decreasing Size, Density and Opacity have been adjusted so that the unshifted key will make adjustments in 1 unit and the shifted key will make adjustments in 10 units. Those keys are Q, A, W, S, E, D.
- Changed - The text on the tabs for the brush shortcuts and the palettes.
- Changed - Allow the brush modifier icons to popup to multiple ArtSets. Such as the Shapes ArtSets.
- Changed - Removed the Hold Brush feature. The ability of image brushes replaces it.
- Fixed - The "-" shortcut key for zooming out was not working since version 11.1..
- Fixed - When restoring from a minimized state the scroll position was being lost.
- Fixed - Cancel was not working on the Palette load dialog.
- Fixed - When exiting with a cloner brush selected and on page 1 when you restart the page would be erased.
- Fixed - The Mirror Page effect brush in the Effects - Basic ArtSet was incorrectly changing the brush type.

11.4 - Quick Access to brush modifiers and various other improvements and fixes.

- Added - ArtSet : Sizes - Basic. A preset collection of standard brush sizes.
- Added - ArtSet : Rotation - Degrees. A preset collection of standard brush rotations in 10 degree increments.
- Added - Brush modifier quick access icons. These 6 icons allow for quick access to common brush modifiers. Specifically, brush shape x2, brush rotation, brush size, brush texture and standard colors by name!
- Added - Clicking on an empty slot in the layer mini bar will create the layer.
- Changed - Reduced the width of the left hand tool panel to recover more canvas space.
- Changed - Text in the Preferences dialog from Auto Save Sec (0 for none) to Auto Save Sec (0 to disable)
- Changed - The default page size back to 800x600.
- Fixed - The Translucent Image Brush was stroking offset from the cursor.
- Fixed - On the layer mini bar when the selected layer is hidden the selection outline wasn't being shown.
- Fixed - The move tool was hard to control when zoomed in.

- Fixed - Using the main layer menu or hot keys to move layer order up or down would have bad side effects if the layer panel was not open.

11.3 - Layer Mini Bar, undo for masks and other improvements

- Added - Layer mini bar!
- Added - Right click displays a popup menu for common actions on the layer mini bar.
- Added - Mask operations can now be undone!
- Added - ArtSet : Collections - Flower and Flakes Designs. Donated by a very generous TwistedBrush user.
- Added - Ability to turn off the autosave feature. A value of zero for the auto save frequency.
- Added - 6 new brushes in the Image Brushes : Basics ArtSet
- Added - 4 new brushes in the ArtTools : Palette Knives Artset.
- Improved - When selecting a color when an image brush is in use the alpha channel of the brush is no longer altered. This allows for using image brushes as easy to create shaped brushes!
- Improved - The ImageBrush effect will now work on any core brush type.
- Improved - When clearing a mask from the Mask menu the mask system will also be disabled. This yields performance improvements in subsequent operations such as painting.
- Changed - The minimum auto save frequency is 30 secs.
- Changed - If an autosave interval is missed because the page hasn't changed or drawing is occurring reset the timer. This way saving doesn't occur right after drawing on the page after a period in inactivity.
- Changed - The default page size from 800x600 to 770x600. To avoid the scroll bars on a display set to 1024x768.
- Fixed - When an image brush is first selected it was not ready to paint with if no image was captured yet.
- Fixed - The Undo system was allocating twice as much memory as needed!
- Fixed - Creating a mask from image was not automatically enabling the mask.
- Fixed - Creating a mask from the alpha channel was not automatically enabling the mask.
- Fixed - Inverting a mask was not automatically enabling the mask.
- Fixed - Masking brushing was causing too much undo memory to be used.
- Fixed - The Layer (lay *) brush effects weren't working in brush effect slots 9, 10, 11 and 12.
- Fixed - The Step brush effect wasn't working correctly.
- Fixed - The Skip brush effect wasn't always correct.

11.2 - Image Brushes, dirty brushes and color selection Improvements

- Added - Alt + Left Click will select the merged color at the cursor if not using a image brush or Cloner brush.
- Added - CIt + Left Click will select the current layer color at the cursor if not using a image brush or Cloner brush.
- Added - Shift + Left Click will select the scratch layer color at the cursor if not using a image

brush or Cloner brush.

- Added - Ctrl + Alt + Left Click will select the trace color at the cursor if not using a image brush or Cloner brush.
- Added - Using an Image Brush and Shift + Click will now capture an image from the scratch layer.
- Added - Using an Image Brush and Ctrl + Alt + Click will now capture an image from the trace layer.
- Added - When using the color picker tool and an image brush is selected the image will be captured.
- Added - Core stampers brush types : Fine stamper, Regular stamper and Coarse stamper
- Added - When using an image brush selecting a color will fill the image brush with that color.
- Added - 5 Brushes to the Image Brush - Basics ArtSet.
- Added - Brush Cleaner tool. Allows turning off the default of auto cleaning your brush in each new stroke.
- Added - Comma key (,) will clean the brush when auto brush cleaning is off.
- Changed - The color picker tool now supports the color picking modes of Alt + Click, Ctrl + Click, Shift + Click and Ctrl + Alt + Click.
- Changed - Increased maximum settable undo memory to 10000mb. Up from 1000mb.
- Changed - Shift + Click will no longer draw a straight line. Use the line tool instead.
- Changed - While using an Image Brush Alt + Click will now capture a merged image. Basically what you are currently seeing on screen.
- Changed - When the color picker tool is selected the surrounding colors are not averaged but if you draw the mouse the additional colors will be blended in.
- Improved - Color picking is a little faster.
- Improved - Performance and other improvements to the Image Brush - Basics ArtSet.
- Fixed - The default Undo memory setting of dynamic was not working properly on systems with too much memory (over 2gb).
- Fixed - The effects menu did not properly represent the addition of the new brush effects levels.
- Fixed - The color picker could pick up the drawing guide colors.
- Fixed - In some cases when blending on pure white there could be a dirty trail at the edges of the stroke.

11.1 - Image Brushes, Scratch Layer and other improvements.

- Added - The brush effects system now has 12 levels of effects instead of 8.
- Added - Image Brushes are scaled to the currently selected size.
- Added - Image Brushes are preserved from page to page.
- Added - ArtSet : Image Brush : Basics
- Added - Menu option to Load Captured Image Brush. Under the File menu.
- Added - Menu option to Save Captured Image Brush. Under the File menu.
- Added - Brush effect "Blend Image" refreshes the current blend buffer with the image brush image.

- Added - Brush effect "blImage" loads a ImageBrush image from the blImage directory. The strength is used to select the blImage name. Works the same as the bShape and bTexture effects.
- Added - Brush effect "ublImage" loads a ImageBrush image from the ubImage directory. The strength is used to select the blImage name. Works the same as the ubShape and ubTexture effects. The effect is designed for users to add captured images to their installation.
- Added - Scratch Layer feature. Very useful for mixing your own color and image brush palettes..
- Added - While using an Image Brush Alt + Click will capture an image from the scratch layer.
- Added - Pressing and holding the space bar will temporarily switch the the scratch layer, making it visible, and unzoom the canvas. Once the space bar is release your previous layer and zoom level will return.
- Added - Set Scratch Layer menu item under the Layer menu to set the current layer as the scratch layer.
- Added - The scratch layer number is saved with the page.
- Changed - On the Brush Effects dialog the effect levels are now swapped with Alt+number key rather than Ctrl+number key.
- Fixed - Don't use the DPI of the image imported when doing "Load Image Into". In other words honor the DPI settings that may have already been specified when setting up the page.
- Fixed - The displayed shortcut key for the Random Brush menu item. Should be Ctrl+R
- Fixed - The ImageBrush effect could at times paint the transparent areas incorrectly.

11.0 - Numerous additions and improvements

- Added - ArtSet : Collections - KW Petal Makers. Special thanks for Ken Wilson for contributing this ArtSet.
- Added - ArtSet : Collections - Angela's Pretty Brushes. Special thanks for Angela (Petite_Poisson_2) for contributing this ArtSet.
- Added - Save DPI setting in the TBR (TwistedBrush) native files.
- Added - When loading images from file, import in the DPI setting from the image file.
- Added - Warning when doing "Load from File as New" since the current page data will be erased.
- Added - Zoom in steps up to 1600%
- Added - Page Summary. Shows brushes used, filters used, stroke count etc. for a page. Found in the Page menu.
- Added - Reporting of last internal error to the stats mode display.
- Added - Toggle display of drawing guides with the R key.
- Added - Menu to toggle display of drawing guides. Under the View menu.
- Added - Drawing guide settings are remembered for each page seperately.
- Added - Brush effect : ImageBrush. Causes transparency to act as the brush shape for stampers and blenders.
- Added - Brush effect : Step. Paints dabs at the interval based on the strength value.
- Added - Ctrl + Click will capture the brush image when an image brush is selected.

- Changed - Default Auto Save Shortcut Brushes option to on.
- Changed - Increase the number of pages per book to 500. Previously was 100.
- Changed - Clone offset setting is only possible when a Clone brush is selected.
- Fixed - When setting the cloning source from the Page Explorer clear the cloning offset settings.

10.9 - Drawing Guides and Ken Wilson's Foliage ArtSet!!

- Added - ArtSet : Collections - KW Foliage Plus 1. Special thanks for Ken Wilson for contributing this ArtSet.
- Added - Drawing Guides tool on the main tools bar for interactively creating drawing guides.
- Added - Drawing Guide : Grid Square
- Added - Drawing Guide : Grid Rectangle
- Added - Drawing Guide : Grid Circles
- Added - Drawing Guide : Grid Ellipses
- Added - Drawing Guide : Horizontal Line
- Added - Drawing Guide : Horizontal Lines
- Added - Drawing Guide : Vertical Line
- Added - Drawing Guide : Vertical Lines
- Added - Drawing Guide : Cross Hair
- Added - Drawing Guide : Line
- Added - Drawing Guide : Square
- Added - Drawing Guide : Rectangle
- Added - Drawing Guide : Circle
- Added - Drawing Guide : Ellipse
- Added - Drawing Guide : Concentric Squares
- Added - Drawing Guide : Concentric Rectangles
- Added - Drawing Guide : Concentric Circles
- Added - Drawing Guide : Concentric Ellipses
- Added - Drawing Guide : Radial
- Added - Drawing Guide : Polar
- Added - Drawing Guide : Sector
- Added - Drawing Guide : Perspective Grid Horizontal
- Added - Drawing Guide : Perspective Grid Vertical
- Added - Drawing Guide : Perspective Grid Horz / Vert
- Added - Drawing Guide : Perspective Grid Horz / Vert Double
- Added - Drawing Guide : Perspective Grid Bottom 2 Point
- Added - Drawing Guide : Perspective Grid Top 2 Point
- Added - Drawing Guide : Perspective Grid Left 2 Point
- Added - Drawing Guide : Perspective Grid Right 2 Point
- Added - Drawing Guide : Perspective Grid Bottom / Top 2 Point
- Added - Drawing Guide : Perspective Grid Left / Right 2 Point
- Added - Drawing Guide : Horizontal Perspective Lines
- Added - Drawing Guide : Vertical Perspective Lines
- Added - Drawing Guide : Horz/Vert Perspective Lines
- Added - Option to turn off the Auto Saving Message. In the Preferences dialog.
- Removed - Toggle Grid from the View menu. This functionality is replaced by the Drawing

Guides feature.

- Removed - Grid Spacing from the Preferences dialog. This functionality is replaced by the DrawingGuides feature.
- Fixed - If the background layer had a blend mode set it would show up during normal work yet when exporting or doing a copy merge it would impact the resulting image.
- Fixed - When drawing straight lines with either the line tool or by holding down the shift key the line was not drawn until after the mouse was moved.
- Fixed - Toolbar settings were lost if focus was switched to another application and then back to TwistedBrush.

10.8 - Various fixes and improvements.

- Added - Preference option to set the Max Undo Memory in mb. A value of 0 means the size will be dynamically managed.
- Improved - Dynamically handling of undo space. Not as restrictive as release 10.6 but still reduces used undo memory as needed.
- Fixed - The Auto Saving...Please Wait popup message was not displaying correctly.
- Fixed - The mouse button swap icon was disappearing at times.
- Fixed - Undo was not working properly for Horizontal and Vertical page flips

10.7 - Various fixes and improvements

- Added - Key repeat for Undo keyboard shortcut (Ctrl + z). Hold down to repeat the Undo steps.
- Added - Key repeat for Redo keyboard shortcut (Ctrl + Y). Hold down to repeat the Redo steps.
- Added - Memory information reported in stats mode.
- Added - Image size information reported in stats mode.
- Added - Display popup message when auto-saving of the image is occurring.
- Improved - Dynamic number of Undo levels saved. The number of Undo levels saved will vary based on the size of the stroke, up to the maximum number of Undo level specified in the Preferences dialog.
- Improved - When using the Pixel Mode brush effect the pressure will not ease into the set strength unless the Stylus check box is enabled for the specific attribute (opacity for example)
- Changed - Maximum number of Undo levels increased to 500.
- Changed - The setting of the number of Undo levels in the Preferences dialogs represents a maximum number of Undo levels that will be saved.
- Changed - Increase default number of undo levels to 50.
- Changed - Reduce the number of possible random brushes that will be searched for before giving up from 200 to 50.
- Fixed - Unable to allocation memory for a new layer could result in a crash, invalid layer data or other odd behaviours.
- Fixed - When starting TwistedBrush if the initial page can not be shown report the error and restart the software on page 1 of book 1.
- Fixed - When moving floating panels there was a delay when attempting to paint afterwards.

- Fixed - When the background layer was hidden the following items were incorrect when that page is used as the source for the following; the reference image, cloning source, Page Explorer thumbnails, BMP backup file in the book folders and playing back a script to an AVI.
- Fixed - Undoing more than half the saved steps and then painting new strokes and then undoing those could result in incorrect image data placed on the canvas.
- Fixed - When using Undo and then drawing new strokes memory was not freed as early as it could have been.
- Fixed - Autosave interval was always set to 5 minutes for the first save regardless of what the preference option was set to.
- Fixed - For random brush generation when a brush effect is locked that normally wouldn't be used for random brush generation a valid random brush was never created.
- Fixed - When using the background layer after a clear page operation blending brushes could result in a dirty edge.
- Fixed - When doing a single click on the canvas the paint dab should draw at full pressure which feeds into the size, density and opacity sliders.

10.3 - Various additions, improvements and fixes.

- Added - Mask Wand option Hue Range. Create mask based on the clicked hue.
- Added - Drop Shadow filter - Under Filters | Stylized
- Added - Tablet Compatibility Mode option. This will cause a tablet to be treated like it was prior to release 10.0. Found in the preferences dialog under the Edit menu.
- Added - Additional resizing algorithms. Box, Triangle, Hanning, Gaussian and Bell are better suited when reducing the size of an image. Cubic 1, Cubic 2, Mitchell, Sinc, Hermite, Hanning and Catrom are better suited when enlarging the size of an image.
- Added - Insert Layer button to create a new layer above the current layer as an insertion, moving the other layers up.
- Added - Clone offsets. Alt + Click on a page will make it the cloning source. When you start to draw with your cloning brush the location in the cloned page will be that set with the Alt + click!
- Improved - The button layout on the Layer Panel has been rearranged to address the error of accidentally flattening the picture.
- Changed - Wording on the warning prompt when Flattening layers.
- Changed - Selecting the menu to set a cloning source page will remove the clone offset that might have been set with an Alt + click operation.
- Fixed - Resize type of B-Spline and Lanczos3 were not resulting in different resizing algorithms.
- Fixed - In some cases when drawing fast without or tablet or the tablet disabled there would be an anomaly in the stroke curve.

10.2 - New color palettes, demo scripts and various fixes.

- Added - Three demo scripts that create an entire scene. Tiger's Eye, Oranges and Desolate Beach

- Added - Dynamic palette. Dynamic - Hue Span.
- Added - Dynamic palette. Dynamic - 1 Color.
- Added - Dynamic palette. Dynamic - 2 Color.
- Added - Dynamic palette. Dynamic - 3 Color.
- Added - Dynamic palette. Dynamic - 4 Color.
- Added - Dynamic palette. Dynamic - History. Replaces the previous color history mechanism.
- Added - Clearing the color palette when the Dynamic - History palette is displayed will also clear the history palette.
- Added - Color palette. Pixarra Luminance Color Wheels
- Added - Color palette. Pixarra Complimentary Span
- Added - Color palette. Pixarra Color Wheel 1
- Added - Color palette. Pixarra Color Wheel 2
- Added - Color palette. Pixarra Color Square
- Added - Color palette. Pixarra CYMK Color Cube
- Added - Color palette. Pixarra RGB Color Cube
- Changed - Color history is recorded automatically and always.
- Changed - Color history menu under ArtSet is removed.
- Changed - Color history artset is removed.
- Changed - Default color palettes loaded on a new install have been changed.
- Fixed - Paper textures weren't working since the 10.0 release.
- Fixed - The Buy menu items were conflicting with the Layer menus.
- Fixed - Message typo with selecting a paper texture when layer 32 is already being used.
- Fixed - The script playback cursor was not positioned properly on playback with zoomed in or zoomed out.
- Fixed - Lay OTint1 and Lay OTint2 brush effects.
- Fixed - Alpha Outline Tint 1 and Alpha Outline Tint 2 layer blend modes.
- Fixed - Create Palette from Image (Spot and Average) were not properly sampling the bottom and right edges of the image.

10.1 - Fixes and improvements for tablet support

- Added - Option to enable/disable a drawing tablet. Even when the tablet is disabled it can still be used but TwistedBrush will just view it as a mouse input device.
- Enhanced - More accurate start of stroke location when using a tablet.
- Fixed - Selecting a color from the reference image windows was not working.
- Fixed - A number of cases of an incorrect line drawn when painting the first stroke after closing a dialog when using a tablet.
- Fixed - After starting and stopping TwistedBrush a number of times the tablet functionality may no longer be available for this application until the system is rebooted.

10.01 - Allow both Tablet and Mouse brush strokes.

- Changed - Allow both tablet and mouse brush strokes. Version 10.0 through enhancements

in tablet support had abandoned the feature to use the mouse to paint with when a tablet is detected. Strong demand resulted in this support to continue. The enhanced tablet support introduced in 10.0 is still fully in place as well.

10.0 - Color improvements, better tablet support and various fixes.

- Added - Color palette : Pixarra Hues. Full spectrum of standard hues.
- Added - Menu. Create Palette From Image Spot. Samples the current image and creates a color palette from it.
- Added - Menu option to Create Palette Hue Span From Current Color. Under the Palette menu.
- Enhanced - AWeight slider is now available for the Texturize Bump filter.
- Improved - Fine lined brushes (1 pixel for example) won't bunch up when moving slowly.
- Improved - Much smoother strokes when using a drawing tablet.
- Improved - Random based brushes should playback the same in script each time. However, they will not match the original brush strokes at this time.
- Changed - The text for the brush shortcuts from "Set" to "Bnk". Using the word Set was being confused with ArtSets.
- Changed - Made the Pixarra Hues color palette one of the default 8 color palettes.
- Changed - Brush Effect : Grid don't extend the dabs off the page.
- Fixed - If the opacity of the background layer was reduced the merge to the background layer would give incorrect results.
- Fixed - Generate > Splines -- Knots Slider quickly leads to severe overworking of the processor. The range of the Knots was much to high.
- Fixed - Generate > Trees > -- The Pomp and Hardness sliders were switched.
- Fixed - Stylize > Edges 2 -- Threshold High slider was not working.
- Fixed - Stylize > Gauzy -- Clarity slider was not working
- Fixed - On the Sine Plasma dialog, there is an "o,i" transposed and there are two missing "t's."
- Fixed - Perspective, Warp and many other distort filters were not properly handling the exposed areas after the filter was processed on the background layer.
- Fixed - Clear Page on a layer would leave a invisible ghost color that could become seen when the Mask Wand was used.
- Fixed - Close down the tablet context properly when exiting.
- Fixed - Don't miss the initial part and ending part of the stroke when using a drawing tablet.
- Fixed - Asomewhat rare case where a brush stroke would have off the mark dab position.

9.9 - Various improvements and fixes

- Added - Show the brush cursor during script playback.
- Added - Log the text message to the script log area box.
- Added - Log the version that script was recorded in to the script log area box.
- Added - Menu item for Resize Page to Clone Source Page Size. Found in the Page menu.
- Added - Brush effect Grid. Distribute brush dabs to cover the page.
- Added - Duplicate button to the layer panel.
- Added - Flatten button to the layer panel.
- Added - ArtSet : Cloners - Fancy. Around 15 cloning brushes must that use a geometrics shape.
- Enhanced - Collapse layer script log message when repeated.
- Changed - Shortcut key for Random brush is changed from "r" to "ctrl+r".
- Changed - Text for the Resize Page to Previous Page Size and Resize Page to Default Page Size menus.
- Fixed - Opening and then closing the layer panel could at times have bad interaction with other floating dialogs.
- Fixed - Random Brush Explorer was not being properly cleaned up when it was closed.
- Fixed - Recording the playback from scripts would not properly recording the mask operations.
- Fixed - Undoing straight lines were not properly recording.
- Fixed - Straight lines applied with brushes with layer brush effects were not properly drawn.
- Fixed - Flood To Alpha was not working properly to detect boundaries between white and aqua on the background layer.
- Fixed - Flood was not working properly to detect boundaries between white and aqua.
- Fixed - Brush effect envelopes, isaw, isaw2, istpu, istpu2, and ipeak were broken since version 9.4.

9.8 - Scripting fixes and improvements.

- Added - ArtSet Collections - Geometrics 4 color.
- Added - Displaying script information during playback in the Script Player dialog.
- Added - Added a Scene button on the Script Recorder. This should be used to start recording of a full picture.
- Changed - Renamed the Rec button on the Script Recorder to Section. This should be used to record a script that isn't a full scene but perhaps a continuation of an existing scene or a object that would be painted on a single layer.
- Changed - Default settings for the Splines generate filter.
- Changed - Default value for the Voxel filter.
- Changed - Insert script message into the running script log rather than the popup.
- Changed - Adjusted the size of the script record Message dialog.

- Improved - Protection against memory leaks with filters.
- Fixed - Pure blender brushes could blend with color when they shouldn't.
- Fixed - Prevent memory leak with Twirl Filter.
- Fixed - Default the Twirl Filter XAmount and YAmount to 1 instead of 0.1.
- Fixed - Enabling brush history resulted in an error when trying to create the brush sample image.
- Fixed - Percentage sign was getting cropping in the filter dialogs.
- Fixed - When saving ArtSet to Shortcuts empty brushes were still showing brushes in the shortcut panel.
- Fixed - Filling a transparent area on a layer could sometimes show ghosting of previous image data.
- Fixed - It was possible to press Play multiple times on the Script Player dialog while a script is loading.
- Fixed - Prevent crash when a script references a layer that doesn't exist.
- Fixed - Picking colors with the color picker were not being recorded in scripts.
- Fixed - Script recording of the filters, backgrounds, texturize bump, texturize emboss and displacement bump should not include the full path to the pattern file.
- Fixed - Record the original script messages when recording a played back script.

9.7 - Mask improvements, more brush shapes and other enhancements.

- Added - Replace To Alpha option for the Paint Bucket (Flood Fill) tool.
- Added - Non-Contiguous option for the Wand Mask tool.
- Added - Colpr Range option for the Wank Mask tool.
- Added - Luminance Range option for the Wank Mask tool.
- Added - Adelete script option to the Script Player.
- Added - Brush effect "Shrink". Generates additional dabs each one smaller.
- Added - ArtSet : Shapes - Geometrics
- Added - ArtSet : Collections - Geometrics 1 Color
- Added - ArtSet : Collections - Geometrics 2 Color
- Added - ArtSet : Collections - Geometrics Shaded
- Added - Additional information to stats mode. Position and Color information. Will display this information in a more standard way in the future.
- Enhanced - Color fidelity improved in some areas.
- Enhanced - Some filters (those that soften edges) could result in a white halo around the image data on layers at the edge of color and pure alpha. The halo effect still exists but the color will be that of the current color.
- Enhanced - Allow focus to remain on the Layer Mix Mode combo to allow easy switching of layer modes with the up and down arrow keys.
- Enhanced - After interacting with the Script dialogs place focus on the drawing canvas to ensure no lag with starting to draw.
- Enhanced - Dragging the Mask Wand tool will repeatedly apply the tool (with right mouse button down)

- Enhanced - The sliders in the filters now have a resolution of tenths of a percentage.
- Enhanced - Added percentage signs to the numerically values for the sliders in the filters.
- Enhanced - Update the warning message when unable to create a cloning source.
- Enhanced - Widen the Script list in the Script Player window.
- Enhanced - Show a "Loading ArtSets..." message when the selectArtSet dialog is reading the ArtSets.
- Enhanced - When merging brushes replace the bShape and bTexture effects rather than adding new ones.
- Fixed - When invoking the Reference Image option automatically save the current page first.
- Fixed - The mask wand could not change the mask strength of a mask already in placed.
- Fixed - If the Clone brush effect wasn't in brush effect slot 1 sometimes the cloning source was not being properly set.
- Fixed - Don't allow applying filters, clearing or filling an invisible layer.

9.6 - Scripting Improvements and fixes

- Added - Layer actions are now recorded in scripts.
- Added - Copy and Paste actions are now recorded in scripts.
- Added - Automatically save a restore point before script playback. Revert to the pre-script restore point from the File menu.
- Added - It is now possible to play back scripts while recording a new script. The actions being played back will be recorded in the new script.
- Added - Script Player dialog (from the script menu)
- Added - Script Recorder dialog (from the script menu)
- Added - Scripts can now be played from a list rather than requiring them to be loaded first from the File menu.
- Added - Scripts now record and playback the Move tool actions.
- Added - A backup TBR file is created with the extension of ".BAK" when saving a page.
- Enhanced - For most filters that have a random element the randomness can now be controlled.
- Enhanced - Prompt before restoring an save point since it can't be undone.
- Enhanced - When exiting the program if scripting is still recording, cleanly stop the recording.
- Enhanced - Now have two modes of recording. The standard mode where the initial brush settings are recorded and Strokes were the initial brush settings are not recorded.
- Changed - Scripts now reside in their own directory "scripts".
- Changed - Removed the Load Script and Save Script items from the File menu. These are no longer needed.
- Changed - Removed the script playback speed setting from the Preferences dialog. It's handled directly in the Script Player dialog now.
- Fixed - Significant memory leak that occurred on each save!! Has been around for a long time, very good find. Should help stability for long sessions.
- Fixed - When saving a page don't delete both the BMP and TBR files before writing out the new saved image.

- Fixed - Sometimes script playback wasn't identical with regards to the stylus pressure.
- Fixed - Duplicate Rotate menu item under Filters | Distort.
- Fixed - After script playback the page was not marked as changed and therefore wouldn't be automatically saved when exiting if no other edits were performed.
- Fixed - After script playback the current brush settings displayed were not always correct.
- Fixed - Typo in Menu | Filter | Stylized | Scratch
- Fixed - Check for the proper script version during repeated playback.

9.5 - Reference Image View and various bug fixes

- Added - Horizontal and Vertical flip filters to flip just the current layer, not then entire page (all layers). Under the Distort category of filters.
- Added - Reference Image Window. Select from the Page menu or the Page menu in the Page Explorer.
- Added - Select color from the Reference Image windows. Right or left click the mouse in the reference image window.
- Added - Option on the Paint Bucket to Flood to Alpha for use on layers to fill a color to transparent.
- Enhanced - The Cut feature honors the mask now.
- Enhanced - The Clear Page feature honors the mask now.
- Enhanced - The Fill Page feature honors the mask now.
- Fixed - In the EditArtSet dialog, selecting Build Mode and then responding No to the proceed question put the dialog into a bad state.
- Fixed - In the EditArtSet dialog when the new ArtSet is filled switch the current ArtSet to the newly built ArtSet.
- Fixed - In the EditArtSet dialog ensure that an empty brush slot isn't selected when a new ArtSet is built.
- Fixed - Transparency was not being preserved when importing an image if page needed to be resized.
- Fixed - Stylus pressure was slightly off at times.
- Fixed - The mask was not being honored for the displacement bump filter.
- Fixed - The paint bucket tool was not working properly on layers. Would not change the transparency.
- Fixed - Opening then closing the layer panel then selecting from the drop down options for the Paint Bucket caused a crash.

9.4 - Smoother strokes and various improvements.

- Added - Brush effect "SubSample" for anti-aliased strokes.
- Added - Brush effect envelopes rg50, rg100, rg150, rg200, rg300, rg500, rg1000. To move the effect result value from the freq to amp values over time.
- Added - A CopyArtSet to Shortcuts button on the EditArtSet Dialog.
- Enhanced - Smoother strokes!!!

- Enhanced - ArtSet - Art Tools - Pens enhanced with some additional pens including smooth stroked pens.
- Enhanced - More even paint distribution along the stroke.
- Enhanced - Average the 9 pixels under the cursor center when using the color picker to avoid large swings in color.
- Enhanced - Edit ArtSet : Build Mode. Change build button text when in build mode.
- Enhanced - Edit ArtSet : Build Mode. Change warning text when ArtSet is filled.
- Enhanced - Edit ArtSet : Build Mode. Don't show warning about exiting build mode when the Exti Build button is pressed.
- Enhanced - Edit ArtSet : Build Mode. Automatically select the just built ArtSet when ending build mode.
- Enhanced - Minor performance improvement when drawing small sized brushes and particles.
- Fixed - Allow the brush effect Pix Color Vary to be used with non-blending brushes.

9.3 - Numerous incremental improvements.

- Added - Holding down the Shift key while clicking on a shortcut will save the current brush into that shortcut slot.
- Added - Paper color selection is now possible. Next to the paper selection. Left click to select color. Right click to assign current color as the paper color.
- Added - ArtSet Builder mode added to the Edit ArtSet dialog.
- Added - New brushes to the Art Tools : Pastels ArtSet.
- Added - Amy's Cartoon Grass and Bush brush to the cartoon set.
- Enhanced - Variable scale for the size slider to make it easier to select smaller sizes.
- Enhanced - On the confirmation dialog for deleting a brush, include the brush name in the text.
- Changed - Name of the preference "Keep Brush Colors" to "Autosave ShortCut Brushes". In addition when this option is off the shortcut brush will never be automatically updated, even if brush effects are changed.
- Changed - Default maximum number of undos from 100 to 25. This can still be changed in the preferences dialog.
- Changed - Eraser brushes so that they don't change the current color settings.
- Changed - Updated the default brush Shortcuts with different brushes.
- Fixed - Removed the shortcut key text from the menus in the Page Explorer dialog since these are no-longer active.
- Fixed - When moving a layer up and it was already the top most layer the canvas would not redraw properly.
- Fixed - The current layer description on the left hand panel was not updating when a layer was selected in the layer window.
- Fixed - Was possible to draw on an invisible layer, even after a warning message was given.

9.2 - More brushes and miscellaneous improvements and fixes.

- Added - 9 new brushes to the Impressionistics ArtSet.
- Added - 14 new brushes to the Cartoon ArtSet.
- Added - New Artset, Collections - 3D. 33 new brushes.
- Added - Brush effect - ColorSelection. Chooses one of the 4 color selections not-blended.
- Added - Confirmation before deleting a brush.
- Enhanced - Prompt for file name when playing a script back to AVI.
- Enhanced - Look of the precision cursor.
- Enhanced - Don't overwrite the brush shortcuts when installing a new version.
- Fixed - Crash when selecting a book in the Page Explorer after deleting the book outside of TwistedBrush after the Page Explorer was already opened.
- Fixed - Brush effect - Color Underlayer was broke since the rework on the undo system.
- Fixed - The brush effect "Opac Abs2" needed to be in brush effect slot one to work. Recently broke.
- Fixed - When resizing an image some brushes wouldn't work properly until they were reselected or adjusted.

9.1 - Many new watercolor brushes and new Cartoon ArtSet

- Added - Over 40 new Watercolor brushes!!
- Added - New ArtSet - Collections - Cartoons
- Added - Brush Effect : Blend Cur Color. Mixes the current color and current effect color.
- Added - Layer mix modes, Alpha Outline Tint 1, Alpha Outline Tint 2, Alpha Invert, Alpha Shader, Alpha Shader Color.
- Added - Brush Effects - Lay Blk OL, Lay OTint1, Lay OTint2, Lay Invert, Lay Shd, Lay Shd Color
- Fixed - Quick Help layers link pulled up wrong screen.
- Fixed - Merging down onto a transparent layer was giving incorrect results. Introduced in 9.0.
- Fixed - Improved responsiveness and accuracy when clicking on the layers window.

9.0 - More brushes, new filters and various fixes.

- Added - Brush effects - pEmit Jit, pEmit iJit, pEmit Jit Dir and pEmit iJit Dir. These are additional particle effects to allow for starting points of particle strokes away from the brush center.
- Added - Brush effect - Page Frame. Draws a brush stroke around the edge of the page.
- Added - F1 brings up the Quick Start Guide
- Added - Perspective Filter. Found under the Filter | Distort menu.
- Added - Warp Filter. Found under the Filter | Distort menu.
- Added - 13 new flower brushes in the Collections - Flowers ArtSet.
- Added - Collections - Frames ArtSet. 56 brushes for framing and matting your pictures.
- Improved - Increase the color shading difference between the selected tab and unselected tabs for the brush short cuts and color palettes.
- Improved - After setting options on the layer dialog return focus back to the drawing area to

reduce any brush stroke lag.

- Improved - Various improvements and fixes to the Quick Help dialog.
- Improved - Some cleanup to the help document. Removing topics that are covered better in the Quick Help sections.
- Changed - Removed Tutorials and ArtSet links from the help menu since they are very out dated.
- Fixed - The current page was not flagged as changed when many layer setting were changed resulting in the page not being saved if nothing else was changed or painted on the page.
- Fixed - Layer settings were not being updated when moving to a new page.
- Fixed - When doing a paste the layer dialog was not properly updated.
- Fixed - Alpha values were not being preserved when doing the Copy Merge operations or exporting to PNG, TGA or TIF formats for some layer blending modes and the layer mask.
- Fixed - The layers dialog was not redrawing on a screen resolution change.
- Fixed - Don't allow drawing on an invisible layer (again)
- Fixed - Layer thumbnails were not drawing properly on an Paste As New operation.

8.9 - Numerous Fixes

- Fixed - Program crash after hiding the layer dialog and selecting a new brush from the Brush Select dialog.
- Fixed - Update the layer thumbnails in-sync with the main canvas.
- Fixed - Update the layer dialog when loading pics, switches pages, new page, etc.
- Fixed - Typo in the "Crop" warning dialog.
- Fixed - Clicking and dragging off the brush shortcuts could result in the Brush Select dialog coming up when it shouldn't.
- Fixed - Don't change the ArtSet of a shortcut brush when it's merging it with another brush (color, shape, texture or effects)
- Fixed - Don't change the brush options of a shortcut brush when it's merging it with another brush (color, shape, texture or effects)
- Fixed - Some text in the preferences dialog was being cropped.

8.8 - Usability improvements, more special effects brushes and fixes.

- Added - 18 new Process - Special Effects brushes.
- Added - Layer mode "Adjustment Mask" to allow for more powerful compositing.
- Added - Brush effects "Shift x" and "Shift y" to move the brush dab along the x and y axis.
- Changed - Layer window was made more narrow.
- Changed - Layer window is now floating. It can remain open while you paint!
- Changed - Adjustment to many dialogs so that the bottom buttons aren't cropped off.
- Changed - Hotkey (Z) to (Alt + Z) to toggle ArtSet and Brush names in the brush shortcut panel.
- Changed - Save ArtSet name in shortcut artset rather than separately so that it remains persistent.
- Changed - The option for ArtSet names is now in the ArtSet menu and called "Toggle Shortcut Mode"
- Changed - When the shortcuts are in ArtSet mode pick the original brush from the ArtSet rather than the shortcut. This has the effect of using the original default brush settings.
- Enhanced - When the shortcuts are in ArtSet mode show the brush sample icon.
- Enhanced - Highlight the current brush in the Select Brush Dialog.
- Enhanced - Recreated the default Shortcuts ArtSet so that the ArtSet name is stored and will default to the Essentials ArtSet when pulling up the Brush Selection dialog.
- Fixed - The Blend Capture brush effect was mixing incorrectly resulting in colors on some brushes being dirty and moving towards black.
- Fixed - Small improvement to the Bld_x brush effects to improve color mixing.
- Fixed - Undo was not properly restoring 1 pixel along the right and bottom edges.
- Fixed - Moving a layer with paper textures turned on resulted in reapplication of the paper texture. Paper textures should not be applied when moving a layer.

8.7

- Fixed - Emergency fix to correct crash case on operations that change the size of the picture. Resize and crop.

8.6 - Undo system rewrite, new brushes, improved performance

- Added - Preference to Keep Brush Colors. Toogles between the shortcut brushes retaining the last used settings (color, size etc) or using the defaults for the brush as selected from the ArtSet.
- Added - Preference for number of undo levels 0 - 100. Found in the preferences dialog unto the edit menu.
- Added - Process - Special Effects ArtSet. Includes around 30 brushes.
- Added - Collections - Flowers ArtSet. Includes around 25 brushes.
- Added - 9 new brushes to the Art Tools - Oil Paints set.
- Added - Option in the Brush Select dialog (in edit mode) to create an icon for the selected brush from the current image. For good results draw your stroke on a page size of 200x100.
- Improved - Completely rewrote the undo/redo system resulting in better memory usage and better performance for undos and redos.
- Improved - Performance enhanced between strokes. Most noticeable on large canvases. Previously there was a lag between strokes limiting high speed sketching on large canvases.
- Changed - Minor adjustment to license checking.
- Fixed - Applying a filter would not enable the undo menu items.
- Fixed - If a paper texture was selected during, crop, resize, rotates or image flips the texture was applied to the image layer as well as re-applied to the texture layer.

8.5 - Improved color picking, masks, copy and paste, page explorer and various other items.

- Added - SaveAs option in the EditArtSet dialog.
- Added - Color picking from Traced Image. If tracing mode is active the color picker will select colors from the traced picture.
- Added - Color picking from just any layer - non-merged colors. Holding the Alt key and using the color picker will result in looking at each layer separately until a color is found (non-alpha)
- Added - Ability to name books and pages in the Page Explorer.
- Added - A menu bar in the Page Explorer.
- Added - Brush options dialog is now available for the brushes in the brush shortcut banks. Use right click to access the brush options dialog.
- Added - Masks are honored on Copy operations. Areas under the masked parts will not be copied.
- Added - Paste as New. Menu option under Edit to paste your clipboard image as a new page.
- Added - Effects - Basic ArtSet for an easier way to construct new brushes.
- Improved - Color picker will now return the color that is visible (merged layer view) instead of

the color on that layer. The color on just one layer can be returned by holding the ALT key when using the color picker.

- Improved - Allow only one copy of TwistedBrush to run at a time.
- Improved - Preserve original brush options when setting into the shortcut banks.
- Improved - Paste will now paste the image data into a new layer. Use Paste as New or Paste Into for previous behavior.
- Changed - In the EditArtSet dialog the Select button is now called Copy and doesn't select the brush but only copies the brush for placement in other ArtSets.
- Changed - Don't show the license key in the about screen.
- Changed - Removed hot keys in the Page Explorer. It conflicts with the edits areas that were added.
- Fixed - Layers names were getting overwritten when selecting another layer in the layer dialog.
- Fixed - Selecting a pattern brush with a different density but the same pattern would not make the scale adjustments.
- Fixed - The currently edited brush settings were lost after going into the Select Brush dialog in edit mode.
- Fixed - The ArtSet text edited in the Select Brush dialog was not saved when exiting the dialog.
- Fixed - Typo in Quick Start screens.

8.4 - Additional layers, UI improvements, saving DPI and fixes.

- Added - Save DPI setting when writing to JPG, PNG, TIF and BMP files.
- Added - Support up to 32 layers now instead of just 16.
- Added - Pattern Brushes can all now be scaled!! Use the density slider to change the scale of the pattern.
- Added - Protection from trying to load a new version of a TBR file into a version of TB that doesn't support it.
- Added - Allow the script brush tool to draw while dragging the mouse (with right mouse button down)
- Added - Option to scale the Backgrounds filter. Found in the Filters menu.
- Added - Hotkey (Z) to toggle ArtSet and Brush names in the brush shortcut panel.
- Changed - When recording a script the current brush is not automatically recorded. This allows for scripts that can generically be used for any brush. To get the previous behavior just select a brush as your first step when recording a script.
- Improved - Performance improved in the layers dialog when scrolling and selecting layers.
- Improved - Give warning if exiting the layer dialog with the current layer invisible.
- Improved - Don't switch layers when setting the visibility or lock attribute in the layer dialog.
- Fixed - When creating a new ArtSet the ArtSet name was always seen as ArtSet.
- Fixed - Typo in sketchbook quick help page.
- Fixed - When flattening an image (merging all layers) don't remove the texture surface layer (papers).
- Fixed - When deleting a layer and then closing the layer dialog the main TwistedBrush screen

wasn't almost on top most window on the screen.

8.3 - Quick Start Guide and minor fixes.

- Added - Option for Showing ArtSet names in the brush slots rather than the brush names. The option is found in the menu Edit | Preferences
- Added - Quick Start Guide
- Improved - Center the selected layer in the layer dialog box when it opens up.
- Fixed - When deleting a layer the, attributes of the delete layer were applied to the layer below it.
- Fixed - ArtSet mapping to the brush slot was not being preserved between sessions.

8.2 - New Layer User Interface and various other improvements

- Added - Filter Preview Off option. Turns off the default to have preview on for filters. Found in the menu Edit | Preferences.
- Added - Brush Numbers option. Allows showing the brush numbers (1 - 60) in the select brush dialog. Turns this on from the menu Edit | Preferences.
- Added - Hotkey "Y" to pull up the Layers dialog
- Improved - New layer user interface with thumbnails for each layer.
- Improved - Remember the ArtSet for each brush selection so that pulling up the brush selection dialog will default to the same ArtSet as the brush for that selection box.
- Improved - All brush setting are returned to what they were prior to script playback
- Improved - Deleting a layer will now select the next layer down rather than layer 1.
- Improved - Merging a layer will now select the next layer down rather than layer 1.
- Updated - Copyright year.
- Changed - Layer Up and Layer Down now move layers in the opposite direction then before. It's more intuitive when looked at in the new layer interface.
- Fixed - Brush options were not properly being saving when a new brush was added to an ArtSet.
- Fixed - Script brushes were only playing back properly the first time.
- Fixed - Setting the clone/trace source was failing if the page had not been saved yet.

8.1 - Major Brush Selection and ArtSet Usage Improvements

- Improved - Major changed to how brushes and ArtSets are selected and used.
- Changed - ArtSet menu items for optimize ArtSet, Select Brush, Select Brush List and Select ArtSet are no longer needed.
- Changed - The ArtSet panel is replaced by a panel of current brushes of which 54 are remembered as shortcuts in 6 banks of 9 brushes each.
- Changed - The brush shortcut keys are replaced by the key brush shortcut system where pressing the keys 1 - 9 will select that shortcut brush.
- Changed - Setting the shortcut brush is now supported with a full UI and no longer requires

holding down the number keys.

- Changed - The concept of loading ArtSets is completely gone. Brushes are selected from the entire array of ArtSets and are stored in the brush Shortcuts area.
- Changed - The Load ArtSet, Save ArtSet and Save as ArtSet from the File menu are removed.
- Changed - The Brush Selection dialog is completely redone, showing the text of every brush in the ArtSet and a brush sample.
- Changed - The Brush Selection List dialog is complete gone.
- Changed - Editing ArtSets is unified into the Brush Select dialog when invoked in edit mode which is done from the ArtSet | Edit ArtSet menu.
- Changed - The concept of a locked ArtSet is no longer used since editing an ArtSet is done via special menu.
- Changed - The concept of an ArtSet name is removed and the file name is used also as the ArtSet name.
- Changed - Selecting a Shape, texture, or any brush that doesn't store the primary brush information will only update the current brush. Previously had to hold the Ctrl key to force a merge.
- Changed - Brush sample pictures are moved with the brushes within ArtSets.
- Changed - The History - Brush and History - Color ArtSet now appear in the brush selection dialog.
- Changed - The History - Brush and History - Color ArtSet now store the brush sample picture along with the brush.
- Changed - Updated the "Set as Clone Source" to read "Set as Clone/Tracing Source"
- Changed - Wording and position of File menus, Save, Import Image and Export Image.

8.0 - EYEeffects Color Palettes (59 total new color palettes)!

- Added - 59 Color Palettes contributed by Shayne of EYEeffects!!!
- Added - The original Oil Paints ArtSet back into the distribution. While the new Oil Paints ArtSet released in 7.9 is generally more realistic this artset has a different feel on some brushes that aren't available elsewhere.
- Added - Import and Export Brush String Code. Away to share brush settings as a block of text characters.
- Added - Brush Effects - Spray 1, Spray 2 and Spray 3 with values of 5 and 10.
- Added - Numerous brush icons.
- Added - 5 additional brushes to the Palette Knife ArtSet.
- Added - Palette menu managing color palettes.
- Added - Commands to create a color palette based on 1, 2, 3 or 4 colors. In the Palette menu.
- Added - Command to clear the current color palette. In the Palette menu.
- Added - Command to reset all the color palettes back to the original state. In the Palette menu.
- Added - Ability to keep 8 color palettes loaded at once and switched with the tabs below the palettes (Pal1...Pal8).
- Added - 7 New Pixarra color palettes. Spectrum 02, Spectrum 03, RGB White, RGB Black, Red

Scale, Green Scale, Blue Scale and Artist Paints.

- Added - Fine Tune Settings for size, density, opacity, red, green or blue values. Right click on sliders.
- Added - Right clicking on the ArtSet tab will bring up the load ArtSet Dialog. (same for color palette tabs)
- Added - Color palette preview in the Load Palette dialog.
- Added - ArtSet - Collections - User Brushes. A repository for user contributed brushes.
- Changed - Reorganized the Essentials ArtSet and added in some new improved brushes.
- Changed - Slightly darken unselected ArtSet and Color Palette tabs.
- Changed - Look of selected ArtSet and selected Brush name areas and allow clicking anywhere in the name bar to bring up the select ArtSet or select Brush dialogs.
- Fixed - Spelling error in Preferences dialog.

Version 7

7.9 - Color Palette Support, new Oil Paints ArtSet

- Added - Support for ACT palettes. Both loading and saving.
- Added - Color selection palette 16 x 16 grid. Editable with right click, row span with CTRL + right click and column span with ALT + right click.
- Added - Completely new Oil Paints ArtSet replaces the old Oil Paints ArtSet.
- Added - Brush Effect - OpacAbs2. Adjusts the core brush so that the intrinsic alpha range is completely controlled by the alpha slider. (What the OpacityAbs brush effect should have been)
- Added - Brush Effects - Blend Str2. Like Blend Str but covers the full range of values.
- Added - Brush Effects - Blend Clr St2 - Like Blend Clr Str but covers the full range of values.
- Added - Displacement Bump Filter with Surface, Material, Nature and Other variations. Found under the Filters menu.
- Added - Option to specify the little brush icon on the brush options dialog.
- Changed - Replaced the Flare Brush in Jan Kirkland Landscape ArtSet with her Crystal Flower brush. The SpaceScape ArtSet has a number of different flare brushes.
- Changed - Brush effects panel is now a floating window.
- Changed - Updated a number of brushes in the Essentials ArtSet.
- Fixed - Cases where export images were not representing colors correctly. It appears at times that layer 1 was getting some transparency values set which are not rendered but saved therefore when later view would appear incorrect.
- Fixed - Exporting an unchanged page to the TBR format would not export.
- Fixed - Importing a TBR image would not be saved unless first changed.
- Fixed - After a script played completed, some brush settings were reset to the brush prior to the script playback but not all of them. Better to not reset any if not resetting all of them.
- Fixed - Brush shortcuts (keys 1 - 0) would at times not maintain the set brush properly.
- Fixed - The Page Fill brush in Essentials ArtSet was repeatedly filling the page if the pen was stroked.
- Fixed - When merging a single layer the transparencies were not normalized resulting in very wrong results.

7.8 - Cloner enhancements and scanner support

- Added - Cloner - Artistic 1 ArtSet. 60 brushes to turn photos into drawings and paintings.
- Added - Cloner - Process 1 ArtSet. 60 brushes to color clone your photos
- Added - Scanning support. Select Source... and Acquire from the File menu.
- Added - File Export of TwistedBrush Native format *.tbr. To preserve layer information.
- Added - File Import of TwistedBrush Native format *.tbr.
- Added - Copy Merged option to copy to the clipboard the merged layers. Under the Edit menu.
- Added - Clone source can now be any page in any book. Set in the Page Explorer or Main menu within the "Page" menu.

- Added - Popup brush label text on the brush selection windows.
- Added - Core brush types, Sketched small stamper, Sketched medium stamper and Sketched large stamper. All part of the Stampers brush category.
- Added - Drag and Drop brushes within the ArtSet panel. (Note: only works on ArtSets that are not locked. brush image samples are not moved)
- Added - Brush Effect - Pix color vary. Color variance at the pixel level!
- Added - Brush Effect - SetColor. Sets the current color into the paint engine immediate rather than waiting for last effect. Useful to alter color prior to processing a BlendTrace effect.
- Added - Brush Effects - stkDirection, stkRoughness and stkLength. Used for creating automatic dirctional strokes. stkLength must be the last of the three used since it's the effect that does the drawing.
- Added - Brush effects envelopes - size, size2, den, den2, opac and opac2.
- Added - Brush effects envelopes - if-in and if-out.
- Added - Brush Effects - blending types. Bld 2col, Bld 3col, Bld 4col, Bld colorize, Bld 1col lo, Bld 1col hi, Bld col hilo, Bld clamp lo, Bld clamp hi, Bld clamp hilo, Bld lo liner, Bld hi liner, Bld 64col and Bld 27Col
- Improved - Color fidelity on blends, one case is colors darkening when blended repeatedly.
- Changed - Renamed the "Art Tools - Cloners" ArtSet to "Cloners - Original Set".
- Fixed - Grid could not be turned off once turned on.
- Fixed - Added brush sample icons for the Masking Tools ArtSet.
- Fixed - Reduce the sensitivity of the mouse wheel for zooming.
- Fixed - Remove the dynamic brush label when leaving the Brush selection popup and load ArtSet windows.

7.7 - Page explorer improvements and grid lines

- Added - Ability to delete a page from the Page Explorer
- Added - Double click to open a page in the Page Explorer.
- Added - Ability to move pages back and forward within Page Explorer
- Added - Grid view option. Found under the View menu.
- Added - Ability to set grid spacing. Found in the Preferences box.
- Improved - Initial drawing cleaner (less color flashing) on the Page Explorer.
- Improved - Page Explorer now uses standard menus for actions rather than butons.
- Enhanced - Minor performance enhancement on drawing.
- Changed - When deleting a layer don't automatically change to layer 1. Only if the current layer is the one being deleted.
- Fixed - Changing the page size of any page with layers would cause a crash.
- Fixed - Some crash cases with Copy and Paste operations.
- Fixed - Cases where the mask menu check marks didn't match what was being used.

7.6 - Pattern ArtSets and Script playback to AVI

- Added - ArtSets - "Pattern - Material", "Pattern - Nature" and "Pattern - Other".

- Added - Playback a script to an AVI (animation) file.
- Added - Preference for script playback speed. Found in the Preferences option in the Edit menu.
- Added - Brush Effect envelope "zero". A value of zero, same as combo 1 1.
- Added - Brush effect "Clone".
- Added - Brush Effects "Pattern1", "Pattern2", "Pattern3", "Pattern4" and "Pattern5"
- Enhanced - Allow cloning to work on pages that aren't the same size.
- Enhanced - Cloning brushes will work regardless if Tracing is turned on.
- Fixed - Layer names were not moving with layers when the layer was moved.
- Fixed - When selecting a new brush the Brush History was not recording the event.
- Fixed - Selecting a texture and cloning failed to work properly together.

7.5 - Saving Transparent Information

- Added - Support for exporting the transparency for PNG, TGA and TIF files. Layer 1 must be hidden to use this feature.
- Added - Ability to name layers.
- Added - Color replace option added to paint bucket tool. Now includes flood fill and color replace. The replace option is like a color replace filter but implemented as a tool to make multiple uses easier.
- Enhanced - When doing a Save as ArtSet default the directory to the proper location.
- Enhanced - Remember the last ArtSet in the ArtSet selection list next time it is used.
- Fixed - When exporting an image if a file type isn't selected default to JPEG.
- Fixed - When exporting an image if Cancel was hit the export was still attempted.

7.4 - Trees ArtSet

- Added - Collections - Trees. 60 Tree brushes
- Added - Save Restore Point and Revert to Saved Restore Point. Found in the File menu.
- Added - ubshape brush effect. Like bshape but for user (your own) shapes so that indexes don't conflict with Pixarra.
- Added - ubtexture brush effect. Like btexture but for user (your own) textures so that indexes don't conflict with Pixarra.
- Enhanced - When creating a New ArtSet default the directory to the proper location.
- Fixed - Crash when pasting a different sized image into a layer. Now will be treated as a Paste Into operation.
- Fixed - When Flattening a picture (merging all layers) hidden layers were merged. They are now properly ignored.
- Fixed - Crash cases when unable to open the TBR file for reading.
- Fixed - Sometime after a crash the program wouldn't open properly. Now the twistedbrush.env is automatically removed on a crash exit case to prevent re-crashing for the same possible reason.
- Fixed - Crash when unable to load a BMP page image. Prevent the crash from occurring.

7.3 - Impressionistic ArtSet

- Added - Collections - Impressionistics Artset. 50+ new brushes suitable for a loose impressionistic style.
- Added - Precision Cursor support. Across hair at the cursor point. Option is available in the Preferences dialog accessed from the Edit menu.
- Added - Brush effects envelopes E8_01, E8_01, E8_10 and E8_11
- Changed - Don't prevent program from running in 800x600 mode even though all the toolbar elements can't be seen.
- Fixed - The swap effects hot keys Ctrl + 1 through Ctrl + 7 that was broken in version 7.2.

7.2 - Quick Brush Keys, Artist Oils color ArtSet

- Added - Quick Brush Keys. Press and hold any number key 1 - 0 for quick access to brushes. Changing brush or brush settings while holding down the key will result in those settings being assigned to that key.
- Added - Shortcuts ArtSet. This ArtSet is not intended for direct use but is used internally by Quick Brush Keys.
- Added - 3 new brush textures (16, 17 and 18)
- Added - Colors - Oil Paints ArtSet. 60 standard artist colors.
- Added - Textures - Basic Artset.
- Fixed - Changing the surface texture to Ultra Smooth Paper then selecting layer 16 resulted in a crash.

7.1 - Bring back previous style surface textures - but better! More brushes!

- Added - "Texturize3" Layer blend mode. Functions like previous progressive paper texture.
- Added - 1 new brush shape.
- Added - Honor surface texture when applying filters and tools objects such as rectangles and ellipses.
- Added - Brush effect envelop "t-ang". Uses the tool brush rotate setting for its value. Useful with the Spin effect.
- Added - Sumi-e ArtSet gets 17 new brushes.
- Added - Dynamic surface texture. The surface texture layer updates your surface texture (paper) when used with Texturize3.
- Added - Collections - Water ArtSet. Currently has 7 water ripple brushes. More water brushes coming in the future.
- Enhanced - The StarBurst brush within the Landscape ArtSet has been updated to fix some issue and look better.
- Changed - Selecting a surface texture (paper) defaults to the Texturize3 mode for compatibility with the old paper system (by popular demand)
- Changed - Removed duplicate brushes from Sumi-e ArtSet.

7.0 - Brush stroke improvements, painting surfaces redesigned, Sumi-e ArtSet

- Added - Complete Sumi-e ArtSet!
- Added - 5 new brush shapes.
- Added - Brush Effect Envelope "Pen2" reverses the value of the pen pressure for the brush effect.
- Added - 4 new brush textures (12, 13, 14 and 15)
- Added - 77 new drawing surfaces (papers, canvases etc). Previously had 18.
- Added - Filters for the new surfaces in combination with the Backgrounds, texture emboss and texture bump.
- Enhanced - The drawing surface system has been completely reworked. More versatile, faster and better. It should be noted that it is different and the look achieved is different as well.
- Enhanced - Much improved smoothness of the pressure sensitivity.
- Enhanced - The "Pen" brush effect envelope now is handled much more smoothly. Now more smoothly and naturally you can control any (almost any) of the 200+ brush effects dynamically with the pen pressure!
- Enhanced - The "Soften" brush effect was reworked and is now much faster and now uses the strength to determine the softness. Good values are Combo 1 7.
- Enhanced - Minor performance improvement during drawing.
- Changed - Page autosave defaults to 5 minutes instead of 2 minutes. Existing installs will not be affected.
- Changed - layer number 16 is now dedicated to the surfaces systems, however it remains visible to allow tweaking.
- Changed - Surface selection (paper) is now tied to the image rather than the entire program.
- Fixed - Problems when pointer (pen or mouse) was done drawing well before the strokes were processed and painted. Caused the Redo buffer to be incorrect and the blend underlayer effect to show an artifact which affects the watercolor wash brushes.
- Fixed - Odd sized brushes (1, 3, 5, 7 etc) that were dynamically size (by pen or brush effect) were not positioned correctly
- Fixed - When drawing a line by holding the Shift key the tablet pressure was not correct.
- Fixed - When just doing a single tap pressure was always 100% now it represents the actual pressure.
- Fixed - Don't autosave during a brush stroke. It now waits until the brush stroke is complete.
- Fixed - The stylus option for size, density and alpha were not properly handled with scripts.
- Fixed - The brush angle was not properly handled with scripts.

Version 6

6.9 - Various enhancements and additions

- Added - Brush effect envelopes - "zfan", "zf-in", "zf-out", "zwave", "zpulse", "zsaw1", "zsaw2", "zstp u", "zstp d" and "zpeak". The prefix of "z" adds a little fuzziness to the pattern.
- Added - Stats Mode in the preferences dialog. Shows Frames Per Sec when drawing. No practical value it's just for fun.
- Added - Six new palette knives added to the Palette Knife ArtSet.
- Added - Three new brush textures.
- Added - Enter License Key option on the File menu.
- Added - Hot key "G" for bringing up the select ArtSet dialog.
- Enhanced - Increased canvas framerate which gives a more natural feel to the brushes.
- Enhanced - The three "wet" markers in the Felt Marker ArtSet to not move to black so quickly.
- Changed - Hot key for the gradient tool is now "Alt + G"
- Fixed - When resetting the brush effects the current shape and textures were not reset.

6.8 - Various enhancements and additions

- Added - Brush Texture No. 7 (Blobs)
- Added - Brush Texture No. 8 (Textured Blobs)
- Added - Core Oil Pastel Brushes, Fine wet, regular wet, Coarse wet and Extra coarse wet
- Added - Core Conte Brushes, Soft, Med and Hard
- Added - Menu commands for Select ArtSet, Select Brush and Select Brush List
- Added - Hot key for Select Brush added "B"
- Added - Hot key for Select Brush List added "Ctrl+B"
- Added - Option to lock an ArtSet. Prevents accidental edits.
- Added - Conte ArtSet
- Added - Palette Knives ArtSet
- Added - Option to show brush name labels in the two places where the ArtSet brush icons are shown.
- Enhanced - Handling of the list box in the ArtSet Load dialog
- Enhanced - Handling of the list box in the Brush Load dialog (non-graphical)
- Enhanced - Handling of the list box in the page explorer dialog
- Enhanced - Handling of the list box in the various filter dialogs
- Enhanced - Handling of the list box in the set page size dialog
- Enhanced - Allow editing ArtSet from the Load ArtSet dialog
- Enhanced - Allowing editing the brush options from the brush selection list
- Enhanced - Added tabbing support in many dialogs.
- Enhanced - All Pixarra supplied ArtSets are locked by default to avoid accidental changes.
- Changed - Label ArtSet dialog and menu are now called Edit ArtSet.
- Changed - Hot key for the paint bucket tool is now "Alt-B" (used to be "B")
- Fixed - Some cases of failure to run on Windows XP with SP2

- Fixed - Prompt if OK before erasing page when using the "New" menu command.
- Fixed - The various controls (colors, size, density etc) were not updated when selecting a preset from the Load ArtSet dialog.
- Fixed - Spacing on ArtSet panel rollover text

6.7 - Restructuring of Core Tools! Many new ArtSets. A number of usability enhancements.

- Added - 17 ArtSets representing core artist tools.
- Added - "Sketched Oil" core brushes - Small, medium and large versions under the Artist brush category.
- Added - "New ArtSet" menu command. Found under the File menu.
- Added - "SaveAs ArtSet" menu command. Found under the File menu.
- Added - Brush effect "Soften".
- Added - Save brush angle settings when exiting.
- Added - Optionally save brush angle with brush presets.
- Added - Optionally save brush size with brush presets.
- Added - Packaged all Pixarra ArtSets with TwistedBrush.
- Enhanced - ArtSet no longer needed to be imported to be used. When selected into an ArtSet tab (slot) changes occur on the original ArtSet.
- Enhanced - Brush History and Color History are now saved to predefined Artsets and it doesn't need to be loaded into one of the ArtSet tabs.
- Enhanced - Brush History and Color History are now completely independent either can be enable or disabled to record your usage history and they get written to separate ArtSets.
- Enhanced - Brush History and Color History settings are remembered when you exit TwistedBrush so there is no need to re-enable them if you choose to always run with them on.
- Enhanced - The color sliders to make visible color bars larger yet reduce overall amount of screen area required.
- Enhanced - In the "Load ArtSet" dialog start off with the current ArtSet already selected.
- Enhanced - On the "load ArtSet" dialog clicking a brush icon within the ArtSet will select the preset and exit the dialog without loading the ArtSet.
- Enhanced - Tracking the current brush name when brush edits occur and when the program exits.
- Enhanced - Core brush selection lists are now hidden and shown as part of the Effects Panel.
- Enhanced - ArtSet panel is now shown near the top in place of the core brush selection lists.
- Enhanced - Renamed, categorized and moved all ArtSets to the ArtSets folder under TwistedBrush.
- Enhanced - Pressing the "CTRL" key when selecting a preset will result in an attempt to merge the preset effects with the current effects. Useful with the Shapes Artsets.
- Changed - Menu choices for import and export ArtSet. Now "Load" and "Save"
- Removed - Clear ArtSet menu command. Use "New ArtSet" instead.
- Fixed - In the Load ArtSet dialog preset names were being shown at times even when there wasn't a preset stored at a location.

6.6 - Brush Shapes and various other goodies!

- Added - Brush effect bShape. Select brush shapes. Use Combo envelope to select the shape.
- Added - Brush effect bTexture. Select brush textures. Use Combo envelope to select the texture.
- Added - Brush Shapes 1 ArtSet. Included as part of TwistedBrush.
- Added - Rotate Brush tool assignable to the right mouse button.
- Added - Shortcut keys for most tools (including color picker, crop, gradient, move, paint bucket etc.)
- Added - Blend Remix brush effect.
- Added - Brush Effect - Col vary - randomness to the color.
- Added - Center Pointer menu command to center the pointer on the page. Under the Control menu. Hot key enabled also (Ctrl+P). Currently only works properly in normal zoom mode.
- Enhanced - Honor masks when pasting into a image.
- Enhanced - Brush presets can now optionally contain or not contain the effects. Makes it possible for an ArtSet preset to just be an effect.
- Enhanced - The ArtSet slots set1 - set8 our now represented as tabs rather than buttons.
- Enhanced - Darkened the drawing area panel.
- Changed - Adjustment to the Generate filter types to consider the image size for the amount specification.
- Fixed - Prevent invalid particle effect combinations that can cause a program crash.
- Fixed - For the Copy Grid Cell and Paste Grid Cell the width value was properly remembered for use with the other grid cell tools.

6.5 - Additional Effect Envelope Types

- Added - Brush Effect pSpd - Set particle speed
- Added - Brush Effect pAng - Set particle angle
- Added - 7 new brush effect envelopes with four variations each. Normal, fade, reversed and reversed fade.
- Enhanced - All the particle branch effects were improved to give more predicable branch times when using dynamic envelopes.
- Fixed - Cases when not all parts of the application screen would redraw fully. Like when changing the display mode.

6.4 Particle Brush Effects System

- Added - 42 Brush effects making up the particle brush effects system. See the brush effects reference for details.
- Added - Brush effect envelope "invl". Interval. Issue the strength value at an interval, zero all other times.
- Added - Brush effect envelope "iinvl". Intra-dab Interval. Issue the strength value at an interval,

zero all other times.

- Changed - Improved random brush selection so that very slow brushes are less likely to be chosen.

6.3 Restructuring pricing model

- Change - Most ArtSets removed from base product - now available as separate purchase.
- Fix - License information not being shown on the about screen.

6.21 Critical Fix

- Fixed - On new installs page saving within the first book results in a crash.

6.2 Page Explorer Added!

- Added - Page Explorer for navigating your sketchbooks. Found under Page menu and on the tool bar.
- Enhanced - Pages in books are now organized into subdirectories within the main TwistedBrush install directory.
- Enhanced - Use the same grid width and grid height values for the grid based tools (paste grid cell, copy grid cell and unmask grid cell)
- Enhanced - Give warning on startup if display resolution is less than 1024 X 768.
- Fixed - On image export, overwrite warning was not being given anymore (problem introduced in 6.1).
- Fixed - On image export, file extensions were not automatically being appended anymore (problem introduced in 6.1).
- Fixed - Crash case selecting a different tool after using the text tool.
- Fixed - Clicking a tool icon twice would result in some screen controls not being cleared.

6.1 Text support and various usability improvements.

- Added - Text tool - for drawing text on the canvas.
- Added - Pan tool. Alternate/easier approach to scrolling the canvas.
- Added - Constrain rectangle, rectangle mask and crop tool to square if [shift] is pressed.
- Added - Center base rectangle, rectangle mask and crop tool if [alt] is pressed.
- Added - Constrain ellipse and ellipse mask tool to circle if [shift] is pressed.
- Added - Center base ellipse and ellipse mask tool if [alt] is pressed.
- Enhanced - Remember last directory and file chosen within the export and import image dialogs
- Enhanced - Better descriptions of image types within the export and import image dialogs
- Fixed - Program crash when attempting to draw very small ellipses.
- Fixed - Ellipses were not drawing properly on layers.
- Fixed - Some tools on the tool bar were not cleaning up their controls when unselected.

6.0 Selecting brushes by graphic representation!

- Enhanced - Now brushes can be selected by a graphic representation of what they draw!
- Enhanced - Now artsets to load show the swatch of brushes available in that artset!
- Fixed - Resizing images larger and rotating images were broken in 5.9.
- Fixed - The tool settings (those assigned to the right mouse) were reset when a new brush was selected.
- Fixed - Text labels for Width and Height in the Set Page Size dialog.

5.9 Standard page sizes, scaling improvements and fixes.

- Added - Many standard page sizes selectable in Set Page Size dialog.
- Improved - Many filters and operations were not honoring the mask. This is now supported.
- Improved - Performance of bi-linear and bi-cubic scaling
- Changed - Changed name of menu "Resize Page" to "Set Page Size".
- Fixed - Failure to open some file types (such as ArtSets) would result in a program exit.
- Fixed - Allow read only files to be read.
- Fixed - Some inaccurate interpolation in bi-linear and bi-cubic scaling.

5.8 More Filters - Distortions, Texturizers, image process and stylized types

- Added - Filter : "Texturize Emboss" - Select from a wide range of textures to add to your images.
- Added - Filter : "Texturize Bump" - Select from a wide range of textures to add to your images.
- Added - Filter : "Twirl"
- Added - Filter : "Sine Distortion"
- Added - Filter : "Kaleidoscope"
- Added - Filter : "Scratch"
- Added - Filter : "Waves"
- Added - Filter : "Divider"
- Added - Filter : "Carpet"
- Added - Filter : "Glass"
- Added - Filter : "Voxel"
- Added - Filter : "Zoom"
- Added - Filter : "Rotate"
- Added - Filter : "Seamless"
- Added - Filter : "Tilt"
- Added - Filter : "Edge"
- Added - Filter : "Bump"
- Added - Filter : "Emboss2"
- Added - Filter : "Maximum"
- Added - Filter : "Minimum"
- Added - Filter : "Colorize"
- Added - Filter : "Edge2"
- Added - Filter : "Arithmetic Mean"
- Added - Filter : "Geometric Mean"
- Added - Filter : "Harmonic Mean"
- Added - Filter : "Maximum2"
- Added - Filter : "Minimum2"
- Added - Filter : "Midpoint"

- Added - Filter : "Median"
- Added - Filter : "De-interlace Video"
- Changed - Some reorganization of the existing filters.

5.7 Filters and Backgrounds

- Added - Filter : "Lines" under Filter|Generate menu
- Added - Filter : "Points" under Filter|Generate menu
- Added - Filter : "Circles" under Filter|Generate menu
- Added - Filter : "Rectangles" under Filter|Generate menu
- Added - Filter : "Splines" under Filter|Generate menu
- Added - Filter : "Worms" under Filter|Generate menu
- Added - Filter : "Fibers" under Filter|Generate menu
- Added - Filter : "Trees" under Filter|Generate menu
- Added - Filter : "Noise" under Filter|Generate menu
- Added - Filter : "Blobs" under Filter|Generate menu
- Added - Filter : "Plasma" under Filter|Generate menu
- Added - Filter : "Sine Plasma" under Filter|Generate menu
- Added - Filter : "Fractal Plasma" under Filter|Generate menu
- Added - Filter : "Perlin Noise" under Filter|Generate menu
- Added - Filter : "Pattern" under Filter|Generate menu
- Added - 130 Background image filters in three categories, material, nature and other.
- Added - Merge and continue feature. Merge current layer, clear the current layer and keep it active. Hot key "M"
- Added - Menu item to merge the current layer
- Fixed - Exit Brush History and Color Palette History mode if loading a new ArtSet.
- Fixed - Don't allow layer 1 to become empty. This was possible by moving down layer 1 when layer 2 was empty.

5.6 - Brush History

- Added - Display the current selected brush in the tool bar area.
- Added - Brush History feature. (Replaces the auto preset feature)
- Added - Color History feature.
- Fixed - Unexpected error exit when there are no script files in the ScriptBrushes or ScriptBrushesUsers directories.

5.5 - Additional image formats, more brushes

- Added - Essentials ArtSet. A set of 60 basic drawing tools in one art set.
- Added - Read additional file types - EMF, GIF, PCX, PCD, PSD, WBMP and WMF
- Added - Write additional file types - EMF, GIF, PCX, PSD, TGA, TIF and WMF
- Added - Icons for artset brushes for scripts, cloners, blenders, erasers and stampers.

- Added - Two new types for the gradient tools to allow gradients of transparency.
- Enhanced - Dynamically adjust color for artset brush icons that don't store their own color but use the current color
- Enhanced - Added brush effects reference section to help documentation.
- Improved - Preserve artset brush name and settings when creating a new brush preset.

5.4 - Layer Drawing Error

- Fixed - Drawing on layers was too faint - not picking up enough of the painting color.

5.3 - Layer additions and fixes

- Added - Move tool (assignable to the right mouse button) to freely move layers around
- Added - Tool bar for tools that are assignable to the right mouse button. (replaces the tool combo box)
- Added - Alpha Invert command (under layer menu)
- Added - Layer blending mode - Texturize
- Added - Layer blending mode - Alpha Filter
- Added - Layer blending mode - Alpha Black Outline
- Added - Layer blending mode - Alpha Overlay Outline
- Added - Layer blending mode - Alpha Highlight
- Fixed - Blending transparent areas of a layer was incorrectly handled
- Fixed - Filters with previews were not working properly on layers if the layer was not yet edited.
- Fixed - Layers not removed with resetting page to default size. Could crash if unremoved layer is selected.
- Fixed - If "Cancel" is select in response to the Create Layer prompt the layer options dialog still appeared.
- Fixed - Clear Page command was not making layers transparent - it should.
- Fixed - Changes in the Layer Options dialog were not being saved if exiting without any other edits.
- Fixed - Layer menu to moving layer up and down in the stack was incorrectly assigned.
- Fixed - Flatten layers should make the background visible after the operation
- Fixed - Ellipse tool had red and blue colors switched.

5.2 - Layers!!!

- Added - Layers!!!
- Added - Internal program logging
- Added - Menu item File | New to create to reset the current page to a new image. Previously relied on clearing the paper to do this.
- Added - Paste Into functionality. To paste into an existing layer rather than replace the entire image.
- Added - Brush effect - Erase Mode. Allow for proper erasing on layers

- Added - Create mask from alpha. In the mask menu.
- Improved - Performance of some image filters by eliminating an extra image copy.
- Improved - Rate of update to the canvas when drawing to give more feedback.
- Changed - Allow for auto-preview on the offset filter.
- Changed - Graphite, Color pencil and pastel art sets changed to have "real" erasers.
- Fixed - If exiting the application when minimized, when restarting it would appear to not start properly.
- Fixed - Some Filters were mapped to page menus.

5.1 - Cloner Brushes

- Added - Brush effect - Once. Run the next brush effect once.
- Added - Art Cloner Brushes 1 artset. 60 cloner brushes.

5.0 - Important crash fix

- Added - Brush effect - Skip. Skip the next brush effect on an interval.
- Fixed - Crash after 50000 dabs applied with pressure. Pressure stack was not being reset.
- Fixed - Don't allow Scripts or Scripts (User) brush category for random brushes.

Version 4

4.9 - New brush set

- Added - Complex Brush Set 1 - 60 new brushes!

4.8 - Performance

- Added - Brush effect - Lineto (draws a line from dab to dab)
- Improved - Drawn line smoothness.
- Improved - Drawing performance.
- Fixed - Brush effects Scatter2, Jitter2, Dropout, Dropout2, Dropout3 and Scrumble not working correctly when used in combination with the filter brush effect.

4.7 - Important fixes, new ArtSet and beginning stages of help

- Added - Two Tone Sketching ArtSet.
- Added - Start of the electronic help.
- Fixed - The Distort Filters were broken in release 4.6 and accidentally assigned to the Page series of menu commands.
- Fixed - Popup text "toogle" should be "Toggle".
- Fixed - Crash case with mouse/stylus input buffer becoming empty.
- Fixed - When updating a preset (right click on present while holding shift) preserve the color only and brush only flags.

4.6 - Copy and paste for grid cells and some fixes.

- Added - Copy Grid Cell tool to copy to clipboard a part of the image.
- Added - Paste Grid Cell tool to paste from clipboard into a part of the image.
- Added - Link to the ArtSet brush catalog online. A swatch for each brush included with TwistedBrush.
- Added - Menu Page | Resize to Previous Page Size. Sets current page to that of the previous page size in the book.
- Improved - Some areas for robustness to recover more gracefully from errors.
- Fixed - Crash on script playback if paper is smaller than size used when recorded and flood fill or mask wand is used.
- Fixed - Page was been flagged as changed when a Copy was done. This is unneeded.
- Fixed - Rare memory leak on the clipboard copy function.

4.5 - Mask Improvements

- Added - Save program environment when autosaving.
- Added - Preferences option (found under Edit menu)

- Added - Preference for auto save frequency
- Added - Unmask Grid Cell tool. Assignable to the right mouse button.
- Enhanced - The Clear brush effect now honors the mask.
- Changed - The default autosave frequency to once every 120 seconds.
- Fixed - Masks were not properly masking out all drawing and masking out some when they shouldn't (very small amounts).
- Fixed - Mask tools - mask ellipse, mask rectangle and mask wand were saving undo info. they should not.
- Fixed - Script recording of the Control Points tools was broken

4.4 - Custom color palette support.

- Added - Custom color palette support. When adding a preset uncheck the "Save Brush Information" check box.
- Added - Added to the Auto ArtSet feature the ability to save only the new color (used for creating color palettes)
- Added - Allow use of mouse wheel to zoom in and zoom out.
- Added - A Script (User) brush category for user created script brushes.
- Fixed - Color picker tool selecting wrong color when in 16 bits per pixel (bpp) mode.
- Fixed - Handful of fixes to the SpaceScape ArtSet.

4.3 - Script Brush Presets, SpaceScape ArtSet and numerous fixes.

- Added - SpaceScape ArtSet - 60 brushes for building space scenes.
- Added - Tight integration of script brushes with the standard brush selection and preset system. (Very Cool!)
- Added - Brush Effect - Mask Paint. Allows creating a mask and painting at the same time.
- Added - Brush Effect - Size Abs, DensityAbs and OpacityAbs (set absolute values for these)
- Added - Brush Effect - Gate and Draw gate. These limit the maximum number of dabs drawn in a stroke.
- Added - Effect Swapping menus and hot keys, Under the Effect menu. An aid for building custom preset brushes.
- Added - Brush Effect - Adv stroke - Advance the stroke dab count so that filter envelopes that use that can change within a dab.
- Added - Brush Effect - Multi 1000 - For other effect "Multiplier" has a range or 1 - 10 this have a range of 1 - 1000.
- Improved - The Masking artset has been improved with new masking brushes.
- Fixed - The "i" prefixed brush effect filters (iwave, isav, isprd, etc) were not working with mask brushes.
- Fixed - All Size, Density and Opacity brush effects were not restoring the previous values after they completed.
- Fixed - Incorrect text in a menu and alert prompt.
- Fixed - When drawing the control points the guide lines did not have the correct colors to

allow viewing in all cases.

- Fixed - Made the Spike brush effect properly round rather than square.
- Fixed - Script playback was broken in release 4.2 and would playback at the incorrect canvas location.
- Fixed - Script playback of single dab stroke did not work.

4.2 - Script Brush and Inverted feathered brushes.

- Added - Script Brush - powerful new feature to repeat a script relative to mouse click. Assignable to right mouse button.
- Added - Base brushes - Cover : Coverage Feather 10 - 100 Invert
- Added - Brush Effect - Color Surface (gets color from current drawing surface)
- Added - Brush Effect - Color UnderLayer (gets color from current screen but not from the current stroke)
- Added - Brush Effect - Color History (gets color from previous screen, like if you hit undo)
- Added - Brush Effect - Color Trace (pulls color from previous page. Trace mode must be on for this effect to work)

4.1 - More brush effects

- Added - Brush Effect - Blend UnderLayer (pulls color from current screen but not from the current stroke)
- Added - Brush Effect - Blend History (pulls color from previous screen, like if you hit undo)
- Added - Brush Effect - Blend Trace (pulls color from previous page. Trace mode must be on for this effect to work)
- Added - Tool for setting control points - Assignable to right mouse button. Used for some brush effects and brush filters
- Added - Brush Effect Filter - cspdx and cspdy. Spreads the amount based on the x and y position respective in relationship to the current control points
- Fixed - Undo not enabled after a page is saved, included auto-saving!
- Fixed - Line spacing on newly added effects incorrect. Effects Spikes, Tangle and Symbols, X, Crosshair, box, triangle and diamond

4.0 - 120 New Brushes, New Effects and Brush Selection improvements

- Added - Brush Werks Art Set - A collection of 60 cool natural brushes
- Added - Cover Collection Art Set - 60 brushes many geared towards creating background covers
- Added - Select preset dialog.
- Added - Brush Effect - Color1to4 and Color1to1 (for doing color ranges)
- Added - Brush Effect - Scatter Page
- Added - Brush Effect Filter - isprd2 - Interdab spread 2 (reverse from larger to smaller)
- Added - Brush Effect - Spike (draws lines from dab center)

- Added - Brush Effect - Tangle (draws random lines near dab center creating a tangled mess)
- Added - Brush Effect - Symbols, X, Crosshair, box, triangle and diamond.
- Improved - Brush Effect system performance further improved
- Improved - General improvements to the infrastructure of the blend mode brush effects.
- Fixed - Improper handling of interdab adjustments to density, alpha and size.
- Fixed - Dynamic sized brushes not properly centered and could be cropped incorrectly.

Version 3

3.9 - Mask Improvements, Magic Wand

- Added - Mask Ellipse (selectable to the right mouse button)
- Added - Mask Wand (Magic Wand) (selectable to the right mouse button)
- Improved - Automatically enable the mask when the Mask Rectangle or Mask Ellipse tools are used
- Fixed - Slow memory deallocation problem.
- Fixed - A number of small rounding errors that effected maximum values on a number of filters.
- Fixed - When selecting an ArtSet brush and moving the cursor with the button down control updates didn't occur.
- Fixed - When selecting an ArtSet brush without color information at the the color banks would also get changed.

3.8 - Mask improvements and important bug fix

- Added - Mask Rectangle (selectable to the right mouse button)
- Added - Brush Effect Envelope - d-rnd (dab random) a single random value for the duration of a dab
- Added - Brush Effect Envelope - s-rnd (stroke random) a single random value for the duration of the stroke (pen down to pen up)
- Fixed - Brush Effects - All the "Bld x" effects were inadvertently broken in release 3.6.

3.7 - Bug Fixes plus a Few Additions

- Added - Cool and Crazy Art Set
- Added - Brush Effect Envelope - B-ang (Brush Angle). Works well with the Spin brush effect for a raking effect.
- Added - Menu shortcuts for the Mask menu
- Improved - When pasting resize the page to match that of the image being pasted.
- Changed - Removed status bar at bottom of main window. It is not used.
- Fixed - Crash case on start up if splash logo can't be loaded.
- Fixed - Crash case is image for tool bar can't be loaded.
- Fixed - The hold brush menu text showed the wrong short key as C is should be H
- Fixed - impulse effect envelope was not calculated properly
- Fixed - Copy, Cut and Paste not working properly on older Windows OSES
- Fixed - Conflict of Page menu shortcut for the Next Page and Previous Page menus
- Fixed - Brush Effect - Filter - resulting in incorrect behavior in other effects that could the number of dabs in a stroke.

3.6 - Various Enhancements

- Added - Crop feature (selectable to the right mouse button)
- Added - Added "Insert Random Line" script command. Records a random line using the current brush.
- Added - Base brush types Sketched Small and Sketched Medium - under the Artists brush category
- Added - Brush Effect Envelopes - Page spread X (pspdx) and Page spread Y (pspdy)
- Added - Brush Effect - Blend Capture
- Added - Brush Effects - Burst 25, Burst 50, and Burst 100. (combination of spray and radial)
- Added - Script menu command "Insert Random Dabs".
- Added - Kaleidoscope Script - Just for fun!
- Added - Starfield Script - Arandomly generate starfield.
- Improved - Performance improvement for brushes with complex effects - large number of dabs and effects.
- Improved - Record the current random brush generation locks when recording a random brush into a script.
- Improved - Automatic selection of randomly generated brushes.
- Fixed - Two different cases where dynamics sized brushes could result in a crash.
- Fixed - Brush effects Jitter2 and Scatter2 were not randomizing properly and start of the stroke.

3.5 - A Lot of New Brushes!

- Added - Auto save feature at 5 minute intervals.
- Added - Descriptions to ArtSets.
- Added - Brush Effects - Scrumble 1, Scrumble 2 and Scrumble 3
- Added - Brush Effect Envelope - isprd (inner dab spread). Spread the envelope over each effect dab.
- Added - ArtSet optimizer. From the ArtSet menu. Shifts all brush effects to the top for better performance.
- Added - Pastel Art Set
- Added - Jan Kirklands Landscape ArtSet
- Added - Tubey Twisty Color Brushes ArtSet
- Fixed - Terminate script play back if end of file encountered sooner than expected.
- Fixed - Prevent a case where a crash could occur when drawing off the page with some brush effects.
- Fixed - Error exit case when loading an artset after importing an image from a different directory.
- Fixed - DropOut effect envelopes, where behavior was different after first stroke
- Fixed - Brushes with dynamic sizes were drawn incorrect at the top and left edges of the page.

3.4 - New Name TwistedBrush! Improvements to tools, effects and ArtSets

- Added - Gradient Tool both linear and radial (selectable to the right mouse button)
- Added - Rectangle Tool (selectable to the right mouse button)
- Added - Ellipse Tool (selectable to the right mouse button)
- Added - Remember previous position and size of the main application window when starting.
- Added - Quick system to load ArtSets, using the "Load" button on the ArtSet panel
- Added - Random Brush Explorer. Allows locking various attributes from change. Under the Control menu.
- Added - ArtSet presets now have the option for not saving color information
- Added - Brush Effect - Spin (advanced feature but nice addition)
- Added - Brush Effects - Matrix6, Matrix7, Matrix8, Matrix9 and Matrix10
- Added - Brush Effects - Row10, Row15, Row20 and Row30
- Added - Brush Effects - Column10, Column15, Column20 and Column30
- Added - Brush Effects - DensityAdj and OpacityAdj
- Added - Brush Effects - Hue Rnd, Saturation Rnd and Value Rnd
- Added - Brush Effects - Dropout and Dropout2
- Added - Brush Effects - Jitter2 and Scatter2 (these do not use intrinsic randomizer, but relies on the effect envelope)
- Added - Brush Effects Envelopes - Fade in (f-in) and Fade out (f-out)
- Added - Brush Effects Envelope - Seed (random for the length of the stroke)
- Added - Brush Effects Envelope - Combo (Similar to flat but treats freq as tens and amount as ones)
- Added - Brush Effects Envelopes - dab x and dab y.
- Added - Wild Brush Sampler 8 (60 more selected random brushes)
- Improved - Eliminate draw-in on start-up
- Improved - Performance for small brushes that have brush effects duplicators (matrix, row, etc.)
- Improved - Tapping the mouse button or pen now results in drawing on the page. (previous required mouse/pen movement)
- Changed - Name to TwistedBrush from Pixarra Sketchbook
- Changed - Handling of dynamic colors in brush effects (may result in a small number of presets acting differently)
- Fixed - The "Exit" menu was not properly saving images and presets.
- Fixed - Don't allow the Mask effect on randomly generated brushes.
- Fixed - Rare case where brushes would stop applying the required bristle randomness

3.3 - Various Updates

- Added - Luminance color selector integrated into the main color selection tools
- Added - ArtSet row span generation.
- Added - Stylize filter "Frosted Glass"
- Added - A Tool bar for accessing tools assigned to the right mouse button.
- Added - Flood Fill tool
- Improved - Added numeric values labels representing the sliders in all filter dialogs

- Changed - Moved the Tools menu to the new Tools Bar
- Fixed - Wave and Zig Zag Filter have reversed left to right and top to bottom labels
- Fixed - The Watercolor filter fixed and renamed to Watercolor Tint, move the the Color category.
- Fixed - The range of values in filters (sliders) was 10 percent too narrow.
- Fixed - Zoom error when only one axis has a scroll bar image could be shifted off the paper.

3.2 - Tutorials

- Added - Link to the Pixarra Sketchbook Online Tutorials in the Help menu
- Added - Link to the Pixarra Sketchbook Online Forum in the Help menu
- Added - Blur filter "Motion Blur" (linear)
- Added - Blur filter "Radial Blur"
- Added - Blur filter "Zoom Blur"
- Improved - Significantly increased the maximum radius for the gaussian blur filter
- Fixed - Undo not working with straight line tool
- Fixed - The direct zoom commands under the View menu were not working properly

3.1 - Filters

- Added - Artistic filter "Oil Paint"
- Added - Artistic filter "Stipple"
- Added - Artistic filter "Watercolor"
- Added - Blur filter "Blur"
- Added - Blur filter "Blur More"
- Added - Blur filter "Gaussian Blur"
- Added - Brightness and Contrast filter "Brightness and Contrast"
- Added - Brightness and Contrast filter "Brightness Histogram Equalize"
- Added - Brightness and Contrast filter "Brightness Histogram Stretch"
- Added - Brightness and Contrast filter "Brightness Histogram Stretch HSL"
- Added - Brightness and Contrast filter "Gamma"
- Added - Brightness and Contrast filter "Histogram Equalize"
- Added - Brightness and Contrast filter "Histogram Stretch"
- Added - Color filter "Duotone"
- Added - Color filter "Grayscale"
- Added - Color filter "Negative"
- Added - Color filter "Posterize"
- Added - Color filter "Solarize"
- Added - Color filter "Threshold"
- Added - Color filter "Tint"
- Added - Distort filter "Elliptical"
- Added - Distort filter "Lens"
- Added - Distort filter "Marble"

- Added - Distort filter "Offset"
- Added - Distort filter "Pinch"
- Added - Distort filter "Ripple"
- Added - Distort filter "Spin"
- Added - Distort filter "Spin Wave"
- Added - Distort filter "Wave"
- Added - Distort filter "Wow"
- Added - Distort filter "Zig Zag"
- Added - Noise filter "Despeckle"
- Added - Noise filter "Dust and Scratches"
- Added - Noise filter "Add Gaussian Noise"
- Added - Noise filter "Add Negative Exponential Noise"
- Added - Noise filter "Add Rayleigh Noise"
- Added - Noise filter "Add Uniform Noise"
- Added - Pixelate filter "Halftone"
- Added - Pixelate filter "Mosaic"
- Added - Render filter "Color Noise"
- Added - Render filter "Hugo Noise"
- Added - Render filter "Perlin Noise"
- Added - Sharpen filter "Sharpen"
- Added - Sharpen filter "Sharpen More"
- Added - Sharpen filter "Unsharp Mask"
- Added - Stylize filter "Bevel"
- Added - Stylize filter "Crackle"
- Added - Stylize filter "Emboss"
- Added - Stylize filter "Fingerprint"
- Added - Stylize filter "Gausy"
- Added - Stylize filter "Scribble"

3.0 - Tracing feature, imaging resize and zooming refinements

- Added - Image resizing, with bilinear, bicubic, lanczos3 and B-Spline choices
- Added - Image horizontal flip
- Added - Image vertical flip
- Added - Image rotate right
- Added - Image rotate left
- Added - Tracing feature. Found under the "Page" menu.
- Added - Additional blenders added. "Basic blend soft", "Water blend" and "Water blend soft"
- Improved - When zooming in and out preserve the scroll location.
- Improved - When changing pages preserve the scroll location if the page size didn't change.
- Improved - Minor performance enhancements in the brush engine.
- Improved - To the "Blend cloth" and "Blend Water" presets of the Graphite Art Set.

Version 2

2.9 - Stroke smoothing and important fix related to art sets and stylus support

- Added - Stroking smoothing support. Found under the "Control" menu.
- Improved - Do not show the "stylus" check boxes when there is no tablet present.
- Improved - Automatically enable Mask mode when drawing with a masking tool.
- Fixed - Checking the "stylus" check box when a tablet isn't present can result in strokes not being visible.
- Fixed - At scale factor of 600 percent cursor could leave behind some artifacts.
- Fixed - Selecting an Art Set entry at times was inaccurate due to mouse moving after clicking.

2.8 - Mask, color pencil art set and performance

- Added - Mask support (phase one, selection functionality will come later).
- Added - Update preset with current settings. Avoids preset label dialog - keeps the same name. Hold "Shift" key and click on preset dot.
- Added - Increased number of simultaneously loaded art sets from 6 to 8.
- Added - A number of "Covers" brush base types.
- Added - Colored Pencil art set.
- Added - Mask Kit art set.
- Added - Masking presets to the Graphite Art Set.
- Improved - Performance enhanced by fixing a brush dab double strike error. Fix can have the side effect of some scripts or presets drawing lighter.
- Improved - Performance enhanced by fixing a bug where the art set name was being reprinted frequently.
- Improved - Performance enhanced by changing when rendering to the screen takes place to a more controlled system.
- Improved - Set Graphite Art Set alternate colors.
- Changed - Only clear brush effects when a brush category or variation is selected if the brush effects panel is hidden.
- Fixed - Case where UnDo was not working properly.
- Fixed - Crash when resizing the main application window too small.

2.70 - Paper texture and Graphite Art Set

- Added - Paper and canvas texture feature added.
- Added - Graphite Drawing Set (ArtSet, previously known as presets)
- Added - "Exit" script button on message dialogs that appear during script playback.
- Added - Script pause and resume menu items available during script playback.
- Added - Blending modes brush effects. For example multiply, dodge, burn, additive, etc.
- Added - Ability name an ArtSet (previously called preset)
- Added - Color selection dialog - allows fine control color selection using standard dialog -

right click on any of the 4 color boxes shows the dialog.

- Added - Soft graphite pencil tool.
- Added - Opacity and density - mul and div brush effects.
- Added - Blend strength and blend color strength brush effects.
- Added - Include all available artsets in primary download.
- Improved - Keep the default 6 artsets hidden when selecting an artset to import.
- Changed - Changed text of Preset buttons from "Bank" to "Set".
- Changed - Preset terminology changed to ArtSet.
- Changed - Clear brush effects when a brush category or brush variation is selected.
- Changed - File names of Brush samplers from Preset_sample_?? to WildBrushSampler?.
- Fixed - Another edge of page color problem. Blended paint not applying properly in top or left edges. Introduced in 2.50.
- Fixed - At 500 percent scaled view a single pixel cursor was leaving behind artifacts.

2.60 - Script recording and playback

- Added - Record and playback functionality.
- Added - Color picker - select color from canvas with right mouse button.
- Added - Tool menu for assigning actions to the right mouse button.
- Added - Line tool to the tool menu. Now can draw straight lines with right click or shift click.
- Improved - Significant improvements for very small brushes (1 - 4 pixels) not drawing.
- Improved - Show the brush cursor slightly larger than actual brush size (1 pixel).
- Improved - Prevent the brush cursor from becoming too small.
- Improved - Support the close dialog "X" for page resize and preset label dialogs.
- Fixed - The first brush stroke could not be undone when the canvas size was changed.
- Fixed - If brush stroke still drawing and another is started or tool area is clicked an extra line would be drawn.
- Fixed - Edge of paper could result in wrong color with brushes that blend or copy.

2.50 - Performance improvements and dynamic brush size

- Added - Dynamic brush sizing, with pen pressure and brush effects.
- Added - Intra-effect envelopes for fan, wave, pulse, saw1, saw2, stp u, stp d, and peak.
- Added - Radial brush effect.
- Added - Checker, horizontal slat, and vertical slat brush effect envelopes.
- Improved - Performance of dynamic alpha blending. Improved performance anytime opacity isn't at 100%.
- Fixed - An in-frequent crash case has been fixed, related to some brush effects.
- Fixed - A case where all drawing was disabled until the program was restarted.
- Fixed - A minor fix to the airbrush tools.

2.40 - Bug fixes, UI improvements and minor additions

- Added - Menu bar for frequently used commands.
- Added - Textual labels for presets.
- Added - Distance, distance X and distance Y brush effect envelope.
- Added - Angle brush effect envelope.
- Added - Support straight line drawing (hold shift key and click to draw straight line for last position).
- Added - Command line option to start program without tablet support (-NoTablet).
- Added - A series of spray brush effects.
- Improved - Speed of random brush generation
- Improved - The selection of random brush to avoid brushes that are too slow.
- Changed - Move the page and book navigation to the menu and menu bar.
- Changed - Hide the effects panel by default.
- Fixed - Cut (Cut/Copy/Paste) functionality was broken.
- Fixed - Issues related to starting directory being changed. Impacted, about screen, paste and presets.
- Fixed - Glow brush effect was not working correctly with stamper type brushes.
- Fixed - When zoomed in extra placement of stroke could occur if moving the cursor slowly.
- Fixed - Auto-presets wasn't detecting changes in effects or the main brush selection.

2.30 - Drawing Effects!

- Added - Complete drawing effects system!!!
- Added - Full copy stamper tool
- Added - The drawing tool category "Basic"
- Added - Hold current brush - don't clear/clean brush at the start of new stroke
- Added - Four selectable colors, used primarily with effects
- Changed - Made acrylic paint bristles less messy
- Changed - Moved the quick color chooser above the color sliders
- Changed - Reduced the number of presets per bank from 132 to 60.
- Changed - Resized and changed splash screen.
- Changed - Renamed the tutorial to Quick Start and updated to reflect new features.
- Fixed - A case where the tablet pressure could start a stroke at full when it shouldn't
- Fixed - A case of an exception error on exit

2.20 - Important new features, enhancements and fixes

- Added - Support for variable size images.
- Added - Zoom-in and zoom-out features.
- Added - Scrollable canvas.
- Added - Basic printing support.
- Added - Multiple levels of undo
- Added - Redo functionality
- Added - Menu and hot key control for Opacity.

- Added - Small adjustment (shift) for size, density and opacity hot keys.
- Added - Small adjustment (shift - click) for tools bars (size, density, opacity and color)
- Added = Gel Pen tool (soft edge pen)
- Improved - Some reduction in memory usage (for existing features, multiple undos use more memory).
- Improved - Further clean-up to dialog box drawing - less draw-in.
- Improved - Allow density and opacity hot keys while drawing a stroke
- Changed - Moved the "Clear Page" and "Clear Page to Current Color" to the Page menu
- Changed - Hot keys for density and size
- Fixed - Watercolor - wet on wet tool not properly being activated.
- Fixed - The keyboard shortcut to adjust size could result in garbled drawing of tools.

2.10 - Bug Fixes

- Added - New tool, Artist | Sketched.
- Added - New variation on the impressionist and seurat tools.
- Fixed - Crash with an unable to initialize audio driver message.
- Fixed - Situation where the stroke path would jump at a right angle rather than smoothly curved.
- Fixed - Do not attempt to load pre 2.0 Sketchbook environment files.
- Fixed - Do not attempt to load pre 2.0 Sketchbook preset files.
- Fixed - Do not import an image if cancel is selected on the file select dialog box.
- Fixed - Removed incorrect text "LOCKED" on some acrylic tools.

2.00 - Major release (new features and enhancements)

- Added - Full 64 bit color precision for smooth blends
- Added - Drawing tablet support - stylus pressure
- Added - Opacity control (transparency)
- Added - Watercolor tools
- Added - Watercolor crayon tool
- Added - Dynamic density and alpha control
- Added - Stamper category of tools
- Added - A number of oil paint tools
- Enhanced - Complete rewrite of drawing engine
- Enhanced - Much faster performance
- Enhanced - Much smoother airbrush tools
- Enhanced - Fine tuned almost all existing drawing tools
- Changed - Pressure control now called density
- Changed - User interface changed to represent current Windows color scheme
- Fixed - Line artifact appearing on some drawing tools if size is reduced.
- Fixed - Some drawing tools could draw outside of their selected size.

Version 1

1.20 - Enhancements

- Added - Support for exporting and importing presets.
- Added - 6 banks of presets selectable. Previously only 1 bank existed.
- Fixed - Drawing cursor not updating with keyboard shortcuts used to adjust size.
- Fixed - Incorred text in menu for Clear Favorites, should be Clear Presets

1.10 - Bug fixes and enhancements

- Added - JPEG and PNG export functionality added (previously supported only BMP)
- Added - Import images - supported formats BMP, JPEG, PNG, TIF and TGA
- Added - Cut, copy and paste functionality (at the page level)
- Enhanced - Clean-up to dialog box drawing - less draw-in.
- Fixed - Selecting undo when page first loaded results in blacked out image.
- Fixed - Acrash could occur with an invalid timer message when running the tutorial.
- Fixed - Oil pencil was not laying down color, only copying color from the canvas.

1.00 - First release