

# Let's get technical

# Mac

# Hardware

- Mac Pro, iMac, iMac Pro, MacBook, MacBook Pro, MacBook Air, Mac Mini
- Mac with Apple M1/M1 Pro/M1 Max chip or Intel processor
- 2GB RAM minimum
- Up to 2.8GB of available hard drive space; more during installation
- 1280x768 display size or better
- Supports regular, retina, and expanded gamut DCI-P3 displays

# **Operating System**

- 12 Montere
- 11 Big Sur
- 10.15 Catalina
- 10.14 Mojave
- 10.13 High Sie
- 10.12 Sierra
- 10.11 El Capitan
- 10.10 Yosemite
- 10.9 Mavericks

# Windows

# Hardware

- Windows-based PC (64 bit) with mouse or equivalent input device
- Hardware GPU acceleration<sup>\*</sup>
- DirectX 10-compatible Graphics Cards and above
- 2GB RAM minimum (4GB RAM recommended)
- 953MB of available hard drive space; more during installation
- 1280x768 display size or bette

# **Operating System**

# Affinity Store version

- Windows<sup>®</sup> 1<sup>°</sup>
- Windows<sup>®</sup> 10 (1607 Anniversary update or higher)
- Windows<sup>®</sup> 8.
- Windows<sup>®</sup> 7 (Service Pack 1;

- Windows 10 April 2020 update (or later)
- Direct3D level 12.0-capable carc

Platform Update KB2670838; Aero enabled)

## Microsoft Store version

- Windows<sup>®</sup> 11
- Windows<sup>®</sup> 10 (1607 Anniversary update or higher)

# iPad

Require

# Hardware

- Compatible with.
  - iPad Pro (all models)
  - iPad Air (2, 3 & 4)
  - Pad (2017 onwards)
  - iPad Mini (5 & 6)

# **Operating System**

iOS 12 or above

# **Overview**

Key:

New = Improvements and Features new to version 1.10. Text = Functionality new to version 1.9.

#### Performance

- GPU compute hardware acceleration<sup>\*</sup> gives super-fast compositing, editing and painting
- Massive improvement using integrated Intel GPUs
- External GPU support (hot-plug-and -unplug)
- Multi GPU utilisation
- Quicker rendering of Live Filters
- Benchmark performance testing

\* Requires macOS High Sierra or later

# Fast and Efficient Tool Set

- Pan and zoom at 60fps and higher when supported, even with huge images
- Live tools, live previews, real-time editing

Drafassianal color appage and profiles

• RAW and regular processing united in one app

# Improved performance with:

- New GPU rendering
- New Panorama stitching
- New Defringing and increased maximum radius
- New Multiple placed Info page samplers
- New Adjustment layers when hardware acceleration is disabled
- New Heavily layered documents (faster rendering during panning and text reflow)
- New Placed images
- New Embedded documents
- New Low-memory conditions (including Windows OpenCL preventing fallback from hardware to software)
- New Converting documents between ICC profiles / pixel formats
- New Documents which contain flattened, opaque layers (usually the result of merge visible)

# Professional

# No Subscription

- Professional color spaces and profiles
- Pro file formats like PSD supported
- Modern camera RAW formats supported
- Full set of 16-bit filters
- Sub-pixel precision and pixel-perfect snapping
- Customizable toolbars, keyboard shortcuts and panels (for desktop only)
- Document presets or save your own custom document setups
- · Work in pixels, points, picas and physical document units

# **Beautiful by Design**

- Built from the ground up for professional photographers
- Benefit from a stylish and uncluttered interface

#### **Clean Workspaces**

- · Dedicated personas (modes) for specific tasks and toolsets
- Uncluttered UIs for RAW editing, photo editing, panoramas, liquefy and tone mapping
- Export persona for fine control over export regions and settings

#### Solid Undo History

- Instantly undo/redo over 8,000 History steps
- Save History so you can undo steps later even on different computers
- A seamless AutoSave protects against unexpected shutdowns
- Cycle Futures feature prevents history loss after editing from undos
- Display history steps with thumbnails and date/time

 For a single, one-off price you will own the current version (v1) of the app (on your chosen operating system). It's yours to keep and you'll even receive free updates of the software until version 2 becomes available (no planned date currently). You can then simply continue using the version you have or choose to upgrade to version 2 for an additional cost.

#### **Registration and Account Access**\*

- In-app registration (optional)
- In-app access and viewing of your Affinity account
- Affinity Store content synchronization
- Install free and purchased Affinity Store content (brushes, assets and more)

\*For Mac, feature requires macOS Sierra 10.12 or above

#### Languages

- English (US and UK)
- German
- French
- Spanish
- Portuguese (Brazilian)
- Japanese
- Italian
- Chinese (Simplified)
- Russian

# **RAW Image Processing**

# **Dedicated RAW Editor with Split View**

- GPU-accelerated RAW development
- Adjust RAW files and other RGB layers in the Develop persona
- See your adjustments alongside the original in real-time
- Automatic hot pixel removal (SerifLabs RAW Engine only) (for desktop only)
- Manual lens correction override
- Updated SerifLabs RAW libraries
- Apple ProRAW (iPhone12) support
- Lens Correction improvements for Canon, Tamron and Sigma lenses
- New ACM lens profile support

## **Development Tools**

- Painted Overlays
- Gradient Overlays
- Tones Clipping overlay mode
- White Balance Tool
- Blemish Removal Tool
- Red Eye Removal Tool
- Crop and Straighten Tool
- Pan and Zoom Tools

#### **Detailed Image Information**

Histogram displays levels and clipping (presented in output color space)

- New Raw CR3 support (for Canon EOS 850D)
- New Improved Serif Labs RAW engine

#### Adjustments and Lens Corrections

- Exposure
- Contrast
- Clarity
- Saturation (improved)
- Vibrance (improved)
- White Balance (improved)
- Shadows
- Highlights
- Camera and Output Profiles
- Spatial Lens Correction
- Chromatic Aberration Reduction
- Defringe
- Remove Lens Vignette
- Post Crop Vignette
- Detail Refinement
- Noise Reduction
- Noise Addition
- Curves
- Black & White
- Split Toning

- View clipped shadows and highlights in-image
- Use Scopes to assess intensity
- EXIF and other metadata supported
- Metadata editing with IPTC support
- Fine detail for Focus metadata

#### Slick Workflow

- Built-in History slider just for RAW edits
- Save Snapshots to branch your edits
- Save adjustment presets for use on other images
- · Continue into the Photo persona for full editing
- Choose whether to automatically apply base corrections
- Remove automatic tone curve and apply your own
- Automatic lens correction and noise reduction
- Robust profiled lens correction can be switched on/off
- Raw image rotation
- Please visit our forum for the RAW support list

# Image Editing and Retouch Tools

#### Live, Non-Destructive Editing

- Live adjustment layers
- Precise node control in Curves adjustment (for desktop only)
- Live filter layers
- More filters now work on masks, adjustments and spare channels
- Live blend modes
- Live gradients
- Non-destructive layer resizing
- Saveable selections
- Live adjustments to smart Shapes
- Blend modes now work on masks, adjustments and live filters

# Layers and Masks

- Advanced layer handling with unlimited layers
- Lossless layer resizing
- Nest layers into groups and groups within groups
- Drag and drop to organize layers and adjustments
- Clip layers by drag and drop

#### Panorama Image Stitching

- Automatically stitch RAW and other images into panoramas
- Create vertical, horizontal and mixed vistas
- Includes automatic color and perspective correction
- Panorama persona includes Inpainting and Crop tools
- Stitching candidates found automatically in folders
- ICC profiles supported
- 32-bit HDR support for high dynamic range stitching

# **Focus Merging**

- Blend images with multiple focus areas for greater depth of field
- Create merged images with front-to-back sharpness
- Easily retouch focus-merged results using clone sources

#### **Live Projection**

- Pan and preview 360° images in real time
- Project and edit equirectangular 360° images
- Draw, project and edit multiple perspective planes
- · Project to 2D temporarily for edits, then reapply

#### • Linked layers

- Fill layers
- Pattern layers
- New Create a pattern layer from the current selection (iPad)
- New Pattern layers can be mirrored (iPad)
- See live previews under nozzle when painting masks
- Apply multiple masks and adjustments
- Group masks and adjustments to form composites
- Optionally move layers independently of their child layers or masks
- Lock, hide, duplicate and merge layers
- Unlock all locked layers simultaneously
- Show all hidden layers simultaneously
- Invert any layer type
- Drag and drop layers from one document to another (Windows only; floated and side by side)

#### **Quick Masks**

- · Quickly and easily make masks from selections
- View as overlay, transparency, black or white

#### Channels

- View and edit image and layer channels
- Work with image alpha
- Make masks from channels
- Create spare channels and grayscale channels
- Isolate and edit spare channels as layers
- Duplicate spare channels (as backup)
- Create and add to selections based on channel data
- · Invert any channel
- Per-channel blending options

### **Remove Unwanted Objects**

• Content-aware Inpainting Brush intelligently removes objects like magic

# **Retouch Tools**

- Dodge and Burn Brushes
- Sponge and Smudge Brushes
- Clone Tool (uses multiple global sources) (for desktop only)
- Healing Brush (uses multiple global sources) (for desktop only)
- Blemish Removal
- Patch Tool
- Red Eye Removal
- Blur and Sharpen Brushes
- Median Brush
- Color Replacement Brush
- Paint Brush
- Auto-adjust contrast, levels, color and white balance

## **Frequency Separation**

- Frequency Separation built-in as a filter
- · Edit tone/color and texture independently, retaining detail

#### Automation with Macros and Batch Processing

- Record and save actions as macros (for desktop only)
- Edit individual recorded steps and their parameters (for desktop only)
- Customize macro settings post recording (for desktop only)
- Import, export, and maintain a macro library
- Run batch jobs for bulk processing & conversion of images
- Apply macros in batch jobs for a seamless custom workflow (for desktop only)
- Batch processing supports scaling expressions (w, h and dpi)

#### **Selection Tools**

- Smart Selection brush
- Flood Selection Tool (magic wand)
- Shape-based marguee selection tools
- Elliptical Marquee Tool draws from center
- Add/subtract/save/load selections
- · Select based on color and tonal ranges
- Alpha-based selections (Opaque/Transparent/Partial)

#### **Refine Selections**

- · Select fine detail like hair and fur with advanced refining
- Set refinement border width, smoothness, mode, and feather size
- Output refinement as a selection, mask, new layer, or new layer with mask

#### **Crop and Straighten**

- Combined crop and straighten tool helps frame images
- Constrain to original or other aspect ratios
- Crop presets or save your own custom crops (for desktop only)
- Thirds grid, golden spiral and diagonals compositional overlays
- Uncrop with ease
- Darken areas outside crop area to aid composition
- Straighten simply by dragging across a horizon

#### Perspective

- Live perspective editing—real time
- Single- and dual-plane perspective editing
- Hide and show grids, autoclip layers
- See before and after views side-by-side

#### Mesh Warp Tool

- Real-time mesh warping of any layer
- Easily add nodes and reshape the mesh
- · Fully edit nodes with familiar curve controls

#### Full Liquefy Toolset

- Liquify Persona for image distortion
- Non-destructive Live Liquify filter (uses Liquify Persona)

#### • New Choice of blur methods for Frequency separation

#### **Advanced Filters**

- FFT Denoise is one of several noise removers (for desktop only)
- Effectively remove moiré patterns and other types of noise
- Live Lighting filter gives on-screen light editing
- Change lighting types, extents and add bump maps
- Haze Removal includes impressive Distance slider
- · Apply Image using arbitrary channel equations
- Custom equations-based distortion filter
- Lens Correction filter with camera, lens profile and focal length selection

# **Plug-ins**

- Use 64-bit Adobe<sup>®</sup> Photoshop<sup>®</sup> compatible plug-ins
- Installed plug-ins are detected and checked for compatibility
- LAB plugin support
- Edit in 32-bit RGB documents
- Support is growing, more plug-ins to be supported over time

# High Dynamic Range (HDR) Editing

- Merge bracketed exposures together to create 32-bit images
- Unique Persona for Advanced Tone Mapping
- Edit effortlessly in 32-bit unbounded color format
- Full OpenColorIO support
- Maintain a true 32-bit lossless workflow and preview full tonal range
- · OpenEXR multi-channel import and export
- Radiance import and export

# HDR and EDR Display Support (Desktop only)

- Take advantage of displays that can reach high peak brightness values exceeding diffuse white
- See the extended brightness range of 32-bit unbounded HDR documents
- Get clipping warnings based on the display's maximum brightness

#### Live Image Stacks

- · Combine and auto-align multiple images
- Noise reduction and clear moving subjects from scenes
- · Long exposure simulation and exposure blending
- Creative 'time-lapse' and motion effects
- Over 10 stack modes for very different results
- Change stack operator settings in real time

# Astrophotography Persona (for desktop only)

- Dedicated Persona for stacking
- RAW and FITS image support
- Stack light and calibration frames (dark/dark flat/flat/bias)
- Stack, tone stretch and retouch entirely in 32-bit
- Stack files from different easeions using file groups

- · See deformations against a custom mesh
- Push Forward and Push Left brush tools
- Twirl and Turbulence brushes
- Save and Clone meshes for efficiency
- · Alter warp intensity with a Reconstruct Mesh slider
- Mesh and Mask editing tools
- See a before and after live split-view
- Use advanced brush controls for fine tuning warps
- Built in History just for your Liquefy steps

#### Advanced Histogram

- View for whole image or selected channels
- Limit histogram calculation to current layer or selection
- See coarse Histogram for speed, click to refine

# Advanced Gamma Blending, Blend Ranges and Antialiasing

- Editable RGB blend space gamma per object or layer
- Apply multiple values in linear or non-linear blends
- Set preferences for default values
- Save custom coverage maps for reuse
- Per-layer hierarchical antialiasing
- New Blend ranges use GPU acceleration

# Detailed Image Information (for desktop only)

- See detailed image and luminosity information in real-time
- Monitor memory pressure and efficiency
- · Information displayed for all color spaces
- Switch between different scopes and histogram views

#### **EXIF** Metadata

- View summary, full, and raw metadata
- Get detailed Focus information in the Develop persona
- EXIF and other XML-based data types supported

# **Brush Tools**

- Hard-edged Pixel Brush tool for retro art and fine UI
  painting
- Full range of textured brush nozzles that work across brush tools
- See below for full information about paint brushes and controls

- Create full color, composite (HaRGB, SHO), grayscale or false color images
- New Edit stacked image names for better organization
- New Stack images for different filters simultaneously using file groups (auto-alignment avoids resampling)
- New Open FITS files directly in Photo Persona (control over demosaicing)
- New Support for FUJIFILM X-Trans sensor images

# Color

# **Professional Color**

- True end-to-end CMYK
- RGB, RGB Hex, LAB, CMYK and Grayscale color models
- ICC color management profiles and conversion
- Seamlessly switch between color modes on-the-fly
- Copy Hex values to the clipboard
- Use Pantone<sup>®</sup> colors
- Set rendering intent and black point compensation (globally and on document convert)
- Work across color mode boundaries with selected adjustments
- End-to-end OpenColorIO (OCIO) workflows
- Lock to prevent color mode switching (for desktop only)

#### 16-bits per Channel Support

- 16-bits per channel modes for RGB/LAB/Grayscale spaces
- 16-bit versions of all filters included
- Works on all supported hardware, no limitations

#### **Advanced Rendering**

- Live split-screen before/after views for adjustments and Develop persona
- Live wireframe, pixel, and retina/high DPI pixel previews
- Custom per-object gamma blending

#### Smart Color Picker

- Dedicated Tool for Photo Persona
- Accurately pick color using a magnifier over any part of your display
- Point or color averaged sampling
- Sample from current or all layers
- Grab in the source color space including CMYK, RGB and LAB color
- Simple panel-based Color Picker as alternative

# **Palettes and Swatches**

- Use colors and palettes based on all the available color models
- Automatically create palettes based on document colors
- Import Adobe<sup>®</sup> Swatch Exchange (.ase) files (for desktop only)
- Display palettes created in other apps using Apple system Color Palettes
- Use the macOS system color picker
- Create complementary, analogous and other color chords (for desktop only)
- Built in swatches for colors, grays and gradients
- Generate palette from any image (for desktop only)

# Global Colors (for desktop only)

- Update objects in your document when their base color changes
- Tint levels are retained when base color updates
- Use as solid colors or in gradients

#### Advanced Scaling and Resampling

- Resize images or just the canvas
- Anchor the canvas, change units, and maintain aspect ratio
- Automatic scaling of mixed artwork for highest quality output
- Lanczos 3, Bicubic, Bilinear and Nearest Neighbor resampling available
- Pixel Art algorithms for pixel art upsampling

# Professional Color, Compatibility, and Output

# Pantone<sup>®</sup> Color Matching

- PANTONE<sup>®</sup> Goe<sup>™</sup>
- PANTONE<sup>®</sup> GoeBridge<sup>™</sup>
- PANTONE® + Formula Guide Solid (V2)
- PANTONE<sup>®</sup> + CMYK
- PANTONE<sup>®</sup> + Color Bridge (V2)
- PANTONE<sup>®</sup> + Metallic, Neon, and Pastels
- Coated and uncoated variants

# Photoshop<sup>®</sup> PSD Support

- Accurate opening/saving of Adobe<sup>®</sup> Photoshop<sup>®</sup> PSD files (includes 32 bit)
- Open very large PSB files
- Maintain layers, groups, gradients, blend modes, paths, masks and more
- Supports professional color modes
- Take PSDs into other supported software
- Editable Embedded Photoshop PSD Smart Objects
- PSD flattened image representation

### **PDF Open and Place**

- Edit and save PDFs for round-trip app compatibility
- PDF passthrough for absolute output fidelity (for desktop only)

# Pro Print and PDF/X Support

- Create and edit CMYK PDF/X files for pro printing
- Compatible with PDF/X-1a, PDF/X-3, and PDF/X-4
- Use spot colors
- Apply Overprint controls
- Add trim, bleed and crop marks
- Apply ICC color profiles internally and at export time

#### **Streamlined Printing**

- Print directly from Affinity Photo
- Switch between standard and advanced dialogs
- Control layout, scaling, color matching, and paper handling
- Access printer driver features
- Save as PDF from the print dialog

### Full Open or Import List

- Adobe<sup>®</sup> Photoshop<sup>®</sup> PSD
- Adobe<sup>®</sup> Photoshop<sup>®</sup> PSB

## Full Save or Export List

- Publisher template (.aftemplate)
- Adobe<sup>®</sup> Photoshop<sup>®</sup> PSD
- TIFF (layers preserved)
- PNG
- JPG
- Progressive JPG
- GIF
- SVG
- EPS
- EXR (Open EXR)
- HDR (Radiance)
- PDF (can also be opened in Adobe<sup>®</sup> Illustrator<sup>®</sup>) (improved)
- PDF/X-1a, PDF/X-3, PDF/X-4
- Affinity common file format

#### Export document

- Export as entire document or current selection
- Exclude background from selection
- Resampling
- File size calculator

## **Export Presets**

- Create your own export presets
- Use popular presets that are supplied with Affinity Photo
- Use presets to save whole images or specific regions
- Set your default export format

#### Slices and Retina/high DPI Graphics

- Output individual layers, groups, or image as slices
- Draw custom-sized slices at export time
- Automatically create slices at layer sizes
- Auto-name export files using layer/slice names
- Use slice presets for popular image formats
- Apply slice presets to selected slices (for desktop only)
- Multiple export setups, formats and resolutions per slice (for desktop only)
- Output all slices at once, just one slice, or selected slices
- Hide layer contents during export process
- Exclude layer content from export
- Output standard and retina/high DPI resolution graphics in one go
- Retina/high DPI versions are auto-named with @2x and @3x
  sufflues

- Extensive RAW import library (including CR3)
- DNG
- PNG
- TIFF
- 12 bit Grayscale TIFF
- JPG
- GIF
- TGA
- SVG
- EPS
- PDF (improved)
- PDF/X
- EXR (Open EXR)
- HDR (Radiance)
- Adobe<sup>®</sup> Illustrator<sup>®</sup> AI (containing PDF stream)
- Legacy Adobe<sup>®</sup> Illustrator<sup>®</sup> AI files
- Adobe<sup>®</sup> FreeHand<sup>®</sup> (versions 9 to 11)
- Affinity Designer native file (for desktop only)
- Affinity Publisher native file (includes page navigation)
- HEIF with depth map (as separate layer)

#### sumixes

- · Export to absolute sizes (for desktop only)
- Deliver UI design assets (iOS)

# **Advanced Export Controls**

- Continuous Export updates files any time your image or design changes
- Maintain EXIF or other metadata on output
- Embed an ICC profile with an exported image
- Apply a Matte color

# **Efficient Affinity File Format**

- Compact and fast native file format
- Also fully editable in Affinity Designer and Affinity Publisher

# Workspaces and Workflows

# Easy setup with New Document dialog (for desktop only)

- Thumbnail-based
- Presets for different types of output, e.g. Web
- Create your own custom page presets
- Access Photo templates (.aftemplate)

# Custom Studio Panel Layouts (for desktop only)

- Dock or float panels
- Group and order panels as you prefer
- Hide and expand panels as you need them
- Dynamic panel names give focus to what you are using
- Create and save panel (and toolbar) presets

# **Rotate Canvas**

- Rotate your workspace for more natural retouching and painting
- Use keys, menus, touch gestures and graphics tablet controls (for desktop only)
- Disable canvas rotation to prevent accidental use
- Rotate document view (canvas) with CMD/CTRL+mouse scroll wheel

# Navigator

- See in thumbnail where your zoomed-in viewport is
- Save views, and quickly switch between views (for desktop only)

# Efficient Copy/Paste

- Highly compatible copy/paste of image and vectors for other apps
- · Copy/paste within Affinity apps with or without formatting
- Paste formatting or effects from one item to another
- Copy/Paste Merged for flattening
- Paste Inside and Insert Above/Below/Inside current layer

#### **Optional Live Assistants**

- All assistance is non-intrusive and can be hidden/disabled/tweaked
- Hint Line at bottom of the UI gives useful tool tips (for desktop only)
- Context Toolbar provides live controls and options per tool
- Assistant Manager tunes layer, mask, brush and adjustment behavior
- Choose how Affinity Photo manages mixed-media design tasks

- · Work with single screens or multi-monitor setups
- Optimized for regular and retina/high DPI screens

### Customizable Keyboard Shortcuts (for desktop only)

- · Apply your own favorite presets for the fastest workflows
- Save and load shortcut sets
- Popular shortcut conventions are supported

# Customizable Toolbars (for desktop only)

- Create your own toolbars or customize existing panels
- Reposition and reorganize tool groups
- Set the primary toolbar to be single or multi-column
- Add toolbar buttons for specific features you like using

#### **Powerful History and Snapshots**

- Instantly slide through over 8,000 History steps
- Save History to revisit steps from previous sessions
- Roll through processes in files from other photographers
- Undo actions performed in other Affinity suite apps
- A seamless AutoSave protects against unexpected shutdowns (for desktop only)
- Store editing states as Snapshots to revisit later

### **Transform Panel**

- Move and scale accurately using the Transform panel
- Enter values in mixed units
- Perform calculations using standard expressions
- Include mathematical expressions like Pi and Phi (for desktop only)

#### **Preview Stock Imagery**

- Search for Stock images within Affinity Photo
- Add previews to your layer stack as guidelines
- Search Commercial and Model Released images
- Stock Panel to access free and royalty-free image resources

# Adjust Tool and UI Settings

- Light or dark user interface
- Adjust background and UI gray levels
- Set tool behavior and appearance in Preferences
- Manage how input devices help your workflow
- Increase/decrease tool control size and UI text size

#### Assets for easy access to stored content

- Dedicated panel for asset storage
- Great for storing cutouts, shapes, brush strokes and watermarks
- Import/export assets

#### Compositing

- Images placed as Image layers to retain DPI and color space
- Multi-image placement click-by-click for compositing (for desktop only)
- DPI/scaling control for all placed image and documents (for desktop only)
- New Alt/Option-dragging files gives placement options via Place Images panel

#### **Resource Management (for desktop only)**

- Missing resource alert on document load
- Linked/embedded placed image policy at document setup
- Dedicated Resource Manager for image/document
  management
- Display placed image (or document) status
- Convert resources from embedded to linked (and vice versa)
- Recursive resource links are honoured
- Collect linked resource into a 'sidecar' folder for project
  portability

#### **Resource Manager Improvements**

- New Relink multiple missing 'same folder' images in one operation
- New Switch on/off columns
- New New File Type column
- New EPS files can be linked
- New Improvements when managing placed documents

# Live Filters, Adjustments, and Effects

# Live Adjustment Layers

- Levels
- White Balance
- HSL (with hue color ranges and color picker)
- Recolor
- Black and White
- Brightness and Contrast
- Posterize
- Vibrance
- Exposure
- Shadows/Highlights (improved)
- Threshold
- Curves
- Channel Mixer
- New Gradient Map with global color support (with hardware acceleration)
- Selective Color
- Color Balance
- Invert
- Soft Proof
- 3D LUT (3D Look Up Table for adjustments)
- Lens Filter
- Split Toning
- Shareable LUTs

# **Live Filter Layers**

- Gaussian Blur
- Box Blur
- Median Blur
- Bilateral Blur
- Motion Blur
- Radial Blur
- Lens Blur
- Elliptical Depth of Field
- Tilt Shift Depth of Field
- Field Blur
- Diffuse Glow
- Maximum/Minimum Blur
- Clarity
- Unsharp Mask
- High Pass
- Ripple
- Twirl
- Spherical
- Displace
- Pinch/Punch
- Lens Distortion
- Perspective
- Liquify (using Liquify Persona)
- Denoise
- Add Noise
- Diffuse
- Dust & Scratches
- Vignette

# Non-Destructive Editing

- Live, editable filters, adjustments, layer fx, and blend modes
- See effects, blend modes and adjustments instantly, no lag
- Apply to any image layer, group—even to vector art
- Edit any time, make changes without using Undo
- Edit blend modes per layer, per adjustment, per filter, object etc.
- · Act on client requests without costly reworking

# **Live Layer Effects**

- Gaussian Blur
- Outer Shadow
- Inner Shadow
- Outer Glow
- Inner Glow
- Outline
- 3D
- Bevel/Emboss
- Color Overlay
- Gradient Overlay
- Layer Effects now work with global colors

### **Live Blend Modes**

- Normal
- Darken
- Darker Color
- Multiply
- Color Burn
- Linear Burn
- Lighten
- Lighter Color
- Screen
- Color Dodge
- Add
- Overlay
- Soft Light
- Hard Light
- Vivid Light
- Pin Light
- Linear Light
- Hard Mix
- Difference
- Exclusion
- Subtract
- Divide
- Hue
- Saturation
- Luminosity
- Color
- Average
- NegationReflect

• Glow

Contrast Negate

- Defringe
- Lighting
- Shadows/Highlights
- Halftone
- Procedural Texture (with advanced presets)
- Voronoi

# **Professional Paint, Sketch, and Texture Tools**

#### **Professional Brushes**

- Add depth with rounded and textured retouch tools
- Paint using high-quality, professional brush nozzles
- Create paintings of any size, paint over images of any size without lag
- On-page brush preview sets width, hardness, nozzle spacing and rotation
- Mimic natural media including watercolors
- Customize opacity (accumulation), hardness, spacing, flow, shape, rotation, and luminosity
- Pressure responsive (Jitter) to above brush properties
- Wet edge support with customizable ramp profiles
- Multi-brushes (combining brushes for a more interesting, less uniform brush stroke)
- Brush symmetry (up to 32-way) and optional brush mirroring (up to five-way reflections)
- Brushes with multiple nozzle textures can set their own
  nozzle controller/ramp
- Wet edges and accumulation now on color brushes/brushes with HSL variance
- Nozzle rotation using left and right arrow keys (before and during stroke application)
- Paint straight strokes constrained to X or Y axis
- Create image brushes from any pixel selection
- Create intensity brushes from any mask's pixel selection

# Stroke stabilization

- Enable Stabilizer for super smooth brush strokes
- Rope or Windows mode for different smoothing behavior

#### Import/Export Brushes

- Add Affinity brush packs from external sources and giveaways
- Import Adobe<sup>®</sup> brushes (.abr files)
- Export brush packs to share with others or to back them up
- Easy double-click brush pack installation
- Share brushes for use in Affinity Designer

#### **Custom Brushes**

- Create completely custom raster brushes using your own textures
- Customize brush behavior and settings like wet edges and blend mode
- Organize brushes using your own categories
- Install brushes made by other users

#### Tablet and Touch Controls (for desktop only)

- Paint with pressure using graphics tablets
- Advanced controls like tilt, angle, velocity and other inputs
- Map graphics tablet buttons and stylus wheel commands
- Rotate canvas, pan, and zoom using track pad gestures

# **Vectors and Mixed Discipline Design**

#### • Erase

Jonnaarnog

#### **Create Native Vectors**

- Draw paths and shapes with a best-in-class Pen Tool
- Convert shapes to selections
- Use a library of Shapes that include smart customization nodes
- Fully edit paths and shapes with a familiar Node Tool
- Multi-node selection, alignment and transforms
- Curve and construction snapping
- Presets for shapes or save your own shapes

#### Import/Export Vector Artwork

- Open and edit SVG, EPS, PDF, FH and AI files
- Output SVG for efficient Web graphics
- Save as PDF or EPS for compatibility

## **Beautiful Gradients**

- Super-smooth gradients for overlays, shapes, and masks
- Live tools for dragging gradients on-screen
- Drag and drop colors onto gradient paths and nodes
- Linear and radial gradients respond to object scaling/shearing with skewed fill handle editing

#### Noise and Opacity in Gradients

- Add texture to gradients with noise
- Blend color washes and overlays with opacity
- · Gradually blend noise and opacity as easily as color

# Image/Document Design Aids

- Add margins and guides
- Multi-column guides
- Hide/show rulers (for desktop only)
- Spread origin repositioning (for desktop only)
- Reposition guides from ruler area when using multiple tools (for desktop only)
- Add custom guidelines from rulers or by typing in values (for desktop only)
- As-you-drag measurement guides
- Candidate-based snapping system including Force Pixel
  Alignment
- Colored square, triangular and axonometric grids

# **Pixel-Aligned Graphics**

- Create accurate artwork for the Web and UI design
- Preview with pixel accuracy at regular and retina/high DPI levels
- Snap to grids
- Dynamic snapping aligns elements on-the-fly
- Advanced snapping controls include saveable presets
- Exclude objects from snapping
- Snap to pixel selection bounds

## Aligning and Distributing

- Align to left, center, right, top, middle, bottom
- Alignment handles for precise alignment of a selection to a position on page
- Works to selection bounds, spread (artboard), margins, first/last selected
- Distribute elements automatically for even spacing
- Easily manage Z-order using layers, toolbars, or keyboard shortcuts

#### Seamless App Switching

- Move work between Affinity products
- (Affinity Designer and Affinity Publisher can be purchased separately)

#### Shared Affinity Format and History

- Design across disciplines as easily as switching tools or personas
- Save your file in Affinity Photo or Affinity Designer, they are 100% compatible
- Undo tasks performed in other Affinity apps

# **Accurate Typography**

#### **Pro Font Support**

#### **Character and Paragraph Panels**

• Add elegant text with OpenType, Type 1, and True Type fonts

· Style text with on-screen panels you can dock, move, and

- Use advanced OpenType features including Ligatures
- Insert placeholder text while constructing designs
- Insert special characters and symbols
- Copy and paste style between objects
- Font fallbacks
- New Improved IME text editing for Japanese and Simplified Chinese languages
- New Added support for emojis

#### **Live Font Previews**

- Fonts are previewed instantly while creating or customizing text
- Access fonts by collection for efficiency
- See recently used fonts first (for desktop only)
- Browse recent, used or your favorite fonts (for desktop only)

# Live OpenType Feature Previews

- Typography panel shows live feature previews
- · Easily select the right Stylistic Set every time
- Preview Ligatures, Contextual Alternates, Swashes and more

#### **Glyph Browser**

- Quickly insert special characters into your text
- Display in glyph or Unicode order
- Filter by font subset, e.g. Cyrillic
- Search for phrase, glyph value or Unicode value

#### resize

- Adjust kerning, tracking, shear, baseline and other character attributes
- Easily set leading, indents, tab stops and justification

# Art and Frame Text

- Adding scalable art text is perfect for quick headlines and callouts
- · Add body text paragraphs using frames as containers
- Control alignment, justification, character and paragraph
  settings
- Optionally scale text content when scaling the parent text frame
- · Vertically align frame text
- Fit text frame to contained text
- Live spell checking as you type

# Text-on-a-Path

- Type text along a custom curve or shape
- Control start and end points
- Set text on both or either side of lines
- Convert shapes to text paths
- Control all the normal text attributes including baseline

#### Text Styles (for desktop only)

- Ensure text appears consistent
- Apply character and paragraph styles
- Easily update styles cross-document
- · Design from scratch or from text selection
- Style hierarchies
- Style groups

# **Input Devices**

# OS X/macOS

- Pressure-sensitive graphics tablet and pen
- Force Touch and regular Trackpad
- Mac keyboards
- Touch Bar
- Magic Trackpad and Magic Trackpad 2
- Magic Mouse and Magic Mouse 2
- · Generic multi-button and wheel mouse
- Dictation offered by macOS

#### **Optional Hardware**

# Windows

- DirectX 11 and Direct 2D rendering with Windows Advanced Rasterization Platform (WARP) fallback
- Hardware accelerated for smooth panning/zooming and rendering
- Optimized for Surface Pro 3, Surface Pro 4 and Surface Book (including support for detachable screen)
- Surface Studio with Surface Pen/Surface Dial
- · Gesture, Pen, and Touch Screen input support
- Generic multi-button and wheel mouse
- Wacom (and other WinTab devices) support
- Uses Microsoft Concurrency Runtime to fully utilize/scale

- DSLR or other camera
- Scanner supported by OS X

across modern CPUs

• High DPI support across multiple monitors

# **Optional Hardware**

- DSLR or other camera
- Scanner supported by Windows