

Toon Boom Animate Pro: Feature Details

General

- Create resolution-independent scenes combining vector and bitmap animation
- High resolution compositing engine with 16 bits per channel bitmap rendering
- **ENHANCED** OpenGL accelerated true space environment for accurate multi-plane camera setup and easy depth positioning
- Contextual user interface with predefined Workspaces supporting docked or floating View windows
- Automatic updates to all View windows when changes are made to drawings
- Supports reusable symbol elements and templates stored in library
- **ENHANCED** Unique real-time anti-aliasing technology in working canvas
- Rapid management of scene structure on large projects with Element Manager

Digital Drawing

- 4 layers available per drawing (Overlay, Line, Colour and Underlay)
 - Pencil tool to draw centre line stroke
 - Brush tool to draw pressure sensitive contour line strokes with when using a tablet
 - Brush tool with several brush tips for artistic drawing with instant preview
 - Pressure sensitive Eraser tool available for all vector drawing
 - **NEW** Access Text tool with multiple fonts, styles and layout options
 - Convert centreline to contour line and vice versa
 - Use different texture brushes to create other line styles such as pencil on paper, watercolour, etc
 - Eraser tool supports simultaneous bitmap texture and vector editing
 - **NEW** Optimization possibilities when using textured lines and colour areas
 - Multiple drawing modes for drawing behind or painting existing strokes
 - User-friendly navigation in your drawing with virtual animation disk to simulate panning, zooming and rotation
 - Access a full range of editing tools (cut, copy, paste, scale, rotate, stretch, skew, flip)
 - Access a comprehensive set of tools for editing contours (contour editor, smooth)
 - Use the light table and multi-level onion skinning features with flexible display available such as outline or fade
 - Display bitmap images and/or QuickTime movies for rotoscoping
 - Slice drawings with Freehand or rectangle Cutter tools
 - Use the Dropper tool to quickly find a colour in a palette
 - Use the Ellipse, Line, Polyline or Rectangle shape for rapid construction of geometric elements
 - Automatically fill closed shapes with solid colour, gradient or texture
 - Flatten vector strokes to merge and remove overlapped lines
 - Use Optimize to flatten vector strokes while preserving the visual aspect
 - Display square, 12 field or 16 field grids to aid element registration
 - Mark In-between, Breakdown and Keyframe drawings for precise frame-by-frame animation
 - Instantly reposition drawings from all cels for immediate image manipulation
 - Store brushes in the Pen Style library
 - Control contour line optimization for easy modification later on
 - Preserve gradient and texture continuity over independent strokes
 - Adjust brush size on-the-fly
 - Change a shape's perspective with Perspective tool
 - **NEW** Shift and Trace your drawings when drawing
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Palette and Colour

- Access 16 million colours
- Control transparency for each colour
- Independent colour pots for Pencil, Brush and Fill tools
- Create an unlimited number of palettes
- Create an unlimited number of colour pots per palette
- Fill colour pots with solid colours, gradients or bitmap textures.
- Supports Linear or Radial gradients
- Edit Gradient/Texture tool to edit scale, rotation and hot points
- Clone palettes to preserve dependency
- Duplicate palettes to copy all the colours and have them independent
- Tint colours palette for creating variations without recreating new palette
- Multi Wheel colour picker with independent undo list
- External palette support for collaborative workflow
- **NEW** Palette Tinting Mixer

Paint

- Simultaneously paint a single drawing, several sequences, or all drawings in a level
- Paint colour art, re-colour line art, and check for paint errors
- **NEW** Use the Swatch mode in Colour view for practical colour overview
- Paint with bitmap textures and gradients
- Close gap tools to manually close gaps
- Close gaps automatically on all your drawings
- Auto-paint all art levels simultaneously
- Manage colour models in independent views
- Paint quickly at all output resolutions
- Use Backlight to verify that a paint process is complete
- Highlight selected colour to select specific colour instantly
- Preserve gradient and texture continuity over multiple paint operations

Libraries

- Create a library of animated elements and animated sequences
 - Store multiple elements with their own drawings
 - Create a library of effects
 - Store movements along with their own functions and transformations
 - Preview drawings in real-time
 - Swap drawings easily to manage media assets
 - Share stored templates with multiple users
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Animation

- **ENHANCED** Drawing layers have their own animation attributes
- **NEW** Use Distribute to Layer tool to simultaneously distribute character parts to layers
- **NEW** Use Multi-Keyframes Easing to easily adjust the velocity on multiple character parts
- Use Transform tool to perform most animating editing features (move, rotation, scale, ...) with a single tool
- Activate Animate mode to create keyframes automatically when modifying attributes
- Define interpolation methods (linear or stop motion) per attribute
- Create your in-betweening using the morphing tools
- **ENHANCED** Create natural-looking animation with Inverse Kinematics (IK) tools
- Automatically generate lip charts and save time lip-synching characters to voice tracks
- Position all drawing layers interactively
- Create 3D trajectories for elements and camera
- Auto-calculate layers' perspective relative to camera position
- Create complex movements with a hierarchy of elements and cameras
- Preview layers and camera moves in real-time
- View multi-plane perspective in real-time
- Click and drag positioning of layers and cameras
- Work simultaneously with multiple aspect ratios
- Pan and Scan in real-time using multiple aspect ratios
- Rotate, scale, translate and skew multiple drawing layers at the same time
- Use Drawing substitution to swap cells easily on-the-fly
- Rotate layers or cameras in all three axes

Timeline

- Display Drawings, Pegs, Effects, Camera and Soundtrack
 - Modify all keyframable layers' values directly in the timeline
 - Control layer attributes such as onion skin, visibility, lock, colour and name
 - Perform cel swapping or editing
 - Organize layers by hierarchy
 - Use sound scrubbing on a frame-by-frame basis
 - Effortlessly create new motion paths and animated drawings
 - Drag and drop keyframes, layers, motion paths and layer transformations
 - Display effects and their keyframes
 - Display Audio waveforms
 - Define custom colours for easy identification of layers
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Xsheet

- Emulates a traditional exposure sheet
- Create, edit and save exposure sheets
- **NEW** Display Audio Waveform
- Contextual exposure sheet column display based on the selected drawing
- Print exposure sheets
- Automatically build the timing in your exposure sheet with a simple click and drag
- Use expression columns based on mathematical operations to create values for an effect
- Control the velocity values with Bezier or ease function curves; control the values in other columns with these functions
- Copy and paste cells with drag and drop
- Automatically visualize and update groups and hierarchies
- Draw directly in exposure sheet with Annotation column using drawing pen
- Tempo Marker
- Display thumbnails for each layer

Effects

- **NEW** Use the Effect Blending modes to create ambiance: Normal, Multiply, Screen, Lighten, Darken, Difference, Add, Subtract, Invert, Overlay, Hardlight, Alpha, Erase, Divide, Replace
- Blur Effects: Blur, Directional Blur, Motion Blur, Glow, Variable Blur, Focus and Matte blur
- **NEW** Colour Effects: Channel Selector, Colour Card, Colour Scale, Colour Override, Brightness Contrast, Tone, Highlight, Transparency, Colour Screen, Greyscale, Remove Transparency, Negate
- Transformation Effects: Mask, Shadow, Quadmap
- Image Effects: Anti Flicker, Dither, Crop, External, Gradient
- Deformation Effects: Glue, Refract, Pixelate, Grain, Scale, Line Art, Colour Art, Matte Resize
- **ENHANCED** Preview the Transparency, Colour Scale, Colour Override effects in OpenGL view

Scripting

- Use ready-made scripts to automate tedious workflow issues or create your own scripts
 - Run scripts from within the interface, directly from the command line or over your network through a dedicated communication port
 - Simple but powerful Javascript-style language is easy to learn without sacrificing function
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Compositing

- Change output resolution without rescanning or repainting
- Scale vector artwork infinitely without pixilation
- Use any output resolution and aspect ratio
- **ENHANCED** Enjoy efficient compositing with HD images
- Use the external node to perform additional effects with external programs
- **ENHANCED** Control line thickness when zooming-in to work on Pencil lines
- Create mattes directly in the Frame View
- Use the network navigator that helps to manage large networks
- Easily pan and zoom in the Network Effects View window
- Automatically connect Network modules, as well as reorder network cables
- Insert Network modules seamlessly between existing modules
- Intuitively drag and drop network modules
- Drag and drop to create Group modules
- Develop your own special effects plug-in using Animate Pro SDK
- Add notes to your network for reminder and collaborative work

Playback

- **NEW** Use the built-in SWF preview for fast check-up
- Enjoy internal real-time preview and external rendered playback
- Play back current scene or external media
- **ENHANCED** Preview complete scene with synchronized sound
- View frame sequences at full D1 resolution
- Play back at speeds up to 60 fps

Import

- Bitmap TGA, PSD, PNG, JPEG, BMP, YUV, PAL, SGI
- Import PSD and maintain independent layers
- Import QuickTime Movie as an image sequence
- Vector TVG, SWF, PDF, AI
- Audio MP3, WAV, AIFF

Scan

- TWAIN support
 - Automatic Feeder support (ADF)
 - Register peg holes automatically
 - Scan your drawings in black and white or greyscale
 - Auto-assemble your drawings for paint
 - Colour scan pre-coloured drawings and backgrounds
 - Auto-splice pan cels (characters and backgrounds)
 - Capture nuances of hand-drawn lines (using true-line vectorization and line texture)
 - Preserve original line textures such as pencil, crayon or chalk
 - Use advanced cleaning tools to remove dirt and hair easily
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Render

- **ENHANCED** Render to any resolution and aspect ratio such as NTSC, PAL, HDTV (Multi Threading and Image management)
 - Support Field rendering for interlaced format
 - Export video to QuickTime Movie and FLV
 - **NEW** Export vector animation to SWF with effects
 - Export image sequence TGA, PSD, PNG, JPG, SGI, IFF
 - Render multiple format and elements at the same time
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