



# The Leading-edge Tool for Digital Animation Production

## Harmony

Harmony (formerly known as product code name Symphony) enables studios to produce digital animation of the highest quality with powerful features, such as morphing, basic inverse kinematics and its "glue" effect, which enhance the paperless animation production process. Advanced drawing and asset management tools combined with a seamless, integrated workflow make Harmony the solution of choice for any studio that aims to save significant overhead costs while adding value to their animations

### Harmony Key Features

Harmony is your all-round animation solution to undertake animation projects traditionally, digitally, or when using techniques in combination. Harmony adapts perfectly to your production needs whether you draw on paper or want to go completely paperless, use a cut-out style, or re-use individual elements and animated elements. Its state-of-the-art features, such as the morphing, basic inverse kinematics and automatic joint connecting ("glue"), categorically position it as the leading-edge animation solution.

In this era where an animation asset can be repurposed to all media from TV, DVD, the Web, gaming and PDAs, you will find Harmony the perfect tool to rely on for all your animation projects.



### Manager

- Manage all production stages automatically, remotely or on-site
- Create and manage environments, jobs, scenes
- Print status reports that help you track your production
- Import/export whole or partial jobs with production information

### Scan

- Auto-feed or manually scan drawings
- Register peg holes automatically
- Clean scanned lines automatically
- Scan your drawings in black and white or grayscale
- Auto-assemble your drawings for paint
- Color scan pre-colored drawings and backgrounds
- Auto-splice pan cels (characters and backgrounds)
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- Capture nuances of hand-drawn lines (thanks to true-line vectorization and line texture)
- Handle complex textures such as crayon or chalk
- Maintain scanning resolution based on fielding or

### Digital Drawing

- Create resolution-independent animation
- Use the virtual animation disk and digital exposure sheet with full control of timing and order
- Hand-draw with pressure-sensitive pen and graphic tablet
- Create your in-betweening using the morphing tools
- Speed up the process of animating joints in a framework using the inverse kinematics and glue tools
- Duplicate and manipulate vector-based drawings
- Access a full range of digital tools: cut, copy, paste, scale, rotate, squash, stretch and more
- Access a full set of tools to edit contours
- Use the light table and multi-level onion skinning features
- Automatically generate lip charts and save time lip syncing characters to their voice tracks
- Display bitmap images and/or live-action for rotoscoping
- Deform line art to change its shape
- Apply textures to existing drawings and when adding new lines



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## Paint

- Paint a single drawing, several sequences, or all drawings in a level simultaneously
- Paint color art, re-color line art, check for paint errors
- Access 16 million color possibilities; unlimited fill colors, line colors, transparencies per layer
- Visualize line texture while you paint
- Instantly update all View windows when changes are made to drawings
- Re-touch vector drawings
- Paint with textures and gradients
- Close gaps automatically
- Auto-paint all effect levels
- Manage color models
- Paint quickly at all output resolutions
- Create an unlimited number of palettes per character
- Mix an unlimited number of colors per palette

## Timeline

- Display pegs and elements by hierarchy
- Use sound scrubbing on a frame-by-frame basis
- Set up groups of drawings and motion paths
- Easily create new elements and drawings
- Effortlessly create new motion paths and animated drawings
- Drag and drop keyframes, elements, motion paths and element transformations
- Display effects and their keyframes

## XSheet

- Emulates a traditional exposure sheet
- Create, edit and save exposure sheets
- Automatically build the timing in your exposure sheet with simple click and drag
- Use expression columns to create values for an effect based on mathematical operations
- 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

## Libraries

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

## ScenePlanning

- Position elements interactively, create new 3D trajectories for elements and camera
- Auto-calculate elements' perspective in relation to camera position
- Auto-calculate different foci on different elements
- Create complex movements with a hierarchy of elements and cameras
- Draw directly in the Frame View
- Preview elements and camera moves in real-time
- View multi-plane perspective in real-time
- Preview line texture, gradients, textures, tones, highlights and cutters
- Create a peg or function automatically
- Click and drag positioning of elements and cameras
- Work simultaneously with multiple aspect ratios
- Increase bitmap preview resolution
- Pan and Scan in real-time using multiple aspect ratios
- Rotate, scale, translate and skew multiple elements at the same time



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## Effects & Compositing

- Change output resolution without rescanning or repainting
- Employ complete effects module including directional blurs, film grain, gradients, textures, glows, radial blurs, shadows and fades, with the possibility of animating all the effects over time
- Use the external node to perform additional effects with external programs
- Render final frames locally, or batch process over a network in the background or at scheduled times
- Control line thickness when zooming in
- Create mattes directly in the Frame View
- Use the new network navigator that helps to manage large networks
- Scale vector artwork infinitely without pixilation
- Use any output resolution and aspect ratio
- Easily pan and zoom in the Network View window
- Automatically connect Network modules, as well as reorder network cables
- Intuitively drag and drop network modules
- Drag and drop to create Group modules
- Visualize data in tree views for groups, moves and effects

## Render

- Render to any resolution and aspect ratio such as TV, NTSC, PAL, HDTV, film (1K, 2K, 4K) and more
- Support Linux, Windows and MacOS X
- Optionally disable field rendering for pegs
- Output to QuickTime; import and export Flash renderings

## Batch Render & Vectorize

- Support multiple machines to batch render and batch vectorize as a "render farm"
- Create and manage batch rendering schedules

## Playback

- Play back animation with sound
- Use integrated playback to preview SFX
- Play back as a floating window or a stand-alone application
- View frame sequences at full D1 resolution
- Play back up to 60 fps

