

Figure 1—The Anark interface on the Mac running under OS X. Anark Studio 2 allows you to combine 2D and 3D objects to create multimedia based on interactive video. Note that the assistant palette (on the left) is actually a Safari window.

Anark Studio 2

Interactive Multimedia Authoring Tool • Anark, \$995 • By Chris Manners

Anark Studio 2 is a multimedia authoring program that's designed to deliver interactive presentations and content via the Web or on CD-ROM or DVDs (www.anark.com). While it competes with other Web authoring programs, it is distinguished by its ability to combine streaming video and audio with 3D models.

In fact, it could be described as an interactive 2D/3D compositing program since it doesn't have any tools to create either 3D models or raw video, but instead must import pre-built components. Viewing Anark Studio content requires the Anark Client, available for Mac OS X and Windows 98 SE/2000/ME/XP.

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Interface

Anark's interface follows a familiar pattern. It's timeline-based and includes a main window for the canvas as well as palettes for storage, library, and inspector tools. On Windows there's also an assistant palette. The assistant palette on the Mac is provided through Safari, OS X's built-in Web browser.

Anark supports drag-and-drop authoring, so objects can be pulled from the library

or storage palettes and placed either directly onto the canvas or the timeline. The inspector palette is context-sensitive, providing property information for the selected object and a master animation button to toggle animation. The timeline has expandable drop-down menus for each item, and scrubbing through the timeline and simply changing one of the object's parameters automatically creates keyframes. The timeline also features a lock for each item, and a "shy filter" that can hide items on the canvas (see **Figure 1**).

Layers and animation

By default, each project is created with a single layer that includes a camera and a light, but projects can include multiple layers, each with its own camera. After expanding a layer's drop-down arrow, all of the objects in a layer become visible, and each has its own individual expandable arrow. Objects can be grouped and have master keyframes that can manipulate multiple properties at once.

Projects can have an unlimited number of layers, and the program's ability to support image alpha channels, as well as a variety of blend modes for textures (including modes such as screen and multiply), means that there are a wide number of options that determine how overlapping elements interact.

3D in Anark Studio

Simple 3D primitives such as cones, cubes, and spheres can be created using the icons at the foot of the library palette. These objects can then be rotated, scaled, and

positioned on the canvas either with the tools at the head of the window or numerically via the inspector palette.

Score: ◆◆◆◆

Pros

Intuitive. Can create compelling cross-platform interactive 3D presentations with ease. Distinguished by its ability to combine streaming video and audio with 3D models.

Cons

Few 3D modeling capabilities and no orthographic views. No text tool or support for non-square pixels. Limited scripting tools on the Mac, and no Mac Internet Explorer plug-in. Video output isn't broadcast quality.

Bottom Line

Potentially powerful combination of 2D and 3D coupled with interactivity and video. Handles Web video well, but lacks broadcast features. For full scripting capabilities, use the Windows version.

System Requirements

Microsoft Windows 98 SE/2000/ME/XP: Pentium II 300 MHz or better, 256 MB of RAM or more, Windows Media Player 7 or later, Microsoft Internet Explorer 5.0 or later, OpenGL 1.2.1 or later. Macintosh: OS X 10.2.2 or later, 256 MB of RAM or more, OpenGL 1.2.1 or later.

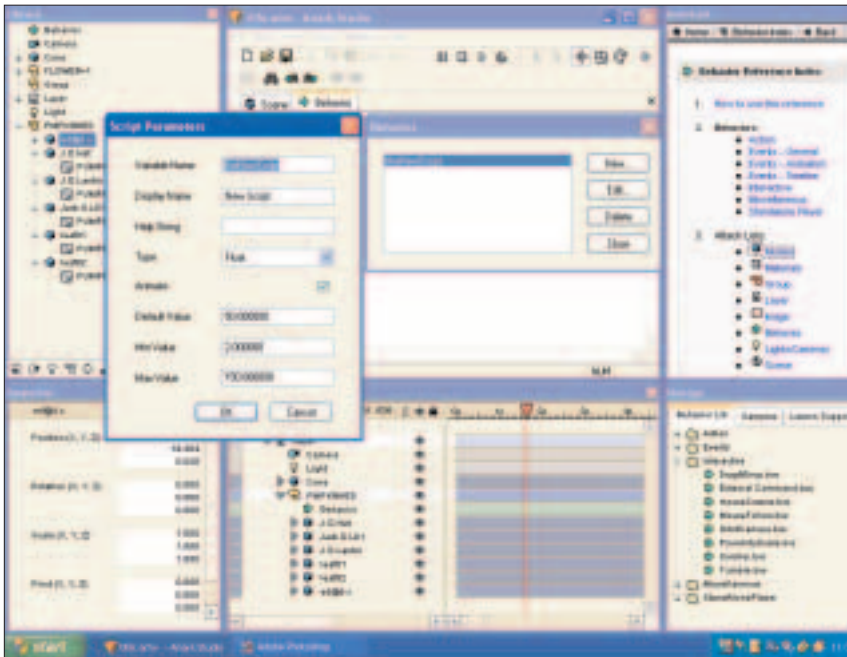


Figure 2—Anark's interface in Windows XP. In this screenshot, the script dialog and parameter palettes are open (not available on the Macintosh). The assistant palette is also visible on the right-hand side of the screen.

Anark Studio can import objects modeled in 3ds max, and it comes with a set of plug-in exporters for Plasma 3D, Maya, Lightwave, and Deep Explorer. It has no real modeling capabilities of its own and no orthographic views, which makes it hard to position objects on the Z-axis. There is also no text tool, so text must be created as an image file and imported.

Nonetheless, Anark Studio's ability to handle textures and materials is strong. It supports opacity and reflection maps and includes point, spot, and directional lights. Naturally, all textures and lights can be animated. Anark Studio handles standard-format audio files that can be used for interactive feedback or as an ambient background.

Viewing Anark content requires the Anark Client, available for Mac OS X and Windows 98 SE/2000/ME/XP.

Interactivity

Anark Studio applies interactivity through a series of drag-and-drop behaviors based on JavaScript. These include mouse events, pause-and-play events, and a variety of non-standard effects, such as scripted animations. These built-in behaviors can be used for items such as buttons and links and are customized by adjusting the behavior's properties in the inspector palette.

For the more ambitious artist, Anark Studio includes a built-in script editor on the Windows platform that lets you create

scripts from scratch with the help of a script parameter interface (see **Figure 2**). This interface allows you to define parameters that are part of the behavior (such as lists, vector fields, animation, and so forth), which can then be made available for manipulation in the inspector palette.

The script menu item isn't included in the Macintosh version of Anark Studio 2: Mac users will need to create script parameters in an XML file with a text editor and then import the file before being able to manipulate the behavior internally.

Video and compositing

One of the outstanding features of Anark Studio 2 is its capability with 3D video mapping. Video—in formats such as QuickTime, AVI, ASF, and MPEG—can be directly mapped onto 3D objects as a material and animated over time. Or video can simply be placed into a layer, effectively mapping it onto a 2D rectangle.

However, there are a few anomalies. The program handles video with square dimensions (such as 256 x 256), which is better for streaming. If you need to deal with 4:3 video, Anark recommends resizing your 4:3 video to be square, and then stretching the square object it's mapped onto back to a 4:3 ratio within the application. This naturally degrades the quality of the footage. Anark Studio 2 only handles square pixels. Pixels with a 0.9 aspect ratio are treated as square.

Anark Studio also features the ability to render out animations as standard AVI or QuickTime video files. However, given that the application doesn't support antialiasing (presumably, to speed the rendering of

online presentations), the output isn't broadcast-quality anyway. One workaround is to render the files at twice your desired eventual resolution and then scale them down in another video-editing application, thus removing many of the artifacts generated by the lack of antialiasing.

Exporting video is also a little cumbersome. Internal rendering calculations are followed by an export pass, in which the appropriate compression and frame-rate options are designated. Then there's a second wait as the temp file that's been created by the initial calculations is compressed and saved out as a video file.

All in all

Anark Studio 2 features compact file sizes for multimedia presentation delivery over the Web, on shiny discs, CD/DVDs, standalone projectors, and even standalone screensavers (Windows-only).

In the interactive multimedia software space, Anark's most direct competitor is probably Macromedia Director MX. Anark Studio 2 has a few unique capabilities, most notably the ability to map video onto 3D objects, but it doesn't have the depth of Director's mature scripting and debugging

Anark Studio applies interactivity through a series of drag-and-drop behaviors based on JavaScript.

tools. Unlike Director, you can create multi-platform files with a single copy of Anark, but until it addresses issues such as the lack of an integrated text tool and poor antialiasing, Anark won't be able to grab too much of Director's market.

The application does have a few quirks, most notably the lack of a plug-in for Internet Explorer on the Mac and the fact that some Windows machines may not have the display cards or OpenGL drivers required by Anark Studio 2. Nonetheless Anark presentations feature a powerful rendering engine with 3D and video capabilities that start to approach broadcast quality.

However, as with all fairly new Internet plug-in technologies, there's a question mark over the widespread availability and distribution of the Anark Client, which is required to view all Anark content. Given these doubts, it's probably best for developers to concentrate on using Anark Studio for CD/DVD-based projects or situations such as intranets, where the ability of the end-user to see the presentation isn't in doubt. Basically, this is a very useful upgrade to a promising technology. ■

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