



# MCCC News



Fort Worth

September 2016

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## 2-Dimensional Animation Software

News has been light lately, with the release of a new software development kit for MorphOS, and the unfortunate loss of Oliver Wagner, programmer for several Amiga applications like AmIRC and the Voyager web browser.

In the continuing saga of Vampire Quest, AKA my attempt to get a Vampire II board for my Amiga 600, there is something which could debatably be called a development. Over the last week or so, I received a test “do not respond” email that went out to Kipper2K’s entire Vampire mailing list, and about a day ago I got a mail from Apollo Accelerators pointing me to a web form to get my info. I’m no closer to getting a Vampire board, but at least I have reasonable confidence someone in charge of them knows I exist now.

In my continuing series of “Amiga stuff I remember,” I move on to two-dimensional animation software. As the Amiga hardware had a strong advantage over other systems of the time in shifting graphic data around, its abilities for creating animation and displaying it in real-time were hard to match in its heyday.

Amiga animation software (and more) generally uses a process called “double-buffering” to create a smoothly updating display. As the name implies, the system keeps two copies of the screen display in CHIP memory

(or video memory for a dedicated graphic card). While one copy is displayed on screen, changes are made to the copy not shown. When the updates are complete, the display is pointed to the updated version, and old and new changes can be applied to the image that was swapped out. This lets display changes happen away from your eyes, in sync with the refresh rate of the monitor, so you won’t see an incomplete update on-screen. If you remember moving graphics on old computer games or animation, especially on older PCs or Macs, where the edges of objects appear to “tear” or shift apart, you’ll see what a non-double-buffered display not updating in sync with the monitor looks like.

In the world of Amiga animation software, there are two main categories—“page-flippers” and “other.” Page-flippers work much like traditional paper flipbooks, in that every frame of an animation is a complete image, which are flipped through to create the illusion of motion. The IFF ANIM file standard is built on this, though it only stores the pixel data that changes from frame to frame to minimize the file size and memory usage compared to an equal number of full frame images. ANIM is the only widely-adopted Amiga animation file standard that can be loaded or played across several different applications, but unfortunately it has limits. It is designed only for playing frames in a set sequence, and doesn’t include sound effects or extra effects. That’s why several programs may save in “enhanced” versions of the format, or completely new ones, to support the features they require. Some programs may bypass the page-flipping

paradigm completely, building animated displays in different ways. These fall into the “other” category, each one doing its own thing and not necessarily compatible with anything else. Pretty much any animation software that goes beyond the ANIM file standard includes a freely-distributable player program, enabling animation artists to show off and distribute their work without including a copy of the creation software along with it.

In the “page-flip” category is the first piece of Amiga animation software I ever used: “Photon Cel Animator.” Unfortunately, it was a terrible choice for a first program, as it was geared more to a professional use on Amigas with lots of memory than an A500 with one meg. The reason for this was, while it could load and save ANIM files, every frame was held as uncompressed full frames in memory. This made for good performance, but the amount of frames in an animation was directly proportional to your total RAM, which was a big deal in a time when most Amigas topped out at 8 megabytes. Photon also had only a very basic interface and minimal painting tools, but it did have one feature that I found very useful later on. You could load a sound file into the program, which would be played back in small “chunks” that corresponded to a specific frame. This made Photon Cel Animator an invaluable tool for reading audio tracks for lip-syncing and similar uses, and I still occasionally use the antiquated program for this purpose, even if I never got a lot out of it as visual animation software.

Later, I would get a more useful animation (& paint) program, which is probably the best known and most well-received and copied of its type—DeluxePaint III. Covered in my paint software roundup, the DeluxePaint series took on animation abilities with its third version, and introduced features that would become common in the genre. Along with its powerful paint features and standard page flipping, DPaint III brought out “animbrushes,” image clips across multiple frames, which could be painted across frames to make an animated moving object. If that wasn’t enough, you could plug numbers into a “move requester,” and have the brush automatically rendered moving in perspective for a pseudo-3D animation. Later versions of DPaint added more screen modes and effects, but little could improve on the third version. The DeluxePaint series on the Amiga and PC lived well beyond its official market life, as it remained a popular tool for retro “pixel art” and animation for hobby work and games for consoles and phone/tablet apps. Even the music video for “Move Your Feet” by the group Junior Senior in 2011 was animated entirely on Amiga DeluxePaint, in an apparently retro pixel style yet still an impressive project.

There were a number of other “animation paint” programs for the Amiga that appear cast from the same mold as Deluxe Paint, either in feature set or interface design, if not both. Brilliance, also mentioned in the paint roundup article, was the one that tried hardest to beat the DPaint series at its own game and match it feature for feature, with some differences. As the two programs were relatively equally matched, especially in the animation department, it came down mostly to personal preference for a particular feature or interface for which one to use.

A more specialized animation package was the “Disney Animation Stu-

dio.” Originally started as an in-house tool for making animation for Amiga games and software, it was expanded into a full software package and one of the only pieces of genuine productivity software under the Disney banner. It was divided into two main programs, “pencil test” and “ink and paint.” “Pencil Test” looked like a cut-down Deluxe Paint that only worked in B&W line art, but had an “onion skin” feature that showed up to three previous frames faded out under the one you’re working on, creating a similar effect to tracing paper or a light box, and extremely useful for drawing animation. Other software would incorporate similar features later on, but none quite matched the simplicity or ease of use of Pencil Test. The other half of the package was “Ink and Paint.” which was a simple program intended for coloring the line work created in pencil test—useful, but you could get better results bringing the animation over to a more full-featured program like DeluxePaint. By doing that you couldn’t take advantage of the third bit of the Disney Animation Studio package, called the “exposure sheet.” This was a basic list that let you order your created animation frames however you wish, and even add sound effects. To take advantage of the sounds and random-access frame ordering, you have to use the proprietary “CFAST” file format instead of the ANIM standard, which wasn’t very efficient or popular. Finally, the package included several sample animations from Disney films that you could study and tinker with, including a short Donald Duck cartoon made to go with the software.

One more DPaint-like program, also noted in my previous roundup, is the Personal Paint series. While it is not as strong in animation features as DPaint or Brilliance, it has some more modern additions like good AR-EXX script integration and support for extra video card screens and resolutions. It also has a handy “storyboard” feature, which lets you view

all your animation frames as thumbnails, and cut and paste them around as you see fit, as well as move around your color palettes and timing from frame to frame. Some programs work in the page-flipping department, but stick more to an editorial role.

“Animation Station” by Progressive Peripherals worked much like a prototype for the storyboard from PPaint, enabling you to build an animation, cut, copy, and paste the frames around, modify the timing or colors, and even add sound effects to frames. While the ANIM file format did not support audio, the sound files could be included with a script and play with your animation if you used the package’s player program. Later, the same company brought out ANIM Workshop, which covered much of the same ground in a different way, working as a companion piece to an image processing program like ADPro or ImageFX, for batch-processing or pre-forming image processing operations across whole animations. Like Animation Station, it enabled you to add sound effects to animations, but ANIM Workshop could save ANIM files with sound effects into a single file, which could be shared using the freely-distributable player.

“Take-2” by Rombo was a program designed primarily as a means to pencil test (no direct relation to the Disney program) animation frames created on paper and scanned/digitized, or from other sources. Working like an animation exposure sheet (also similar but different to Disney) you can place your loaded frames in any order, and even layer them over each other like traditional animation cels. From the sheet listing, the animation can be previewed in a rough form, and then saved out as a final. Take-2 is less a “pick-up-and-go” animation program, and more a semi-professional tool for those with knowledge of traditional animation techniques.

# The Amiga Graphics Archive

Not sure how long this site has been up yet as I'm just getting to look it over. A fun little site @ <http://amiga.lychesis.net/> Memories, explanations and pretty pictures. This is the Amiga Graphics Archive. Almost sounds like a Twilight Zone intro huh? What it is however, is a nice look back on part of what, in my opinion, helped make the Amiga great. This is an online collection of artwork from the older days of the Amiga when it was 16-bit. This site is really well written and shows off a lot. The first trick I noticed was the page shows a pixel (px) count across in the upper right menu bar corner. If you resize your browser screen it changes to reflect that. In addition to just a collection of pics you can see a comparison of the Atari vs the Amiga. They display the flicker of interlace screens and if you hover the pointer over the images it shows you a color palette. There is even an explanation of the old EHB (extra half-bright) mode as well as showing off some of the animations folks did. Not just color cycling as the PC was doing back then, but animation. The site is also great for a trip down memory lane.

...Michael D. Barclay  
From the AmiTech Gazette  
August 2016

The "other" category of animation software covers a variety of methods not covered by general pageflipping animation, and much could fall under the categories of multimedia or presentation software. One of the first well-known Amiga animation packages of any kind was Aegis Animator, which came out in 1985 and was later ported to the Atari ST. Instead of working frame to frame like a pageflipping program, Aegis Animator moved images and brushes around the screen, along with basic polygonal shapes from one "keyframe" to another, with the in-between motion filled in as the animation is played back.

Fantavision, from Broderbund software, took the same idea, expanding and streamlining the process somewhat, especially in the polygon animation department, making simple animation and "morphing" projects relatively easy to accomplish.

A program I got a lot of use out of, and is largely responsible for my fame in the Amiga community, was Moviesetter by Gold Disk. Moviesetter did not do polygon morphing like the others, but worked by displaying animated "sets" (much like DPaint's animbrushes) atop background images, and plotting their movement either frame by frame or by motion paths. You also have control over background scrolling, color palette changes, and sound effects at your choice of pitch, volume, and stereo channel. Unfortunately, it could only work in a low-resolution screen mode in 32 colors or less, but there was still a lot

that could be done. Since Moviesetter, Fantavision, and Aegis Animator worked in a method where the animation was stored as a set of graphics and motion data instead of animation frames to be flipped through, they were not compatible with the ANIM file standard (or each other) and required their own player programs to enable creators to show off their work. On the upside, it was easy to use these programs to create long, non-repeating animations that didn't require a lot of memory or disk space compared to an equivalent ANIM. For example, I have created Moviesetter animations that ran for minutes, loading from two floppy discs to an Amiga system with 2 to 4 megs of RAM. A similar ANIM would require far more memory and storage.

In many ways, these animation programs are the spiritual ancestors of stuff like Shockwave Flash, for better or worse. I miss the days of Amiga animation software. There's little out there in modern animation software that works for the pick-up-and-mess-around hobbyist anymore—at least not on the desktop. You might find something worth playing with on the phones and tablets, however.

...Eric Schwartz  
From the AmiTech Gazette  
August 2016

## September Calendar

September 6 — MCCC Chapter Meeting  
7:00 PM — Grand Prairie Airport  
3116 S. Great Southwest Parkway, Grand Prairie

September 6 — Board of Director's Meeting  
Approximately 9:00 PM — Location TBD

September 26 — Newsletter Deadline — 8:00 AM

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