



MCCC NEWS



Fort Worth

April 2016

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News, And A Look at Atari/Amiga History

It's a new month, a new time, a new whatever. There have been a few bits of news here and there at least. A new website is out there: AskAmiga.com. It lets people ask Amiga-related questions and (hopefully) get expert answers to their hardware and software problems, potentially becoming a central resource for Amiga and related information.

A new article on Amiga history was published on the Ars Technica site, with focus on Newtek's Video Toaster and its place in the history of video production.

<http://arstechnica.com/gadgets/2016/03/ahistory-of-the-amiga-part-9-the-video-toaster/>

A new "Chrysalis" software compilation for MorphOS 3.9 is now available. Like previous versions, it is intended to install over a "clean" Morph 3.9 installation, and offers a full set of software and utilities, similar to a Linux distro.

A new game with the curious title of "Tanks Furry" (apparently the furries are driving the tanks) was released for classic Amiga systems, and is available on CD and floppy disk. It seems rather "retro" in style, which is probably foolish to say for a game that runs on an A500.

A special hardware development which has been getting a lot of attention lately is the "Vampire II" board for the Amiga 600. Like earlier Vampire boards and drawing inspiration from Minimig and Natami projects, the Vampire II is an FPGA-based card that clips over the CPU of the A600 and currently offers 128 megabytes of RAM, HDMI video output, and a CPU performance that strongly exceeds that of the 68060. New "cores" are in the works that reprogram the FPGA chip and add support for a micro-SD card as a solid state drive, Picasso-96 compatible 16 and 24 bit video modes, AGA chipset emulation, and more features yet to come. Boards for Amiga 500 and other models are planned for the future. I'm definitely interested in trying to procure one of these myself, as I have an under-utilized Amiga 600, and it would be tempting (and fun) to update it into the most powerful Amiga system I've ever seen, possibly even supplanting my workhorse A4000T, all in a small A600 package. If you can get one, the A600 Vampire II is 150 Euros. For information, visit <http://kipper2k.com/accel600.html>.

Most Amiga fans are probably aware of Atari's role in the formative years of their favorite system. Jay Miner was a former Atari employee with a hand in designing the video hardware of the Atari 2600 game console and the 400/800 computers, and Atari loaned the fledgling Amiga company development capital, which would later be used as leverage in an attempt to acquire the Amiga technology before they were "saved" by Commodore. Considering the hardware designers and management moving around between companies, the Ami-

ga was more a spiritual successor to the Atari 8 bit computers, while Atari's own ST series was more like a successor to the Commodore 64. What I find pretty fascinating is how, as a founding video game company, Atari has been related, directly or indirectly, to so many other game and computer producers over time.

Apple founders Steve Jobs and Steve Wozniak passed through Atari in the 70s, with the supposed story that Jobs got Wozniak to do his work for him, cheating him out of most of the bonus money for simplifying the hardware of the "Breakout" arcade machine. The two Steves supposedly borrowed parts from Atari to produce the Apple 1, and offered up the Apple II for Atari to sell, which met with little interest at the time. A group of Atari software programmers, fed up with getting no credit for their work, split off to form Activision, practically creating the third-party software company concept and influencing how hardware and software companies interact with each other from then on. Nintendo approached Atari in the early eighties with the prospect of distributing their Famicom system outside of Japan. Early arrangements were made, but fell through thanks to conflicting priorities and Atari putting theirs to its 7800 system, leaving Nintendo to go it on their own to become the most successful game system of its time. With history trying to repeat itself, Sega approached Atari, hoping their clout and distribution would help their Mega Drive console in the US after the (relative) failure of the Sega Master System. That deal also fell through, in part because Sega preferred to hold on to the European

market themselves, but Sega did poach a few employees from Atari, as well as the console name "Genesis" to avoid a trademark conflict with the Mega Drive name in the US (although "Tomahawk" was also kicked around for a bit), and went on to success. Finally, in a bit of Amiga full-circle, former Amiga hardware engineers worked with game company Epyx to produce a hand-held color game system known as the Handy in-house. Epyx lacked the money and network to release the system on its own, so they went to Nintendo, who were ready to release their own GameBoy (graphically inferior in B&W, but much longer battery life and play time for it), and turned them down. Sega passed as well, but allegedly tried to copy their hardware, even having the balls to ask engineer Dave Needle for help when they failed. Much to the Amiga peoples' chagrin, the Handy ended up with Atari, and became the Lynx. Then again Atari wasn't too pleased either with needing to use Amigas for Lynx software development, so that's one more "last laugh" for Amiga over Atari.

...by Eric Schwartz
from the AmiTech Gazette
March 2016

Samsung's 15TB SSD

Samsung has announced that it is now shipping its PM1633a SSD. That's a boringly mundane name for a drive that's anything but: the PM1633a isn't just the biggest SSD around, it's straight-up the biggest drive around. At 15.36TB, it dwarfs other SSDs and surpasses the capacity even of the very latest magnetic spinning disks. Remarkably, it packs all this storage into a conventional 2.5-inch package.

The company explained how this was done in August last year. While traditional integrated circuits (whether processors or flash memory or RAM or anything else) have a flat, essentially 2D structure, this drive uses Samsung's 3D V-NAND technology, which vertically stacks 48 layers of NAND cells to greatly increase the storage density. The highest performance flash memory stores a single bit in each flash cell; Samsung's trades a bit of performance for density, storing three bits per cell. Each die using this technology stores 256Gb (32GB) of data.

The company then adds a second level of layering: 16 of the 256Gb dies themselves are stacked up, creating a package with a 512GB capacity. Of these packages, 32 are used in the PM1633a to give it its total 15.36TB capacity. Samsung plans future versions with 7.68TB, 3.84TB, 1.92TB,

960GB, and 480GB capacities. The 15.36TB unit also has 16GB of RAM embedded.

The PM1633a is aimed at enterprise markets, and accordingly it will use an enterprise interface: 12Gb/s Serial Attached SCSI (SAS). The raw performance of this drive won't match the very fastest PCIe-attached drives, with Samsung saying it offers read and write speeds of 1,200MB/s, with 200,000 read and 32,000 write operations per second. However, these numbers handily beat spinning disks, and previously, that was the only way of offering this kind of capacity. As for endurance, Samsung says that the drive supports 15.36TB of writes per day over its five-year life cycle.

The South Korean firm is leaving one important detail out, at least for now: the price. As is typical for enterprise products, if you have to ask, you can't afford it. The previous generation PM1633 products cost around \$1,000 (£700) per TB. We'd assume that the new drive will cut that per terabyte price, but we still wouldn't expect to see much change from \$8,000 (£5,600). Still, if it means having the biggest drive ever made, that's a small price to pay, isn't it?

...by Peter Bright
<http://arstechnica.com/information-technology/2016/03/samsungs-monstrous15tb-ssd-is-now-shipping/>

April Calendar

April 4 — Amiga-By-The-Loop Chapter
7:00 PM — Grand Prairie Airport
3116 S. Great Southwest Parkway, Grand Prairie

April 4 — Board of Director's Meeting
Approximately 9:00 PM — Location TBD

April 25 — Newsletter Deadline — 8:00 AM

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