MCCC News

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A New Amiga 1200 Motherboard

If you go out and buy a computer right now, how many choices do you really have? Generally speaking, there's PC or Mac. If we were being generous you could consider Chromebook and perhaps even mobile, but let's be honest, computing is a two-party system with the ability to dump the OS and run Linux as the obvious third-party disrupter. It wasn't always like this.

In the early years of personal computing there were a slew of serious contenders. A PC, a Mac, an Atari ST, an Amiga, and several more that all demanded serious consideration on the general purpose desktop computer market. Of all these platforms, the Amiga somehow stubbornly refuses to die. The Amiga 1200+ from [Jeroen Vandezande] is the latest in a long procession of post-Commodore Amigas, and as its name suggests it provides an upgrade for the popular early-1990s all-in-one Amiga model.

It takes the form of a well-executed open-source PCB that's a drop-in replacement for the original A1200 motherboard. CPU, RAM, and video are broken out onto daughterboards, with PCMCIA replaced by an SD card slot. The catch: it does require all the custom Amiga chips from a donor board.

The original Amiga 1200 was a significant upgrade to the architecture of the 1980s originals, and this certainly provides a much-needed enhancement to its underwhelming 68EC020 processor. It's fair to say that this is the Amiga upgrade we'd all have loved to see in about 1996 rather than waiting until 2019. It's still a delight for a retro-gaming enthusiast; many of those who keep it alive remember the Amiga was the best multimedia platform that could be had for a few glorious years.

…https://hackaday.com/2019/07/21/a-new-motherboard-for-amiga-the-platform-that-refuses-to-die/

Computers and Game Consoles

As usual, I have been browsing YouTube for Amiga stuff, and here are my selection(s) for this month: First, we have a video featuring the recovery of data from one of the Amiga 4000 systems used during the development of the well-known game from Team 17, "Worms."

https://youtu.be/rcyHqJ6ZHXs

Building from there, taking the Lightwave 3D files from the Worms CD cut scenes, and remaking them in HD resolutions.

https://youtu.be/Yemm3fkfars

The 3D animations featured in the videos were originally created for the CD-32 release of Worms. (And presumably other computer and console ports of the game that ran from CD or other media with the storage capacity for animated cut-scenes, as the floppy-based releases didn't bother.)

This got me thinking about my favorite game console, the Atari 78… the Amiga CD-32. A recurring theme in the history of hardware in the 1980s and 1990s is the cross-pollination between full home computer systems and the consoles designed primarily to play games. In the eighties, there were a lot of proposed hardware solutions to expand a game machine into a full computer. Surprisingly few of them made it to completion, due in part to the North American video game crash of 1983-4 and more to the dedicated home computer market getting more powerful for barely any more cost than one of the hypothetical console expansions. Later on, the reverse became more common, taking the guts of an existing home computer design and modifying and/or simplifying it into a game console form.

One of the first examples of this would come from Atari, with their 5200 console and later XEGS system both based on their 8-bit home computer technology, though it can be argued that their home computers had a game console application in mind from the beginning. (supposedly the 1979 Atari 400 computer got its basic keyboard mainly so it could do the complex controls required by 'killer app' game Star Raiders, which may also be part of the reason the Atari 5200 console had those monster keypad controllers.) This is an idea that makes sense on paper—Lots of money is saved adapting an existing hardware design to a new potential market, and there is already a pool of developers or even existing software which can quickly be made available to its library.

In practice though, the console-from-computer paradigm is rarely a big success. Part this is the fact that these computer manufacturers are jumping into a market with veteran game console makers, and can't find their footing fast enough on a new playing field. The rest is that the people already familiar with their brand will probably prefer the more versatile and established computer over the limited game console, especially if the console doesn't have much new to offer over the computer it's based upon. Companies such as Atari and Amstrad have tried this route before, with varying levels of success or abject failure.

Commodore may well be the king of the concept, thanks in no small part to their constant short-sighted pursuits of quick profits over long-term growth, trying the console route no less than three (or two and a half) times over its history, if you don't count the Commodore MAX machine, a low-end precursor to the C64 that went to foreign markets. There was the C64GS, literally a C64 motherboard sans keyboard with the cartridge slot moved from back to top. According to some sources, the GS was one of the worst-selling game consoles of all time, though not actually as big a loss for Commodore as it could have been, as the 64GS guts could simply be broken up and put back in 'real' C64 cases for sale.

Next up was Commodore's CDTV, based largely on the Amiga 500 system. This was not intended as a game console, but a 'multimedia CD player' to compete with the CD-1 from Philips in a market that never materialized. Still, it played games as well as any A500 (and probably better than the average CD-I), could be expanded into 'full computer' status easily with a keyboard and disc drive, and had abysmal sales numbers, though not as bad as the 64GS. It ran into that problem where the Amiga people would rather have a regular (and often cheaper) Amiga system, and the rest didn't know what to do with it at all, though to be fair no one really knew what to do with Philips' machine either.

You'd think two failures would cause Commodore to stop trying to turn computers into consoles, but they did it one more time, pairing the guts of an Amiga 1200 with a CD-ROM drive and a new chip here or there, making the Amiga CD-32. While the system was not a huge success, even blocked from an official release in the USA thanks to a patent-trolling lawsuit, it was the most successful of Commodore's game consoles by far, even being a top seller in the UK for a time, thanks to actual good marketing. It was not enough to save Commodore from bankruptcy in 1994 however, and conventional wisdom says the CD-32's days were numbered regardless, as heavy-hitter systems like the Sony Playstation were about to hit the market like a ton of Japanese bricks. It was a good time while it lasted though.

While the Amiga CD-32 was basically an Amiga 1200 at heart, it had a built-in CD-ROM drive (hence the name) and games and other titles for it were distributed on CD. It also had the 'Akiko' chip, which was CD control circuitry combined with hardware to accelerate 'chunky-to-planar' calculations, intended to help 3D and pseudo-3D games in the vein of Doom. Exactly how effective this hardware was, or how many games made good use of it is difficult to say, but there didn't seem to be a lot of apparent improvement. Even though it had a pretty short shelf life, the CD-32 had a pretty strong library of games, thanks to its Amiga hardware and the concept of "shovelware." For those not in the know, "shovelware" is porting existing software or games over to a new system with minimal, if any changes or improvements to fit the new machine. All any Amiga software developer had to do was take their old A1200 game (or even older A500 game) and tweak it to run from a CD instead of a series of floppy discs. (and hopefully be playable without requiring a keyboard) There are even examples of one-floppy games put out as CD versions with no changes at all, which obviously is not making the most of the larger storage medium, not to mention that enigmatic Akiko chip.

Some producers tried to add some value to the CD version, even if the game itself was still identical to the floppy disc release, adding or expanding the introductory animated sequences or cut-scenes, or using the CD audio for a music soundtrack superior to what the Amiga could play back unaided. Others used the shovelware concept to add value, and simply put multiple games on one CD in a collection format, making good value for money. That's not to say every CD-32 game was a basic conversion of
an older Amiga game, even though many were. There were some games that made proper use of the system and CD storage, or developed primarily for use on the CD-32, causing any versions to appear on floppy-based systems to be cut back. Adventure titles seemed to make better use of the CD system, having wider areas to explore or full voice tracks instead of text for speaking characters, for example.

While shovelware wasn't ideal for the CD-32, the bright side is the majority of the better-known and popular games from the Amiga's history were made available for it, and if that's not enough, you can track down an expansion like the old SX-1 or SX-32, or the newer Terriblefire to bump the machine up to 'full computer' status with added RAM, hard drive, and optional floppy, hook it to an RGB monitor, and let software take care of the rest, making the computer to game console and game console to computer circle complete.

...Eric Schwartz
From the AmiTech Gazette, July 2019

August Calendar

August 10 — MCCC Meeting
2:00 PM — Burleson Public Library
248 SW Johnson Ave., Burleson

August 10 — Board of Director's Meeting
Approximately 4:00 PM — Location TBD

September 1 — Newsletter Deadline — 8:00 AM