



Fort Worth

Dallas

October 2012

Amiga News

I'm writing my column from my MorphOS Powerbook this month, more for the sake of giving the machine something to do than anything else. I suspect I'll find more to do with it once improved support for the internal video hardware and wireless networking come about... at least I certainly hope so.

There have been at least a few bits of news in the Amiga-and-friends world over the last month or so. In a slightly sad bit of news, Sony has closed its Liverpool game development studio. If this doesn't mean much to you, it might under the studio's previous name: Psygnosis. Psygnosis was one of, if not THE superstar game company on the Amiga back in the day, with their slickly-packaged games that had more in common with record albums than computer software. The company was one of the first to really showcase the Amiga's graphic capabilities in games, going beyond Atari ST ports and basic functional art into full eye-candy territory. Sometimes substance was sacrificed over style (perhaps pioneering the modern era of games where graphics and effects frequently trump quality gameplay), but that's not to say they were all like that. The Amiga book "The Future Was Here" gives Psygnosis a lot of credit for being among the first to really push the Amiga hardware to its limits in games such as "Shadow of the Beast," giving the machine its reputation for being a top gaming computer for several years. The book also credits the DMA/Psygnosis hit game "Lemmings" for helping pioneer the more fun, forgiving, and thoughtful style of gaming which would become a staple of a million different phone and tablet-based game apps. Psygnosis did plenty after their Amiga-centric years and with their acquisition by Sony—the futuristic "Wipeout" racing game series being a big one—but their influence on gaming

from the Amiga years will make an impact for a long time.

Hot on the heels of MorphOS 3.x, Hyperion announced the availability of Amiga OS 4.1 release 5. There are the usual updates, bug fixes, improvements, and optimizations. Of interest is a driver for the Catweasel hardware to give direct support for certain Amiga and Commodore hardware, like floppy disk drives. Also included is improved Amiga 680xO software support, with a full 3.1 installation, including ROM files. I'm not sure if there's an emulator like UAE included as well, but including these ROMs and support files certainly aid in emulation regardless. I keep looking at OS4. Perhaps some day that rumored OS4 netbook will come out, and I'll have a new OS to play with.

Another recent update is the 1.6.2 version of AmiKit. For those unfamiliar, AmiKit is a large compilation of software, to create as modern and complete an Amiga setup as possible. To that end, it's aimed primarily toward Amigas emulated on PCs through UAE or Amiga Forever. It's possible to run much of the included software on "real" Amigas, though without the benefit of high-powered PC hardware, it might run too slowly to be worth the effort. If you've got the time and the hardware, you might want to check it out at <http://amikit.amiga.sk>.

Finally, a new (old) video has surfaced recently on the YouTubes. The video comes from the nineties, and documents the role Amiga computers played at NASA during that time. Contrary to popular assumption, the systems were not for video or graphic applications, but for processing, relaying, and displaying spacecraft telemetry and other data in real time. According to the video, the Amiga was ideal for its low overhead operating system, and easy access to hardware documentation. You should be able to find the video yourself by

searching for "Amiga" and "NASA" on YouTube, but I'll bring along a copy to the meeting for anyone who would like to view it. I'll see you there!

...by Eric Schwartz
from the AmiTech Gazette
September 2012

A Real Warp Drive

NASA Starts Work on Real Life Star Trek Warp Drive
by Jesus Diaz

"Perhaps a Star Trek experience within our lifetime is not such a remote possibility." These are the words of Dr. Harold "Sonny" White, the Advanced Propulsion Theme Lead for the NASA Engineering Directorate. Dr. White and his colleagues don't just believe a real life warp drive is theoretically possible; they've already started the work to create one.

Yes. A real warp drive, Scotty.

When it comes to space exploration, we are still cavemen. We got to the Moon and sent some badass robot to Mars. We also have those automatic doors that swoosh wide open when you get near them, but that's about it. It's cool, but we are far from being the space civilization we'll need to become to survive for millennia.

With our current propulsion technologies, interstellar flight is impossible. Even with experimental technology, like ion thrusters or a spaceship's aft pooping freaking nuclear explosions, it would require staggering amounts of fuel and mass to get to any nearby star. And worse: it will require decades—centuries, even—to get there. The trip will be meaningless for those left behind. Only the ones going

forward in search for a new star system would enjoy the result of the colossal effort. It's just not practical.

So we need an alternative. One that would allow us to travel extremely fast without breaking the laws of physics. Or as Dr. White puts it: "we want to go, really fast, while observing the 11th commandment: Thou shall not exceed the speed of light."

The answer lies precisely in those laws of physics. Dr. White and other physicists have found loopholes in some mathematical equations—loopholes that indicate that warping the space-time fabric is indeed possible.

Working at NASA Eagleworks—a skunkworks operation deep at NASA's Johnson Space Center—Dr. White's team is trying to find proof of those loopholes. They have "initiated an interferometer test bed that will try to generate and detect a microscopic instance of a little warp bubble" using an instrument called the White-Juday Warp Field Interferometer.

It may sound like a small thing now, but the implications of the research is huge. In his own words:

Although this is just a tiny instance of the phenomena, it will be existence proof for the idea of perturbing space time—a "Chicago pile" moment, as it were. Recall that December of 1942 saw the first demonstration of a controlled nuclear reaction that generated a whopping half watt. This existence proof was followed by the activation of a ~ four megawatt reactor in November of 1943. Existence proof

for the practical application of a scientific idea can be a tipping point for technology development.

By creating one of these warp bubbles, the spaceship's engine will compress the space ahead and expand the space behind, moving it to another place without actually moving, and carrying none of the adverse effects of other travel methods. According to Dr. White, "by harnessing the physics of cosmic inflation, future spaceships crafted to satisfy the laws of these mathematical equations may actually be able to get somewhere unthinkably fast—and without adverse effects."

He says that, if everything is confirmed in these practical experiments, we would be able to create an engine that will get us to Alpha Centauri "in two weeks as measured by clocks here on Earth." The time will be the same in the spaceship and on Earth, he claims, and there will not be "tidal forces inside the bubble, no undue issues, and the proper acceleration is zero. When you turn the field on, everybody doesn't go slamming against the bulkhead, which would be a very short and sad trip."

There was only one problem with all this: where does the energy come from? While we knew that warp drives were theoretically possible, physicists have always argued that they would require a ball of exotic matter the size of Jupiter to power it. Clearly, that was not practical. But thankfully, Dr. White has found a solution that changes the game completely.

The Eagleworks team has discovered that the energy requirements are much lower than previously thought. If they optimize

the warp bubble thickness and "oscillate its intensity to reduce the stiffness of space time," they would be able to reduce the amount of fuel to manageable amount: instead of a Jupiter-sized ball of exotic matter, you will only need 500 kilograms to "send a 10-meter bubble (32.8 feet) at an effective velocity of 10c."

Ten c! That's ten times the speed of light, people (remember, the ship itself would not go faster than the speed of light. But effectively it will seem like it does).

That means that we would be able to visit Gliese 581g—a planet similar to Earth 20 light years away from our planet—in two years. Two years is nothing. It took Magellan three years to circumnavigate around our home planet—from August 1519 to September 1522. A four year roundtrip to see a planet like Earth is completely doable. And there are even closer destinations where we can send robots or astronauts.

The important thing is that there is now a door open to a different kind of exploration. That, like Dr. White says, "perhaps a Star Trek experience within our lifetime is not such a remote possibility." We may be witnessing the very beginning of a new age of space exploration, one that would finally take us from our pale blue dot back to where we belong.

I don't know about you, but I'm more excited than when Captain Kirk got his first unobtonium underpants.

...by Jesus Diaz
<http://gizmodo.com/5942634/nasa-starts-development-of-real-life-star-trek-warp-drive>

October Calendar

October 1 — Amiga-By-The-Loop Chapter
7:30 PM — Main Grand Prairie Library
901 Conover Drive, Grand Prairie

October 1 — Board of Director's Meeting
Approximately 9:15 PM — Location TBD

October 29 — Newsletter Deadline — 8:00 AM

MCCC 4418 Sharpsburg Drive Grand Prairie, Texas 75052
<http://www.amigamccc.org>