The MCCC News

The Metroplex Commodore Computer Club

Serving Dallas/Fort Worth Since 1983

MCCC Dues are Eliminated

Beginning this year, the MCCC will no longer collect membership dues. Anyone who attends a club meeting and leaves their email address with a club officer will be considered a member of the club. Membership entitiles a person to an emailed copy of this newsletter and any other club communications. Memberships will run for one year following the month of the last meeting atttended. Welcome.

Raspberry Pi Swear Bear

Why use a regular swear jar to retrain your potty-mouthed brain when you can build a Swear Bear to help you instead?

Swear Bear listens to you. All the time. And Swear Bear can tell when a swear word is used. Swear Bear tells you off and saves all the swear words you said to the cloud to shame you. Swear Bear subscribes to the school of tough love.

Artificial intelligence

The Google AIY kit allows you to build your own natural language recogniser. This page shows you how to assemble the Voice HAT from the kit, and it also includes the code you'll need to make your project capable of speech-to-text AI.

To teach Swear Bear the art of profan-

ity detection, Swear Bear creators 8 Bits and a Byte turned to the profanity check Python library. You can find the info to install and use the library on this page, as well as info on how it works and why it's so accurate.

You'll hear at this point in the video that Swear Bear says "Oh dear" when a swear word is used within earshot.

Hardware

This project uses the the first version of Google's AIY Voice Kit, which comes with a larger black AIY Voice HAT and is compatible with Raspberry Pi 3 Model B. The kit also includes a little Voice HAT microphone board.

Version 2 of the kit comprises the smaller Raspberry Pi Zero WH and a slimmer 'Voice Bonnet'.

The microphone allows Swear Bear to 'hear' your speech, and through its speakers it can then tell you off for swearing.

All of hardware is squeezed into the stuffing-free bear once the text-to-speech and profanity detection software is working.

Babbage Bear hack?

8 Bits and a Byte fan Ben Scarboro took to the comments on YouTube to suggest they rework one of our Babbage Bears into a Swear Bear. Babbage is teeny tiny, so maybe you would need to fashion a giant version to accomplish this. Just don't make us watch while you pull out its stuffing.

…https://www.raspberrypi.org/blog/raspberry-pi-swear-bear-keeps-your-potty-mouth-in-check/

The Vampire V4 Stand-Alone System - Part 2

It's the holiday season – and whoop-de-shit – and dickery-schlock – and don't forget – to wash all your socks. Anyway, the year is pretty much over now. We can see the light at the end of the tunnel, just enough to illuminate how dank and nasty the inside of the tunnel actually was. At the moment we can only speculate and hope that 2021 will be better than 2020, which seems like a pretty safe bet as it's hard to imagine it being as bad as what we've already been through.

I plan to bring my new(ish) Vampire V4 standalone system to the meeting again, and will attempt to show it off (again) and answer questions members might have. I have a couple months of experience with the machine now, perhaps not as much hands-on time as I'd like, as it's limited by my work-load and available free hours, which aren't many. There are a few things to remember about the Vampire SA, some of which will apparently sound like repeats of my previous write-ups. First, and probably most important, is that the Vampire "core," which is the main CPU and audio-visual systems, including the AGA chip set implementation and the rough equivalent of a 24 bit video card and improved audio hardware, is frequently updated. There have already been two core updates since I got my V4SA in October, with another scheduled for around the end of this year. For most of these updates, you will probably need a "USB Blaster" FPGA programmer for the Vampire's Altera chip, along with a computer capable of running the "Quartus Programmer" software, so basically Win-

dows or (maybe) Linux. All these updates mean the Vampire system is a moving target, and therefore some of the things I mention following this may be subject to change given future updates, and shortcomings are addressed, so maybe the following caveats might not be issues in the future, or just replaced with a different set of caveats.

The V4SA board has two USB ports (though I have heard there is a version with three. I have mentioned before that these are not general-purpose USB ports, but semi-hardwired to work specifically with USB mice, keyboards, or game controllers. There are also 'classic' nine-pin ports that allow you to use original Amiga mice or game controllers if you prefer. The system detects the connected devices on boot, so they work like the Amiga equipment, allowing for things like the three-finger reboot to be recognized on a hardware level. On a standard USB Windows-style keyboard, the left-Amiga key is mapped to the left Windows symbol key, as expected. Not all keyboards have a right Windows key, but the right-Amiga is mapped to any and all of the following: right Windows, menu key, or right CTRL key, so as long as your keyboard has at least one of those, you can still use your equivalent Amiga keys. Since the mice and keyboards are directly interfaced instead of going through a USB stack in the OS, not every mouse or keyboard will work properly, so it helps to check the Vampire V4 pages on the Apollo-core.com website for info on the devices known to work. You'll also want to be sure to update your system key map, as the default is the German one, which does fun things like shuffling punctuation and swapping the 'Y' and 'Z' keys.

Since the USB ports are currently limited to 'human interface devices,' and not useful for storage or other hardware, you are intended to use the external micro-SD card slot as your primary means for getting files and data in and out of the system. Well, that and internet access via the ethernet. It's not the easiest or most versatile, but workable enough if you are determined to transfer files by flash media.

The V4SA outputs its video and audio through its HDMI port, so you will need a display which can support that. Where the Vampire expansion boards for the 'real' Amigas work best with a switch or separate display for the Vampire's display and that generated by the Amiga's own hardware, on the stand-alone they are one and the same. The old standard Amiga NTSC and PAL (240P/270P) modes are automatically scan-doubled and padded to something a widescreen HDMI display can handle, in theory. These low-res modes also have an optional scanline effect, which can be turned on an off by hitting the F11 key on the PC keyboard. A number of higher-resolution modes are available for system displays, up to approximately 720P (1280 x 720 x 50Hz). For reasons I don't fully understand, the V4SA SAGA 'video card' modes are limited and not open for modification, unlike their equivalent on the Vampire Amiga boards, at least for now. In my experience, displays I've tried don't like many of the default modes the V4 puts out. My monitor reads many modes, like the upscaled AGA modes, as 940 x 540 x 50Hz, which refuses to display on my monitor of choice. Some modes will work unassisted, but especially if you hope you use the V4 in both 'Amiga' modes and 'video card' modes, you will need either an extremely tolerant display or some outside help. I would strongly recommend getting a scan converter device with HDMI input AND output to smooth out the rough edges, whether a cheap converter or something of higher price/quality. I currently have an Orei brand converter which does a nice job bumping all input modes up to 720P. Your own mileage may vary, but consider yourself warned.

As I've said previously, the Vampire is a moving target, constantly working to improve itself, so possibly the issues I've laid out in this article will iron themselves out in time. It's an impressive piece of kit regardless. I'll have it running at the meeting, and you can tune back in 2021 for more about the Vampire stand-alone. Perhaps I will write more about the software side of things. Until then, have a good holiday, and may your new year be a damn sight better than what we've had to live through these last twelve months.

…Eric Schwartz
From the AmiTech Gazette
Dayton, Ohio, December 2020

Instructions to the Meeting Room

Enter at the Suite 102 entrance (the one with the wheelchair-accessible ramp) and ring the doorbell if the door is locked. There are electronic kiosks in this front room with a liability waiver that all new guests must sign. Once this is done, the meeting room is just to the left of those kiosks.

January 9 Meeting — Dallas Makerspace

1825 Monetary Ln.   Carrolton, Texas 75006

MCCC   2507 Tamaron Cove   Cedar Hill, Texas 75104

http://www.amigamccc.org