

DR. EVIL ONLINE INTERVIEW.

BY JOHN BROWN

The following is an unpublished online (GEnie) interview hosted by Farsec, with Kent Sullivan of Dr. Evil fame who originally made and sold the Stereo SID and Swiftlink RS-232 cartridges CMD now sells. Lack of page room in previous issues (due to the smaller page format) prevented us from printing this article before now. A very interesting interview with some unique perspectives and insights.

Date: 91-01-10

Time: 22:48EDT

Minutes:

<C128.JBEE> I like Della Street :D
<DR.EVIL> Hi Andrew!
<[DTJ Andy] A.BERNHARDT> Hi JBEE, Ken
<C128.JBEE> Hi Andrew and Andy :)
<C128.JBEE> just a little chat before we start :)
<C128.JBEE> Kent, how do you have Desterm setup ?
<C128.JBEE> Hi Tom :)
<A.BERNHARDT> Hi Tom
<[Tom] T.ADAMS18> Hi
<[Kent] DR.EVIL> Howdy.
<C128.JBEE> you got the hang of the nickname :)
<[Kent] DR.EVIL> Finally!
<C128.JBEE> Golly JBEE is my nickname suppose I should use my real name -lol
<[Kent] DR.EVIL> Good point.
<H.HERMAN1> is here.
<C128.JBEE> Hi Howie :)))
<[Tom] T.ADAMS18> Hi Howie
<[Howie] H.HERMAN1>hello
<A.BERNHARDT> Hi Howie
<[Kent] DR.EVIL> Howdy Howie. I love saying that.
<C128.JBEE> lol
<[Howie] H.HERMAN1>Hi Guys!
<[Howie] H.HERMAN1>Was it rough signing on tonite...
<C128.JBEE> People love introducing my wife as "TBEE" :D
<C128.JBEE> (tracy)
<[Howie] H.HERMAN1>Ha
<C128.JBEE> really? lines were good today. must be the weather down there?
<C128.JBEE> everyone ready to start?
<[Kent] DR.EVIL> Everything was fine here in Seattle.
<[Howie] H.HERMAN1>everything just sorta went slo
<[Tom] T.ADAMS18> Ready here.
<A.BERNHARDT> Here too
<[Howie] H.HERMAN1>AOK here
<[Kent] DR.EVIL> Fire when ready.
<C128.JBEE> okay.... lights, curtains.. action? :)
<[Howie] H.HERMAN1>BLAST!!!!!!!!!!

<C128.JBEE> Tonight we are interviewing Dr. Evil for Twin Cities 128 to kick off a series of in depth articles on modems (can you say 9600?) and the SID chip. I know Kent and got a chance to meet him at WoC 90, though I imagine our readers would like to know a little about yourself. Kent, do you want to fill in a little about yourself and where you work?

<[Kent] DR.EVIL> There's nothing too exciting. I started Dr. Evil Labs in college (Purdue) with two friends. Our first project was distributing Kermit for the C-64. We then developed a shareware adventure game system that went nowhere. Then I got the bright idea that what the world needed was a SID cartridge. I have since graduated and moved to Seattle.

<C128.JBEE> What is "Kermit"? Besides green :)

<[Kent] DR.EVIL> Kermit in the context above is a public domain telecomm program that provides an implementation of the basic Kermit file transfer protocol plus some useful terminal emulations such as DEC VT-52, VT-100 and limited Tektronix 4010/4014. Kermit in general is a very flexible file transfer protocol designed basically for mainframe <--> mf or mf <--> micro transfers.

<C128.JBEE> Did your idea of the SID cartridge come before or after the internal SIDprojects were published?

<[Kent] DR.EVIL> Definitely after. I met Mark Dickenson at the first "SIDFest" in Columbus OH in 8/87. I then monitored the goings-on on Q-Link (gasp!) in the Music Room and decided that not enough people could have stereo SIDs because the hardware was hard to install.

<C128.JBEE> Would you say it is a safe bet that Mark and Sidplayer 10.3 can be credited with much of the success of the Sid cartridge?

<[Kent] DR.EVIL> Absolutely. We didn't have the resources or time to write our own stereo SIDplayer. I have been friends with Craig Chamberlain (Sidplayer author) a long time, so it's possible that he would have written a player for us. Hard to say...

<C128.JBEE> How many major versions of the SID cart. did you produce, I know there was a battery backed version earlier.

<[Kent] DR.EVIL> Version 1 was the original. Not battery backed but battery powered--you HAD to have the battery to get it to work. Then we did v2, which removed the battery and added a first level of static protection. We gave CMD our plans for v3, which included some cleanup work and further static surge protection. I'm not sure if those have gone into production or not yet.

<C128.JBEE> I believe the earlier versions worked from the cassette port?

<[Kent] DR.EVIL> It's always been the same port--the "expansion" or "cartridge" port. There were no extra wires or connections. Just a cable to the RCA jack for audio out.

<C128.JBEE> What were the reasons for turning over the production of the SID cartridge to CMD?

<[Kent] DR.EVIL> Basically a lifestyle decision. Those of us doing the work found ourselves spending every free minute working on company business. With the intro of the SL-232 we were very busy filling orders and building units. We were doing this after the regular work day. 80-hour weeks were the norm for close to a year. The two principles (Bryan Minugh and myself) just ran out of gas. We knew the CMD would do a quality job and might even be able to expand the market.

<C128.JBEE> Was this also the reason for turning over the SL-232 to CMD?

<[Kent] DR.EVIL> yes, the same reasons apply.

<[Kent] DR.EVIL> Also, I made a decision that I wanted to pursue my full-time career with Microsoft and not "further adventures" of Dr. Evil.

<C128.JBEE> Well, it was a good choice since it has made it available to many more people. I understand there a few games now that now support stereo music.

<[Kent] DR.EVIL> That's great! I only know of one--Mark's Rockfall (Boulderdash clone).

<C128.JBEE> Yes, great game, though I haven't played it in stereo yet.

<C128.JBEE> What originally made you go out and buy a C64 ?

<[Kent] DR.EVIL> My older brother bought one for me! :-). I had a Sinclair ZX-81 that he passed on to me, and I liked it but saw the limitations. I used Apple IIes in high school but knew there was no way to afford one of those. I didn't know much about the C-64 vs. the Apple feature-wise when I first got it. So the motive was basically economic.

<C128.JBEE> I know you work on IBM clones (maybe even real ones:) at work. are there any other computers you use when you come home, or is it just your trusty C128?

<[Kent] DR.EVIL> I have a Mac SE/30. I bought it just before I left college. I like it because it packs a lot of Ocomp in the small-box Mac and it goes well with the IIci I use at work. My word processor of choice has been MS Word on the Mac for several years so I wanted a machine to run it on. Also Pagemaker.

<[Kent] DR.EVIL> I have a C-128D, 1581, CMD 40 HD, RAMLink w/ 1 MB 1750 REU, SL-232, SID, etc.

<C128.JBEE> How does the Ramlink works with the SID cartridge?

<[Kent] DR.EVIL> They work together fine as long as you don't want to use a REU in direct (non-RAMLink) mode. If you use the REU in direct mode the second cart plug in (where the SID would be) is turned off. Same goes for SL-232.

<C128.JBEE> (btw that's a power Commodore system for sure)

<C128.JBEE> Open question to the audience and Dr.Evil. I know I SID myself to sleep often about you people?

<[Kent] DR.EVIL> I just moved into a house. The stereo is now in a different room from the computer so it's tough to do. I plan to get a second amp some time.

<C128.JBEE> I use a couple of Radio Shack amps, not the cleanest sound but I like using the rechargeable batteries!

<C128.JBEE> So, you must be signed on now with the SL-232, where is that plugged in?

<[Kent] DR.EVIL> Yep, into the RAMLink. The cart expansion ports on the RL are very solid, much more so than the Aprospan.

<[Howie] H.HERMAN1>Kent, did I see you say that SL can't work with RL and a 1750 set to direct?

<C128.JBEE> yes, standing a REU or any large cartridge is to flirt with RFI or brokenboards!

<[Kent] DR.EVIL> I believe that's the case. The RL manual says that the Direct position turns off the other cart port.

<C128.JBEE> What prompted you to develop the Swiftlink-232?

<[Kent] DR.EVIL> I was on a crusade. At Purdue they developed a service where you could get a direct 9600 bps connector to your dorm room for \$cheap\$ but there was no way for me to use it. I know that Desterm will supposedly do it thru the user port but I never had much luck. I think the Unix boxes on the other end spit out data too fast for it. As it turned out, the product didn't get off the ground until almost a year after I graduated.

<C128.JBEE> For our readers, what exactly is the SL-232?

<[Kent] DR.EVIL> The SwiftLink-232 is a high-speed serial interface cartridge for the C-64/128 (including CP/M) that allows much faster and more efficient serial communication (modem, printer, etc). It utilizes the chip that CBM "left out" of the machines -- the 6551 ACIA (UART) to offload most of the work from the CPU.

<C128.JBEE> How fast does the SL-232 operate?

<[Kent] DR.EVIL> Interestingly, one machine that CBM produced -- the Plus/4 -- has a 6551 in it.

<C128.JBEE> (yes, is that the TED chip?)

<[Kent] DR.EVIL> The 6551's normal top speed is 19,200 bps. Through a clocking trick we have doubled that to 38,400 kps.

<[Kent] DR.EVIL> No, the TED is a separate chip that was custom. It is a combo. music and graphics chip, I think.

<C128.JBEE> 9600 modems are coming down to around \$400 street price, so the use for the really high speed would be from computer to computer. How is it for computer to computer transfers ?

<[Kent] DR.EVIL> The 6551 is off-the-shelf and is the same UART used, for example, in the Apple serial interface boards.

<[Kent] DR.EVIL> Not sure what you mean, JBEE -- can you clarify?

<C128.JBEE> Would the SL-232 be a good choice for computer to computer transfers?

<[Kent] DR.EVIL> Yes, qualified. If you do things like move files to an MS-DOS pc now and then, Big Blue Reader is more convenient because there's no cable. But if you do this type of thing regularly, the SL-232 might be more convenient. I think the biggest market so far has been BBS owners and "telecomm junkies". :-)

<C128.JBEE> Have you tried this with your Mac (BBR128 won't do Mac disks).

<[Kent] DR.EVIL> Yes. That was the test bench. Works great at 38,400 with Desterm. :-)

<C128.JBEE> wow, I bet you have a lot of pictures converted Macpaint pixs ;)

<[Kent] DR.EVIL> Our user group demo consists of 6 C-64 hi-res screens sent from the C-64 running at 38,400 using Xmodem (cops, I mean from the Mac to the C-64) and displaying on the C-64. We first show it at 1200 to demonstrate the speed difference.

<C128.JBEE> does the SL-232 have a ram buffer for such high speed telecommunications?

<[Kent] DR.EVIL> No. The 6551 does not have an on-chip buffer. Newer UARTs such as the NS 16550A (found in many 386 PCs) has one (16 bytes I think). The 6551 was designed in the early 80s when RAM was much more expensive.

<C128.JBEE> well, I think I will open up the conference to free for all questions, comments, and chats now. I want to thank you for dropping by and for all the past and future C128 articles :)))))

<A.BERNHARDT> Where did you get the name Dr. Evil?

<[Kent] DR.EVIL> One of the partners, Roy Riggs. He got that nickname in high school for doing offbeat experiments in chemistry class.

<[Howie] H.HERMAN1>Are there any new 8-bit things you re doing that we might like to know about?

<[Kent] DR.EVIL> Nope, nothing. The company will officially close on the last day of December. Bryan and I both bought houses so, to be honest, that's where our attentions are these days!

<[Howie] H.HERMAN1>that's only fair :-)

<C128.JBEE> Well, houses are a major consideration for sure :-). BTW: Thanks for pumping up the economy :D

<[Kent] DR.EVIL> You're welcome. Hah! :-)

<A.BERNHARDT> Do you know of any software that will convert MIDI to stereo SIDs?

<[Kent] DR.EVIL> yes, Frank Prindle's MIDI <--> SID Connection v2. Should be in the Dr. Evil library here.

<C128.JBEE> Maybe I will grab it and stuff it on a PD disk for those interested.

<C128.JBEE> Classic Affair.arc here online was designed for midi playback, quite good! Just wish I owned a midi interface for my cheapo keyboard.

<[Howie] H.HERMAN1>Kent what are you doing for Microsoft?

<[Kent] DR.EVIL> I am a "Usability Specialist" which is sort of like a Human Factors Engineer. The group I'm in works to make sure the end user's voice is heard in the development process through design reviews and user testing with early versions of products.

<C128.JBEE> you make sure the Microsoft windows are in the right place? (sorry, small pun)

<[Kent] DR.EVIL> That's ok. :-)

<[Howie] H.HERMAN1>sounds interesting!

<C128.JBEE> Better to correct mistakes at the beginning instead of after the beta version, eh?

<[Kent] DR.EVIL> I love it. Amen, JBEE. Product support costs kill some companies.

<[Howie] H.HERMAN1>Have you run across conflicting wants? and what happens then?

<[Kent] DR.EVIL> Sure. It's all data and it's up to the program designers to make the final choices. We depend on a variety of quantitative and qualitative measures to hopefully make decisions easier.

<C128.JBEE> What piece of Microsoft software is your personal favorite?

<[Kent] DR.EVIL> The one I use the most is Mac Word. My favorite probably is something that hasn't been released yet. :-)

<C128.JBEE> keeping us on the edge of our seats :-)

<[Howie] H.HERMAN1>Do you get involved in any Micro sysoping support on the services?

<[Kent] DR.EVIL> No, I'm not involved with the MS online support.

<[Kent] DR.EVIL> We shipped over 250 products last year, counting localization for different foreign languages.

<C128.JBEE> (I think I read today MS shipped 300,000 copies of Windows to Japan so far)

<C128.JBEE> What is your favorite piece of software (besides Desterm and Sidplayer) on the C-64?

<[Kent] DR.EVIL> Probably the game "Uridium" from England. Awesome.

<C128.JBEE> Uridium! On of my favorites too, once you are past the copper you are golden; I send a Uridium game pack (not pirated!) to a TC128 author who wanted a shoot-um up and he says it is too tough! :D

<[Kent] DR.EVIL> Are you selling the commercial version or? I didn't quite get that

<C128.JBEE> Now, I just happened to have a couple of used copies from buying C128 systems :-). I guess later versions were packaged with TOP GUN on the same disk

<[Kent] DR.EVIL> Ah! Gotcha. Thanks everyone. Talk to you soon!

<C128.JBEE> thanks you *bye*

<A.BERNHARDT> G'nite Kent

<[Howie] H.HERMAN1>Nite Kent. Nice see'in ya!!!

end of transcript.

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DR.OCTAL'S SHARP OPERATING TIPS <TM>

Tip &0013
USING THE FD-4000
From: John W.Brown
The FD-Tools program on the FD-4000 disk is handy and very easy to use. However, if you are formatting 20 or more disks, that means cursoring this way and that, and replying to all those menu prompts over and over. It also takes time and requires your attention. Not to mention it can get boring and tedious having to answer the same set of questions twenty times in a row. So I just use this small Basic program, that requires a minimum of attention, to format disks while I read junk mail.

How to format a Extra High Density disk using Basic.

```
10 rem ft=hdn 4 megs
20 open 15,dn,15:print#15,"nl.name.id.ft".close 15
30 open15,dn,15:input#15,e,e$.t,s:close15:print
   e,e$.t,s
```

Tip &0014
USING GEOS 128
From: John W.Brown
This problem was originally solved for me by either Jim Collette or Robert Knop, so I can not take credit for it. When you want to escape from GEOS 128 V2.0 using the reset button your system becomes locked and the 80 (continued on page 48)