# 10/26/2008

The old version that reads a CFLASH works great. But I'm thinking of a new board with a propeller

chip for smarts that can communicate with lots of peripherals. Thus:

SPEC - Smart Peripheral Extension Card.

The propeller will communicate with an SD card, an external PC (through the USB cable) and a

PS/2 keyboard. On boot, the COCO ROM will bootstrap a 1K program from the propeller and

execute it.

CoCoSPEC.sch and CoCoSPEC.pcb are the new board. I wired up part of the PCB.

For an OS, how about a SWI scheme like Dungeons of Daggorath and keep the vector in the first

512 bytes of memory. Second 512 is reserved for kernel. Screen starts at 1024. Kernel from

C000 to EFFF. All RAM mode.

SWI 0 - Get disk info

1 - Read sector

2 - Write sector

50 - Read PS/2 key

51 - Read USB terminal

52 - Write USB terminal

# 12/31/2010

Dang. Has it really been 2 years? How time flies. The EPROM works great. I just started

testing the PIAs.

PIAs

..00 A Direction/IO

..01 A Control

..02 B Direction/IO

..03 B Control

FF40 is 65344

FF41 is 65345

FF42 is 65346

FF43 is 65347

FF44 is 65348

FF45 is 65349

FF46 is 65350

FF47 is 65351

Testing FF44-B

FF46 <- 0

FF47 <- 4

Blue wire bit 7

Brown wire bit 6

OK. Wrapping up for the year. See you at the end of 2011.

Search for "fullduplexserial" to get propeller serial communication and pipe that through the USB to PC.

Write first bootstrap in BASIC and save on tape (just like the old days).

# 12/24/2011

Poke 65351,0 ; FF47 <-0 select in data-direction register

Poke 65350,255 ; FF46 <- FF (all outputs)

Poke 65351,4 ; FF47 <- 4 select out data-direction register

Poke 65350, 128 or 64 or 192 ; Twiddle bits

Poke 65351,0 ; FF47 <-0 select in data-direction register

Poke 65350,0 ; FF46 <-0 All inputs

Poke 65351,0 ; FF47 <-4 selectoutn data-direction register

Print peek(65350) ; Read bits

Works great. Using the propeller demo board and the parallax serial terminal. I can send bits back and forth. Now to solder on some more wires … 8 data bits should get it.

# 12/16/2011

Technically it works. The boot-loader burned into the ROM downloads a program through the propeller and executes it. I was able to download the all-ram code and then the Dungeons of Daggorath.

The assembler needs lots and lots of work. The communication mechanism needs lots of work. Eventually I need to drop the 2nd PIA and replace it with the propeller circuit (with SD card).