

Booting C128 from SD2IEC

[Commodore 64 \(C64\) Forum Index -> Other 8-bit Commodore computers](#)[View previous topic](#) :: [View next topic](#)

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Message

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Bionic Granny

Joined: 29 Oct 2014
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Posted: Mon Dec 01, 2014 12:42 am Post subject: Booting C128 from SD2IEC



Is it possible to boot into cp/m from the SD2IEC? I have a 1571 and a cp/m boot disk, but I'd rather not run the disk drive if I don't have to. Any idea how to do this?



Posted: Mon Dec 01, 2014 7:35 am Post subject:



I just had it boot from a d64 I had.

I had to change the dev# to 8 tho.



Posted: Mon Dec 01, 2014 4:47 pm Post subject:



It would be nice if you could just boot directly from the SD card and use the whole card like a CP/M HDD, but that's not possible yet, you still have to use a .d64, .d71 or .d81.

You can however make your C128 boot into CP/M on boot-up just by adding a few files to your SD card.

The latest nightly firmware gives you the ability to create a pseudo-boot sector on your SD card. To do this just create a 256 byte file named "bootsect.128" and edit it like you would a real boot sector.

I've created one for you to try: [c128 bootsect.7z](#)

Just extract the file onto your SD card and copy your cpm.d64 file to the same directory.

You'll have to rename your .d64 file to "cpm.d64" (all lowercase). You could also use a .d71 or .d81.

I don't have my C128 hooked up right now to test it, but it should work, hopefully. 😊

Ray...

It's OK if you don't agree with me, I can't force you to be right.

Last edited by buzbard on Tue Dec 02, 2014 3:58 pm; edited 1 time in total



Posted: Mon Dec 01, 2014 8:18 pm Post subject:



Very cute - I'll have to try this !

I was looking thru the doco to find a way of automounting a d64 on the uIEC.
This is neater.



Posted: Tue Dec 02, 2014 5:40 am Post subject:



I tried the files you posted but they didn't work on startup. But that may be because my firmware doesn't support booting with it or something. I tried updating to the latest nightly build, but I think I failed to get it updated. I only got my sd2iec (and my C128) a few weeks ago, and I'm still learning its ins-and-outs, so I'm sure it's something that I'm doing wrong.

But your basic program does the trick. Starting in 128 mode and then using BOOT to go into cp/m with the disk image mounted isn't exactly what I was looking for, but it's definitely good enough for now. I'm actually a little embarrassed I didn't think of it myself, but as I said I'm still figuring out the little device - and my C128! 😊

[Back to top](#)

penfold42

Jumpman



Joined: 05 Apr 2012
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[Back to top](#)

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[Back to top](#)

buzbard

Jack The Nipper



Joined: 22 Sep 2010
Age: 59
Posts: 658
Location: Washington State

Thanks!



Posted: Tue Dec 02, 2014 5:41 am Post subject:



Did you also need to change the device Id to 8 ?



Posted: Tue Dec 02, 2014 1:30 pm Post subject:



I tried it as device 9 and it did not work, so it appears it does need to be setup as 8.



Posted: Tue Dec 02, 2014 4:02 pm Post subject:



It is possible to boot CP/M from other device numbers, but that requires editing the CPM+.SYS file on your disk and using a 1581 drive.

Details here -> [bootu9.txt](#)

I haven't tried it myself so I can't verify that it works.

Shortly after my post above we had a slight kitchen mishap involving kids, turkey bones and the garbage disposal. For the details you can just use your imagination. 😬

Anyway, while I'm lying under the sink, covered in nasty turkey bone sink water, it occurred to me that the "bootcpm" program wasn't really necessary, since the same thing could be accomplished from the "bootsect.128" file.

The "bootsect.128" file issues the command RUN"BOOTCPM" which loads and runs "BOOTCPM" which mounts and boots the cpm.d64 file. So, I thought, why not just issue the mounting and booting of the .d64 from the bootsect file? 😬

So, I re-built the bootsect.128 to do just that. The link above has been fixed.

Here is the DASM source code I used to build it in case you want to tinker: 😊

Code:

```
; C128 boot sector. (T1, S0)
; Compile without a load address. {-f3}

processor 6502

org $b00

byte "CBM"          ; Autoboot signature.

word $0000          ; Load address for additional sectors. (T1, S1)
byte $00            ; Bank number for additional sectors.
byte $00            ; Number of sectors to load.

byte "", $00        ; Boot message: "BOOTING..."

byte "", $00        ; Program to load on boot.

start ldx #<cmd-1    ; Lo-byte of cmd - 1
      ldy #>cmd      ; Hi-byte of cmd
      jmp $afa5      ; Execute BASIC command.

cmd   byte "OPEN1,8,15,", $22, "CD:CPM.D64", $22, ":CLOSE1:BOOT"

      org $bff, $00   ; Fill with $00 to make 256 bytes.
      byte $00
```

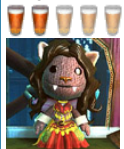
Ray...

It's OK if you don't agree with me, I can't force you to be right.

[Back to top](#)

Unseen

Mikie



Joined: 26 Feb 2008



Posted: Fri Dec 19, 2014 10:27 am Post subject:



buzbard wrote:

It would be nice if you could just boot directly from the SD card and use the whole card like a CP/M HDD, but that's not possible yet

That would require major modifications of the CP/M BDOS. CP/M accesses all drives with just sector read/write commands and handles the file system on the computer, unlike normal CBM DOS which implements the file system on the drive instead and sends "access file XYZ"-style commands

To access the SD card directly from CP/M, you would either need to bypass the file system handling in CP/M and issue CBM DOS commands for file access instead or teach CP/M to handle FAT12/16/32 itself and use direct sector read/write commands on the SD card.

Code:

```
10 a=rand(-1294):fori=1to52:a=rand(1):next
20 fori=1to5:printchr$(rnd(1)*11+69);:next
30 printint(rnd(1)*4711)-3590
```

[sd2iec homepage](#)

[Back to top](#)

dakidski
Bionic Granny

Joined: 12 Feb 2015
Posts: 12

Posted: Wed Mar 18, 2015 2:45 pm Post subject:

[quote](#)

Can I modify the above code to auto-boot to File Browser 1.6 placed in the root of my sd2iec Sd-card?

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[Back to top](#)

buzbard
Jack The Nipper



Joined: 22 Sep 2010
Age: 59
Posts: 658
Location: Washington State

Posted: Wed Mar 18, 2015 8:06 pm Post subject:

[quote](#)

You can use it to auto-start anything you want in C128 mode. Just edit the file like a normal C128 auto-boot sector.

Ray...

It's OK if you don't agree with me, I can't force you to be right.

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[Back to top](#)

dakidski
Bionic Granny

Joined: 12 Feb 2015
Posts: 12

Posted: Sun Apr 05, 2015 12:50 am Post subject:

[quote](#)

What if I have a cartridge inserted that autoboots to c64-mode on power on?

Will it still be possible to auto-execute a bootsect.128 file?

What I'm aiming for is File Browser 1.6 on start-up.

/dak

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[Back to top](#)

penfold42
Jumpman



Joined: 05 Apr 2012
Posts: 4774
Location: Melbourne, Australia

Posted: Sun Apr 05, 2015 5:22 am Post subject:

[quote](#)

Only if the cart implemented it's own search for the boot sector.

Maybe a cart with fb would be a good option ?

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[Back to top](#)

buzbard
Jack The Nipper



Joined: 22 Sep 2010
Age: 59
Posts: 658
Location: Washington State

Posted: Mon Dec 27, 2021 10:02 pm Post subject:

[quote](#)

I'm getting lots of requests to share the **c128 bootsect.7z** file since Google changed the security.

Thanks Google! 😊

So, for anyone looking for it in the future you can get it here: [c-128-bootsect.7z](#)

Ray...

It's OK if you don't agree with me, I can't force you to be right.

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[Back to top](#)

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[Commodore 64 \(C64\) Forum Index -> Other 8-bit Commodore computers](#)

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