UK Vintage RadioRepair and Restoration

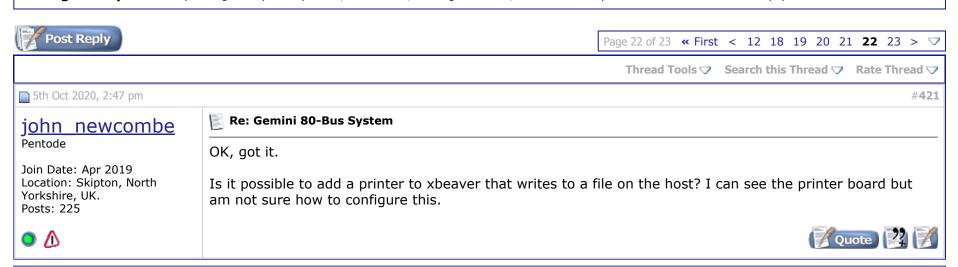
Search this website

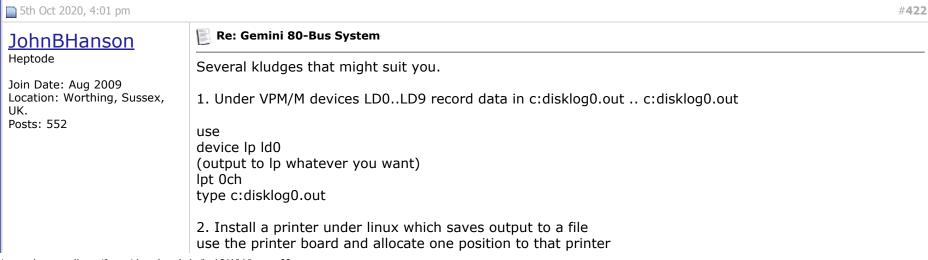
Powered By Google Custom Search

Vintage Radio Service Data Service Data DVD-ROM From £24.99 Instant Download Data Just £1.99 Each



Vintage Computers Any vintage computer systems, calculators, video games etc., but with an emphasis on 1980s and earlier equipment.





then device lp lp0 to assign that printer (eg lp0) use that printer as required.

- 3. use a serial port connected to a tcp port or serial port and use that as a printer.
- 4. use a serial port with pipe infile outfile which will create outfile when bytes are written to port use /dev/null as infile.

Note you should then exit the emulator executing a halt instruction eq ddt s100

100:76

g

will exit the emulator closing the file

The general problem with printing under cp/m is that there is no end of file so the emulator does not know when to close the output. The printer board works with the lp.drv device driver. This maybe loaded under cp/m using the devload program but the timeout feature will not work.

when doing disassembly of programs I have found that option 1 works guite well with gemdebug if that is what you are trying to achieve (using control+p to do printer echo)

Or you can use tcp on a serial port and record what comes out using putty or similar.

Please let me know what you are trying to achieve. Thanks.









6th Oct 2020, 1:40 am

JohnBHanson

Heptode

Join Date: Aug 2009 Location: Worthing, Sussex,

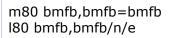
UK. Posts: 552

Re: Gemini 80-Bus System

I have diss-assembled the boot sector and commented. set cpm to 1 to get a com file, cpm to 0 gives boot sector.

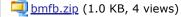
Checked binary against boot sector (mfb version) and it matches.

Should be easy to modify to read in boot sector if doing boot rom. NB for boot rom you will need a test unit ready as well as device characteristics command. to build



enjoy...

Attached Files =















#424



john newcombe

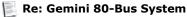
Pentode

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK. Posts: 225







Thanks John, appreciated.



Quote







#426

7th Oct 2020, 9:22 am

john newcombe

Pentode

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK. Posts: 225

Re: Gemini 80-Bus System

At the moment I am wading through the Simon 4.1MFB ROM code to see what it is thats stopping it booting directly from the Winchester. It would help me if it was possible to have a gm849 floppy card present but with the disk ejected, I am trying to get XBeaver to show the "Insert Disk A" message so that I can trace the port activity etc. is it possible to have an ejected disk with xbeaver?

If I remove the card, or include the card without the disk, xbeaver stops.

I am launching xbeaver with the -o xrt options using the gem925mfb config I posted most recently.







Its OK I have it... I have removed the following from my config and commented out the disk path





7th Oct 2020, 9:24 am

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK.

Posts: 225

Code:

if R if X byte f031 6d 47 if R if !X byte f031 47 47 if R byte f310 76

Code:

board 0xe0 gm849 floppy -geometry T80.2.10.0.512 #./Disks/CPM BIOS34 JN.1.GEMQDDS











Heptode

Join Date: Aug 2009 Location: Worthing, Sussex,

UK. Posts: 552

JohnBHanson

Re: Gemini 80-Bus System

I never really came up with a solution to switching disks.

However for raw formats it is possible to use a sym link and reference the symlink in the .cfg file. Then changing the symlink will change the disk, only works with disks of the same geometry though. Not recommended for formats like .img.

I came upon a similar problem with the isis operating system with a hard disk. To boot a system with hard disk but from floppy it is necessary to boot from floppy with the hard disk not ready. This was actually kludged in the mds800 hard disk driver so that I could build a disk image.

I am wondering if you might be better patching rpm.











#428

7th Oct 2020, 3:40 pm

john newcombe

Pentode

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK. Posts: 225

Re: Gemini 80-Bus System

I liked the idea of trying RPM so I patched it to look for 6D47 rather than 4747 and it boots to the BIOS34 floppy image fine. However when I remove the disk, it reports no disk.

I guess what I am trying to sort out in my head is at what point does either SIMON or RPM actually check for the Winchester.

When I trace SIMON with a floppy configured and then without using xbeaver, what I see is the same interaction with the WD FDC but only the GET SENSE command with the Xebec. But no read of the data.

I have already determined that the Xebec (or equivelent) needs to be present but I see no activity on ports E5 and E6, so I am assuming this is a hardware thing. Perhaps the presence of a Winchester is similar?

This is not a big deal its just I seem to have this need to understand it all. 🐽



The SIMON 4.1 MFB trace in each case is as follows:

Floppy loaded.

Code:

```
xBeaver a virtual Beaver computer system (Version 1.1)
Copyright John B. Hanson. Based on
Yet Another Z80 Emulator version 1.10, Copyright 1995,1998 Frank D. Cringle.
xBeaver comes with ABSOLUTELY NO WARRANTY; for details
see the file "COPYING" in the distribution directory.
BUS io defined
Page 0x00 (Physical address 0x00000) allocated
Page 0x01 (Physical address 0x01000) allocated
Page 0x02 (Physical address 0x02000) allocated
Page 0x03 (Physical address 0x03000) allocated
Page 0x04 (Physical address 0x04000) allocated
Page 0x05 (Physical address 0x05000) allocated
Page 0x06 (Physical address 0x06000) allocated
Page 0x07 (Physical address 0x07000) allocated
Page 0x08 (Physical address 0x08000) allocated
Page 0x09 (Physical address 0x09000) allocated
Page 0x0a (Physical address 0x0a000) allocated
Page 0x0b (Physical address 0x0b000) allocated
Page 0x0c (Physical address 0x0c000) allocated
Page 0x0d (Physical address 0x0d000) allocated
Page 0x0e (Physical address 0x0e000) allocated
Page 0x0f (Physical address 0x0f000) allocated
Executing file gem925mfb.cfg
gem925mfb.cfg:if B echo Option B - load boot sector at 0000 for booting
gem925mfb.cfg:if E echo Option D - Include Debug console
gem925mfb.cfg:if E echo Option E - External Video Card
gem925mfb.cfg:if L echo Option L - Load CPM from file file
gem925mfb.cfg:if M echo Option M - Include GM833 Ram Disk
gem925mfb.cfg:if R echo Option R - Use boot rom (Simon)
Option R - Use boot rom (Simon)
gem925mfb.cfg:if T echo Option T - Trace io cycles
Option T - Trace io cycles
gem925mfb.cfg:if X echo Option X - Use MFB system (Work in progress)
```

Floppy not loaded.

Code:

```
xBeaver a virtual Beaver computer system (Version 1.1)
Copyright John B. Hanson. Based on
Yet Another Z80 Emulator version 1.10, Copyright 1995,1998 Frank D. Cringle.
xBeaver comes with ABSOLUTELY NO WARRANTY; for details
see the file "COPYING" in the distribution directory.
BUS io defined
Page 0x00 (Physical address 0x00000) allocated
Page 0x01 (Physical address 0x01000) allocated
Page 0x02 (Physical address 0x02000) allocated
Page 0x03 (Physical address 0x03000) allocated
Page 0x04 (Physical address 0x04000) allocated
Page 0x05 (Physical address 0x05000) allocated
Page 0x06 (Physical address 0x06000) allocated
Page 0x07 (Physical address 0x07000) allocated
Page 0x08 (Physical address 0x08000) allocated
Page 0x09 (Physical address 0x09000) allocated
Page 0x0a (Physical address 0x0a000) allocated
Page 0x0b (Physical address 0x0b000) allocated
Page 0x0c (Physical address 0x0c000) allocated
Page 0x0d (Physical address 0x0d000) allocated
Page 0x0e (Physical address 0x0e000) allocated
Page 0x0f (Physical address 0x0f000) allocated
Executing file gem925mfb.cfg
gem925mfb.cfg:if B echo Option B - load boot sector at 0000 for booting
gem925mfb.cfg:if E echo Option D - Include Debug console
gem925mfb.cfg:if E echo Option E - External Video Card
gem925mfb.cfg:if L echo Option L - Load CPM from file file
gem925mfb.cfg:if M echo Option M - Include GM833 Ram Disk
gem925mfb.cfg:if R echo Option R - Use boot rom (Simon)
Option R - Use boot rom (Simon)
gem925mfb.cfg:if T echo Option T - Trace io cycles
Option T - Trace io cycles
gem925mfb.cfg:if X echo Option X - Use MFB system (Work in progress)
Ontion Y - Hee MFR evetom (Work in progress)
```









7th Oct 2020, 5:16 pm

<u>JohnBHanson</u> Heptode

Re: Gemini 80-Bus System

Join Date: Aug 2009

Port e4 is control for the floppy disk and has bits for drive/density etc.

Location: Worthing, Sussex,

UK.

Posts: 552

The 829 and 849 are different. In particular the 829 uses the bottom 4 bits for drive select so one should be selected eg 01 for a:, 02 for b:, 04 for c: 08 for d:.

The 849 uses the bits in a different manner bit 2 (value 04) selects the connector and the bottom 2 bits select the drive. For compatibility for boot roms/boot sectors the 849 is wired so that value 1 selects a: same as 829.

The 11h write to 0ffh is setting up the memory paging for the nascom system, That supports 4 pages, 4 bits for write enable and 4 bits for read enable. Only one page can be setup for read at any one time.

for gm813 you will also have to setup the 4k memory paging before this. See hdboot.mac for details.











#430

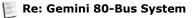
7th Oct 2020, 9:05 pm

john newcombe Pentode

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK. Posts: 225





Thanks, especially for the explanation re: drive select 1, that had me fooled.







#431

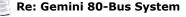


iohn newcombe

Pentode

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK. Posts: 225



The Rodime R201 disk in my Gemini MFB is alive and well after a change of 2 TIP121 motor drive transistors. A massive thanks to Daniel Whittaker for telling me about this common fault with these drives. The drive now boots to BIOS 3.4 MFB and has a range of MFB-1 and MFB-2 software stored on it.

The amazing thing is that Daniel was an employee of Gemini and in 1986 was upgrading MFB machines, it turns out that the 'Tested By' stickers on some of my Gemini cards were signed by him in 1986 and so it was Daniel who upgraded my system from MFB-1 to MFB-2. Nice!











#432

15th Oct 2020, 3:29 pm

Re: Gemini 80-Bus System

<u>JohnBHanson</u>

Heptode



Join Date: Aug 2009 Location: Worthing, Sussex,

UK.

Posts: 552

Thats wonderful news...

I recommend you image the rodime drive or at least copy all the files off it.

PS t-net can be used to copy files off. It can also be used with disked to image the drive but you might have to be a bit careful to do it right (Use the File Set and File Write commands. Use a t-net drive in the file set command and then work out the number of sectors to write in the File Write Command (Note sectors are given as 128 byte sectors)

Decimal numbers can be input with a % prefix and i gives infomation about the disk layout.

In otherwords disked will copy (part of) a disk into a file. The file can be a network file if working through t-net.

You will have to backup a: and b: as different files and join them together latter but it should work.

If you manage this I look forward to you posting the image on your site and running it under xbeaver.

Best wishes - I bet you are now all smiles.

Last edited by JohnBHanson; 15th Oct 2020 at 3:38 pm.











15th Oct 2020, 5:14 pm

john newcombe Pentode

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK. Posts: 225



Re: Gemini 80-Bus System

I will try my best. At the moment I cannot get T-Net to work. I have had it working before on my other machine but am having trouble at the moment. I am using xbeaver as a file server in my docker container I probably have a serial device configuration issue as a minimum, but I am sure with some more tinkering that will get sorted.

At the moment I am using the T-NET you supplied me in post #182 page 10. I am assuming this is the correct version, as it has worked in the past with the rack system. However, I cannot see any data on TX from the gemini when I issue a DIR. I can see DTR and RTS from the serial port and have the CTS, DSR and DCD lines set appropriately to allow transmission. I have also tried a local handshake loop RTS-CTS and DTR to DSR+DCD but no luck seeing any data heading out of the serial port.

I have hardly spent any time with this so I may have made a silly error, or I may have the wrong version of T-Net. I will spend a little more time this week and update the forum on how I get on.

Details of hooking up with Daniel and photos of the Rodime Repair now on https://glasstty.com/wiki/index.php/...New Connection













Pentode

Join Date: Apr 2019 Location: Skipton, North

15th Oct 2020, 5:25 pm

Yorkshire, UK. Posts: 225



Re: Gemini 80-Bus System

Further to the above post I should have mentioned that when I mean 'cannot see data' I am checking with a breakout box. This boxed is strapped up to form a NULL modem connection between the Gemini and a PC.









JohnBHanson

Heptode

Join Date: Aug 2009 Location: Worthing, Sussex,

UK.

Posts: 552



Your request from post 441 has been done. A gemini printer board had been added. This behaves like the gemini connection to a printer but assumes the pio configuration. However this works with gemini.

I have also added a protocol which will append output to a file, this maybe used with the gemini printer board to record output.

Note that because there is no such thing as a printer end of file it is not possible to connect the gemini printer to a real printer via the linux print spooler.

to use add the line

board 0xb4 gm669_printer append ~/printer.out

to the config file.









#436



\(\lambda \)

Yesterday, 6:23 pm

john newcombe

Pentode



Re: Gemini 80-Bus System

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK. Posts: 225

Wow, thanks John. I will rebuild the docker image as soon as I get chance and give it a go.

One thing I did notice was that the SVC emulation didn't display the graphics properly on my setup here. I first noticed it with the MFB Format program, but it is most noticeable with the Gemin SVC Demo program. Not sure if this is a bug or whether I have something setup wrong.







#437







JohnBHanson

Heptode

Join Date: Aug 2009 Location: Worthing, Sussex,

UK.

Posts: 552



Re: Gemini 80-Bus System

There are a couple of differences between the svc card and the emulation.

For full details have a look at...

http://81.98.24.96/xbeaver/gemini gm832.html

For example display/memory pages are not implemented and neither is graphics mode (Although block graphics in the text modes are supported). Originally only text was supported and I have not re-visited the svc emulation - although it is a lot of work and few applications use it but I should do it one day.

Also downloading programs to the svc card is not supported. For this to be supported I would have to emulate the svc hardware which would have a large hit on performance. Actually some programs are emulated in C on the svc card but this is done on a case by case basis to allow programs such as gemzap to run.

Perhaps one day I will bite the bullet. xbeaver supports arbitary graphics and colour but is a slower, the North Star advantage has a graphics screen.

The other catch is some of the keyboard mapping is not implemented.

PS - what should the format program look like? (That is in text mode so could be a bug?).











#438



Re: Gemini 80-Bus System

john newcombe Pentode

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK.

Sorry my bad, the MFB format is indeed text based, and is fine. It's the Bios 35 format program that uses graphics.

Posts: 225













Today, 12:16 am

john newcombe

Pentode

Join Date: Apr 2019 Location: Skipton, North

Yorkshire, UK. Posts: 225





Docker Image for XBeaver has now been updated to include the latest version.

https://hub.docker.com/repository/do...wcombe/xbeaver











JohnBHanson

Heptode

Join Date: Aug 2009 Location: Worthing, Sussex,

UK. Posts: 552

\(\lambda \)

Re: Gemini 80-Bus System

What program were you running? I assume this image is from the xbeaver emulator.

I am very confused as the character wrap at the end of line is part way through the character !...

PS - now added serial port for nascom!





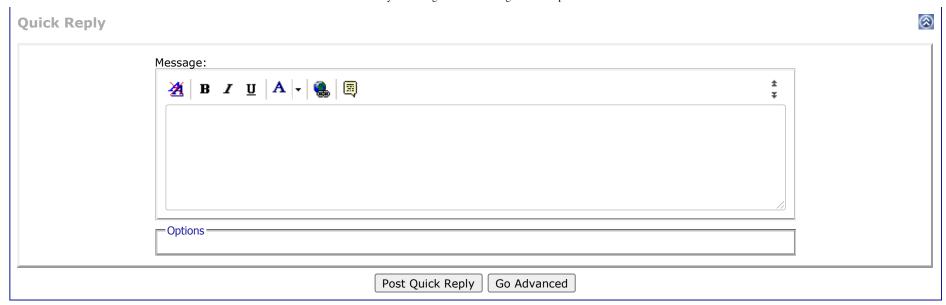






Quick Reply





« Previous Thread | Next Thread »

All times are GMT +1. The time now is 2:54 pm.

Contact Us - Home - Forum Rules, Privacy & Disclaimer - Top

All information and advice on this forum is subject to the WARNING AND DISCLAIMER located at https://www.vintage-radio.net/rules.html.

Failure to heed this warning may result in death or serious injury to yourself and/or others.

Powered by vBulletin®
Copyright ©2000 - 2020, vBulletin Solutions, Inc.
Copyright ©2002 - 2020, Paul Stenning.