Overview for Demo at the West Penn 99ers Meeting. 21 April 1998

by *Lew King*

VGA MONITOR:
The video output of the TI99/4A is composit video, which is not compatable with a VGA monitor. Composit video has all the video information and color information as well as the horizontal and vertical sync signals all in one wire. The VGA monitor inputs are separate RGB,(red, green, and blue) horizontal sync, and vertical sync, plus returns in a 15 pin high density "D" connector. In order to connect the TI, an adapter is needed. This adapter separates the TI composit video into the various individual signals. The horizontal sync signal is doubled from 14.7khz to 31.4khz. This is then compatable with any VGA monitor. The greatest difference, aside from the fact that VGA monitors are newer than composit monitors, is VGA has a much smaller dot pitch. Dot pitch is the space between pixel groups on the screen. VGA monitors generally have a dot pitch of .28mm, whereas composit monitors range from .42mm to .56mm. The smaller dot pitch eliminates or greatly reduces the appearance of a window screen behind the glass on the picture tube. This window screen appearance is the shadow mask in the tube.
This particular adapter also has a remote control for adjusting the contrast, brightness, saturation, hue, and audio volume. 181 TV channels are also built in.
This adapter was made by Proview Technology Inc. 12272 Monarch st., Garden Grove, Ca. 92841.714-379-4455 Purchased from Tiger Direct 1-800-294-3269

SUPER AMS MEMORY CARD:
This is an expanded memory card which takes the place of the 32k card in the PE Box. This card comes with several programs, and works with many others. Most notably are those from Bruce Harrison which enhance and expand the capabilities of the TI. Available from The Southwest 99ers, and Tex Comp.

SCSI CONTROLLER:
This controller card which plugs in the PE Box, allows up to seven SCSI devices to be connected to it. The most normal use is a SCSI hard drive. The drive or drives can be accessed as SCS1, SCS2, etc., or as WDS1, WDS2, etc., to remain compatable with programs written for the Myarc HFDC. Available from Western Horizon Technologies, or Competition Computer.

INTERNET ACCESS:
We will attempt at this meeting to connect the 99/4A to the internet. This demo will include using e-mail, browsing the web, and downloading files. More information on this can be found in the Internet FAQ handout.

PROGRAMS by Bruce Harrison:
Bruce has taken several of his programs and upgraded them to work with both the SCSI drive and the AMS card. Font Designer: You can now catalog fonts from either the SCSI drive or a floppy disk. Then tag one font to bring into the program to use. AMS Video Titler, and AMS Slide Show: Both of these programs feature cataloging of a SCSI directory or floppy, tag files, and bring them into the program. Both can import up to 20 files on a standard 256k AMS card, and over 80 files on a 1meg AMS card.

The Super Midi Master will NOT be demonstrated. You **MUST** go to Lima on May 15th to see this. Richard Bell from NY will do a play in on a keyboard, which will be recorded on the TI, then played back. Dolores Werths will do a play along with music that had been pre-recorded on the TI. Both of these are a must see for any TI and/or music fan.

Q: Can I use my TI 99/4A on the internet?

A: Yes and no! At this time, there is no software that will allow a direct PPP (Point to Point Protocol) connection. However the TI works very well on a text based Unix shell account.

Q: Does this mean that I will have to learn Unix to use the TI on the net?

A: Again, yes and no. Some internet service providers have a menu driven interface, that is familiar to all TI users. Other service providers put you directly at a Unix prompt after login. But, half a dozen simple commands are all that is needed to get started.

Q: What equipment do I need?

A: Of course a TI 99/4A consol, 32k expansion memory, at least one disk drive, an RS232 port, a modem, and connecting cable. The memory, disk drive, and RS232 can either be in the PE Box, or as separate peripherals. Also, a terminal emulator program is needed. There are several to choose from.

Q: My modem is an older 1200 baud model. Will it work?

A: Yes, if you're not in a hurry. The slow speed could be a problem if your ISP (internet service provider) imposes a time limit, as some do.

Q: I don't have a modem. The new ones available are all 33.6k or 56k models. Will they work?

A: The 33.6k modems will definitely work, in fact much better than the older ones. Some 56k modems will only go down to 32,000 baud, which is too fast for the TI, and won't work. Check the specs before you buy one.

Q: What type of cable will I need to connect the modem to the RS232 port?

A: There are many different types of cable configurations that can be used. The simplest one with just three wires works well. 2 to 3, 3 to 2, and 7 to 7. Since the only type of flow control on the TI at this time is with the software X-ON and X-OFF, additional connections are not needed.

Q: I have every thing connected properly, but when I type an AT command, a bunch of garbage is echoed to the screen.

A: When a modem first powers up, it is set to factory defaults. On the newer high speed modems, this is not compatable with the TI. These values can be changed with various AT commands. Refer to your modem manual. In general, you will want to enable XON/XOFF (AT&K5), set the speed to a slower value such as 9600 (ATS37=9), disable data compression (AT%C0), etc. These values can be put in an initialization string to be automatically sent to the modem each time the terminal program is booted. Or, after typing these in, issue the command AT&W1. This will store every thing in NV RAM in the modem as user profile #1. Then the initialization string only needs to be ATZ1, to recall the stored profile. As commands will vary some from modem to modem, again refer to the manual.

Q: Now that I have everything working OK, where do I find a Internet Service Provider that will work with the TI.

A: Many commercial services provide a text based Unix shell account, as well as a PPP connection. Check with your friends, neighbors, and co workers to see what service they use. Also newspapers usually have ads for local service providers. Compare the prices and services, as they do vary. There are many free nets through out the world. Try ofcn.org for a list of some of the free nets. They are by country, and further broken down by province, state, or territory. Not all free nets are listed here, and some are hard to find. So check with your local library, and county or local school district to see if one is available. Not all free nets are free. Some charge a nominal fee depending on the ammount of connect time, available disk space for your files and web page etc.

Q: After logging in to my account, all I get is " % or $ ". Now what?

A: The percent sign or the dollar sign is the Unix command prompt. At this point, you basically have the world at your fingertips. Most users will want to do at least two things. Access the internet, and use e-mail. The text based browser to use the internet is "lynx". There are several e-mail programs. The easiest one to use is "pine". It is full featured and menu driven, very easy to use.

Q: How do I use lynx?

A: At the prompt type "lynx", a space, and the site you want to visit. Example: lynx geocities.com/Heartland/Hills/2761/mug1998.html . will connect you to the web site for the 1998 MUG Conference at Lima. When you reach a web site, the space bar takes you forward a page, and the hyphen -,back a page. The left arrow (fctn s)goes back a link. The right arrow (fctn d), or enter, acts upon whatever the cursor is on at that time. If the cursor is on a file name, that file will be displayed. Not too useful for a binary file. If the cursor is on a link, you will be connected to that link. At any time in lynx, hitting the delete or backspace (fctn1,fctn9, or ^h), will bring up a history list of the links you have been to. Just choose one of them to go back to that link.

Q: I found several sites that I want to go back to, but don't like to write down all those cryptic addresses. Is there an easier way?

A: Yes, much easier. When the cursor is on any link, type "a" then "l", this will save that link to a book mark file. At any time in lynx then hit "v" to bring up the book mark list to choose from. Or, start lynx with "lynx -book. This again will present the book mark file to choose from.

Q: How can I download files?

A: When the cursor is on a file name, hit "d". This will bring up a menu which may include "save to disk","kermit download" or "zmodem download". Save to disk will transfer the file to your home directory, the quickest method. Kermit won't work. Zmodem calls up "sz" which supports x,y, and z modem transfers. On most terminal programs xmodem is your only choice. If using term-80, choose option F from the menu. Then only select the disk drive you want the file on. The rest is automatic. File names longer than ten characters will be truncated. Periods will be changed to the underbar _. To transfer a file from your home directory to your TI, use "sz filename" For a text file use "sz -a filename". This changes th

Unix NL (new line) to cr if which is more usable on the TI. Again using "sz" with option F on the term-80 download menu, as many files as will fit on one disk can be put on the command line for automatic downloading.

Q: Can lynx do any more?

A: Yes, much more. At any time while using lynx, hit "? or h". This will bring up an online help screen. As with most other Unix commands, type "man command". This will give you the online manual. Most manual pages are longer than one screen, so part of it will scroll past before it can be read. In this case, type "man lynx >>lynxhelp". This will send the output of man to the file "lynxhelp". Then type "more lynxhelp" to view the file one screen at a time. You can also use "sz -a lynxhelp" to save the file on your home computer.

Q: FTP just won't work. How do I get to a ftp site?

A: Just type "lynx ftp.sitename" For example: "lynx ftp.whtech.com" will connect you to the WHT ftp site, ready to download any of the latest scsi files.

Q: Pine not only doesn't work, but it insults me. I get the error message "Your terminal of type dumb lacks functions needed for pine". How can I correct this?

A: Pine and other programs need to know what type of terminal you are using. After login, type "set term=vt100", or an equivalent string depending on the shell you are using. Also typing "echo set term=vt100 >> .login" appends this string to the ".login" file for automatic execution on every login. Again the exact string and file name will depend on the shell used. This example is for the popular "C" shell.

Q: I want to save my e-mail messages to a disk file. Can this be done with pine?

A: Yes, use the letter "e" for export while reading a message, or with the cursor on any message when in the index list. You will be prompted for a file name. This file will be in your home directory, then can be downloaded using "sz". If there are a lot of e-mail messages, say 30 or 40, it may be easier to export each one as they are numbered in the list. Such as 1,2,3, etc. These can be downloaded seperatly, or added together with the "cat" command. Cat 1 2 3 ...>>bigfile. This will conCATenate all the files into "bigfile" which can be downloaded quickly. Don't forget to "rm" remove all the numbered files. Otherwise you will get the error message "file already exists" the next time you try this.

Q: Are there any more pine commands?

A: Yes, but they are all from a menu, and no explanation is needed.

Q: I downloaded a 350kb text file to my home directory. This is too large to fit on one DSSD disk. How can I get this on my TI?

A: Easy, use the Unix split command, "split filename". This will split a large file into smaller parts. Each new file will have the original file name with a,b,c, etc. appended to it. Make sure the new files don't go over the TI ten character limit. If necessary, rename the file to a shorter name with the "mv" command before splitting. Use "man split" to get the exact syntax for your system.

Q: All the text files I downloaded are in the DF/128 format. Can this be changed to DV/80 to use in a editor?

A: Yes, Bruce Harrison has come to the rescue again with a EA/5 utility called "CONV128". This will quickly convert any size DF/128 file to DV/80.

Q: Is there anything else that I should know?

A: Yes, at this point the serious user will want to get two good books. One on the internet use, and another on Unix.

Q: I have a new PC with the latest everything. Why would I even want to use the old TI 99/4A on the internet.

A: You may not want to. However if you are bored with the "point an click" routine, adventurous, and like a challenge, then the TI is the way to go. There is also a certain ammount of satisfaction in pushing older hardware to the limit in a high tech world, and being one of only a few persons that can do so. This also presents an opportunity to learn more about the internet, than would be otherwise possible.

This FAQ was produced on a Texas Instruments 99/4A computer using FunnelWeb 5.01, 4.40HD editor. Upload to the internet was by way of Term-80 at 9600 baud using Y-modem protocol. "

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