BITS, BYTESEPIKELS

LIMA 99/4A USERS GROUP



MARCH 1996--Volume 12,

OWNLOADS FROM COMP-SYS-TI

The following messages were downloaded this month from the comp.sys.ti internet newsgroup. They contain some interesting and up to date info relating to the 99/4A and Geneve.

From billoBaicrosoft.com Thu Dec 28 10:05:43 EST 1995

Hello!

Nicrosoft is planning on releasing a group of applications designed for older computers. We will produce downscaled versions of Word, Excel, and Access to run on TI 99/4A's, Commodore 64's and Apple II's. We also plan on re-releasing older programs such as Microsoft Multiplan on these platforms.

Our current project involves the T1 99/4A. We need computers, peripherals, and experienced programmers to accomplish our goal. If any of you are interested, post a reply here. Do not email me as I will probably never see it. (I am currently getting between 250 and 300 messages a day.)

Regards, Bill Gates

From: bb737@FreeNet.Carleton.CA (Jeffrey Brown)
Subject: Term 80 v4.0 update
Bate: Fri. 29 Dec 1995 10:27:10 GMT

Well... I'm still around! Got a few copies of v3.1.4 to mail temorrow...
just to let you guys know that I'm still working on version 4.0 of my
program. It's a complete rewrite (trust me! If you saw some of the code in
the old version, you'd be tempted to clean it up too... it's ok, but not
as good as it could have been (tsk))

At any rate, I have a very good working input handler... buffers all keyboard presses and serial port reads. I coded part of the display handler (still have to write all the gadget/mouse stuff as well as the windows etc...). Just to let you know, I decided to sacrifice about 500bytes of space for SPEED! (and I'm talking FAASTT!! The new character display routine is SIGNIFICANTLY faster, and designed with special case handlers and a lot of precalculation!) I've not fully finish the linker yet, so the disk-modules con't exist yet but here's what's conna happen:

The display handler will be on-disk, loaded in an linked at run-time for support of other video processors and/or patching and/or fixing of bugs!

To charsets will be completely disk-based and selectable (want to use some of your old CMARA1 files?). And I've built my chardisplayer routine with the intention of being able to support charsets of more than 256 chars (meaning all those nice VTIÓO other graphics chars that weren't in Term 60 v3.1.4 will be!) You could of course use a very small charset and save memory.... This time it's USERSELECTABLE (and I MAY throw in a program to make your own charsets...well at least one to convert old CMARAIs)

Even the colour table will be disk-based and selectable via a preferences program (and customizable) for better support of people's preferences (or in the long run, saving RAM, 'cause you can elect to go for a 2byte monochrome colourset, or go to the elaborate mapping of the seperate bold-text support... kinda neat really!)

Most program segments will be disk-based and linked in when needed (or autobooted on startup, again selectable via a prefs program) and will be 100% relocatable, so you AMS owners will FIMALLY get some REAL support from Term 80 for your beautiful RAM card. (too bad the TI can't handle real 32bit addresses.. (sigh))

The display environment will be more graphical (although to use some features you may need more RAM!) I'm planning mouse/joystick (or keyboard using special qualifiers, likely something like Fctn-Space-E/S/D/X and maybe I for click? dunno yet...) still debating on this though... because of the CPU-intensive nature of such things... but one thing's for sure, expect faster window-handling, and at least a better user interfare with micer string requesters and toggles and such.

I shouldn't give away ALL of my secrets, but I'm planning something for you AMS-lovers... the ability to open up an E/A #5 application from within Term 80 and RETURN to it, possibly keeping your app "static" while you play with Term 80 some more. This is possible due to the AMS's memory-swapping scheme, but don't expect miracles! One thing: unless a program is specifically written for it, Term 80 will not be able to multitask stuff, just maybe stay resident in the background for you (if the program keeps a VDP int going, then it's easy to handle otherwise, I dom't think there are any other system-friendly ways to go it).

Oh... re: multitasking, I can make Term 80 multitask it's modules because of it's input handler, but I don't know if it's at all useful esp. considering the slow nature of a TI. One thing I can do though is nice things like play music in the background using the input handler's special interrupt handling (all internal PROGRAMMABLE timing... now: it's a bit of a secret)

Well, I've blabbered on long enough.... tomorrow I will tackle the rest of the display handler and hopefully be able to see the first light of FASI 80 columns w/ colour for Term 80 v4.0... (instead of the simple 40column routine I used as a test-bed for my input handler)

Oh, re: the input handler... here's a hint: I can handle timer events reliably from about 240Hz on.... so you may find a surprise on entering Term 80 next time: a clock and sound! (maybe a sample? I can #THEORETICALLY# handle up to 15Khz, but I don't know how that resolution of an interrupt would fare in Term 80's environment... I could almost certainly handle 4Khz though (sly grin>)

See y'all!

Subject: Another Term 80 v4.0 update! (getting tired?) Sender: bb737@freenet2.carleton.ca (Jeffrey Brown) Date: Sun, 31 Dec 1995 0o:45:24 6MT

Hehe quys.... just to let you know what's oping on:

Term 80 v4.0 is hardware independant for the most part... only requirement right now is the you have a TI (dun!). I could just punch in a new set of low-level display handlers and watch Term 80 on a 512x250x4 screen on a 9938, or change the keyboard driver and use a Rave'99 keyboard!... no patching to the main core required! And the neat thing: the video and input handlers (once I get the loader done) will be loaded in at bootum, so just tell the prefs program that you want a different video driver, and BOOM! you're running taking advantage of your extra hardware.

To code:

- System executive routines (memory handlers and such)
- Scroll routine for the video driver (doh!)
- User interface handling (duh!)

NEXT PAGE

It's not done yet, by far, but it's kinda cute!

(grim) This'll be fun to release!

Jeff.

Date: 18 Jan 1996 20:54:42 GMT Sender: w097@wmsts3.seaq.fingerhut.com (David Nieters)

Well folks, Fest West is almost here. I just mant to let you know that I've been making a big push to get the SCSI DSR completed so people will be able to buy SCSI cards for the TI at the fair.

I've recently completed the create directory subprogam and I just finished the delete subdirectory subprogram. These were the last two routines that I had to finish before I could release the DSR. In the next few weeks, I will be testing the routines to make sure there aren't any bugs in them.

Since the demo at the Chicago fair, I have fixed all known bugs and added several performance improvements.

A few features of the DSR are as follows -

- o Up to 16 files may be open simultaniously
- o caching of subdirectory headers for faster directory lookups
- o Internal 512 byte buffer per file to accompdate native 512 byte SCS1 transfers
- o Up to 7 SCSI drives may be connected to the controller
- o DSK1 emulation for loading programs
- o Controls drives up to 248MB. Drives larger than 248MB will use only 248MB. A future version of the DSR will support partitioning.
- o Norks with Telco for uploading and downloading files
- o It's NOT vaporware anymore!

I think we'd all agree the last feature is the most important!

David Nieters Dave.Nieters@dtc.fingerhut.com SCSI DSR developer

From: ab453@cleveland.Freenet.Edu (Jim Krych)

Date: 19 Jan 1996 23:09:05 6#T

"A Wish List" By: J.W. Krych 1996

1996: Nearly six years since the start of the ALMS project: Hard to imagine what has been done, looking back, but enduch of looking at the past: Rather, let us look to the future:

It is no secret that I myself am not a programmer, though I have written some simple assembly code to move sprties via a joystick and recognize the fire button, there a far more better than I in the community.

i am more comfortable working with hardware, and letting others design and debug the software! Goes hand in hand actually, now many software witherds are hardware apprenticies, and vice versa!

So, let us discuss that needed commodity-software! More importantly, and the reason for this, SuperAMS software.

while the number of programmers for us has dimminished in the years, some have remained, and still even a few pop out once and a while. Isn't it very ironic, when knowledge of the 99/4A is at an all time high, the software being released is down to a trickle?

Granted, anyone programming on the 99/4A does it on a part-time -basis, weekend programming. And programming takes time and effort and debugging. The same goes for anyone doing a hardware project as well.

But, what about team-efforts, or something similar? The SuperAMS is reaching a critical mass of users. And the reviews for the card are completely favorable! People are asking AMD getting the cards. Tex Comp. Ltd., is selling them at a rate that Chris Boggitt and I would have dearly wanted, back in 1992!

So, the numbers exist! And every week they increase! And the one thing the owner will want? SDETWARE!

what I am listing here, is just a "wish list" for some software I believe is such needed, for SuperAMS. This comes from my own observations and experience.

Software Wish List:

Word Processor: Utilize the SuperAMS as a buffer as well as applications in memory to speed things up. Since routines exist for 64col displays, such a system would benefit those lacking 80-column systems. Even those having 80-col systems would benefit! The, word processor could have 40, 64, or even 80 (which is tough on the eyes) for standary 57/40 ummers.

Programming Editor: Nearly same features as above. But with features for programming.

Disk Manager: Utilize the SuperAMS as a buffer, as well as have applications in memory at once. It can certaintly be done-the Disk Copier by Jack Mathis is a good start.

Forth for SuperAMS: Since Forth utilizes a paging style system, such a system lends itself well to the SuperAMS: And, existing programs would remain compatible with the SuperAMS Forth.

6PL Emulator: Many cartridges that have 6PL code, are run in the 32k, without the need for 6RAM devices. Why not have a simple 6PL Emulator for the Superams? While some memory would be 1805-6k 6RAM pages versus 8k real pages. Many 6PL files could be run on the Superams.

Terminal: A real SuperAMS specific terminal program.

Spreadsheet: A Mutilplan cione using the memory.

IB Utilities: Combined into one category. A new and improved IB Packer. A utility to allow many feature from other software packages to be in memory at once, and paged in as needed.

SuperAMS BASIC: A BASIC using the SuperAMS memory.

This is my wish list for the SuperAMS! For software that I believe will increase the usefulness of the SuperAMS.

One wonders if programmers who have SuperARS cards, would be willing to work together on software projects. Since we live in the age of modems, sharing the help is not a difficult proposition.

SuperAMS, going on six years of the AEMS Project! Who would have thought! Take care and God Bless!

Regros,

J.W. Krych

From: pede0135@gold.tc.umn.edu (Todd M Pederson) Subject: Re: TI FTP Site Date: 20 Jan 1996 13:33:55 -0600

Mmy don't you contact freonésolutions.solon.com? I've loaded most of what I've not the the site, but I don't have much.

The site allows for anonymous downloads at least (the 99er stuff is in /pub/ti99 and there's a directory for geneve tool. And you can at least mail starf to the moderator as an enclosure (muencode preferred, as I recall).

From: jvweelie@mgl.ca (John Van Weelie) Subject: TI-99/4A BBS List Date: 23 Jan 1996 07:06:23 6MT

TI/Geneve Bulletin Board Directory

Copyright (c)1995 by S&T Software

All numbers verified by...... Timothy A Tesch Official list released from...... The S&T Software BBS (414)-464-1978

Lloyd Wagner and Jim Cavanaugh have joined the growing number of Systos who have updated to a high speed modem! Sive 'ee a try! Also, thanks to John Van Wheelie, a comprehensive list of BB5's carrying the TI ECHO is about ready

NOTE TO SYSOPS: Only those bulletin boards actively supporting the li/beneve computers will be included in this directory. To assure we get your system information correctly and to help us verify your system, please have the following available upon connect: system name as desired in the listing, maximum band rate, computer used, software used, hours of operation, and the SysOn's (your) name.

This list is intended to be in the "PUBLIC DOMAIN". While I did to maintain this list until it becomes impossible or impractical to do so it is you, the users and SysOps, who are responsible for notifying me of additions, deletions SECTION 2: IBM AND COMPATIBLE SUPPORT SIG's for II/Geneve

or corrections. You may contact me on my BBS, TI ECHO, GEnie, or at home.

3804 North 75th Street Milwaukee, WI 53216

TIFCHO : TIM TESCH (1:154/414) Internet : T.TESCH1 @ GENIE.GEIS.COM

SERIE : T.TESCHI NEXT COLLUMN

Bill Gaskill's article on page 6



TEXAS INSTRUMENTS

*** BULLETIN BOARDS OF UNCERTAIN STATUS WILL BE REMOVED FROM THIS LIST ***

Symbols before names:

- "#" stands for a board that is temporarily down.
- ** means a new or recently updated bbs number/listing
- "!" means a software changeover may take place in the future
- "I" (before bbs type) indicates hard drive storage capabilities

- ALL BBS's are 24 hour/day, 8M1, and free unless otherwise noted.

SECTION 1: BBS's operating on a Ti or on a Geneve

City	ST x	x BBS mame	Phone #	BPS	SysOp
Tescon	AZ Z	1 Cactus Patch	602-290-6277	24	Toe Wills
Sacramento	CA	5 Sac TIBBS [701]	916-927-3012	24 [7013 Woody Large
!San Diego	CA	4 S.C.C.6.	619-263-9135		Ernest Pepper
#Covina	CA	4 Club 99 BBS	818-339-1134	24	Larry Hoffman
Indianapolis	IN X	3 HUG BBS	317-782-9942	14.4	Bill Lucid
Calumet City	IL X	3 Chicago U6 BBS	708-862-0182	14.4	Mike Maksieik
Louisville	KY X	3 KYANA TI BBS	502 495-6369	24	Dan Gillings
#Buffalo	NY X	3 AM-CAN Friends	716-835-5316	14.4	Jim Cavanaugh
Tal edo	OH	1 TI Comm BBS	419-385-7484	24	Bud Hills
Sperry	OK Z	3 Orphanage BBS, The	918-288-6708	14.4	Harold Mave
Phila	PA	7 Bullwinkles Corner	215-729-0401	24	Steve Clarke
Malmutport	PA	3 The First Floor	610-760-0527	24	Brad Snyder
Ballas	ΤX	5 99'er Connection	214-233-1750	24 (7013 Louis Guion
Salt Lake City	UT Z	1 Salt Flats PBBS	801-394-0064	24	Dave Delleer
#Renton	WA	3 Puget Sound Orphans	206-255-8662	14.4	Lloyd Wagner
Mi l waukee	WI Z	3 S&T Software BBS	414-464-1978		Tie Tesch
Muskego	WI	3 Milwaukee UG BBS	414-422-9669	24	Don Walden
: Vancouver	BC X	1 Dial a TI PBBS	604-522-9830	24	Ron Warfield

* xx: BBS SOFTWARE: 1-PBBS, 2-TIMET, 3-S&T, 4-99BBS, 5-TIBBS, 6-TEXLIMK,7-OTMER

(## denotes Fidonet TI-ECHO link)

City			Name			
Costa Mesa			:=:=:===== ช.6.0.C.	714-751-4352		
Miani	FL					
			Miami U6	305-625-8520		
Safety Harbor	FL		Cy's Swap Shop	813-725-4568	96	Cy Leonar d
Belleville	ΙL		MulTiverse BBS	618-236-7907	14.4	Tim Townsend
Springfield	MA		Mass. Gold Mine	413-756-6667	46	Edward boldberg
Raleigh	NC	11	Tī-ƙaleigh	919-853-5412	96	Waiter Tietien
Pittsburg	PA		Hydra	412-481-5002	96	Don McCalla
Columbia	SC	11	Why Knott	803-781-4626	96	Mike McGaughey
Sioux Falls	SD	**	Dakota infonet	605-336-3578	96	Rory Binkerd
Heaphis	TN	11	96404NEWS BBS	901-368-0112	14.4	Beery Miller
Milwaukee	WI	11	WRFM line #1	414-352-6176	46	Pete Porro
Milwaukee	, WI	11	WRFN 11DE #2-4	414-351-1823	24	Pete Porro
Port Washington	WI		Graphics Clipper	414-284-6108	14.4	Scott Stasiowski
Aurora	ON		Trailing Edge	905-727-0195	14.4	Steve Anderson
Toronto	ON		Trailing Edge	416-733-5726	14.4	Steve Anderson
			# Call forward to	Aurora		
Toronto	ON	11	TIBM Wizard	416-743-6703	14.4	Ray Dver

NETWORK SIGNUPS:

-Cambridge. NA 800 544-4005 DELPHI

-Rockville, MD 800 538-9636 BEnie -Columbus, 800 848-8199 COMPUSERVE

From: jvweelieêmgl.ca (John Van Weelie) Date: 23 Jan 1996 07:08:30 6MT

> BBS Listing For BBS's Offering Fidonet's TI Echo Conference

by John Van Weelie September 9, 1995 Revised January 22, 1996

This is a list of IBM Systems running BBS's that offer the TI Echo Conference from Fidonet. The intention of the list is to allow TI Users to find a BBS hat carrries TI Echo. This list was check against the Fidonet Modelist for September 1, 1995.

This list is intended to be in the "PUBLIC DOMAIN". While I plan to maintain this list until it becomes impossible or impractical to do so it is you, the users and SysOps, who are responsible for notifying me of additions, deletions or corrections. You may contact me on TI ECHO, GEnie, or at home.

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TIECHO: John Van Weelie (1:221/177) : John Vanweelle

Internet : jvweelie@mql.ca

Internet : j.vanweelie@gemie.geis.com

GEnie : J. VANNEELIE

City		BBS Name	Phone #	BPS	Fido Node
Calgary		Logical Solutions	403-299-9925		1:154/10
Calgary		Excess	403-285-7338		1:134/17
Stony Plain		Power Station BBS	403-963-1859		1:342/5
Little Rock		The Deserted Island	501-224-1605		1:3821/6
Little Rock		The Deserted Island	501-224-7887		1:3821/6
Port Coquitian		Sound Stage B&S	604-944-6476		1:153/7070
Aptos		Ben's Bulletin Board	408-669-9028	• • • •	1:216/111
Mission Viejo		Orange Co. South	714-951-5282		1:103/900
Mission Vieto		Dioital Forest	714-586-6142		1:103/925
Napa Ontonio		Grapevine BBS	707-257-2338		1:161/910
Ontario		Diamond Bar BBS	909-599-2578		1:218/1001
Santa Clarita		Mountain Peaks BBS	805-298-0221	28.8	1:102/924
Walnut		Weapon's Vault	909-595-0131		1:218/809
Fort Lupton		NCC-1701 Enterprise	303-785-0217		1:104/769
New London		Computer Caddie	860-405-1603		1:320/118
Cape Coral		CSPI-ONE (PRIV)	941-542-5482		
Cape Coral		CSPI-TWO	941-574-4707		1:371/1302
Cape Coral		CSPI-THREE	941-542-5482	-	1:371/1304
Jacksonville		Cowford Cargo Cult	904-384-6021		1:112/98
Margate		Techlands	305-971-0130		1:369/55
Tampa		Logic Bate	813-831-8125		1:377/49
Titusville		CompuTrac	407-268-0216		1:374/2
Valrico		Software Heaven	813-653-0431		1:377/41
Albany		05/2 Tower	912-439-4054		1:3617/12
Albany		OS/2 Tower	912-459-4228		1:5617/13
Atlanta		Atlanta intermation	770-939-6641		1:133/7
Statesboro	• •	Statzbos	912-489-1961		113626/9
Bolingbrook		FamilyNet Echobate	708-739-0033		1:115/88/
Richton Park		Computer Room	708-748-7449		1:115/748
breentield .		Communicator BBS	317-462-1952		1:231/930
Indianapolis		Starfleet Battles HB	317-543-1202		1:231/140
Michigan City		Short Circuit	219-872-9590		1:230/14
Richmond		Skydive City	317-966-8337		1:2255/130
Rineyville		Insane Asylum	502-769-3790		1:2450/140
New Iberia		Far Point Station	502-686-9570		1:3803/11
New Orleans		Bowling Alley	504-887-2838		1:396/22
Meymouth		BCS TI BBS	617-331-4181	. •	1:101/610
Winnipeg	_	Tech Talk Toll	204-269-7373		1:348/105
Winnipeg		Muddy Waters CS	204-231-4504		1:348/204
Fort Washington		Computer Orphanage	301-292-7955		1:107/412
Great Hills		Hafa Adai Exchange	301-994-9460		1:2612/114
Great Hills	HD	Hafa Adai Exchange	301- 99 4-9462	20.0	1:2612/115

Joppstowne Chaska		Insonnia	410-679-5642		1:261/1302
House Springs		Black Hole BBS Night Owl	612-442-6429 314-942-4758		1:282/4070
St. Louis			314-830-4287		1:100/570
St. Louis		Fido's Puppy	314-830-2272		1:100/10
Ocean Springs		WinQuest PC	601-875-6530		1:100/210 1:3604/90
Raleigh		TI-Raleigh	919-833-3412		1:151/114
Saxapahaw		Dougs Dungeon BBS	910-376-6966		1:3644/15
Morganville		Comming Attractions	908-972-8583		1:107/108
Clovis		Memory Alpha	505-784-5455		1:318/3
Las Vegas		The Spider's Web	702-647-5989		1:209/274
Utica		W.A.A. B&S	315-797-3054		1:2609/507
Utica		W.A.A. BBS	315-797-3923		1:2609/508
Canton		CanCom BWS	216-477-4504		1:157/629
Columbus	OH	Thunderware	812-526-2629		1:231/1310
Hillsborn		The Connection 2	513-393-0261		1:2350/1
Hillsboro		The Connection	513-393-0075		1:2350/200
Kent		Ghetto BBS	216-673-6233		1:2215/421
Bartlesville	ÐK	Circuit Board BBS	918-333-1194		1:3815/104
Suthrie	OK	VISTA	405-282-2097	14.4	1:147/107
Ok a ul gee	DK	The South Forty	918-756-7006	28.8	1:170/257
Tulsa	OK	Hurricane Alley	516-636-0331	28.8	1:170/213
Kitchener	#ON	K-W Amateur Radio	519-578-9314	28.8	1:221/177
Peterborough	#ON	KCC BBS	705-748-0023	14.4	1:253/122
Toronto		TiBM Wizard	416-743-6703	28.8	1:250/426
Eugene		The KEEP BBS	503-342-5196	26.8	1:152/64
Portland		Abomination BBS	503-288-5443		1:105/34
Portland		Cyber Town Center	503-771-3747	14.4	1:105/34.161
Portland		Death Lord's Realm	503-297-2911	28.8	1:105/91
Dalton		Star Base 18414	717-563-6272		1:248/366
Harrisburg		Pennsylvania Online	717-657-8699		1:270/101
Harrisburg		Pennsylvania Online	717-657-9378		1:270/102
Harrisburg		Pennsylvania Unline	717-657-9785		3
Phoenixville		Castrovalva BBS	610-917-0380		1:2626/102
Telford		Channel Surfer	215-257-7888		1:2614/710
Providence		Eagle's Nest	401-621-4624		1:323/150
Easley '		Ryan Express	803-850-6257		1:3639/46
lrao Irao		Swap Shop	803-695-7670		1:376/94.5
Soiux Falls		Why Knatt	803-752-0526		1:376/94
Sioux Falls		Multi-Verse Dakota Infonet	605-332-3191		1:288/7
Memphis		9640#NEWS BBS	605-336-3578		1:288/7.4
Soddy Daisy		Keevah's Castle	901-368-0112 615-332-4598		1:123/50 1:362/714
Abilene		Seventh Heaven	915-698-6611		1:392/714
Allen		Hi Tech Red Neck	214-727-9468		
Dallas		High Tech BBS	214-754-4949		1:124/6505
Dailas		High Tech BBS	214-657-7461		1:124/6596
Dallas		Infinite Archives	214-484-6296		1:124/8010
Euless		Contrails 885	817-355-9242		1:150/83
Fort Worth/Dallas		Contraits 885	617-571-3424		1:150/85
Fort Warth	TX	Obscured by Clouds	817-731-1754		1:100/05
Houston		PSL UNLINE	713-442-6256		1:100/0200
Plano		Thorne's Castle	214-422-1589		1:124/6522
Plano		Zertaerst	214-403-9175		
Stafford		Pegasus Unline	713-499-1857		1:106/1857
Milwaukee		WRFM line #1	414-352-6176		1:154/414
Milwaukee		WRFM line #2-4	414-351-1823		1:154/415
Dostburg		Pirate's Cove	414-564-2694	_	1:154/169
Port Washington		Graphics Clipper	414-284-6108		1:154/284

Note: Asterisk (#) before ST abbreviation denotes a Canadian BBS.

John Van Weelie 58 Lowrey Ave. N., Cambridge, Ontario N1R-5A3

Canada

919 Toronto User Group c/o Neil Allen 52 Graystone Gardens Etobicoke, Ontario MBZ-3C4 Canada

From freom@solutions.solon.com Tue Jan 30 18:52:53 EST 1996

Since I generally don't have time to read news, I've been unaware that more than one person was interested in anonymous uploads. There is now an incoming directory in /pub/ti99.

To whomever uploads files to the site, please send mail to me listing what you've uploaded and suggestions for organizing the site.

T. N. Pederson freomesolon.com User Services

From: edswartzein.com (Edward Swartz) Subject: ### V9t9 Source Code ### Date: 3 Feb 1996 22:47:33 6m7

Hello, all

I finally got around to putting together the source code for V919 v6.0, my TI-99/4A emulator for the PC. (I'm releasing the source code since I'm dome with the project.) There will be no more versions of V919.

The source contains all the V9t7.EXC source, the source for all the utilities, even the Forth ROM and the transfer programs (with bugs included!) It's complete and ready for backing.

Find it at:

ftp.io.com:/pub/usr/edswartz/v9t9 ftp.wustl.edu:/pub/msdos_uploads/emulators/ti994a (??

From: thighOlésaucer.cc.umr.edu (Kerry Lee High Jr) Subject: New TI-99/4A Page

l just got around to starting a web page for the 99/4A. Right now it only has a few links to other pages and its sites, but I will be adding more soon.

lt's located at: http://www.umr.edu/~khigh01/994a.html

If anyone has anything they think should be added to my page, let me know.

From: kevinrleaol.com (KevinRL) Date: 7 Feb 1996 23:51:27 -0500

Bate: 5 Feb 1996 20:07:38 6MT

I'm not sure wether any of you know this, but many years aco CUMPUIE had a tiny paragraph at the end of an article which basically said, "type 10% at the opening screen of most dames to get into programmers test mode." It works! You can start munchman, for example on any of the 20 levels and even start the dame with up to 9 munchman. I know it works on Alpiner too! I can't remember any of the others. Check out you dames.

Don't you just love it when when a little thing like this makes something once old, new again!?!?!

From: nowieuenmaa.org (Howard Uman) Date: Thu. 08 Feb 96 13:51:49 6MT

Try Shift-8, Shift-3, Shift-8. That was the key combination used on Alpiner and Munchman.

* BITS, BYTES & PIXELS *
Published by Lima OH *
79/4A User Group *
ADDRESS- P.O. Box 647 *
Venedocia Ohio *
45894 *
Internet address: *
qood.6@osu.edu *

From: ab453@cleveland.Freenet.Edu (Jim Krych) Subject: Award List Date: 9 Feb 1996 02:27:50 GMT

> Jim Feterson Achievement Award 1996 Award Momminations

The following people have been nominated for their outstanding efforts, and as such, have been nominated for the 1996 Jim Peterson Achievement Award.

Please send all responses, according to the rules of the Award, to Deanna Sheridan. Email address: aa72oecleveland.freenet.edg Standard mail address: Deanna Sheridan

> Jim Peterson Achievement Award 20311 Lake Road Rocky River, Onio 44116

USA

The last day for voting is the 25th of April, 1996. Please send your email or standard mail before then.

Jim Peterson Achievement Award

Software: Art Green

Tony and Will McGovern
Chris Bodenmiller
Jeff Brown
Ken Gilliland
Ron Wolcott
Barry Boone
Bill Reis
Bruce Harrison
Brad Snyder
Bill Gaskill
Clint Fulley

Hardware: Bud Hills SW99ers (SuperHMS)

Community: Dr. Charles Good

Jack Sughrue Eunice Spooner

John Koicen and Laura Burns

Barry Traver Martin Smoley

9640: Tim Tesch

James Schrader Don Walden WHT'S SCSI Beery Hiller Clint Puiley Barry Boone Mike Maksimic

This list will be posted until the 24th of April. 1996.

DONE

Date: Wed, 31 Jan 1996 08:26:16 -0500 (EST) From: Harold Timeons

Hi Charlie--

Read your review of Term80 in the December Micropendium. Since I can not get Term80 to do all those "good Things" you claim in the review. I Feel I must come to the defense of TELCO, which is the only emulator that I can get to work. almost flawlessly in connecting to the Columbus Freenet. Columbus Public Library catalog, etc., with my 99/4A. You mentioned that TELCO "produces a 40-column display that is hopelessly confusing". You also state that "the confusion is much more than what you get with a word processor". At the risk of 'sounding confrontational, I must disagree with your assessment (assuming I understand it correctly). Please consider this--- If you configure TELCO's Autodialer to reflect ANSI as the type of emulator and SCREEN WITH-BO, then TELCO will display and 80 character screen. You then must use Fctn-5 to toggle right and Fctn-3 to toggle left to review the total 80 columns. Reviewing 80 colums on the screen without toggleing is certainly preferable, but since I can not get Term80 to connect to an outside agency, toggleing TELCO back and forth (a minor inconvenience) has kept me on

Believe me, I'm still trying to get Term80 up and running. If I misinterpreted your review, please forgive me but it came through to me as cited above.

CHARLES GOOD'S REPLY:

My limited experience with Telco in 80 columns has been with my local library's dial up card catalog, and here Telco doesn't work well. Term 80 does. The same is true for text access to my local internet access provider. Telco doesn't work and Term 80 will. I have talked to many users who say that Telco is not adequate for use with local internet access providers and many 80 column BBS systems. I guess "the proof is in the pudding." If Telco and/or Term 80 works for you then great!.

DONE

THINGS THAT HAVE COME AND GONE AND SOME THAT NEVER WERE article by Bill Gaskill March 1996

OLDIES BUT GOODIES: Fiver time again. If your newsletter editor has the space, I've sent along another fiver this month that is a copy of the message il delivered to third-party cartridge manufacturers during the June 1983 Consumer Electronics Show. My flyer, that I used to make copies from, was also a copy, so it doesn't show the names of all three cartridges stacked up at the top of the flyer. I can make out PARSEC as being the top cartridge. Anyone out

there got an original flyer? if so, grop me a line (bili baskill 2310 Cypress Ct. Grand Junction, CO 81506) and let me know what the other two cartridges are. Ron Albright makes reference to the CES 1983 flyer in his entertaining book THE ORPHAN CHRONICLES, but he does not actually show a photo of the flyer.

RATING THE GAMES: Among the myriad of boxes of TI-99/4A "goodies" in my basement are some very obscure pieces of software, most on cassette, that I have recently decided to look at. Most are games of either an educational or entertainment vein. I decided to give them a look and share my impression of the software in each month's column whenever possible.

DUNGEON KEY: This Extended BASIC game, written by Sue Finn, is a maze type game programmed in two-dimensions, that takes place in a castle. It is pretty unimpressive, but again that is by 1995-96 standards. In 1983, when it was written, it may very well have been on the leading edge? Playing it today seems almost frustrating though. It requires a joystick and the "little player" figure only moves in-between movements of other "dieces in the maze (castle)m which makes it all too easy for the figure to get eaten/destroyed by the bats in the castle. Even worse, the Sprite Coincidence is not program as exact as it should be, which means your "here" (the figure) gets killed even when not touched.

JET STORM: This 1983 Larry Fierce authored Extended BASIC qame is somewhat of a cross between Asteroids for the Atari 2600 and Parsec for the TI-99/4A. For something written in Extended BASIC it operates rather quickly, but it really lacks any serious challenge. It makes use of sprites as asteriods and redefined characters for the ship that launches your mining probe, but generally, it is pretty unexciting. It might have been competitive "great stuff" in 1983, but not today. One of the really neat things you can say for ALA products is that they were very professionally packaged.

Both games were offered on cassette tape from:

ALA ENTERPRISES 4218 West Jefferson Blvd Los Angeles, CA 90016

TROJAN HORSES:

Many will recall the "scare" i put into the Ti Community over a year ago when I discovered the "wonderful" !I bOTCHA! feature of Gary Bowser's KOS 8.14 on my Horizon 4000. At the time I truly believed that a "virus" had surfaced in the fi Community and I was sure I had seen an article somewhere that said this was not the first. Problem was, I couldn't recall where I'd read the article, nor even in what publication or newsletter it appeared. Well...thanks to Mr. Richard

lumpkin, of the Houston Users Group, I found it. Herewith is the complete text of the Kalph Fowler (the author of the TIBBS software) authored article, entitled:

TROJAN TI PROGRAM ON THE LOUSE

"On November 3, 1986 a user (who I thought I could trust) uploaded a group of programs to this BBS (Fowler's own flagship TIBBS). Thet were archived with the ARCHIVER2 program. The Archive was called STAR-ARC and was 95 sectors in length. It contained the following programs: EXAMINER 4, HELP 3, LOAD 36, LOAD 154, and LOAD 23.

As usual, I moved them to a work disk and stored away my valuable TIBBS disks. After un-archiving the programs I inspected them. I ran the LOAD program, which put up a pretty nice graphics screen. The system then dropped to Extended BASIC-which signified that some assembly language routines had been loaded into memory. I then loaded EXAMINER and tried to LIST it. It was protected with the Extended BASIC protection. This seemed strange, since no one uses it any more. I unprotected it and LISTed it.

The LISTing said that the program would play the standard II chimes, then (it) said something about reading ail disk drives. It would then do two CALL LINKS and print a message to the screen. The message said:

"Just when you thought $\overline{\tau}I's$ didn't nave Trojan Horses. ARF ARF. Got you!"

Interesting? I remember this from over on the 16M boards, I thought to myself. I put EXAMINER on its own disk and ran the program. The disk was unusable afterwards. So was my RAMDISK!

MORAL: I was prepared for this. YOU should be too. DO NOT trust ANY program for the TI until you verify that it is NOT a Trojan (horse). Even the programs you get from this BBS. I will not be responsible for any damage they cause. I will not knowingly put any damaging program in the downloads.

The sick fool didn't even have the creativity to change the ARF ARF bit. It originally appeared on an IBM board named FIDO, hence the ARF ARF stuff. The user had the initials J.T. and I would like his comments on this:

ARE ARE - You didn't get me!"

(Editors note--Raiph cailed the number the user used to sign on with, and of course it was wrong. SYSOPS-check ALL uploads to make sure you don't get burned with a program like this, and verify your users to help weed out (erks like this guy!

NEXT COLUMN

CONTROVERSIES:

HOME COMPUTER MAGAZINE/HOME COMPUTER JOURNAL: Following is the text from a letter written by the late or, buy Steffen-Romano to Terrie Masters of the Los Angeles 99ers and Homie Rosenberg of the Long Island 99ers.

AMNION HELPLINE 116 CARL STREET SAN FRANCISCO, CA 94117 HELPLINE HRS 9-4 MON-SAT (PACIFIC TIME) (415) 753-5581

6 August 1986

To: Howie Rosenberg Terrie Masters
19 7th Ave 148 S. Maple Dr
Farmingdale, NY 11735 Beverly Hills, CA 90212

PLEASE PROMULGATE

Dear Howie and Terrie.

I have finished gathering info that I hope will be of some help to all those who have been cheated by Home Computer Journal aka 99'er. The information was obtained both first hand and by several sources reporting their results, so it is a composite.

It seems that at the same time HCJ was sending out their "postcard" offer to subscribers, they were also dissolving Emerald Valley Publishing. The new company, composed of all the very same people, is called something like Computer Technology Publishing. Call them to complain about what they did to TI owners and they'll likely tell you that they are not liable for anything since Emerald Valley Publishing is no more. They will refuse to talk to you any further.

The District Attorney in Eugene, Oregon has received enough complaints that they have begun an investigation. They are interested in hearing from any and all complainants about HCJ. They have exerted pressure on HCJ so that a few people have actually gotten their money back on untinished subscriptions. To strengthen the case against HCJ nowever, they need to hear from "damaged parties" or they will be helpless. Anyone who was cheated by HCJ is strongly urged to contact:

DISTRICT ATTORNEY Consumer Relations 400 Lane County Courthouse Eugene, Oregon 503-687-4261

If people will just take a few minutes of their time to let them know about their personal complaints, maybe the scam

NEXT PAGE

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Bits, Bytes & Pixels

can be ended permanently. Please pass the information along to as many people as you can. IMPORTANT—all complaints should be leveled against Emeralo Valley Publishing Co. aka HCJ etc. etc.

Buy Romano

More on the controversy...this from Jeff Guide, owner of Disk Only Software, writing in the Sep 1986 LA Topics. His article is entitled HUME COMPUTER JOURNAL.

Following this column is a download of a letter signed by "Patana Katanapreux" disclaiming any responsibility for the actions by Emerald Valley Publishing (bary Kaplan, Editor). Be advised that she is MKS. bary Kaplan. In our last issue was a letter from Guy Romano wit the address to write to in Eugene regarding this fraud. PLEASE SHARE THIS WITH YOUR MEMBERS AND ACT ON IT.

Following is a letter received from Home Computer Journal on July 26, 1986. The contents speaks for itself.

Home Computer Journal P.O. Box 70248 Eugene, OR 97401 July 14, 1986

Mr. Jeff Guide P.O. Box 6728 Alexandria. VA 22306

Dear Mr. Guide:

Under the terms of the agreement between Home Computing Journal (HCJ) and Emerald Valley Publishing Co., don Home Computer Magazine (HCM) we have no responsibility for HCM refunds. If, however, you are dissatisfied with our publication (HCJ), we refer you to Emerald Valley Publishing at the following address:

EMERALD VALLEY PUBLISHING P.O. Box 70288 Eugene, OR 97401

Unless we hear differently from you, we are dropping you from the subscriber rolls. We are sorry you feel this way.

Sincerely, /signed/ Patana Ratanapreux Customer Relations PR/kd

This letter was a photocopy with my name and date added

to it by typewriter (inferring they must have sent out the same letter to alot of dissatisfied 99ers).

I find this letter to be VERY interesting. For one, HCJ and Emerald Valley agreed not to issue refunds. BUT, if you don't like HCJ, write a letter to Emerald Valley. Then they have the NERVE to tell me they are dropping me from their rolls and I'm (sic) sorry I (seel this way.

The Postal Service should like this one. I hope. Has anyone else received a copy of this letter or any other from them? I suggest that those who received HCJ write to them if you are not satisfied and return the Disks. I am still open to a full-scale boycott of HCJ. Any takers? Anyone want to put something in their User Group Newsletters? Use my name, mention what we are doing and maybe some action will result when HCJ gets no orders and many returned disks and complaints.

Jeff Guide

TEXCOMP vs. RON ALBRIGHT (April 1986): This is a copy of the letter sent by Tex*Comp VP Jerry Price to Mark Crumb, President of the Houston Users Group, pertaining to defammatory statements made by Dr. Ron Albright at a previous Houston User Group meeting.

Dear Mark,

While we have not met personnaly. I am sure you haveheard or our company, Tex-Comp, which has been supporting that II-99/4A user since the introduction of the original 99/4. As you may be aware, we also support legitimate regional dealers including Mike Matula of MS Computers in Houston. In fact, if I remember correctly, Mike and I worked together to get your Bulletin Board a modem at a special low price.

The reason I am writing you is that it has recently been brought to my attention from several sources who attended your last monthly meeting on Sunday January 5, 1986, that scheduled speaker Ronald Albright, a System operator (susop) on CompuServe, deviated from his presentation about CompuServe and made a number of defamatory and untrue remarks of and concerning myself, my business and one of my suppliers.

Since I was not present to respond to Dr. Albright's remarks nor did he ever make a prior effort to contact me to confirm the truth or accuracy of the statements he made of which he has absolutely no first-hand knowledge, I would appreciate your reprinting this letter in your next newsletter so that your members can have the opportunity to hear both sides and form their own conclusions.

1. Dr. Albright accused Tex*Comp of misappropriating DM-1000 from a Canadian Users Group and urged your membership to stop dealing with Tex*Comp until it stopped giving this program away.

The true facts are that this program was provided to Tex#Comp by a Canadian customer early last summer with the request that it be "freely distributed". Notwithstanding the request that the program be "freely distributed", we also confirmedthat the program had been placed into the public domain by the author which means absolutely no claims of copyright or any other proprietary right can legally be made nor can the program be reclaimed from the public domain at a later date. At the time we received this program it was being handed out and passed around at just about every user group meeting or gathering in the country and also appeared for free downloading on many local and national boards. In fact I am informed that even the Houston board and CompuServe board had it at one time or another.

Apparently, the fact that we started giving it away upset a small group of individuals who feel that they have the right to dictate and control who can freely distribute this public domain program. Since the program is in the public domain, the attempt to control, limit or monopolize its distribution by conspiring to bring about a boycott or by interfering with the relationship of Tex#Comp with its customers, prospective customers and its suppliers, is a clear and willful violation of the United States Anti-Trust laws which contain appropriate criminal and civil sanctions. Tex#Comp, with the help of many of its customers and user groups in both the U.S. and Canada has identified the culpable parties, and the matter is currently in the hands of our legal counsel for appropriate action. There has also been false interences made that lexilomo removed the name of the author and his group on the version it is freely distributing. Please check this out with any copy MS has in stock or any copy (any) of your members have purchased from us and you will see that this assertion, like the others, is simply untrue. We have also written proof that many of our customers did in fact send contributions to the Canadian group. Unlike DM1000, there are a number of so-called *freeware" programs, such as Fast Term and Mass Copy, that make legitimate claim of copyright, which would enable the author or owner to make kegai claim of unauthorized use.

Albright accused Tex#Comp of improperly taking the name "Explorer" from Millers Graphics for a program of its own. The true facts are that Tex#Comp has been selling a disk editor program licensed from a young man in Virginia (who also wrote Nibbler) under the trademark "Explorer" since December 1984 and has records such as cancelled royalty checks, invoices etc. to establish this date. I first lreaned of Miller planning to call a forthcoming program "The Explorer" in mid-summer of 1985 at a local user group meeting and after promptly verifying that Miller had not sold or introduced his program I but him on notice so he could change his proposed name before introduction and avoid the possibility of any conflict or confusion. He never responded to this letter or changed the name even though he had more than enough of an opportunity to do so. Millers braphics is a small firm which is actively supporting the more advanced

99/4A users and I have no desire to inqure him financially.

Accordingly, when Triton asked my permission to sell his program which infringed (upon) my California trademark registration. I agreed providing the name in the catalog was changed to MG Explorer. The story Dr. Albright related to your group about my midnight trip to a typesetter to beat Miller to the marketplace with the name has absolutely no factual or truthful basis. Even Miller himself stuck to the true fact as reported in the January (1986) issue of MICROpendium.

3. Dr. Albright advised your group that the new CorComp diagnostic module (PDM) that TextComp is currently advertising is nothing but an old worthless program that CorComp had used internally for its own testing. He also implied that CorComp and its dealers were ripping off the public on its load interrupt switch since it could be built and hard wired with a couple of dollars worth of parts from Radio Shack.

The true facts are that the PDM contains a brand new program that CorComp has developed for this module product. It is the only product of this type that we know of that enables the user to test the system even when the disk drive is malfunctioning. The information Dr. Albright provided to your group about it being an old program is faise and constitutes trade libel against both Cortomp and its many retailers including Tex#Comp. In addition, while owners are not and do not wish to build their own hardware or make internal connections to their equipment, the plans for many pieces of TI hardware, adapters, cables etc including load interrupt switches, have appeared in the various 99/4A magazines and user group publications through the years and we at Tex#Comp have always provided them to our customers. However, to publically attack a company and its retailers which make an investment in research, design, testing, tooling, component parts, packaging, overhead expenses and advertising to bring a product to market at a price higher than what one could throw it together in his backyard, is not only blatantly unfair, but is totally inconsistent with the economic principles which underlie our democratic society. Apparently Dr. Albright fails to realize that many 99/4A users are not astalented as he is and would prefer to pay extra to get a complete unit with tested software that plugs right in with no hassie.

4. Dr. Albright also advised your group that CorComp is in serious financial trouble and would most likely be out of business by the end of the year.

As one of the many retailers which market and support CorComp products. I take particular offense to this defamatory statement which was made with absolutely no first-hand knowledge of the true facts. I personally know of no situation where CorComp, under its present management, has failed to deliver product as promised or has failed to meet

its current legitimate financial obligations. mail-order company, Tex#Comp could not sell a product that was unreliable. CorComp's outstanding record of delivering what it promisesshould be compared by contrast to other tirms that have either gone out of business or keep promising to introduce products that are either delayed, introduced with serious problems or not introduced at all.

On the advice of legal counsel, I cannot at this time go into Dr. Albright's motives for using the platform your oroup gave him as a CompuServe spokesman to make false and dfamatory remarks against Tex#Comp and CorComp, or the legal effect this may have on pre-existing relationships. I can assure you however that Tex#Comp takes any and all unfounded and malicious attacks on its reputation very seriously and is more than willing to provide anvone making falso and defamatory statements about it an appropriate forum to be peoperly heard.

In closing I would like to point out several interesting facts for your membership to consider in forming its own conclusions in this matter.

- 1. Mr. Boone, the Canadian who along with Dr. Albright and Theresa Masters has been actively engaged in a smear campaign against Tex#Comp in an attempt to limit and control the distribution of DM1000, have attacked this free distribution of a public domain software by Tex**≭Comp** ostensibly on the grounds that Tex#Comp is a delaer as opposed to a user group. It should be pointed out however. that Mr. Boone is listed in the current Millers Graphics catalog as a Canadian dealer. Theresa Masters has in the past converted the LA Users Group from a club into a dealership and has purportedly obtained a business and resale license. Products from firms such as Millers Graphics, and Myarc are advertised by her group in the LA 99er newsletter and are sold by her at a profit at other user group meetings and computer seliing shows throughout the area. Dr. Albright himself is currently receiving profits from commercial software that he partially wrote and sold to Tex#Comp through his partnership (with) Heritage Software.
- 2. At you last meeting (January 5). Dr. Albright advocated that software for the 99/4A should be issued as freeware with the ultimate user being the judge of what should be paid. If Dr. Albright feels so strongly about this freeware concept, I question why his book, which was originally written on disk. Was distributed commercially rather than being distributed on disk as treeware.

Thank you for your anticipated cooperation in presenting our position in this matter. Your group can count on Tex#Comp for support in the TI-99/4A marketplace and we thank you all for making 1985 a very successful year for a firm supporting a computer that has not been made for almost two and on-half years.

Jerry Price, VP Tex‡Comp II Users Supply Co. **DONE**

MINI MEMOKY PUWER

By Merie Voot P.O. Box 145 Von Drmy TX 78073

ONE OF T, 1.8 MOST UNPUBLICISED BUT USEFUL AND POWERFUL MODULES IS THE "MINI MEMORY". COMBINED MITH THE "LINE BY LINE" ASSEMBLER AND EXPANSION RAM ONE CAN MAKE THE 997AR PENFORM AS WELL AS MANY NEMER MACHINES.

ONE CAN MAKE THE 997AR PENFORM AS WELL AS MANY NEMER MACHINES.

THE MEMORY OF THE STATE OF THE SHORE THE MORE STATEMENT OF THE PROPERTY IT DESERVED. PIRST, TOO MANY USERS HAVE LET THE WORDS "ASSEMBLY LANGUAGE" BOOGER THEM, THE MORE STATEMENT OF THE MORE STATEMENT OF THE MORE STATEMENT OF THE ON FOMANCE. SOME OF MY VERY BEST MERE GIRLS. AND THE MOST IS THAT ASSEMBLY DEMANDS ATTENTION TO FAR TOO MANY DETAILS! WHICH IS NOT THAT BAD. BECAUSE THERE IS A LOT OF CODE THAT YOU CAN CREATE ONCE, AND THEM ROTHE BOCKLE IT INTO YOUR MEAT 600 PROGRAMS. LET ME CENTRAL EVERY PROGRAM REQUIRES THATE MINI MANY OF MEMORY.

BECAUSE THERE IS A LOT OF CODE THAT YOU CAN CREATE ONCE, AND THEN RECYLE IT INTO YOUR HEAT 800 PROGRAMS. LET ME EXPLAIR. EVERY PROGRAM REQUIRES TRIME INTIN YOU AND HEAT 800 PROGRAMS. LET ME EXPLAIR. EVERY PROGRAM REQUIRES TRIME INTIN PARTS, AS I MILL SHOW.

1. (BEGIN JOB HOUSEKEPING). YOU CANNOT LEAP INTO THE HIDDLE OF A TASK. THE COMPUTER HUST BE SET UP IN MANY MAYS TO MAKE THE MAIN TASK RUN. YOU MUST SET UP REGISTERS, POINTERS, COUNTERS, ACCUMULATORS, DATA IDENTIFIERS, DATA STRUCTURES, FILE STRUCTURES, ETC.

2. (MAIN TASK) THIS IS ALMAYS A LOOP. THE MAIN REASON WE USE COMPUTERS IS THICE REPECT AND ACCURACY AT REPETITIOUS WORK. FURTHER, THE BST MAY TO DO MAY BIG TASK IS TO BREAK IT UP INTO A BUNCH OF SHALL SUBTASKS WHICH FEED INTO EACH OTHER AND THUS CLUB THE JUST IN JUST APPROACH NOW MAY TO DO MAY BIG TASK IS TO BREAK IT UP INTO A BUNCH OF SHALL SUBTASKS WHICH FEED INTO EACH OTHER MAY THUS COUNTED APPROACH NOW MAY THE FANCY NAME OF "STRUCTURED PROGRAMMING". BUT I MAS SO TAUGHT IS OK 20 YEARS BEFURE THE BUZZWORD CAMP ALUNG, MUSE ON HIS "MUJULIZINO" FULLOWS.

3. (END OF JOB HOUSEKEEPING). FINHLLY. YOU MUST DISENSAGE YOUR CONTROL OF THE MACTIME. THERE MAY BE FILES TO "CLUSSE", BRAND OTHERS AND CONTROL OF THEM. ALTHOUR CONTROL TO "WHICH THE YOU'M HAS UNE. ALTHOUR CONTROL OF WHICH THE YOU'M HAS UNE. ALTHOUR CONTROL OF WHICH THE YOU'M HAS UNE. ALTHOUR CONTROL OF THE PROGRAM STORM THEM STANDARD CODE MILL DEVELOP.

IT CAN BE SAVED AND FLUGGED INTO MANY OTHER PROGRAMIS SCRIETINES IT CAN BE USED INTRACT, OTHERWISE USED AFTER BEING FLUGGED AROUND A BIT.

4. NOW, HERE I MILL LIST SOME USEFUL INFORMATION SOURCES.

A. "MINI MEMORY INTRO". 99.ER MAGGILME, VOL 1 & 85.

D. "DUSING LINE OF LANCE MOSCIPULET." YOUR A BIGT INFORMATION SOURCES.

A. "MINI MEMORY INTRO". 99.ER MAGGILME, VOL 1 & 85.

D. "DUSING LINE OF LANCE MOSCIPULET." YOUR A SECRELLY LANGUAGE "N. S. NORLEY.

E. BOOK. "INTROFUCTION TO ASSEMBLY LANGUAGE FOR T. I. HOME COMPUTER", RAP HOUGESOOTH.

BOOK. "FUNDAMENTALS OF TI-99/4A ASSEMBLY LANGUAGE", M. S. MORLEY BOOK. "INTROFUCTION TO ASSEMBLY LANGUAGE FOR T. I. HOME COMPUTER"

RALPH MOLESHORTH.

DISASSEMBLER PROGRAM. 99.EK MAG MAR 1983. DONE IN BASIC BUT IT ON MESSEMBLY CODE IN RAM. BACK TO MIN MEM. THERE ARE A LOT OF FACILITIES IN THE MODULE, FIRST

LET'S SEE THE MENU. 5. "EASY BUG". SELECTION 2 ON THE MENU.

5. "EASY BUG". SELECTION 2 ON THE MENU,
THIS ONE OPENS UP THE INSIDE OF THE CONSULE. YOU CAN LOOK AT V. D. P. RAM
OR AT EXPANSION RAM, TO SEE IF THE EXPECTED DATA, OR CODE, IS AT THE ADDRESS
WHERE YOU THOUGHT YOU PUT IT. SOMETIMES THE UNEXPECTED GORBAGE WILL GIVE YOU ARE
CLUE TO WHAT BLEEN UM. PUNTHER, "EMSY BUG" WILL EXECUTE LOUE KOUTINES YOU HAVE
ASSEMBLED. SOME VERY SIMPLE ERRORS CAN BE CORRECTED WITHOUT RE-ASSEBLING IT ALL

- 6. MINI MEMORY. SELECTION 3 ON THE MENU IS CALLED "MINI MEM". THIS TO A SUB-MENU OF THREE TIEMS, WE ARE INTERESTED UNLY IN CHUICE # 2, "MUN" THIS IS A SECOND WAY TO EXECUTE ASSEMBLY MOUTINES. MORE LATER ABOUT THIS.
- 7. THERE IS A 4-K ROM IN THE MUDULE WHICH CUNTAINS A NUMBER OF EXECUTABLE DITNES WHICH PERFORM SOME QUITE COMPLEX TASKS, YOU CAN "CALL", THANSFERING WIRGL TO THESE AND GET CENTAIN WORK DUNE MITHOUT HAVING TO WRITE A BIG CHUNK CODE YOURSELF TO DO THE JULY.
- 8. THERE IS A 4-K BANK OF RHM. THIS IS WHERE THE LINE BY LINE ASSEMBLER MALLY RESIDES, BUT, AS DESIRED, YOU CAN FUT YOUR OWN CODE RERE AT OTHER TIMES IF NEEDED.
- 9. YOU CAN KUN A SMALL "RAN DISK" IN EXPANSION RAN, YOU CAN USE EITHER SEQUENTIAL OR MELAFIVE FILES IN IT, YOU CAN "SAVE" OR "LOAD" THIS FILE TO/F CASSETTE, AS NEEDED, THE FILE IS NAMED "EXPANSE". THE HIGH RAM AREA IS NO OTHERWISE AVAILABLE WHILE USING THIS RAM ISK, NOTELL: THIS FILE IS ACCESSED THE MELAFORM OF ASSETTING SIZE, HEAD THEM AS THE ASSETTING SIZE, HEAD THEM A SMALL 4-K FILE, NAMED "MINIMEM", AVAILABLE IN THE MODULE'S RAM SPACE.
- 10. THERE IS ANDTHER VERY VALUABLE FEATURE. AS YOU KEY IN BASIC PROBRANS, YOU CAN STOP CUDING AND TYPE THE COMMAND. "SAVE EXPRENZ", WHICH STOKES YOUR COMINTO EXPANSION RAM. AS YOU KNOW, IF YOU HIT "DUIT". THE PROBRAM IS GONE, BUT IT IS NOT GONE FROM EXPRENZ, UNITLY YOU POWER OFF. SO, IF YOU LOSE THE PROBRAM WHILE ENTERING, ON TESTING, A SIMPLE "OLD EXPRINZ" PIXLS IT BACK. ALSO, IF IY IS A SHORT PROBRAM, NOT UVER 4-X, THEN "SAVE MINMEN" AND "OLD HINMEN" CAN BE USED, HERE YOU WONT LOSE THE CODE ON POWER DOWN BECAUSE MIN HEM IS BATTERY BACKED. NOTETI CANT DO THIS IN EXTENDED BASIC.
- 11. MINI MEM PHOVIDES FACILITIES TO CREATE MYBRID PROGRAMS WITH A BASIC MASTER PROGRAM COMBINED WITH ASSEMBLY SUB-TASKS. THE BASIC CODE IS THE MASTER CONTROLLER, AND THE ASSEMBLY PHOVIDES MODITIES WHERE BASIC MAY BE TOO SLOW. FURTHER, BASIC HAY MASS FROM THE ASSEMBLY SUB-MOGRAM.
- 12. YOU CAN UMENTE ASSEMBLY SUBTASK MOUTTNES SEPERATELY AND SAVE EACH UN CASSETTE. ASSEMBLY SPALE IS AT MUNICESSES SHOUD THRU JETU AND JETU THRU JESUS THEN THESE SPALL BLOCKS DE CODE CAN BE REMOVE INTO A VERY LANGE PROBABAN. YOU DO NOT HAVE TO GRIND OUT A HOUGH BLUCK IN UNE HURKI BLE PRODUMENTING SESSION. BE SIBER TO SUBTE ACCESSIONAL COMMISSIONAL BLOCK IN CASE THE CARRESTON THREE SESSION FOR SUBTACL COMMISSIONAL BLOCK IN CASE THE CARRESTON THREE SESSION FOR SUBTACL COMMISSIONAL BLOCK BL
- 13. THERE IS ONE IMPURIANT PACTUR ABOUT CODING WITH LINE BY LINE AND MINI MER. THE T. I. PERSON WHO CREATED THE STSTEM DISCONNICED IT GAMBST (UTHALLY FOR CASSETTE OPERATIONS. LINE BY LINE IS FROM CASSETTE. IT MUST LOWD INTO THE MINI MEM 4-K ARM SPACE. THE OUTPUT PRODUCED BY LINE BY LINE MUST SOU INTO THE MINI RAM. IT IS SAVED / LONDON TO PRODUCED BY LINE BY LINE MUST SOU INTO EXPANSION RAM. IT IS SAVED / LONDON TO PRODUCED TO FULLY EXPOSIT FOR THE DOCUMENTATION. IS THAT EXPANSION HAD IS ABSOLUTELY REQUIRED TO FULLY EXPOSIT THE MODULE'S CAPABILITIES. NOTETT YOU CAN WRITE ASSEMBLY CODE WHICH MILL PROCESS DISK FILES, OR CASSETTE FILES. BUT LINE BY LINE MONT SAVE CODE TO DISK.

CONTINUED NEXT MONTH

DONE