West Penn 99'ers

Supporting the TI-99/4A Home Computer

Established 1985

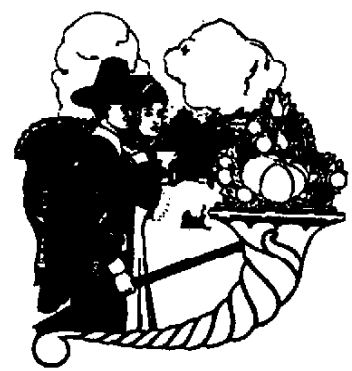**ISSUE #87**   **November 1992**

FOR THE RECORD
By: Frank N. Zic

Mickey started the October meeting promptly at 7:15 PM. First order of business as usual was to give thanks to Judy Muir (Posthumously) for all the fine work on the newsletters and for caring about our group as much as we know she did. A moment of reverence was held in Judy's honor. See the September NL for a nice write-up about her, written by her son, Patrick. Changing the order of business for the meeting, Mickey first held the raffle. Four nice prizes were given to four equally nice members. Art Gardner-colored printer paper, Ralph Vasco-gold marking pen, John Whelan- -colored disks and Norm Rokke-silver marking pen. Paul's NL front page sheets were passed around. The Lima tapes were once again re-distributed along with the Munch tape. Next, Norm gave his Sept. MICROpendium selections for review: (Seems like Mickey's job gets easier all the time. (Ha, Ha). Page 6, Geneve and D&&L address correction, p18 Hardware speed-up, p19 Traver's "Pegs and Puzzles", p25 Miller's MDOS, TI-Writer manual $2.06 and p30 full screen editing correction.

Nominations for 1993 officers were held. President- Mickey Cendrowski, VP- Norm Rokke and John Willforth, Treasurer- Lynn Gardner, Recording Sec.- Frank Zic, Corresponding Sec.- Paul Brock and Mike Sealy and Librarian- Bob Sadusky. Next the long awaited moment we have all waited a year for, has arrived. November will be our annual free Pizza night. All our old club friends are cordially invited to come and renew acquaintances. We really would like for you to come and join us. It's always a great night and could be better (only) if you attend. Yes, I know you missed the October meeting but did you know you missed the biggest free give away of excess TI equipment East of the Mississippi. Yes, John Willforth's wife Fay made John do a massive clean-up. For all the supplies to be given freely by John to anyone that wanted them, was more than anyone had a right to expect. But our MAN John is just this type of individual. Thanks from all of us, John. Where would we be without our renown founder? A reminder that the November PUG meeting will be on the first Sunday, Nov. 1st. BTW Mickey, if you can arrange it, we would still like to see your wedding VCR tapes. Mike coming in would be nice too. Chris, here is a little extra room for you.

May the good 4's be with you.

WEST PENN 99'ERS CLUB INFORMATION

NEXT MEETING DATE

NOVEMBER 17, 1992
7:00 P.M.

MEETING LOCATION

PENNS WOODS
CIVIC ASSOCIATION

JUST OFF ROUTE 30
N. HUNTINGDON, PA

LIST OF WEST PENN OFFICERS FOR 1992

PRESIDENT:	Mickey	412-265-5201
VICE PRESIDENT:	Norm	614-264-6442
TREASURER:	Lynn	412-835-4304
RECORDING SEC:	Frank	412-751-6065
CORRESPONDING SEC:	Paul	412-478-2754
LIBRARIAN:	Bob	412-863-5672
NEWSLETTER EDITOR:	Chris	703-415-3964

GENERAL ITINERARY OF THE CLUB'S MEETING

6:45 P.M.	DOORS OPEN
7:00 P.M.	GENERAL MEETING
7:45 P.M.	DEMOS AND NEW INFO
9:45 P.M.	ONE ON ONE HELP
9:45 P.M.	SOCIALIZING
11:00 P.M.	DOORS CLOSE

MEETING HIGHLIGHTS FOR THIS MONTH

* LATEST T.I. NEWS AND SOFTWARE DISCOUNTS

* SPECIAL REPORT ON THE CHICAGO U.G. SHOW

* ELECTION OF WEST PENN OFFICERS FOR 1993

* PAGE PRO CATALOGER - DEMO BY NORM ROKKE

* » SURPRISE DEMO BY ONE OF OUR MEMBERS «

* »» PRODUCTS FROM MS EXPRESS SOFTWARE ««

RENEW YOUR MEMBERSHIP DUES!

$15.00 PER YEAR FOR INDIVIDUAL / FAMILY
$10.00 PER YEAR FOR ONLY OUR NEWSLETTER

From the Editor...

This month I am on my way to Las Vegas to attend the world's largest computer conference, COMDEX. I'll be looking at many things, but I think most importantly I will be stopping by the numerous Texas Instrument booth's to see what their latest technologies are. I expect to see. in addition to their PC based computers, notebooks, and printers, a wide range of innovations. Many of them including *speech recognition*. Remember the MBX Voice Recognition System for the TI-99/4A made in cooperation with TI by Milton Bradley? Well, TI has taken speech recognition much farther today. Perhaps they will have a few items I'm not expecting too. You can expect a full report of when I get back in next month's issue.

I was surprised not to see any discussion on a new editor for next year in this month's minutes. I realize the post is a Presidential Appointee, but discussion must start now...the transition period can be smoother that way. I will be available for help with the transition, and all of my template files and graphics will be passed on to the new editor. I also have all of the issues I put out archived on diskette (a total of 24).

CDP

—WP♦

THE FEW...
THE PROUD...
THE SOMEBODY

BE A SOMEBODY... VOLUNTEER NOW!

THE WEST PENN 99ERS NEEDS YOU

WEST PENN 99 ers

The following information comes from disk #4 of the CIN-DAYusers group.
The 99/4A Gets Down To Business
By Art BYers, CW-99ers

I was very impressed by the short demonstration that Steve Nickerson, who has a very responsible job with the County Park Commission, gave at the May meeting. It was still another way he is using his TI-99/4A computer at work. This is about the fourth time Steve has shown us his ingenuity is making the TI useful on his job.

Al Trudeau and Nils Soderman have also shown us their original programs that they use for business. I too have been using the TI-99/4A for my varied businesses. To somewhat paraphrase the poet, "Let me Count the ways" the 99/4A is earning money for me:

#1:Along with my modem and terminal software such as FAST-TERM or TELCO, I use it as a dumb terminal, to access the real estate multiple listing service data base. This is a very necessary part of one of my endeavors. I gave a demo of this at a past meeting and will do it again if there are enough members who are interested.

#2:I have a "Customer" for whom I do programming at $25.00 per hour. Believe it or not, this customer uses a full house TI, in his retail store, for a miriade of business purposes from banners and price lists, to calculating markups and printing price labels for items in the store. He uses a 1/2" x 3" or 1" x 3" pin fed label and gets lots of info on it such as count of package contents, retail list, discount retail, percent of saving for the customer, etc. At one time he

even did bookkeeping on the TI but switched to a "one write" manual system at the suggestion of his accountant as the store's requirments were simple enough that a computer was not needed.

It is for this customer that I have written several programs designed to manipulate data from DV/80 files prepared on TI-WRITER. Simple versions of these programs have appeared in previous CALL SOUNDS Newsletters. One of the programs that he finds most useful will sort up to 252 full lines of DV/80 text, reprint it in ascending order and allow for calculation of varying price columns according to quantity purchased.

I'd like to mention that he bought his TI used, complete with TI Impact Printer, PE box and all cards and cables for less than $250. At the time he bought it, he had considered an IBM which would have cost him well over $1800. Now, after three years, he has yet to outgrow his TI -but this is a diversion. Let's go on.

#3:I do mailing list maintainance for another local business. The current list is about 4000 names and growing. My 99/4A prints out mailing labels by Zip code, by classification of customer, etc., - what ever my client requires.

#4:I do considerable and varied wordprocessing. This includes not only business letters, price lists, charts, outlines, etc. but also insurance claim forms, standard contracts,

leases and so on. All this as part of on-going businesses. Surprising as it may seem, I actually do "MULTI TASKING" with my 99/4A. Of course it's because I have TWO of them. ((that's a joke, son!)). One is usually used for word processing while the other is sorting a data base or printing out labels.

My TI-99/4A not only has "paid for itself" many times over, but also it continues to do so, - and that's good business!!!

In the Aug. 1992 of the TI SLAVES on page 8 is information about, adding super cart to 32/16 bit memory conversion. This is a bit of old info., but may be of interest to someone new.

Long Island U.G. Aug 1992 has an artical about Horizzon Ram Disk lock ups.

In the Bug News Sept. 1992 - a type in program called Memo Pad. interesting for those that need a program for a daily reminder.

I hope that this information is useful. I also wish everyone has a full table on Thanks giving!

MADE IN U.S.A.

The following TI items are for sale...

2 TI GROM Ports (NEW) -- $5.00 ea.
2 40MB MFM Hard Drive -- $100.00 ea.
2 20MB MFM Hard Drive -- $60.00 ea.
32k Corcomp Standalone-- $25.00
RAVE Speech adapter card for PBOX (NEW) - $35.00
2400bps external modem-- $50.00
GRAM Kracker -- $100.00

The following PC equipment is for sale...

200MB IDE Hard Drive (15ms) Half ht-3 1/2" -- $250.00
40MB IDE Hard Drive H Ht 3 1/2" -- $100.00
2 40MB MFM Hard Drives H Ht-5 1/4" -- $100.00 ea.
2 20MB MFM Hard Drives H. Ht -- $60.00 ea.
2400bps External Modem w/ power supply -- $50.00
Intel 387 (16-33Mhz) Math co-processor -- $70.00
Sony 3 1/2" (w/ 5 1/4" Bracket) HD Floppy Drive -- $40.00
1 360K & 1 HD (1.2MB) 5 1/4" Floppy Drives -- $40.00 ea.

-- Christopher Pratt (703) 415-3964

FOR THE RECORD

by Frank N. Zic
(December)

Mickey started the November meeting early at 7:10 PM, she said she was organized tonight. Hum, we'll see. First order of business as usual was to give thanks to John Willforth for his extra special generosity to our entire group when, last month, he brought in tons of, he claimed expendable, TI equipment to be given to those that needed the supplies. Thanks indeed John, from all of us. He donated even more this month but we weren't able to look it over due to our annual pizza night, demos and the blackout. We actually had our pizza by candlelight. Thanks again Bob for another nice ordering job. Strange that John didn't attend, I think he likes pizza? The power failure was due to a huge fire that destroyed the landmark-White Barn Theater complex. Next favorable reports were heard from all the officers. A discussion followed about the cost of printing our newsletter. Everything seems to be on an even keel. After the Dec. meeting an audit will be conducted on all the club equipment. So if you borrowed something, please bring it in, or at least let Mickey know what you are still using.

A good sign that our club is still very active was obtained by the fact that Art had requests for 10 ribbon re-inkings. Don't forget the 1993 dues should be paid to Lynn before the end of the year. The Lima tapes and how to clean your console VCR tapes were again re-distributed. Nice to see our members showing such high interest for this informative material. Several addresses and phone numbers were noted as follows; New location for. Cecure Electronics Inc. S81 W18878 Apollo Drive, P.O.Box 132, Muskego, WI. 53150. Phone (414) 679-4343. Talk with Don Walden. I updated the group on my recently repaired HFDC card. Don himself called and also sent a complete item by item repair list, professionally handled. And for those living in this area, White's TV, 2601 E.Fifth Ave, McKeesport, Pa. 15132, phone 673- 1111. White's does quality repair for a reasonable price. They do monitors, TVs, VCRs and other electronic equipment. Important business was also conducted, the election of officers. In short, all those now holding offices were re-elected. It is nice to see that several offices had two selections. This shows a healthy club atmosphere. Along these same lines, a newly appointed editor, Ralph Vasco will start the 1993 season. Ralph's address is, One Virginia Drive, Donora, Pa. 15033, phone (412) 379-8762. Mickey and Paul have offered to help with the NL where possible. At this time, Mickey and all of membership, wish to extend our deep appreciation to Chris Pratt for his excellent service as our outgoing Editor. Chris will remain a member, I'm sure, and hopefully attend our meetings and events whenever he can get away from the Washington, DC area. Thanks again Chris. You know the really nice thing about our club are the nice and caring members that we are privileged to have.

This is beginning to look like a long winded report, ha, don't look at me folks. Any modifications to the new newsletter header are welcome. Also, if you have an idea about a new type of program you would like to see developed, let Mickey, Mike or Norm know. They just may be able to combine their talents and come up with something. Far fetched you say, indeed not, for this is exactly what happened when Paul Brock said that he would like to see a program that would help with showing Page Pro pictures, pages and borders and such. Well, to cut the story short, our talented assembly programer, Norm Rokke came up with "Page Pro Cataloger". The program was already widely accepted at the Chicago Faire and is available thru MS Express Software at P.O.Box 498 Richmond, Ohio 43944. Price $14.95 + $1.00 S&H. Our raffle prize, after Norm's nice demo, was of course a copy of the new program. Also Mickey awarded Paul a copy because of his original suggestion and his keen interest in Page Pro. Other raffle prizes were a neat little carrying case that holds a five pack of disks and a joy stick extension cable. Mickey instituted another new monthly feature, all present at the meeting will receive a drawing ticket entitling the winner a free disk from the library. Come on in folks, the waters fine and it would be ice to see you. Norm gave some selections from the October MICROpendium; Pages 6&8 about "32 Pages", p19 Traver on Puzzles and p27, Drawing Master. I don't know if I like it when Mickey is organized, it sure means a lot more writing for me.

May the good 4's be with you.

WEST PENN 99 ers

Inportant information sometimes slips by us like water in a creek. I am talking about Jack Sughrue. Jack has been passing along information such as **NEW AGE/99**. I found his artical in MUNCH News letter 08/92. Jack has been passing this info. along for some time. I will recopy(type) this artical for those that only reads our news letter. His writings have been of others, all that are inportant to the **TI world**. His approach of this materal makes interesting reading. **Thanks Jack**.

~~~~~ TI-101 ~~~~~

OUR 4/A UNIVERSITY

by Jack Sughrue
Box 459
E. Douglas MA 01516

#3DOCENTS

To whom one turns

You people up back, let's have your attention up here!

Save your questions untill the end, as I'll probably answer them along the way, anwway.

Frist make sure you have your notebooks open and pens at the ready. There are lots of inportant names and addresses I'll be giving out. Only once. So if you miss them the frist time, its as the French say, "Zee tough cookie."

Second, in my hand I have a SOFTWARE EXCITEMENT Catalog. These $2 catalogs are for the IBM compatibles, Amigas, Macs, Commadores, and Apples. they are typical of the user-suport shareware-type catalogs for those machines, most of which contain

the same items no matter who publishes them. Lets look at what they have to offer for $4 per program! If you buy a dozen programs they go for $3 each. 20 brings the price down to $2.50, When you order more the 50 of these programs the price gets down to #2 each. Plus shipping charges and a $3 handling and packing fee. But there are only 30 educational programs total, pre-school through colege, anyway, so you couldn't even order 50 educational programs if you wanted to. But one has to be careful, evenif you have a dozen children from ages 3 to 23. AMEMCMP (a memory game). for example, requires 640K (YES! 640!), a VGA or EGA monitor, and a hard drive. Whew! Sure makes our little, verry inexpensive, 32K TIs with single/single drives look puny. doesn't it? Or does it? What does this program do? You match up hidden pairs. It's a fancy variation of Concentration.

There is also a program called WORD GALLERY which helps children associate the printed word with the object it discribes. (Doesn't that sound a bit like a few cartridges TI made about a decade ago?) There are also math programs that teach counting, addition, and subtration through endless patience and some graphics and games. (More cartridge *deja yu* ?) There's also French and Spanish tutorials. And so on. Anyways, if you have a use for any such fanciness or even all of these 30 programs, they will cost you about $70,

Now, We'll begin with THE important educational resources of today's American TI Community.

As I'm not reading from my full notes today, Class. I'm afraid I'll be leaving out a few

important resources unintentionally. Consider checking this out and locating the missing sources as part of your assignment for next time.

Meanwhile, let me start with some comparisons to this $2 shareware catalog in my hand. There's a wounderful programer and writer in Columbus by the name of Jim Peterson. He has a one-man company which has no equal for any other computer in the country. It's called TIGERCUB SOFTWAER (156 COLLINGWOOD AVE. , WHITEHALL, OH 43213) and offers disks at $1.50 each (postpaid for 8 or more). DISKS! Not programs. And he has over 550 different disks! Jam-packed full of the best authors in the TI world, arranged by category and auto-loaded from a super menu. We're talking THOUSANDS of public Domain and Shareware programs. Let's look under education, for example, where, along with the games sections, you can find not 30 but THOUSANDS of programs, various Concentrations just being a smidgeon of these. For example, there are three disks full of programs just for Vocabulary & Reading and 15 DISKS! just for Math (to name a couple). Here are the programs for just one of these Vocabulary & Reading disks: Adjective to Adverb, Noun to Adjective, Learning to `ing' it, Plural Endings, Animal Multitudes, Doctor Who, Vocabulary, Vocabulary Quize, Syllables, Reading Practice, Speed Reading, Tense Times, Synonyms & Antonyms, Read Fast, and Vocabulary II. 15 educational programs for $1.50! Or, in this case Just 10 CENTS A PROGRAM! (Or, puut another way, about 30 programs for $3, instead of $70, as is the case with the "other" computer.) In addition to some neat graphics, some of these programs have real speech! All for a dime. Nothing's been a dime sence Nixon took us off the gold standard: Not a pack of gum, not a comic book, not a candy bar,. But now, thanks to Jim Peterson and TIGERCUB, the dimey has returned to those fortunate enough to own a

TI-99/4A. Top quality for wounderful prices. To get his catalog ($1 deductible on frist order) is like roling Chanukah, Kwanzaa, Christmas, Druidic Solstice, and 55 birthdays all into one computing event.

I tell you class, it'll make your mouth water

But where was I!

Oh, yes, TI resources for educational goodies. Er, Tools, Eductional tools and materials.

Obviously, if you own a disk drive, TIGERCUB is an enormous resource,

The next best resource is an active user group. Makes no difference if you live in East Douglas or Venedocia (if there really are such a place), you can make the connection by joining by mail. I belong to a few user groups. In addition to monthly newsletters, which keep me very informed and up to date on TI matters of importance, I am also afforded the opportunity of participating in the treasure chest called Club Libraries. I'll use the Lima, Ohio, group as an example. (Lima UG, P.O. Box 647, Venedocia, Ohio, 45894). For my $15 dollars a year I recive a MONTHLY newsletter of original articals, reviews, advice, programs, you-name-it. Also i automatically recive important updates of FUNNELWEB. The most used piece of software in the TI disk world. I have access to a zillion world-wide newsletters and other pieces textware. not to mention the expertise of a truly sharing collection of hard-working, friendly 99ers. I am also entitled to the free library of cassettes and disks put together by this small, dedicated contingent of TI goodfellas (and gals). This means that I can look over the immense LIMA catalog at my home in Massachusetts and send cassettes and postage or disks and postage and get ANYTHING I want for nada, zilch, zero, cribbage 19, nothing. Best that one,

Kiddos!

Oops! As I was saying, we mist look into our educational resources. There are many other user groups, too, class. My local M.U.C.H. (560 Lincoln Street, P.O. Box 7193, Worcester, MA 01605) is probabily my best personal resource, as I attend our monthly meetings and fairs and so on. We do lots of demos and hands-on type things and help each other whenever possible. Anyway, class, if you can find a local group you can go for the meetings, that's another great resource, but at least join one by mail if there are no locals.

And attend at least one TI Fair somewhere once a year, even if (as I do) you have to travel over 800 miles. It's worth it for all the......

If you'd hold the talking down back there, it would be greatly appreciated. We're running out of time, and I did want to......

Okay, Mr. Shakespeare, what is the question? I suppose that's the only way that I can get you to stop waving your hand.

Listen up, class! listen up! Mr. Shakespeare over by the window wants to know about some of the educational software. He says he has a nephew in junior high who is having trouble reading and two granddaughters who are 8 and 4, respectively, and wants to know what the TI can do for him.

Yes, yes, Ms. Bronte, I'm AM going to tell you about educational software for people our age, too, but we won't be able to get into too much of that for a few sessions.

Right now, though, I'd just like to tell you about a few people who had some visions. It might help.

Terrie Masters, who use to be president of the Los Angeles group, spoke to me a few years ago about some educational networking with our TI educators. I've also discussed that same thing more than once with Charlie Bood (Lima UG). And Sister Pat Taylor (1050 Carmel Drive #456, Dubuque, Iowa, 52001). And John Williforth (RFD

#1, Box 73A, Jeannette, PA 15644). And Janet Ryan and her daughter Jennifer (10 Jolly road, Ellington, CT 06029). AndMickey Schmitt Cendrowski (R.D.1, Box 133 Russellton, PA 15076). AndMike Wright (45 Centerville Drive, Salem, NH 03079). And Jim Horn [EXTENSIVELY] (P.O. BOX 244, Lorton, VA 22079). And Roger Merritt(1949 Evergreen Ave., Fullerton, CA 92635). And Fellow elementary teacher Phil Townsend(c.o. Kawartha 99ers, 224 Woodward Ave., Peterborough, Ontario, Canada, K9L 1J7). And Eunice Spooner Webb RD., Philadelphia, PA 19128). And OFTEN with Jim Peterson. And, once with educational programer Don Shorock(P.O. Box 501, Great Bend, KS 67530). And very often with Chris Bobbit even before he founded ASGARD (P.O. Box 10306 Rockville, MD 20850). And piles of teachers and interested parents and grandparents.

An educational network has been a hot topic for many years in our community. As a matter of fact, Terrie mentioned a teacher by the name ofJoy Warner (Box 518, Mt. Baldy, CA 91759), whose daughter is a pilot and was in the recent winter olympics as a "lugist," one of those incredible sledders, who was bent on getting a network going. This past year Joy flew all over America trying to help Terrie's dream come true by meeting with as many TIers as she could meet during her whirlwind tour.

She discovered, as I did, that there is already much of that network in place and ready to connect. Jim Peterson has his TIGERCUB marvel, Charley has ben testing (with his own wonderful tykes) all kinds of marvelous and rare TI educational programs from Milliken, Scholastic, Disney, and so on. Mike and Charley, along with Gary Taylor from Pittsburgh have been competing for ownership of the ulitimate TI collection (in fable known as the TI GRAIL). Eunice Spooner not only runs the only all-kids TI user group in

America but has the best LOGO video and disk program money ($10) can buy. Bill Gaskill and Ron Albrighthave been (to our 99 history) the best thing to happen to us. Bill still is. Dick Altman's wounderful fairware list is now in the capable hands of Ida McCargar of the Southwest 99ers (P.O. Box 17831, Tucson, AZ 85730).

Oh, sorry,Ms Bronte, I didn't notice the time. Anyway, keep this list. Its important when it come to time for the final. Guaranteed this material will be on it.

Did I mention NOTUNG? Or TEX-COMP? Or MICROpendium? Or REGENA? I didn't mentioned Regena? Quick. Write down REGENA, 918 Cedar Knolls West, Cedar City, UT 84720.

Ciao!
(Now let's see. Who did I leave off the list? And where does the time go?)

While looking through the news letters, I came across this bit of information in the TWIN TIers Oct./Nov. 1992 issue. Hard and floppy disk controller for the TI99/4A and Myarc Geneve, available soon from Bud Mills Services.

I was interested in the COMPUTER CONTROLLED ROBOT by Ken Glodysewski, but Radio Shack donot have any more robots... So I will have to put this one on the shelf for a while. Thanks anyways Ken!

MERRY CHRISTMAS & HAPPY NEW YEAR

MADE IN U.S.A.

memo

It is sad that Chris is discontinuing as EDITOR. I am sure that I speek for West Penn and all the members. As part of our organization I would say that volunteers are hard to come by. United we stand, All for one, The call of duty and doing>> just to help. This is the American way and the West Penn way.
A big THANKS for all your help Chris.

CaDD Electronics
81 Presscott Road
Raymond, NH 03077
(603) 895-0119

We at Cadd Electronics are proud to offer some very fine programs for the TI 99/4A and Geneve computers. A description of our current offerings follows.

RICHGKXB

This is an enhancement to the original TI Extended Basic. This program requires the use of a GRAM emulating device. A few of these devices are the Gramulator (see below), GRAM Kracker, Geneve and the GRAM Karte. This new XB interpreter adds many new and modified commands to XB and remains 100% compatible with TIXB. It also adds many combined commands to help speed up XB considerably. The combined commands deal mostly with sprites. Example;

OLD TIXB
Call COINC(#1,#2,A) :: IF A THEN CALL DELSPITE(#3)

RICHGKXB
CALL CDE(#1,#2,A)(#3)

Both of the preceeding lines will delete sprite #3 if sprites #1 and #2 collide. The lack of reinterpretation in the RICHGKXB will result in its line executing much faster then the TIXB line.

CALL LINKs are not needed to execute the new commands because they are part of the interpreter and are not assembly add-ons. The load times associated with assembly LINKs is also not required since all commands are built into the GRAM files.

Many powerful tools are at your disposal, including some windowing features and direct CRU control (IO), when using RXB. Also included are convenient disk commands such as RENAME, PROTECT, and PDISK. These disk commands are not CALL LINKs, they are true XB commands.

P.S. The GK stands for GRAM Kracker. All the changes Millers Graphics made to GRAM Kracker XB are included in RXB (with Mr. Millers permission).

RXB is 100% TIXB compatible on the TI99/4a. RXB should be 100% compatible with the Geneve 9640. CaDD will make every practical attempt to to keep every function usable to the 9640.

Price $24.95 + $2.00 shipping. This includes a 90+ page manual.

GRAMULATOR KIT

Our very successful GRAM emulating product now in kit form. This kit will allow a person to build a Gramulator. This is a GRAM simulating device. GROMs are the solid state memory used in all TI cartridges. These memory chips contain a computer language called GPL. GPL code is the key to the 99/4A internals. With this device you will be able to back up all your TI cartridges. Having access to a GRAM device will allow you to take advantage of new programs like RICHGKXB. You can also modify your cartridges to use a printer port not normally supported by the program. Many people have made major enhancements to cartridges using GRAM devices. RICHGKXB was developed using the Gramulator.

The Gramulator is also expandable. You may add support for MBX cartridges and/or a real hardware alternate GRAM bank. This alternate bank will allow you, under most conditions, to load two cartidges simultaneously. Once two are loaded all utilities of both programs are available to BASIC (i.e. Speech from TEII and CALL LOAD from the EA). The directions and parts for adding these options can be obtained from CaDD Electronics.

The kit will at minimum include:
4-layer P.C. board
Assembly instructions
60+ page type set operator manual
Cartridge connector
Battery holder
EPROM
4 disks with utilities and source code
Schematics

Base kit price $65.00. (as above)
Full kit price $150.00 (all parts)

Please Note:
Neither kit includes a case.

UTILITY DISK #1

These three disks contain three programs and their assembly source code. The programs are;

CHARA1LOAD
A program to allow you to add your prefered character set to GRAM 0 of the Gramulator. This character set will then be permanent for all programs to default to including BASIC and Extended BASIC.

MEMTESTER

A program to test all of the Gramulators memory and functionality. This will also test all optional features such as the MBX and Alternate GRAM modifications.

Universal GRAM file Converter

This program does not require a GRAM device. The program converts three very popular GRAM file formats used by different GRAM emulators into one of the other formats. This will allow you to share changes and enhancements to cartridges with people having a different GRAM device.
The three formats supported are;
1. GRAM Kracker, P-Gram, Gramulator, Geneve
2. GRAM Karte
3. TI GRAM emulator

Price: includes three disks with all three programs and source code: $12.00

Please Note:
If the destination format does not support the hardware required, the conversion will not be possible. (i.e. Gramulator MBX to GRAM Karte).