

8612 STIC (054)



SASKATOON TEXAS INSTRUMENTS COMPUTER CLUB  
NEWSLETTER DECEMBER, 1986



FIRST CLASS MAIL

FROM: STIC  
P.O.Box 7925  
Saskatoon  
Sask., Canada  
S7K 4R6

TO: Edmonton 99'ers  
P.O.Box 11983  
Edmonton, Alberta  
T5J 3L1

\*\*\*\*\*

SASKATOON TEXAS INSTRUMENTS COMPUTER CLUB

We discuss and review new products for the TI99/4A while providing technical support for any problems that a member may have. We also support a software library and have regular contacts with other groups in Canada and the United States. Our membership fees are very reasonable: \$10.00/single or \$12.00/family. If you would like to become a member, or require more information, contact any member of the executive.

1986 EXECUTIVE COUNCIL

PRESIDENT:	Harry Caruk	384-6321
VICE PRESIDENT:	Ian Hawes	374-0019
SECRETARY:	Randy Mortensen	242-1622
TREASURER AND		
LIBRARIAN:	Ron Schnor	343-1256
EDITOR:	John Thomson	244-1394

MAILING ADDRESS

P.O. BOX 7925, Saskatoon, Sask., Canada S7K 4R6

STICC DISCLAIMER

We are a small, nonprofit club here in Saskatoon. We never have, or ever will, consider our newsletter a professional medium in its field. Therefore, with this consideration, the views presented in the articles, by various authors, may not be the views of the newsletter committee, the STICC executive, or its members. On this basis, this club cannot be held responsible for errors, omissions, views, or copy infringements, as presented in the articles.

MEETINGS

General meetings are normally held at 7 PM on the first monday of each month at the Saskatoon Region Community College, 145-1st Avenue North. If the first Monday of the month is a holiday (civic or statutory), the meeting will be held on the following Monday. The meeting room number will be posted on a sign at the main entrance. (Usually room 144)

```
*****
*
* SCHEDULED MEETINGS : JANUARY 5, 1987 *
*                      FEBRUARY 2 *
*                      MARCH 2 *
*                      APRIL 6 *
*                      MAY 4 *
*
*****
```

\*\*\*\*\*

A CURE FOR THE ALPHA-LOCK FRUSTRATION SYNDROME

by John Thomson, STICC

Here's a program that's all too familiar:

```
10 RELEASE ALPHA LOCK TO USE JOYSTICK(S)
20 PRESS ALPHA LOCK TO ENTER UPPER CASE LETTERS
30 IF FRUSTRATION < THRESHOLD GOTO 10
40 CALL SWEAR
50 GOTO 10
60 NO END
```

A simple hardware modification will give you this new program:

NEW

```
10 PRESS ALPHA LOCK TO ENTER UPPER CASE LETTERS
20 USE JOYSTICK(S) AS DESIRED
30 USE KEYBOARD AS DESIRED
40 CALL ENJOY
```

This modification has been mentioned in various newsletters ( I saw it in the September 1986 Winnipeg NL ) but since I have not seen detailed installation instructions for the novice, I will do my best to explain it here.

The required modification is to simply install a diode in the alpha-lock keyboard line between the alpha-lock keyboard switch and resistor R339 on the main circuit board. (console board/logic board/ motherboard) The anode is connected to the keyboard switch and the cathode (the end with the stripe) is connected to R339. Any silicon switching diode should work. I used a 1N914 (same as 1N4148) Radio Shack p/n 276-1122.

There are three possible locations for the diode:

- \*1. On the keyboard printed circuit
- \*2. In the keyboard cable
- \*3. On the main circuit board.

These three locations are illustrated schematically in figure 1. Only one of these diodes is required.

Probably the easiest mod is to install the diode on the main circuit board. That is what I did, and a detailed description of the procedure follows. If you don't want to mess around with your main board, you may prefer to mess with the keyboard. In case of trouble, new replacement keyboards are available for less than ten dollars from various electronic surplus parts retailers. In any event, any modification you do to your computer is your own responsibility. If you are not experienced in this type of handiwork, I suggest you find someone who is.

Disconnect all cables, cartridges, and peripherals from the console. Remove the external part of the power switch slider by pulling it straight out. Remove the seven philips-head screws that hold the bottom cover on. Slowly lift the bottom cover off, observing how the sliding door on the I/O connector is installed. The smaller circuit board is the power supply board. Remove the two screws that hold it down. Lift it slightly and remove the internal part of the power switch slider. Note how the slider switch on the circuit board fits into the hole in the slider. Notice how the power wires are positioned. If you have a newer version of the power supply board, unplug the power wires from the board by squeezing the white plastic lever in towards the white plastic connector housing and lift off. Remove the four screws that hold the keyboard in place. Remove the three screws that hold the main

\*\*\*\*\*

Alpha-Lock Modification, cont.

board in place (one of them is accessed through a hole in the metal cover). Lift the main board slightly and disconnect the keyboard conector (and the older style power connector, if applicable).

Remove the two metal clips that go around the metal cover. Unplug the cartridge port connector. Remove the three screws that hold the metal covers around the main board. Carefully remove the metal covers, observing the white gunk (heat sink compound) on two of the IC's. In addition to providing RFI shielding, the metal cover serves as a heat sink for these two chips.

Locate resistor R339 on the main board. See figure 2.

With a hot soldering iron, melt the solder at pad"A" and pull one end of R339 away from the board using needle nose pliers. Using solder-wick or a desoldering tool, remove most of the solder from pad"A". Push R339 over to one side to make room for the diode. Bend the leads of the diode so it will fit between R339 and R334 as shown in figure 2. Do not bend the leads of the diode too close to the body of the diode (to prevent damaging the diode). Using needle nose pliers, grasp the lead close to the diode body and bend the lead around the pliers. Place the anode of the diode into pad"A" hole and solder in place. (The anode is the end without the stripe.) Cut off any excess lead length past the solder connections. Wrap the cathode lead of the diode (the end with the stripe) around the lead of R339 that was previously unsoldered from pad"A". Solder this connection and cut off any excess lead length. All components should be close to the circuit board to avoid shorting out to the metal shield.

Reassemble everything by following the disassembly procedure in reverse. You may wish to first replace the old heat sink compound with new, especially if it is crusty. (Radio Shack p/n 276-1372)

With any luck at all, your alpha-lock frustration syndrome will be cured! I can not guarantee that all software will work properly with this mod. I have not yet had a problem, but if anyone does, please let me know. Updates to this article would then be published in this newsletter.

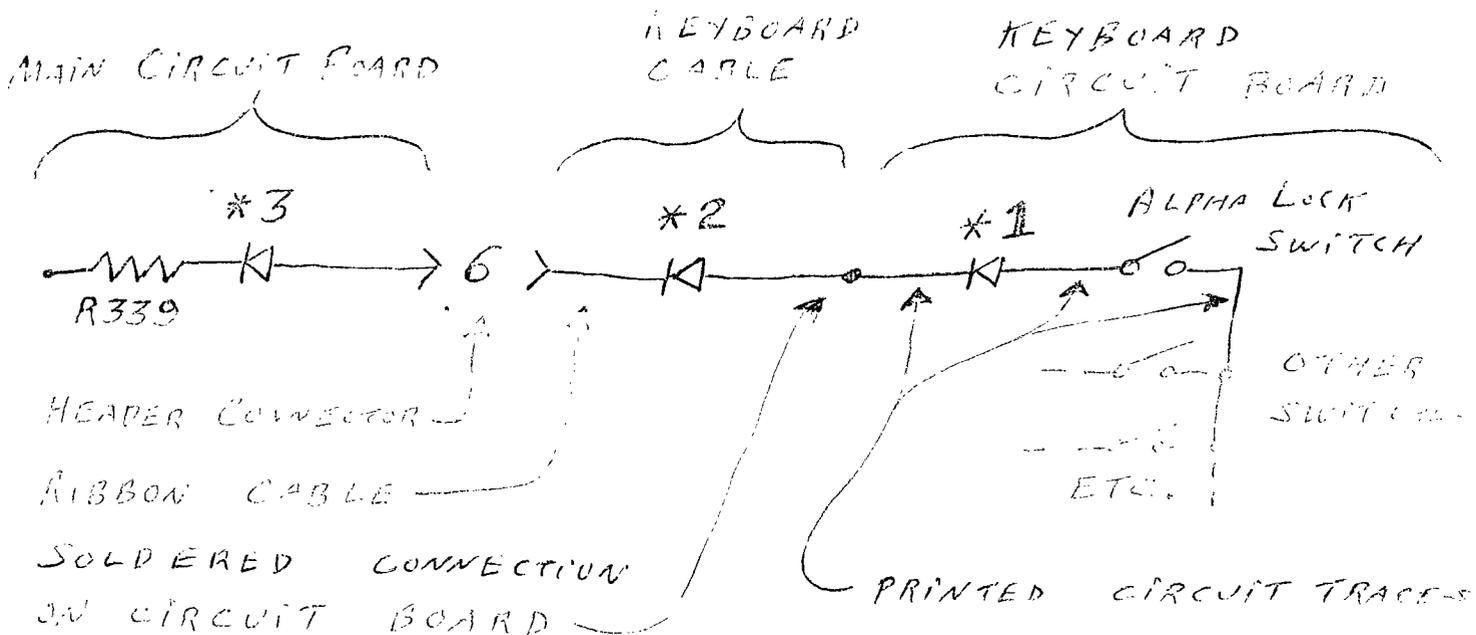
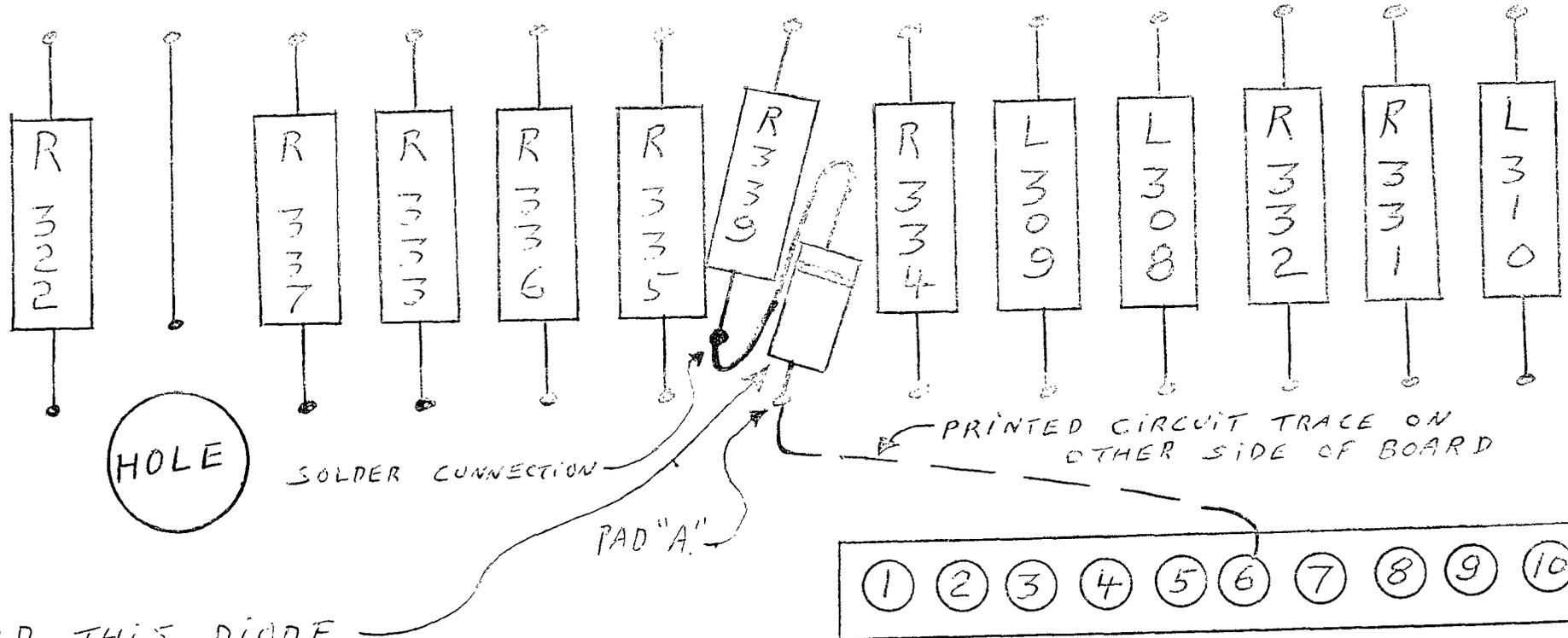


FIGURE 1 Three possible locations for alpha-lock diode.

\*\*\*\*\*

FIGURE 2 Component-side view of TI99/4A main board showing location of new diode to be added to alpha-lock line.



ADD THIS DIODE

NOTE: (1) RESISTORS ("R-") ARE 470 OHMS.  
 YELLOW/VIOLET/BROWN/GOLD  
 (2) INDUCTORS ("L-") ARE 6.8 μH  
 BLUE/GREY/GOLD/SILVER

J100  
 KEYBOARD CONNECTOR  
 (HEADER PINS)

PIN NO. 6  
 ALPHA LOCK

\*\*\*\*\*  
FOR SALE: Daisy Wheel Printer, "Diablo/Telex", modified  
for RS232, friction feed and tractor feed, wide carriage,  
keyboard for off-line typing, with desk-type stand.  
Asking \$150. Phone Cliff Peters at 382-9580.

REMINDER

MINUTES OF NOVEMBER  
STICD MEETING

HELD: NOV. 3, 1982  
7:00 PM

1. Minutes of the last meeting were accepted.
2. Treasurers Report: \$170 in account.
3. Motioned by John Thomson and seconded by Ron Schnor that we pay for the room until May 1983. Carried.
4. Harry Caruk suggested a change in the graphic on the front page of the newsletter. John Thomson seconded and suggested a contest to generate a new design. The following were discussed as the contest rules:
  - open to paid up members,
  - Prize: club will supply a box of diskettes and Francis Gaston will provide programs for them,
  - designs must be prepared on a TI computer or hand drawn,
  - design is for logo only, name will remain the same,
  - limit 3 entries per member,
  - all submissions must be in (to Harry Caruk) by the January meeting,
  - selection will be by vote at the January meeting,
  - voting will be by secret ballot with the design receiving the lowest number of votes being eliminated,
  - Size: limited to 8 1/2 by 11 maximum. Should be conducive to reduction to 1/2 page without loss of detail,
  - black & white only,
  - club name does not have to appear but may contribute to design if included.
5. Motion and rules as above were carried.
5. Members were encouraged to submit articles for the newsletter. A record two (2) were submitted last month.
6. Steve: members should be more vocal about what they would like from the newsletter or club. Steve would like to see some "C" programs; Harry would like to see more hardware mods articles.
7. Francis submitted some French newsletters for anyone who cares to interpret.
8. Business portion of meeting closed.

The following article is reprinted from the November 1986 issue of the Ottawa TI99/4 Users' Group newsletter:

NUAC NEWS                      November 1986

by  
Bob Boone

Chicago, Chicago, One heck of a town!!!

Wow, what a trip! At the last moment Mike Taylor added his name to the roster and we went with five in all. Yours truly, my wife Marilyn, Lucie Dorais, Jane Laflamme and Mike left Wednesday afternoon and we arrived in Chicago for suppertime Thursday. We'd purposely given ourselves the opportunity to do the town all day Friday and in our enthusiasm may even have overdid it a wee bit. We spent the morning and most of the afternoon at Chicago's world-class Museum of Fine Arts, then charged about the downtown core soaking up everything in sight. High point of the day, for me, both literally and figuratively was the view of Chicago at dusk from the top of the Sears Tower (none other than the TALLEST BUILDING ON EARTH!). Breathtaking DOESN'T quite say it all!!!

I am publishing three reviews downloaded from Compuserve by Terry Atkinson. They're written by Ron Albright, Art Byers and Warren Agee all three of whom obviously saw far more than we did at the show and far more eloquently speak of what they saw than I ever could.

We will have tapes of the presentations made at the Faire that day. None of us that went were able to attend a single presentation during the show. I was present for the final ten minutes of Myarc's allotted hour and a half and was very impressed with what I saw. At the end of his question and answer session, yours truly took the podium and presented Lou with a trophy from the OUG on behalf of TIers worldwide for his company's support of our machine.

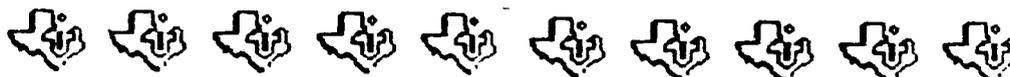
I commend Sandy Bartels and Hank Ellermann in particular and all of the other Chicagoans involved with the project heartily for a VERY class act once again. We will be back again next year for sure and hopefully in numbers high enough to permit each of us adequate time to see whats there to be seen! If all goes well we may well expect to see some of the folks from Chicago at our Faire on May 16th next year.

As many of you already may know we've been invited to Boston in April to participate in the Boston Computer Society's faire. Its a bit shorter trip than the one to Illinois and we expect to be away a shorter period of time for it; so consider tagging along this time. These faires stir up a lot of enthusiasm for TIers throughout North America and that enthusiasm can grow on you. Its not as expensive as you think and I've not failed to have a good time at one yet.

As yet I still have a meagre 3 entrants in the NUAC logo contest. They are good but I have said (and stand by it); if I don't get five by the end of December then the contest is cancelled. I hope this won't be necessary....

Michel Johnson has been expending a lot of effort cementing the Francophone User Groups together throughout the province of Quebec and its working well there. Thanks to his herculean efforts they are pulling together as an entity. Well done Michel; wish there was a key that could be used to do the same for the rest of us.

Thats It



The following article is reprinted from the November 1986 issue of the Ottawa TI99/4 Users' Group newsletter:

**A Review of Joypaint 99**  
by Bob Boone

Sorry folks; you want an impartial review, this isn't it!

I sell the program AND I like the program!

Joypaint 99 is an icon driven graphics package written in machine language and marketed by Great Lakes Software, 804 E Grand River Ave, Howell, Michigan 48843

I highly recommend it and suggest that if you want it, you also want Joypaint Pal as well. Joypaint 99 lists at \$39.95 US and Joypaint Pal lists at \$9.95 (add \$3 for shipping) or is available from me for \$50 CDN and \$12 (add \$3 for shipping) respectively.

The program has many nice features of both GRAPHX and TI-ARTIST and some that neither of these fine programs have. In many respects it resembles MacPaint on the Apple MacIntosh machine.

To select a draw option simply put your cursor over the selection desired, press the fire button and its yours. Options are always visible at the left of your screen or across the top of the screen as well. The two most exciting options (not available elsewhere) are UNDO and AIRBRUSH. Undo will cancel the effect of your last command to the program. If you do a fill and it 'bleeds' into a part of the picture you hadn't intended it to, you can now undo the damage instead of starting from scratch. Airbrush allows you to 'lightly paint a pattern into your picture'. Each pass over an area 'drops more paint', so to speak and the pattern becomes more and more clear each pass. A delightful effect long awaited for by me, for one.

With Joypaint-99, you can load, save, catalog, delete and print files to I/O devices (drive and printer). You can 'zoom' with FATPIXELS and see the effect on your picture at the same time! INVERT, CUT, PASTE, MOVE, COPY and MAGNIFY are only some of the additional options available. Draw circles, squares; connect lines; clear parts of your pictures or the whole 'page' and even more exciting SCROLL your picture too.

With Joypaint Pal you can load and save files from/to TI-Artist and Graphx and you also now acquire the ability to REDUCE sections of your pictures.



**JOY PAINT '99**  
(C) Copyright 1986

Available from  
**Computer Download  
Unlimited**  
25 Ottawa St Arnprior Ontario

CANADA K7S1W7

Disks  
Drives  
Modems  
Cables  
Modules  
Printers  
Software  
Hardware  
Ramdisks

Call:  
(613) ..  
623-7841

\*\*\*\*\*

The following article is reprinted from the November 1986 issue of the Ottawa TI99/4 Users' Group newsletter:

### The Faire!

BY TERRY.  
DARTMOUTH, NOVA SCOTIA

01-Nov-86 07:30 PM

From the excited pen of Ron Albright comes the first report of the Faire, while it was still going on. ....(from CIS)....

Well, folks, I am here at the TI Fair and I can tell you that I feel this is gonna be the best Fair YET! There has got to be 1000+ cruisin' here and it is packed ABSOLUTELY! The vendors are doing a brisk business and the folks are buying like crazy! CAN YOU BELIEVE IT? This lil' orphan is, indeed, ALIVE AND WELL! I hope to be able to be up tonight and get something ONLINE but we will have to see how that goes... ANYWAY, I can say unequivocally, that the TI FAir #4 is a BIG SUCCESS. Thanks to the Chicago UG for making this a nother beauty! Back with more later! LOU PHILLIPS JUST FINISHED his presentation and (from what I gaterhed) not much is new...they HOPE that they can begin shipopping prior to the end of the year, but the hang up is Mitsubishi...the "gate array" are wrong the first time and they are being re-done. Nice presentation by ASGARD software earlier and a TI User Group seminar on problems that face them all, and an EXCELLENT presentation by Clint Pulley on c99...a VERY bright guy for sure. The Fair is STILL smokin' and the crowds are big.(I mean REALLY big. If I had to estimate, I would say well over 2000 total attendance throughout the day. Again, it has been another BIG success. I have seen Art Byers, Terrie Masters, Coe Case, Warren Agee, Gary Cos, Todd Kaplan and MANY more of the CIS friends. Its been a great day and it is still goin... Out here! JUST GOT THE WORD ON ATTENDANCE... Seems over 900 folks turned the turnstiles here in the Windy City...the fair organizers attributed the lower attendance (compared to last year) to the inclimate weather (a polite way to say the weather was miserable!!)...the sellers on the other hand are VERY pleased...each and everyone have virtually sold out. They have literally sold it all! This has been the most "spend-thrift" TI Fair of all...I mean that! It has become a seemingly CULT life for the TI...selling everything from adoption certificates to buttons and (one UG representative - Dick Vandenberg - of the Mid-South UG - estimated a \$75/member expenditure for their 11 attendees)...spend, spend, spend! A Fifth Annual TI Fair for next year! They love it, the vendors love it, and anyway, "a great time was had by all!!"

Comments by Art Byers: The fourth annual TI Fair hosted by the Chicago TI UG was a fine success from all points of view: Around 900 99/4A owner/users from the middle of the nation (and as far away as Boston, Washington DC and New York) had a chance to see the newest and best in software and hardware and to spend some money on goodies. So- The Vendors obviously did a great deal of business and will be encouraged to attend other TI shows around the nation. The speakers and events were interesting and well run. Those attending learned much that was new. Best of all, however, was the chance to meet and mix with the 99'er community, to exchange Ideas and information, and to renew our enthusiasm as we proved once again the motto originated by Henry Hein: "We may be an Orphan, but we have a great future!". For me, the occasion meant putting faces together with many of the famous names such as Chris Bobbit (Asgard), Jim Horn and Jeff Guide (Disk Only Software, Ron Albright (The Orphan Chronicles), Theresa Masters (president o the LA UG), - plus well known programmers such as Peter Hoddie, Coe Case, Todd Kaplan, and Paul Charlton, - oh yes! and the Tigercub Himself and the most well known of them all, Jim Peterson. Without Jim half of most UG newsletters would be blank space! It was nice to talk to Walt Howe and Bob Demeter in person, instead via Telecom. What was new? Oh Boy! Lots was new! J Peter Hoddie has a new Graphics program "Font Writer" being marketed by Asgard. ("What! another graphics program" you are about to say...- but you have to see it to believe it. That was only a start. There must have been 50 new software items offered by vendors covering everything from games and education to disk utilities and home finance. Continued next message. DataBiotics long awaited PILOT language with extensive documentation was finished and on sale Plus Super Forth. New Hardware?? Yes and plenty of it! Mini PE Boxes for 3.4 or 5 cards.

and prototypes of everything from a sort of super widget that enables you to use the "Review Module Library" hidden software built into the Console to a whole new Computer (MYarc 9604). One of the big hits of the show was the new IBM type keyboard for our 99/4A, made by RAVE Mfg. I have an interview on tape with one of the principals involved and will print it in detail in the CALL SOUNDS newsletter. During the lunch break, there was a fascinating rap session for the visiting UG representatives. Everything was covered from rumors of more software to be released to PD and UG's by Texas Instrument (a diagnostic disk) to fundraising and dues policies, methods of software library distribution, and newsletter exchange. One of the best talk/demonstrations of the day was the hour on Music and the 99/4A, put on by J Peter Hoddie. That included two linked computers playing music together, music that played while you are programming, and two pieces where Peter played the Cello accompanied by the 99/4A!!! All in all the Chicago club is to be highly complimented. Everything ran smoothly. Those of you who could not make this show are advised to make the next one near you be it Seattle, Boston, Dallas or New Jersey. These fairs are FUN!! I think one of the most exciting announcements was the teaming of two REAL geniuses together in future software/hardware projects.. Barry Traver and J. Peter Hoddie...that team is unbeatable for sure.

### MYARC'S GENEVE

Who needs it? We do!  
Scott Flinn Oct. 18, 1986

I have just finished reading The Orphan Chronicles by Ronald Albright. As advertised, it is a remarkable book which answers virtually all of the seemingly unfathomable questions left behind by Texas Instruments. Although I was never really bothered by being a computer orphan (I certainly don't remember where I was when I heard THE news about TI's departure from the market), I must admit to being extremely relieved upon finding the TI Nova Scotia (TINS) club. The mild but constant worries about blowing another power board (I had already blown one), or wearing out another cartridge port connector (I had already gone through three) were ended. This discovery coincided perfectly with my introduction to TMS 9900 assembly, and the answers, hints and advice I found at the club were invaluable (needless to say appreciated).

So what does this have to do with The Orphan Chronicles and Myarc's new computer? In his book, Mr. Albright makes it very clear that, although the TI community is currently thriving, we are all going to have to work very hard to ensure its continued existence. The two points he addresses most directly are, firstly, that we must actively pursue the production of hardware and software, either by producing it ourselves, or by buying it from others, thereby encouraging the talented programmers to continue; secondly, we must never become discouraged to the point where we may consider the possibility of getting a "better" machine. Toward the latter end, Mr. Albright strongly suggests that TI'ers forget about the prospects of a new compatible machine and concentrate on getting the most from their TI's. At this point I will be charitable, and will interpret Mr. Albright's remarks in a favorable way. I assume his reasoning is that if we allow ourselves to dream too much about a new and better computer, we may actually succeed in convincing ourselves that we actually need it. Once this happens, if the computer has not yet arrived (and Mr. Albright believes that one never will), then we may conclude that, since a new computer would be better, but a new TI compatible is not available, we must abandon TI and get a real computer like an Atari, or an IBM. This type of thinking could be very detrimental to the continued existence of the TI community, and Mr. Albright makes a noble and selfless attempt to warn people away from it. His most persuasive argument is the simple, almost rhetorical question "WHO NEEDS IT? WHAT CAN'T YOU DO ALREADY?".

This question has already been put to me several times, and I must honestly say that it stopped me dead in my tracks. My immediate response was "Well... um... ah... 80 columns. Yeah, that's the ticket, 80 columns! I need 80 columns." But try as I did, I was unable to think of a single example of an application which, though too demanding for the TI, could be handled by the new machine. Word processing, spreadsheet, data base, telecommunications,

computation, sound, even graphics; in spite of the 40 column limitation, all are handled extremely well by the existing machine, with the most exciting software and hardware only now reaching the market. A good friend of mine - an Apple IIc owner - just recently phoned me, more excited than I have ever seen him, to tell me about the latest technological miracle from Apple. Apparently, Apple is about to release a new computer which, though not unusually better than their existing machines, will have truly unbelievable sound capabilities; a fifteen voice, fully interfaced synthesizer built right in to the computer. I almost didn't have the heart to tell him that such a beast has existed for the TI for about three years now (namely the FORTI Music System, driven with FORTH based software). Once the inanity of GPL has been circumvented, it becomes all too clear that the TI-99/4A is actually a very fast, very powerful computer. My own favorite passtime is comparing the raw speed of the TI with other machines (ie. number of integer additions, multiplications, comparisons, branches, block moves, etc. per second). It compares VERY well with all but the newest machines, such as the Atari, the Amiga, the Panasonic Executive Partner, etc.

With a language like FORTH available, Myarc's XBasic II plus 512K card, etc., the question "What do you need a new computer for?" is a very good one. But it can be answered! In fact, there are three good reasons. The first one becomes obvious if, instead of asking what can't be done now, one asks oneself what can be done now. My own applications have included extensive use of TI-Writer, TE-II and Fast-Term, self-written programs for inventory management (23,000 item inventory), yacht club handicap calculations and records, one and two dimensional function graphing, games of all types, and many others. Each and every one of these applications would benefit from the capabilities of the new computer. The 80 column advantage really is quite large, making word processing, telecommunications, and spread sheet software far easier to use. Self written data base applications would certainly profit from the far greater memory. These applications are obviously disk based, and require hours rather than minutes to perform simple tasks. The mathematical and number crunching programs would certainly benefit from increased speed, and better graphics would be a non-essential but much welcomed plus in this area as well. The second reason can be summed up quite simply: imagine what its potential will be! Who would have guessed when they bought their TI five years ago that today their little machine would still be capable of doing all of the things the "newer, bigger and better machines" are only now achieving? If you had asked someone four years ago "What do you want a computer for? What could you possibly use it for?", you can be certain that the answer would not have been "Oh, I want to use my FORTI board to play 'Chariots of Fire' in twelve synthesized voices", or "Well for starters, I'm going to set up a BBS, and then I'll use it to write The Orphan Chronicles in my spare time". One thing is clear: a new machine will be a better machine. It can only be better, because, while keeping the TI spirit, it will be able to do everything the TI can do now... and much more. Thus, if the TI was capable of so much, and still compares favorably to other machines four or five years newer, it is only reasonable to expect that a new machine, when pushed to its limits, will do things that we can't even imagine now, because nothing else can do it yet. While on the surface, Myarc's claim of a machine "2-3 times faster" is not particularly stunning, once you realize just how fast the TI is now (when GPL is not used and the program is not graphics intensive), it becomes clear that the speed will only be equalled by the best of the modern machines. Its graphics, according to the description of the V9938 video processor given by Rvte Data and others, will be unquestionably better than any computer less than six times the price; and it has more internal memory than any small business is ever likely to need. Definite answers can not be given now as to what will be done (with the machine that can't already be done. Only time will tell what will be produced when a machine with such capabilities is pushed to such limits as only TI'ers have had the need to achieve. Finally, we must all at some time face the hard fact that, although the TI-99/4A is a phenomenally durable creature, it cannot possibly live forever.

We are faced with two scenarios. Firstly, we can all be content in the knowledge that what we have now is a small piece of quality that will serve us unerringly for many fruitful years. With the products now available, and those that are undoubtedly waiting in the wings, we can build our systems to a point where the choice to

obtain an upgrade would be a matter of taste, not necessity. Further, there are those among us who will always be content with what they have, for whatever reason. If a person uses powerful computers at their place of employment, having something at home that plays reasonable games and calculates square roots accurately may well be all that is ever desired. However, no matter how powerful the peripheral system becomes, the fact remains that the computers themselves are not being manufactured. Eventually they will wear out, as everything must, and with the heart removed, the system will be useless. All but a determined and clever few will write off their investments as worthwhile, but expended, and will either get the newest computer currently offered, or will leave the computer world entirely. The second scenario includes the fact of a new computer. It would be nice if, when the heart of powerful system dies, it could be replaced with something equally good; a point which I believe is common to us all. But it makes even more sense to replace that heart now if the replacement brings with it all of the peripherals. It is certainly true that a TI with a 512K expansion card with RAM disk capability, the new eighty column card or the V9938 video processor installed on the mother board, cartridge software that permits direct use of the expansion RAM, and a number of compiler languages such as FORTH and "Small C" as well as Myarc's "better" Extended Basic would probably be roughly as good as the new machine (note that not ALL of these features exist yet). But does it not make more sense to spend the same amount of money, perhaps even less, to get all of this rolled into one package, particularly when it replaces some of the most easily damaged and uneasily repaired parts of the machine such as the keyboard, cartridge port and power supply? And when we are guaranteed, at least for a little while, that such an upgrade will be supported by a manufacturer who has plans, however questionable, for IBM compatibility, a complete C language, and who knows what else? Perhaps the most reasonable thing of all, however, is that, while the TI community can not possibly be hurt by a better computer with a high degree of compatibility, it will be helped enormously, to the point of its very survival. The TI is now heading toward a dead end. Myarc is offering a chance, however small, for the TI legacy to continue in the face of a competition whose strength grows geometrically. When Mr. Albright made the remark that we should dismiss the idea of a new computer, he was working under the assumption that such a computer would never be produced, and that thinking about it was an unnecessary temptation. The chance of a new computer appearing is now quite high (reliable rumor has it that the machine is finished and will become available as soon as the documentation is complete), and we must begin thinking about what we will do should it arrive. Naturally not everybody is going to either want or need such an upgrade, and there should be no pressure to make the switch, particularly since the TI is, after all, quite adequate. However, the pioneers among us, new and old, must be willing to do our job as thoroughly and with as much commitment as we possibly can. It is up to us to see that the Myarc computer survives so that in the coming years, as TI systems begin to falter, it will in turn be able to ensure that the TI community survives. With so many disappointments in the past, it is easy to be bitter toward rumors of a promised land, but we must not deal ourselves the final blow by turning our backs on the only opportunity Fate is likely to offer.

[This was submitted for the Nov TINS newsletter. However, due to the importance of the material and the excellent presentation, I thought that we would be very negligent if we were to sit on it. Please feel free to run this article in any newsletters. Let me know if you intend to do so, so that I may let the author know just how well he has been received in the TI forum. Paul]

