The Ottawa T.I.99/4 Users' Group

NEWSLETTER

VOLUME 5 NUMBER 09......NOVEMBER 1986
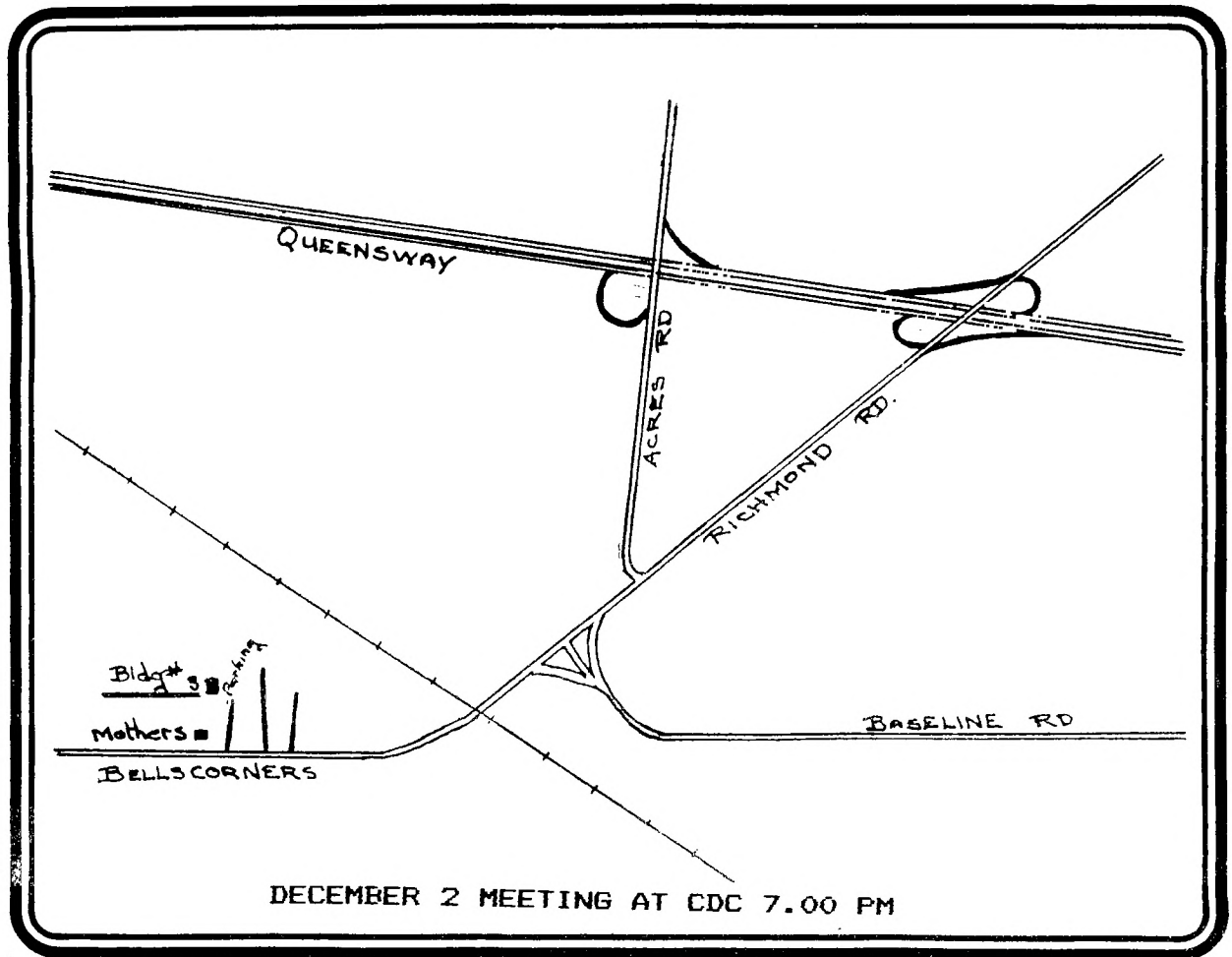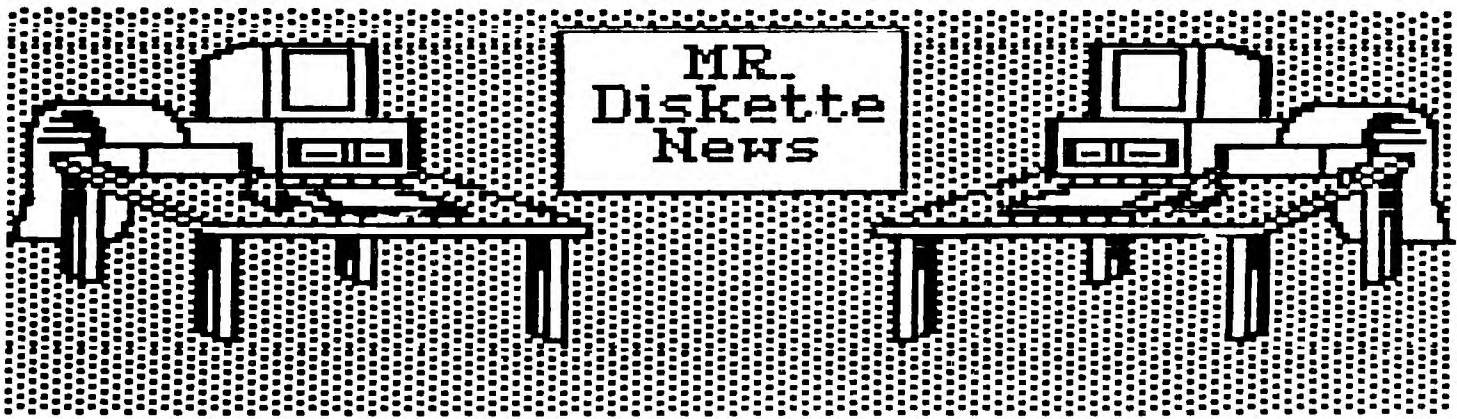
QUEENSWAY

ACRES RD

RICHMOND RD.

BASELINE RD

Bldg# 38 Parking

Mothers

BELLSCORNERS

DECEMBER 2 MEETING AT CDC 7.00 PM

P.O. BOX 2144, STATION D, OTTAWA

*** ONTARIO, CANADA K1P 5W3 ***
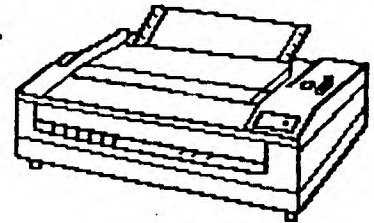
CHAIRMAN'S TWO CENTS WORTH

by Berry Minuk

As the old joke goes I have good news and bad news. First the bad news is that no Geneve came back from Chicago with our delegation to the Faire. But the good news is that Jane received one in the mail about a week ago. But the bad news is that there was no operating system with it. But the good news is that one is being sent to Jane and should be here in time for the next meeting. There was no report on the faire at the last meeting but there should be one in this newsletter to make up for it.

Those of you who attended the last meeting saw a preview of a new operating system which Art Green has written. Unfortunately at the moment this system only works with the Horizon Ramdisk. There is a possibility that it can be adapted to work with some of the other Ramdisks on the market if Art can be persuaded to do so.

Since our last appeal for volunteers several have come forth to take up the vacant positions. Lucie Dorais has agreed to look after Membership. Henri Monat has agreed to act as our new Archivist. Henri together with Thom Mercer have agreed to run the software contest this year and will be making an announcement soon about rules. Most important of all Bob Boone has agreed to chair the organization of our 1987 TI-Fest North. Much thanks to him for accepting this post and I know that you will respond generously with your time when Bob asks for help with all of the work involved.

I am also gratified to see that we are getting new articles from our members for the newsletter and to these new contributors I know you will all want to say welcome aboard and keep up the good work. In this issue you will also find the beginning of a new series en francais written by Michel Johnson who is the President of the CIM group in Montreal and also a member of our group.

Due to the lack of response the Forth and Assembly tutorials been cancelled. We are hoping to replace them with Workshops along the lines of the C workshop. If you are interested please phone me or Jean-Pierre or Lloyd. We can persuade Art Green to lead the Assembly workshop and Jean-Pierre to lead the Forth one but we must have some response first. There is an enormous amount of programming talent in our group. Let's not let it go to waste.

The next meeting will feature a demo of the Geneve (if working) and also the new long-awaited programs from Databiotics. We hope that our new multiple monitor system will be available so all will be able to see the demos properly. Jane will also have the new keyboard from Rave for those of you who haven't yet seen it.

Remember that we still have a cassette library and tapes are available by contacting Jack McAllister.

IMPORTANT NOTE-For those of you who were not at the last meeting there is a change in the location of the December meeting because the Merivale School is not available. The meeting has been moved to Computing Devices Bldg. #3. This is the location used by the Carleton Users Group and thanks to them we will have the use of it.

The directions to get there are as follows:
Coming from Ottawa take the Queensway West and exit at the Richmond Rd.-Bayshore exit, then take Richmond Rd. South for about 1 km and you will reach Bells Corners. Keep along Richmond Rd. and on your right you will see various Computing Devices diveways. The Driveway for Bldg. No. 3 is just before Mothers Pizza Shop. Turn into that driveway and proceed about 100 metres and you will see the parking area. Bldg. #3 is on the left side of the driveway. If you are coming from the west side of Bells Corners simply reverse the directions. Mothers will be on left side of Richmond Rd. and the driveway just after Mothers.

I will see you all at the December meeting and let's have a super turnout for it.

FORTH TO YOU, TOO !
BY Lutz Winkler

Introduction

According to our source there are quite a few people out there who
got the TI-FORTH disk and documentation when TI made them available
to user groups. But not very many do much with it. Why? Well, the
TI manual is not a tutorial, it assumes that you know something
about FORTH. Though packed with useful information there are no
instructions on how to begin. We will try to get you started from
the very beginning. Hopefully we'll strike a happy medium,
somewhere in between teaching and providing info that's useful to
you.

What is FORTH?

There was much hype when it became available to TI users, some of
it was overdone. but it is faster than BASIC and there are some
advantages which will not immediately be evident to a beginner.
FORTH is a TIL (Threaded Interpretive Language) and it'll be hard
for you to believe that there is no GOTO command. If that is hard
to swallow, there is more : It uses RPN or post-fix notation (RPN =
Reverse Polish Notation). In other words, it's not 2 + 2 that
equals 4 but 2 2 + . We'll find out more as we go along, for now
let's just say that FORTH is very powerful, quite a bit faster than
BASIC, compact, but perhaps more difficult to learn than BASIC. As
a matter of fact, knowing BASIC may make it harder on you, because
you'll be thinking BASIC until you get the hang of FORTH.

Getting started.

Before you do anything with your FORTH disk, get out the DISK
MANAGER and make a backup copy. Do all your work and experimenting
with this copy unless you are prepared to get a new FORTH disk.
Now plug in the EDITOR/ ASSEMBLER, opt for 3 (LOAD AND RUN) and
enter DSK1.FORTH. After a moment the screen shows "BOOTING..."
which is soon replaced by a menu. These are the LOAD options. For
right now you need to concern yourself with only 2 of them: the
normal or the 64-column editors. Your choice will depend on
several factors: 1) your eyesight. 2) your monitor, and 3) how well
you have adapted to using 'windows'. So jump right in and enter
-64SUPPORT. After your disk drive is through you will see a tiny
'ok', meaning the 64 column editor has been booted. To see what
your screen will look like type 34 EDIT enter. If you can read
what is displayed on your screen, you'll want to stay with
-64SUPPORT. If it's hard on your eyes, settle for the 40 column
editor. To get an idea what it looks like, hit FUNCT-9(ESCAPE),
then enter TEXT COLD. FORTH will re-boot and when it is done,
enter -EDITOR. (From now on, 'enter' will mean to type in the word
followed by the ENTER key.) Again enter 34 EDIT to see what your 40
column editor looks like.

Programming in Forth consists of editing SCREENS, such as that
number 34 screen you called up for editing. But we are not ready
for that, yet. Hit ESCAPE (F-9 and enter FLUSH and do this: Make
yourself an overlay strip so you can edit easily. Keys and their
functions are explained on page 5, chapter 3, of the TI-FORTH
manual. Now here is another thing you might want to find out right
now: a display color that suits you. Since you are still in the
so-called 'interactive' mode of FORTH (no program is running) you
can type this little ditty :

```
D SEE 252 22 DO I DUP . 7 VWTR
   KEY 2 = IF ABORT ENDIF LOOP ;
```

After you get the ok type SEE. Don't worry if you can't read
anything, at times the FG and BG colors match and there's nothing
to be read. When you see a combination which gives you a good
screen display, write down the last number (bottom of the screen)
and continue to step through the loop (or exit via FUNCT-2).

You have accomplished 2 things:
1) you know the editor you want.
2) you have chosen a screen color

3

WRITER-WROUTES
by Jane Laflamme

Do you need to use a reserved character such as the ampersand (&) through the TI-Writer Formatter? It can be used but you must type it twice in your text — &&. I find it good practice to use the RS (Replace String) function to check this for me. Enter command mode (Fctn. 9), type in RS, enter, then / & / && /, enter. You then should check them one at a time to make sure you do not inadvertently turn off an underline command; it shouldn't happen with the spaces in front and behind, but remember, that is exactly what it is looking for, a space, an ampersand, and another space. If any of them are missing, RS will not find it!

Does two spaces after the period bother you? Do the same thing; let RS do the work for you. When in RS, type in /./.^/ and again, do it one at a time rather than ALL.

When using RS, remember that it only checks from the cursor down. Before using RS, to make sure it checks the whole document, enter command mode by Fctn. 9, enter, then type "S" for Show Line, enter, type 1 for the first line, enter, and then to have the cursor at the beginning of the line, hit Ctrl. "V".

If you have questions please don't hesitate to contact me, either by phone or writing to me in care of the Newsletter. I will attempt to answer your questions in future columns. If you have a tip of your own, or a better way of doing things, I'd also like to hear from you! Until next time...keep on TI'ing!

TI-WRITER + PLUS
****
AH! LES MAUDITS FRANCAIS!...
****
L'APOSTROPHE

par Michel Johnson

On peut jeter le blâme sur les Français d'avoir inventer un langue aussi complexe que la nôtre... On peut aussi regarder de travers les ingénieurs de TI-99 qui, un soir de tempête, ont décidé d'aller foutre dans un endroit pas possible sur le clavier un caractère largement utilisé par notre langue : l'apostrophe (')

Quoi de plus dérangeant que d'aller chercher ce caractère avec la touche FCTN O. On peut contourner ce problème en utilisant l'instruction :

"Replace String" ou RS

En fait, il ne s'agit pas de "changer" le caractère de place mais de le remplacer temporairement par quelque chose de plus facile @ taper, par exemple le caractère "= (égal)". Quand vous écrivez un texte, tapez @ la place d'un "' (apostrophe)", un "=" ; ce que vous verrez @ l'écran sera bien :

         ex. : j=écris @ l=écran...

Lorsque votre texte est terminé, il ne reste qu'@ remplacer tous les "=" du texte par un "'" en une simple opération simple et facile. Pour ce faire, il faut amener le curseur @ la ligne @ laquelle vous désirez que ces modifications se fassent (en général : la première ligne...).

N'OUBLIEZ JAMAIS QUE LA RECHERCHE ET LE REMPLACEMENT DE TEXTE NE SE FAIT QU'A PARTIR DE LA POSITION DU CURSEUR DANS LE TEXTE...

Pour amener le curseur @ la ligne 1 (par exemple), utilisez FCTN 6 (écran précédent) jusqu'au début de votre texte. Si votre texte est long, il sera plus facile de faire FCTN 9 pour accéder au mode de commande ; tapez alors S pour Show Line (montre la ligne), ENTER, puis 1 ou le num'ro ede ligne que vous d'sirez voir. Essayez-le, vous aller voir que c'est beaucoup plus rapide @ exécuter qu'@ expliquer...

   FCTN 9, S ENTER, 1 ENTER

A ce moment, votre curseur est au début de ligne 1. Il vous faut retourner au mode de commande (FCTN 9) et taper RS (remplace une expression par une autre). Le sous-menu suivant apparait:

REPLACE /old string/new string/

Tapez simplement :
     /=/'/

c'est-@-dire, le remplacement de "=" par "'" dans le texte. Le curseur se dépacera automatiquement sur tous les "=" qu'il trouvera. Vos choix d'options sont alors :

     Yes No All Stop

Appuyez sur Y et le "=" sous le curseur sera remplacé et le curseur se déplace sur le prochain "=" jusqu'@ la fin du texte. En général, vous allez appuyer sur A (all) pour le remplacement automatique de tous les caractères "=", ce qui ne devrait prendre que quelques secondes. Et voil@!

Prendre l'habitude de taper "=" @ la place de "'" ne prend que quelques minutes, rend plus facile et plus simple la rédaction de textes.

Le mois prochain : la TRANSLITERATION

TI-WRITER
INTRODUCTION

par Michel JOHNSON

Encore aujourd'hui, **TI-WRITER** et sa famille (TK-WRITER, FUNNEL-WRITER, etc...) reste un des plus puissants programmes de traitement de texte sur le marché des micro-ordinateurs. Les possiblités du TI-WRITER sont illimitées. **TI-WRITER** peut écrire des lettres, des lettres-types, des procès-verbaux, des recettes, des romans de 300 pages ; il peut faire des graphiques, servir d'agenda ou de journal personnel, etc... **TI-WRITER** peut même être utilisé pour transmettre/recevoir des données par modem...

MAIS QU'EST-CE QU'UN TRAITEMENT DE TEXTE ?

Un programme de traitement de texte permet de manipuler, au moyen d'instructions simples, des mots, phrases, paragraphes ou textes entiers. Il exécute des commandes visant la mise en page, le type de lettrage, la longueur des pages, le centrage des titres, etc... ; il permet d'écrire des lettres-type personnalisées, de faire des envois massifs ; il controle l'imprimante.

Malgré sa complexité apparente, **TI-WRITER** se révèle, avec un peu de pratique, un outil puissant et facile @ utiliser : c'est ce qui fait sa force.

LE FICHIER VARIABLE 80 (VAR80)

TI-WRITER utilise le fichier en mode "VARIABLE 80". Ce type de fichier, puissamment utilisé par le TI, rend les textes ou fichiers écrits par **TI-WRITER** compatibles avec d'autres puissants programmes tels **MULTIPLAN** (le "LOTUS 1,2,3" du TI-99), **FAST-TERM** (communications), **PRBASE** (database) et plusieurs autres. En fait, le fichier VAR80 est le type de fichier le plus utilisé par notre TI-99. Par exemple, en BASIC ETENDU, si vous ne précisez pas le type de ficher avec l'instruction :

          OPEN #1:"DSK1.FICHIER"

Le TI-99 assume par défaut que votre fichier sera ouvert en mode UPDATE (lire et écrire) et dans le format VARIABLE (longueur variable) 80 (max.: 80 caractères). De la même façon, n'importe quel fichier écrit avec **TI-WRITER** peut être lu par un programme écrit en TI BASIC.

exemple :

```
   100 OPEN#1:"DSK1.FICHIER", VARIABLE 80
   110 IF EOF(1) THEN 150
   120 INPUT#1 : A$
   130 PRINT A$
   140 GOTO 110
   150 CLOSE #1
```

Mieux encore!

Vous connaissez sans doute l'instruction "LIST". Si vous tapez LIST, les instructions d'un programme en BASIC ETENDU ou TI BASIC apparaissent @ l'écran. Par contre, tapez LIST"PIO" et ces mêmes instructions sont envoyées @ l'imprimante dont le code est "PIO".

Vous pouvez aussi tapez LIST"DSK1.FICHIER" . A ce moment, votre programme est envoyé sous forme de texte sur le lecteur de disques no.1. Votre programme peut alors être lu et modifié avec **TI-WRITER**. Nous aborderons cette méthode dans un chapitre subséquent.

LE MATERIEL NECESSAIRE

Pour opérer **TI-WRITER**, il vous faut au moins :
 o une console
 o cartouche BASIC ETENDU, MAXIMEM ou EDITEUR/ASSEMBLEUR

o système d'expansion incluant 32K et au moins un lecteur de disques.

Pour une utilisation rationelle du programme, il est recommandé :
  o carte RS232
  o imprimante

Pour les professionel(les)s, ajoutez :
  o RAM DISK
  o modem
  o 1 @ 2 lecteurs de disques supplémentaires (double face)

LE PROGRAMME TI-WRITER

TI-WRITER regroupe principalement trois sous-programmes qui sont :

    o EDITOR (EDITEUR)
    o FORMATTER (FORMATEUR)
    o UTILITIES (AUTRES)

o L'EDITEUR

Il s'agit de la composante principale du programme ; on y retrouve les fonctions touchant la manipulation des textes. Notons qu'@ cause de la limitation de la mémoire du TI-99, l'EDITEUR ne traite qu'environ 500 lignes @ la fois (4 @ 5 pages de texte).

Les instructions de l'EDITEUR sont accessibles en tout temps en faisant FCTN 9. Les sous-menus sont alors affichés sur les deux premières lignes de l'écran. Plusieurs fonctions directes sont accessibles en appuyant sur la touche FCTN et un chiffre ou sur la touche CTRL et un chiffre. Une languette d'identification est disponible avec le programme

o LE FORMATEUR

Une fois le texte écrit, c'est le formateur qui permet d'exécuter les instructions principales concernant la numérotation automatique des pages, l'alignement des paragraphes, le nombre de lignes par page, le centrage des titres, etc...

Le FORMATEUR permet entre autres des options telles le "MAILING LIST" ; il permet de joindre ensemble plusieurs textes pour en former un seul (c'est ce qui vous permet d'ecrire un texte de 300 pages si vous le désirez...)

Le FORMATEUR est largement utilisé @ cause de la facilité avec laquelle il permet l'utilisation des accents @ l'imprimante.

o "UTILITE"

Ce sous-programme permet d'appeller des fichiers de support pour la correction des textes (DICTIONNAIRES) ou tout autre fichier accessible en EDITEUR/ASSEMBLEUR (option 5). En fait, l'utilisation la plus fréquente de ce sous-programme est d'appeler un programme en langage machine (ASSEMBLEUR) mais sans se donner la peine de changer la cartouche BASIC ETENDU. On utilise alors cette option comme un "LOADER".

TEXAS INSTRUMENTS avait prévu l'option UTILITIES pour des usages qu'elle n'a finalement jamais eu le temps de développer.

Voil@ ce qui clos cette longue mais essentielle introduction sur le TI-WRITER, un des programmes les plus puissants mais aussi le plus mal connu du monde du TI-99.

Le mois prochain, nous abordons étape par étape le mode EDITEUR et l'explication du mode de commance (FCTN 9).

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.

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 truely, 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 truely 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
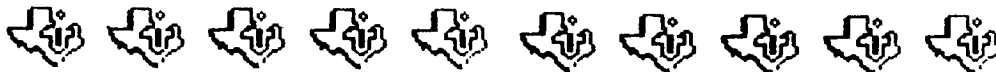
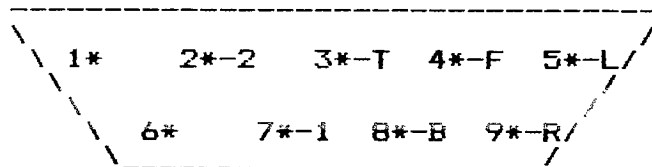# BASIC INPUTS AND OUTPUTS FOR THE TI CONSOLE

PART 1

by David Caron

You may be surprised to hear that a bare console can be quite powerfull at interfacing with the outside world.
With only BASIC, you can access up to 184 different inputs using the joystick port and the keyboard AND 2 outputs using the cassette port. When I refer to inputs and outputs, I mean simple DIGITAL inputs and outputs, things that the computer can detect with simply shorting out 2 or three wires and outputs you can see by simply connecting LED's to wires. INPUTS: Both the keyboard and the joystick use switches which when pressed (or moved as in the joystick), have the effect of shorting out or to make it sound more technical, connecting one or more wires with another or other wires.
To use this idea to connect to the outside world, one must simply design a circuit that electrically connects certain wires together using transistors. For now I will only deal with the joystick port because very few people have taken the trouble to construct an outside connector to their keyboard bus.

Below is a labeled diagram of TI's 9-pin joystick port.

```
  _____
  \                                      /
   \  1*    2*-2   3*-T  4*-F  5*-L/
    \                             /
     \                          /
      \  6*    7*-1  8*-B  9*-R/
       _____/
```

Pins 1 and 6 are unused and are not connected to anything.
Pin 2 is for joystick-2 (keyunit 2).
Pin 3 is "TOP" CALL JOYST returns (0,4).
Pin 4 is "Fire" CALL KEY returns 18.
Pin 5 is "Left" CALL JOYST returns (-4,0).
Pin 7 is for joystick-1 (keyunit 1).
Pin 8 is "Bottom" CALL JOYST returns (0,-4).
Pin 9 is "Right" CALL JOYST returns (4,0).

When pin 3 (TOP) is connected to pin 7 (joy1) the basic subprogram CALL
JOYST will return a (0,4) if keyunit is 1. Likewise the same procedure goes for all the other direction pins. If one of the direction pins is connected to pin 2 (joy2) then CALL JOYST will return the appropriate x y location if keyunit is 1. (refer to the User's Reference Guide) If no pins are connected, then a (0,0) is returned.
To get angles, say a (4,4) for example, simply connect both pin 3 and pin 9 to either pin 2 or pin 7 (depending on which keyunit value you would like to use). This idea works for all the angles. Things are a bit different with pin 4 "Fire". You must use CALL KEY to access this pin. Whether you are using keyunit=1 or keyunit=2 a value of 18 is returned if pin 4 is connected with either pin 2 or 7.(naturally depending on the keyunit used)
With combinations of using both joysticks you can get up to 64 different combinations.
Ex. joy1 UP, joy2 UP : joy1 UP, joy2 DOWN etc...
Next month I will talk about the cassette outputs and how they are even easier to use than inputs.

Elsewhere in this issue(I hope) is an article written by one Steve
Flynn and uploaded to Timeline by Paul Meadows(editor of TI Nova
Scotia's newsletter). It speaks well for itself and I hope you
enjoy it as much as I did. Lou Phillips has been kind enough to
provide us with an early prototype of the new computer; we have it
in hand right now! There are some problems which we will soon
overcome and we will have it up and running before the December
meeting.   When we will be able to sell you one is still up in the
air. Myarc is experiencing problems beyond their control with
getting a 'black box' gate array from Mitsubishi in Japan. The
units are ready to ship when these arrive; so it can't be far down
the road now.

Due to various factors; not the least of which is the income
generated by Fairware donated to the group, we are looking at a
substantial financial surplus in our OUG bank account this year.
Can you help us out with ideas on how this money can be put to good
use within the group? I hope and suspect that Berry will devote a
good chunk of time to this problem at the general meeting in
December and I also hope the ideas will be forthcoming from the
flgor(that means you!).....
Under consideration: A Geneve owned by the club.....
Second and/or third club-owned 99/4A.....
Club bought hard/soft/firmware(emphasis on Graphics utilities which
might be useful in dressing up our newsletter).....
Club donations to other promenant fairware authors.....

Another innovative concept has occured to me since the executive
meeting last week. Spurred on by an idea of the Hunter Valley User
Group in Australia, it ocurred to me that, we too, could begin an
'Adopt-a-Group' policy with a twist.   Say for instance Jack
McAllister wanted to participate in this project. He would first
check with a co-ordinator who would maintain a current list of
club-sponsored memberships and a list of known user groups
worldwide. Jack would be at liberty to select a UG from the, as
yet, unadopted list and would apply for membership using his name
and address, so that he would receive their newsletter etc.   When
he gets the asked for receipt from that group's membership
chairperson he would then be eligible for a 50% rebate from our
co-ordinator. If each person could then be encouraged to bring his
holdings to each meeting, the burden of diseminating it all by one
person would thereby be eliminated and it would at the same time be
possible for more people to get exposure to more information at the
same time.   Individuals within our group would have better access
to 'outside' information. I receive 15-30 newsletters a month and
cannot possibly absorb all the info I come across and the excellent
editorials etc., let alone pass it on at general meetings.   This
would be a way for many of you to become a lot more involved in a
relatively inexpensive way. The only general rule we need apply
here, in my opinion, is that only one person may be club-sponsored
into each user group abroad.

Comments, criticisms, amplifications on the above idea will be
appreciated.
Will someone please remind me to pass the suggestion box around
each month. I've forgotten to do so the last couple meetings,
although it has been there each time. Didn't some of you miss it?

Mike Marcotte, Thom Mercer, Bernie Vanden, Bill McKee etc.....Are
you still with us? We've missed your smiling faces at the last few
meetings.

I would like to see a monthly 'Welcome Wagon' article in the
newsletter, to introduce, by name, new members to the group at
large. What do you think about it?

Doesn't look like we're going to break the 200 barrier this year
either though we're not too far from it(about 191 last I heard;
counting OUG and NUAC together).   Its a darn shame, especially
since I'm aware of too many TI owners, both local and across Canada
who for some unknown reason consider it warmer on the outside.
Reaffirm your support of our efforts and rejoin early.   Cost for
1987 is standing firm at only $20 for the year.

TIMP TIPS _TECHNIQUES

by

Steve Zimmerman

Since tax time is almost upon us, I thought that a SIMPLE tax worksheet might be appropriate for this months Multiplan column. This sheet works with the long (1040) tax form, and also replaces Schedule B and W (interest income and deduction for a married couple when both work). It is set up so that entries made in the "FEDERAL" column will be copied to the "STATE" column (when the CA laws permit). Each figure need be entered only once--the worksheet copies it as needed.

I hope to have this worksheet on both the SCCG and TISIG boards as a SYLK (SYmbolic LinK) file. This type of file can be downloaded just like an ASCII text file, but can be loaded into Multiplan and run just like any other Multiplan file. Unlike other files permitting information transfer between spreadsheets, SYLK files transfer formulas as well as data. Feel free to change the worksheet in any way to meet your tax needs!

To use the worksheet, SELF WAGES and SPOUSE WAGES are entered in the "FEDERAL" column. Interest income is likewise entered in the "FEDERAL" column. If you want the name of the bank to appear, enter it in the areas marked A-G in rows 10-16. IRA contributions are entered by "SELF IRA" and "SPOUSE IRA". These are not copied over because I am a member of a qualified plan, and so cannot deduct IRA contributions. If you can then replace the dashes with RC[-2] to copy the information over.

Schedule W (row 24) is copied from the portion of the worksheet on the right. This area copies both incomes, tests for the larger, and figures the deductible amount, which is then copied to row 24, column 2.

Charitable contributions and exemptions (FEDERAL) are entered on rows 32 and 34. The tax due must be looked up in the tax tables and entered in the "FEDERAL" and "STATE" columns. I didn't bother including a table look-up (which IS possible in Multiplan!) because I didn't feel like keying in endless tax tables!

Tax credits and state exemptions are entered next, and then the amounts withheld for each person for both federal and state taxes. The state renters credit is entered last, and the worksheet then tells you what your tax due or refund is.

This is not intended to be a complete tax package--just an easy one to work with. It can be adjusted easily to reflect different families situations, and rows can be added in where needed or taken out where not needed.

To load the SYLK file mentioned earlier, just download the file from the BBS. You will have an INT/FIXED 128 file rather than a DIS/VAR 80 file. This doesn't matter--you can transfer it just as easily with TE-II (which is how I sent it out!). To use the file with Multiplan, load your Multiplan disk as you normally would. On the Transfer Options menu, set the mode to SYMBOLIC rather than NORMAL (just space over once with the space bar), use the TAB (CTRL 2) to go to "setup" if your data disk is in DSK2 and enter DSK2, and then press ENTER. You will then Transfer Load the file under the filename you saved it to on disk. THIS WILL TAKE LONGER THAN LOADING A NORMAL FILE! It's more like sending a file via TE-II. You should get a message at the bottom of the screen, "reading xx", then everything will recalculate, and the new worksheet will display!

BEFORE you do anything else, go back to your Transfer Options screen and set your mode back to NORMAL so that you can save your file as a normal Multiplan file. To use a new filename, in this case DO NOT use the Transfer Rename command! Transfer Rename will delete the old file and save under the new filename! Use Transfer Save, and just rekey the name to the new filename. By so doing, you still have the SYLK file. (just in case!).

As you can see, the SYLK format is a great boon to Multiplan users,

as it allows templates to be readily exchanged. The DIF (data interchange format) files supported by other spreadsheets do not allow formulas to be sent along--just values!

This worksheet is one of my tax planning tools. I use another worksheet to project income for my wife and myself, and that sheet could be linked to this to figure our projected tax position. However, that will make a topic for another column!

If you have any questions, leave a message for me on the SCCG or TISIG boards. If there are topics you would like to see covered here, LET ME KNOW! There's a lot to talk about on Multiplan (and I can run on like this for a LONG time!), but I need to know the interests of the group in order to keep this column valuable to as many members (and guests!) as possible. Thanks!

BROWSING THE LIBRARY
--with STEPHEN BRIDGETT

Are the years getting shorter or am I getting older? Another year all but through and I really don't how it happened so quick.

Exciting news at our November meeting, the Chicago gang brought back a whole hockey sock full of disks for the library. If we didn't need a new catalogue for the software library we sure will now. It will take some doing to sort out all that stuff but should make for some interesting 'DISKS OF THE MONTH' in the new year.

Thanks to the members who came forward and offered to make the library a success, Stu bruce and Bernard Vanden just to name two. I'm starting to realize that keeping track of our software can be a full time job before even thinking about making it available. Thanks guys, I'll be in touch. If any one else wants to make even a small contribution by way typing in programs, finding programs, or what ever don't be shy and remember, it's all the little things that make it go. Here's a chance to do a little MODEMing, just give me a call.

I hope to be able to come up with a new catalogue by early in the new year. There is still a bit of a logistics problem as the actual library is held by Bill Sponchia and I am without a car. Nevertheless, Bill and I will be getting together to sort out all the goodies. And on the subject of goodies I was informed by Eleanor Brooker that she has access to the other hockey sock full of disks from a contact in the west. Wow we may have to have a library 'catalogue-a-thon' to sort this out. By the way Bill is available for software request just as I am and can give you a quicker answer than I as he has the disks. Sounds to me like '87 will be a banner year for the library.

Now a grass routes message for all you cassette based operators. It's a little known fact that our club also holds an extensive library on cassette. Jack McAllister is our club cassette based librarian and HE IS KEEN! Try it you'll like it! Jack has a hi speed copier and is very willing to go to bat for you, or as he said to me "I still have a soft spot for the cassette."

If this were a sales pitch I'd be renewing my club membership, it is and I already did.

Here's your hotline numbers:

Official Librarian....Stephen Bridgett....NEW NUMBER....521 3631
Disk Library Holder....Bill Sponchia....523 0878
Cassette library holder....Jack McAllister....521 6989

SEE YOU ALL AT THE MONTHLY,....STEPHEN

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 unequivocaly, 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 enthusiam 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 occassion 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
belive 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
documenation 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 genuises 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 \\c 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 interfacable 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
Ryte 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]

THE FAIRE PART TWO

by TERRY.
DARTMOUTH, NOVA SCOTIA

And these comments from Warren Agee
Well I'm back from the Chicago faire, and I had a fairly nice time.
Great to see familiar faces and a few new ones (PaulC, Ron, Clint,
Todd K, Walt).
I also finally got to see a face that has eluded this individual
from the start...the face of the Geneve.
I guess the best way I can describe how the faire affected my
opinion of this machine is to say that going in to the faire I had
a rather negative attitude. Coming out of the fair I have a
moderately optimistic attitude.
As far as technical superiority, if you hear all the hype about the
fact that the Geneve is in some cases graphically superior to the
Amiga, BELIEVE IT! I was thoroughly impressed in this regard.
The info that encouraged me the most is the fact that Lou is
talking to people about having an outside company package and
produce and market the final version of Geneve, the standalone
computer. I feel this is *vital* to the life of this machine
beyond our tiny little forum of friends and hackers.
That is IF they ever get the gate arrays from Mistubishi. I'm
running out of time here, so let me just clarify two things: it was
originally announced that the Geneve would use a Microsoft mouse; I
guess they finally decided on an Amiga mouse. Also, Clint Pulley
just this last tuesday managed to, with just a little effort mind
you, get c99 up and running on his prototype of the Geneve. Sounds
pretty good.
At any rate, I will be content to sit back and wait and watch to
see what kind of direction this plan of action will take...I bought
one orphan, and I am not about to put out money for something that
has NO chance for any kind of survival. I wish Myarc all the best.

Albrights NEW book!
Author   : TERRY.
DARTMOUTH, NOVA SCOTIA

The following was gleaned from CIS. Feel free to publish it in
NL's or put on BBS's. commercial advertisement from D.O.S.).
The first book, "The Orphan Chronicles", was ABOUT you — the Texas
Instruments 99/4A enthusiast. Now, there is a book BY you. The
"Orphan's Survival Handbook" is the one-stop information source for
the TI user.
The "Orphan's Survival Handbook" was both easier and harder to put
together than was the "Orphan Chronicles". Easier in that it was
already written! It is an anthology or material gleaned from
literally hundreds of user group newsletters and hundreds of hours
of downloaded files from bulletin board systems. It is the "Best
of" you — the TI user group members, hackers, programmers, and
newsletter editors. Why, then, was it difficult? There was so much
quality material available! The hardest thing was not finding
enough material, it was deciding what I could leave out!
The "Orphan's Survival Handbook" is a 200-plus page compendium of
TI material. It is filled with schematics, hardware hacks,
programs, tips, and tutorials from across the country. Where to
call, where and wht to buy, and what to read. Moreover, it
contains new, "never-before-seen" material from some of the
brightest minds in the TI community (too numerous to name them
all). Looseleaf, and three-hole punched, the manual can be placed
conveniently in a binder for easy access. And updates (which are
planned for registered owners) can be easily incorporated into your
"Handbook" as new insights and developments become available.
While I can't guarantee the "Handbook" will have "everything you
ever wanted to know", I can assure you that it has most everything
I could think of.
The "Orphan's Survival Handbook" is published and available from
Disk Only Software (DOS), P.O. Box 4170, Rockville, MD 20850;
(301) 369-1339) or call our toll free number at 800-446-462 plus
897335 at the tone (touch tone required). Projected retail price
is $16.95.

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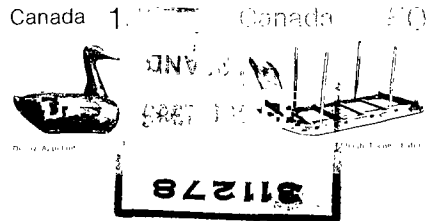
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