TIdbits

MID SOUTH 99 USERS GROUP
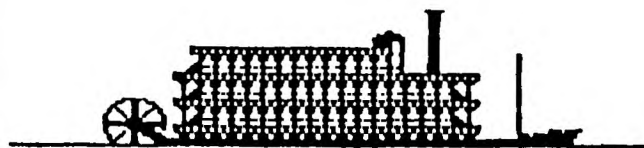
MEMPHIS TENNESSEE

SEPTEMBER 1989
ISSUE

T I D B I T S

OFFICERS

Gary Cox	PRESIDENT	901-358-0667
Mac Swope	VICE-PRESIDENT	901-363-3880
Richard Hiller	SECRETARY	901-794-9945
Bob Jones	TREASURER	901-363-9213
Michael Dorman	Midnight Hour BBS SysOp	501-732-5126
David Ferguson	Disk Librarian	901-795-3287
Pierre Lamontagne	CO-Librarian	901-386-1513
Michael Dorman	Editor - Newsletter	501-732-5126
Gary Cox	Program Chairman	901-358-0667
Mac Swope	Chairman - Equipment	901-363-3880

SEPTEMBER 1989 INDEX

PRESIDENTS BIT

By   Gary W. Cox

I'm sad to report the loss of a well known TI'er, Guy Romono of
the Amnion Helpline in San Francisco California.   Anyone who has
been in the TI world for long knows of Guy Romono.   Guy was once
the librarian of the International User Group and for many long
years kept a very extensive library of TI programs which were
available just by writing and asking.   Guy was also mentioned
quite frequently in Micropendium and you could often see his ads
offering TI assistance in Computer Shopper classified ads section.
Many years ago Guy was responsible for keeping our group up to
date on many new freeware programs however, in recent years demand
for TI programs from him had diminished possibly to user groups
now offering so many programs.   However, he was still there
offering assistance to anyone who would write or call.   In fact,
many times when I would try to call his line would be busy from so
many people calling him! His presence in the TI community will be
sorely missed...

I would like to send a word of personal THANKS to Bill Gaskill
this month.   After a very dumb accident which involved me erasing
his article Bill was kind enough to send me another copy over the
phone! Thanks Bill! Thanks also for the other articles we received
this month from members David Cotner in Memphis and our overseas
member Dirk Cokart!

The meeting last month turned out great with the demonstrations of
Page Pro 99 and Microdex! Those two programs were the first
purchased under our user group demonstration plan.   How the plan
works is our group will purchase pre-approved software if a member
will demonstrate it at a meeting and write a review for the
newsletter.   Extending the program to out of town members we will
pay 50% of the cost of the software for a review of it in our
newsletter.   Remember all software must be pre-approved and the
amount we spend depends on our current financial status.   Contact
an officer of the group for more details.

Last months meeting also produced a surprise! Nearly 50 TI
cartridges were donated to our group by Ronald Howell (THANKS!).
Instead of trying to sell them we decided to just give out most of
them to members of our group as a thanks for attending meetings
and supporting the group.   Titles ranged from games to business
applications.   A few of the cartridges of which we only had a few
of we sold for a dollar a piece and Extended BASIC we sold for $15
each.   We still have a few cartridges left over to give out at
this months meeting.

Membership in our group currently is holding at 75 members with a
total mailing list of 165 including user groups and some hardware
and software vendors.

Many members have experienced problems in uploading files to the
Midnight Hour BBS via Telco.   Through a lot of work by Michael,

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the problem should now be corrected so give it a try!

A member of our group, Fred Duvall, in Mission Texas has started
his own BBS running 24hrs a day at 300/1200/2400bd called the
Winter Texan BBS. The BBS, of course, supports TI99/4a. The
number is (512) 580-4265.

By the way as a way to contact me besides calling on the phone
anyone wishing to leave me a message can do so on the Midnight
Hour BBS. (I check it at least every other day if not every day)
or through Genie with Email address G.COX1.

C ya at this month's meeting...

PROGRAM BIT

MEETING: Thursday September 21, 1989
         Red Cross - 1400 Central Ave.

6:30pm - Doors Open
7:00pm - Meeting Begins, general discussion.
7:30pm - Demonstration by David Cotner on how to build an
         external power supply for the TI console to keep it
         cooler!
8:00pm - Demonstration of the Horizon Ram Disk.
8:45pm - To Be Announced.
9:30pm - Meeting Ends, late dinner at location to be announced.

IN THE NEWS

By Gary W. Cox

Many of you have probably noticed that the TI Forum section of
Computer Shopper was missing in the September issue! According to
Barry Traver (one of the authors of the column) the missing TI
Forum section was due to a missed deadline date for the article as
it seems Computer Shopper has moved up the deadline date for their
articles and they missed it. The TI Forum section should
re-appear next month. However, it wouldn't hurt to write to
Computer Shopper and show our support for the TI Forum column!!!

Believe it or not TI still cares! Recently we received a letter
from Texas Instruments asking the current status of our group for
an update of their user group listings. Also in their letter they
stated that they will continue to service TI equipment. For

Information on service call (806) 747-1882. User Groups wishing
to stay on TI's address list or wish to be included on the list
should write to Lois Brock - Consumer Services, Texas Instruments
INC., P.O. Box 53, Lubbock, TX 79408.

The following edited from August 1989 Micropendium magazine.

Comprodine Software of 1949 Evergreen Ave., Fullerton, CA 92635
has released a program called Giant Artist Posters for the use
with TI- Artist. The program created posters using TI Artist
screens... The program requires 32K, disk, XB, TI-Artist and
Epson compatible printer. The program is TI99/4a and Geneve
compatible. Program sells for $15 plus $1.50 shipping and
handling.

Available from Texcomp of P.O. Box 33084, Granada Hills, CA 91344
phone (818) 366-6631 is offering several unique programs. The
first is Trak. A Check for home or small business which does what
the name implies it tracks checks. Next is Exer-Log which
calculates calories burned for 40 exercises ranging from sleeping
to marathon running... Lastly is Daily Diary which saves and
retrieves daily schedules... Each program sells for $5.95 or all
three for $11.95 plus 3% shipping ($3.00 minimum). Check
Micropendium for other bargains on software from Texcomp.

Eric Zeno is now manufacturing a board known as the "Zenoboard"
which allows users to add 32K, clock circuit, XB and the Speech
Synthesizer to the interior of the TI console. The boards are
$17.50 each plus $1 for documentation with shipping $2.50 for the
first board and 50 cents for each additional board. For more
information or to order contact Zeno at 414 Highland RD.,
Pittsburgh PA 15235 or (412) 371-4779. Anyone willing to do the
project as a user group sponsored effort for review and
demonstration?

Asgard Software is offering three new products. They are Legends
II, MDOS Conversion Notes and HardMaster.

Legends II is a continuation of the Legends series of games. The
senerio in Legends II is that of a shipwreck! The program sells
for $17.95.

MDOS Conversion Notes is a package to aid assembly language
programmers to port software from the TI99/4a to Geneve.
Suggested retail is $12.95.

Hardmaster is a hard disk sector editor for use with the Myarc
Hard and Floppy disk controller... The program is compatible with
4A and the Geneve but 4A owners must have expanded memory. The
program sells for $14.95.

For more information on the above Asgard Software products write
P.O. Box 10306, Rockville, MD 20850 or call (703) 255-3085.

Bud Mills Services of 166 Dartmouth Dr., Toledo, OH 43614 is
offering a new memory expansion for Geneve owners called MEMEX.
MEMEX uses more economical 1 meg dynamic memory chips. MEMEX uses
a new refresh circuit design and automatic detection of other

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cards that might cause a conflict. The card will support "zero
wait state" operation and is fully socketed for expansion up to
1.5 meg. 504K MEMEX is priced at $245.

Barry Boone is offering a Fairware program called EXEC that allows
Geneve users to load most assembly programs from MDOS without
having to load the GPL interpreter. Boone has also upgraded
Archiver to 3.03G which includes a patch to fix a problem when
running on Geneve. Another modification allows the user to use
the Myarc hard and floppy controller. These programs can be found
on BBS's or mail a disk and postage paid return mailer to Box
1233, Sand Springs, OK 74063.

For the latest and most update news check out the latest
Micropendium!

FOUR-A/TALK
Random ramblings about things TI.

By Bill Gaskill - September 1989

MILESTONES

-Dr. Guy Steffen-Romano died August 15, 1989. Long time 99ers
will remember Dr. Romano as the first librarian for the IUG.
Some will remember the many excellent articles he wrote in the
National 99er and in Enthusiast 99. But most of all, we will
remember him for the Amnion Helpline at 116 Carl St. in San
Francisco, California. The source of a seemingly limitless
fountain of information and dedication to the TI community, Dr.
Romano earned the respect of any 99er who came in contact with
him. May his wisdom be carried on and his example of dedication
never die.

WHAT'S HOT:

The HARRISON WORD PROCESSOR, TI-SORT, TI-Base V2.02. and
HARDMASTER

DISCOVERIES:

-As a follow up to last month's information on TI-SORT: I received
another copy from Dennis Faherty along with V2.02 of TI-Base.
WOW! I now get to use my hard disk storage to its full potential.
These are the kind of tools that I have been waiting for. Thank
you Inscebot!!!

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TI-SORT both runs from and reads and writes to a hard disk drive
using Myarc's HFDC. I am now able to tackle virtually anything I
have and put it in either ascending or descending order. While
TI-SORT cannot compete with Peter Hoddie's SORT EXPERIMENT
fairware program as far as speed, it blows it away in record
capacity. You may recall from a previous Four-A/Talk article that
I thought TI-SORT would "do" 99999 records. Not so according to
author Dennis Faherty. There is a counter in the program that
necessarily limits that maximum to 32,767 records. That'll do.

My real love of course is TI-Base. It has been enhanced to
support the hard disk environment in V2.02 so all of you HFDC
owners with a hard disk will want to upgrade. The speed of all
read/write operations from within TI-Base is easily 10 times
faster than a floppy drive can offer. Command file interpretation
hasn't changed, but look for an improvement in that area too when
V3.0 comes out. Dennis says that he is going to "tuck" more of
the command file in memory so less is read from disk on the longer
files.

                    Inscebot Inc.
                    P.O. Box 291610
                    Port Orange, Fl. 32029

-If you are looking for a really good article explaining
relational data base managers versus flat-file data base managers,
pick up a copy of the September 1989 PC Resource magazine. The
late Kent Porter, former senior technical editor of Dr. Dobb's
Journal, has an article published there that is the best that I
have seen for the layperson. Understandable and moderately
comprehensive in scope, this one article is well worth the $2.95
investment for the magazine. The article is entitled "Step Up to
Power And Convenience", and it is found on pages 58-64.

-Asgard's Chris Bobbitt has announced a sector editor for the
Myarc HFDC called HardMaster. The program is written by Colin
Christensen and apparently includes the ability to let you edit in
hex or ASCII, dump a range of sectors to a printer, edit four
sectors at a time and more. It also comes with an extensive
manual that provides information about how data is stored on the
hard drive, plus a novel hard disk backup utility. Price is
$14.95.

                    Asgard Software
                    Box 10306
                    Rockville, Md. 20850
                    703-255-3085

NEWS:

-Did you notice that the September Computer Shopper did not have
the TI FORUM column in it? Word is that there are some shorter
publishing deadlines imposed by the new editor and "we" missed
them I guess. Walt Howe, one of the TI NET sysops on Delphi
suggests that we write to Computer Shopper to express our concern.
I agree. Please take a few moments to write to the new editor to
let him know how important the TI column in each issue is to us.
Write to;

7

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Bob Lindstrom
Editor-In-Chief
Computer Shopper
1 Park Ave.
New York, New York 10016

-Scott Darling, GEnie sysop for the TI-RoundTable for the last 3-4
years, has departed for greener pastures it appears. Thanks for
all the time and effort on behalf of the TI Community Scott!

But guess who took his place. None other than the "Professor of
Arc", the "Guru of I/O" and the "Master of Mechatronics", Mr.
Barry Boone!!!! How's that for loyalty? The guy never stops
supporting us. And he hasn't even been a GEnie subscriber all
that long, either. GREAT to have you aboard Barry.

-John Johnson has released his Remind Me! appointments calendar
program into the public domain. While I purchased mine
commercially when it first appeared, you can now get the same
program for FREE. It will probably show up on your club's BBS
shortly. Remind Me! is a nice program that has served me well.
When run from a Horizon Ram Disk it isexcellent because it
actually was faster to use than turning to the paper system of
yesteryear. Run from a floppy drive, it's still pretty good too.

John explains his reasons for the public domain release and treats
a sensitive topic like a gentleman. I was a little miffed at
first since I forked over the bucks for it, but his explaination
makes sense, and the fact that he took the time to provide it for
those who paid for the program says even more.

-Peter Hoddie contacted me the other day to report that the new
AV-INDEXER program for cassette and VCR labeling etc. is well on
the way to making it's commercial debut. He mentioned that it has
"one of the neatest user interfaces" going. Wonder what that
means exactly. If it's anything like cSHELL99 then its going to
be pretty "neat".

Word also is out from JPH that the next release of FirstBase is
ready to be beta tested. If I got my act together in time, I
might get a copy to look at. Hope so. There are some new search
routines in it I'm told and WaWa and Co. are looking at ways to
simplify the report generation module. No date yet on the
commercial release of the upgrade though.

-In case you haven't heard, TENEX seems to be winding down it's
99/4A business and reducing it's inventory. According to John
Kolean, TENEX will not be producing any more TI-99/4A catalogs.
Too bad for us all. I guess we just don't spend enough money, or
there just aren't enough exciting new products coming out for the
4A? Either way, we all lose.

-CompuServe's TI FORUM ran a message across my monitor this month
about a "tiff" of sorts between a well-known and respected user
group personality and the head of a large 99/4A software company.
I guess I subscribe to on-line information services to get
information, but that kind of stuff is not what I put money out
for. Come on guys! There's got to more to write about than that!

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HARRISON WORD PROCESSOR:

-I'm not going to give you a lot of information on HWP since a
review of it will appear in MICROpendium some time in the future.
I will tell you that the program is 100% assembly language coded,
it supports more pages per document than TI-Writer and it uses a
menu-driven user interface instead of the command driven interface
that TI-Writer users are accustomed to. I will also tell you that
author Bruce Harrison has broken down the barrier on
support-after-the-sale for 4A software by offering free telephone
support for the product until midnight Mondays through Fridays. I
will also tell you that it is very obvious to me that Mr.
Harrison is a talented assembly language programmer, who also
possesses a clear picture of what a professional piece of
commercial software should look like. If you are interested in
finding out more about the Harrison Word Processor you may
contact;

                    Harrison Software
                    5705 40th Place
                    Hyattsville, Md.   20781
                    301-277-3467

THIS MONTH IN TI-99 HISTORY:

<1980>

Charles LaFara incorporates the International 99/4 Users Group in
Bethany, Oklahoma. In its four and half year life the IUG will
grow to a claimed membership of over 100,000 people in 54
countries around the world.

-Chicago TI Users Group is formed by Jerry Strauss.

<1981>

The Source on-line information service promises TEXNET start-up by
month's end but it does not occur.

<1982>

Peripheral Expansion Box released in UK a month later than
promised.

-ALPINER and OTHELLO to be available in England by October.

-MINI-MEM, LOGO and E/A modules offered in England.

-Oak Tree Systems introduces the little known and poorly received
CROSSUMS. The program is Chuck Davis' only entry into the
educational programs market.

-TI introduces the Computer Advantage Club.

-Navarone Industries is headquartered in Sunnyvale, California.

-TI and Control Data Corporation reach an agreement that will

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produce over 100 Plato titles for the 99/4A.

-TI begins a $100 rebate campaign that is slated to end January
31, 1983.

-USUS (UCSD Pascal Users Society) forms in Dallas, Texas, with
Robert Peterson as president.

-A New York marketing firm survey shows that TI is losing shelf
space to VIC-20 in Toys 'R US, K-Mart, Woolco and the Montgomery
Ward stores.

<1983>

Jerry Riley is elected as the first president of the Front Range
99ers with John Pearce as VP, Bonnie Snyder is the secretary and
John Williams treasurer.

<1984>

Richard Mitchell begins publishing the "Super 99 Monthly" from
Sulphur, Louisiana.

-GRAM KRACKER prototype announced by Millers Graphics.

-The Wycove Forth language is released by Tim McEchearn, a
Canadian author of computer programmers.

-Myarc releases the MPES/50 expansion System with 32K memory,
RS232/PIO ports and a SS/DD disk drive and controller. Retail
price is $595. An MPES/50-RPM is also offered for cassette only
owners. The -RPM model lacks the disk drive and controller.

Tarik Asani of StarSoft releases three new assembly language
programs for the 99/4A; Microkey, for defining keyboard macros,
Nibbler, a disk copier program, and Unprotector, a program to
unprotect Extended Basic programs while they are in memory.

-Microcomputers Software 34 Maple Ave. Armonk, Ny. 10504
914-273-6480 releases Tiny Logo on cassette. The program uses
only console memory.

-Cheryl Whitelaw, (Aka REGENA) profile appears in the National
99er newsletter out of Bakersfield, Ca.

-"XB Home Applications" book by Christopher Flynn is released by
Compute! Books.

<1985>

Thomas Weithofer releases PILOT 99.

-John Taylor releases CHECKBOOK/BUDGET MANAGER program.

-Barry Traver joins CompuServe as Sysop on the TI Forum.

<1986>

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Last REGENA or any other article that will appear in Compute!
magazine. The end of Compute! support for the 99/4A has come
quietly and uncerimoniously.

<1987>

Jack Riley joins Myarc as a partner.

-Alpha Scientific Box 626 Chesterfield, Missouri 63006
314-878-7117, advertises a 3.5 inch Toshiba disk drive kit for the
99/4A in Computer Shopper.

-Harry Brashear a New York 99er, writes a critical letter to all
99ers who are moving away from the 99/4A. The letter is posted on
the major TI-SIGS for all to read. It draws scathing criticism in
return for its fanaticism and insults to Craig Miller and other
former 99/4A supporters.

-Marty Kroll releases CATLIB V1.5.

-Geneve column debuts in MICROpendium.

<1988>

Myarc GEME windows manager appears in MICROpendium with photos and
a write-up done by John Kolean.

-New Myarc question and answer column debuts in MICROpendium.

-Asgard releases Batch-It program from Charles Earl and Tom
Bentley.

-Asgard releases Oliver's Twist, a game by Mickey Schmitt and Lynn
Gardner.

Genial Computerware releases MacFlix and FirstBase.

TRIVIA:

Did you know that;

-Bill Warren, Gene Bohot, Wayne Stith, John Johnson, Steve Mehr
and Rodger Merritt all had a hand in the making of Comprodine's
FormShop program? Bill Warren started the sequence of events that
would give birth to FormShop by coming up with the idea to use
TI-Writer's CHARA1 file control codes for all the screen borders
that you can have when designing a file in PR Base. Gene Bohot
came up with the idea to use the same modified file back in
TI-Writer to provide borders and boxes etcetera in a text file.
Gene then went about trying to get into the CHARA1 file with Wayne
Stith's Quik Font program, but the codes needed to be accessed
were out of the scope of what Quik Font was designed to handle.
So Gene contacted Wayne to see if Quik Font could be modified to
include access to the necessary ASCII codes. Wayne tackled the
challenge and came up with the necessary tools to get the job
done. The end product of Wayne's efforts is the CHARA1FIX program
that he released to public domain a few month's ago. Gene then

11

showed what he had to Steve Mehr, ever the mover and shaker of
"things TI". Steve convinced partner Rodger Merritt of the
commercial value of the idea and Rodger, with a little help from
John Johnson's WORD program, put his wizard's touch on the whole
concept and turned out FormShop. How's that for trivia?

-TI's arrogance and lack of marketing skill was at it's height
when they held the new MunchMan cartridge hostage and demanded
that users who wanted a copy first buy any four of the existing
modules or one of the module libraries to get it? The "MunchMan
Plan" began in February 1982 but was abandoned in May of the same
year. I'm sure glad that I wasn't a 99/4A owner back then. I
might have trashed the whole system and gone to a Commodore. The
more research I do into the history of the 99/4 and 4A, the more I
am amazed that the computer got off the ground at all, or that
anyone bought one. Texas Instruments seems to have done just
about everything wrong (from a marketing perspective) that they
could have done in selling the computer.

-Even back in 1981 and 1982 there were little or no ads, articles
or much of anything else written about or for the 99/4? If it were
not for Charles LaFara's International 99/4 Users Group, a little
known entity called the International Home Computer Users
Association out of San Diego and the emergence of 99er Magazine,
there wouldn't be much of anything in print. Creative Computing's
David Ahl apparently recognized the potential of the machine and
provided some coverage in the early days, but magazines like Byte
took one look at the 99/4 in 1979 and dismissed the machine as a
worthless toy. Compute! didn't begin publishing articles and
programs for or about the computer until January of 1983, and even
then most of the stuff was geared towards the console-only owner,
who it was assumed only had the built in Basic and a cassette
recorder.

Indications are that TI's secretiveness about their machine was so
pervasive that besides not opening up the architecture of the
computer to third party hardware and software developers, they
wouldn't even release information on how many units had been sold.
Software developers were necessarily reluctant to make the
investment into products for a computer with an unknown
installation base. Authors of magazine articles had little to
write about since few products were being released for the
computer compared to what was available for other machines and so
little information was available about the "guts" of the TI
machine that there wasn't much left to consider. No wonder there
are so few articles and such, huh?

-LOGO for the 99/4 was the first implementation of the LOGO
language for any computer under $10,000? TI introduced their
original LOGO in April 1981 as a disk and module based
application, but sold it only to "qualified" school districts.
Individiuals could not purchase a commercial version of it until
some months later

-Charles Ehninger, owner of the Futura Software company that
produced a host of software for the 99/4 and 4A, was the first
winner of TI's Author Incentive Program? He picked up $3,000 first
place money back in April 1981 for his Household Inventory

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program. Not an ordinary effort, Household Inventory, which may
still be available from Tenex, computed the fair market value of
your belongings based upon a host of data from the Bureau of
Statistics.

-Bill Bies, author of the assembly games, ARCTURUS, ARTHROPOD, and
AsTIroids for the 99/4A, marketed them under the name North Hills
Software? Mr. Bies was 14 years old at the time he undertook the
business venture. That would make him about 20 years old today!

-Walter J. Dollard, who MICROpendium subscribers will remember as
one of the major software developers for the 99/4A that was
interviewed in an early 1984 article John or Laura did, was 18
years old at the time. That would make him about 23 years old
today. Wish we still had them in the community today.

DISK CONTROLLER KIT

By Dirk A.C Cokart.

On seeing the advertisement in Micropendium I immediately wrote to
John Guion, for some more imformation on the TI Disk Controller
Upgrade kit. After reading his letter and information sheets I
decided to order the upgrade kit, which sells for $19.95. It is a
very reasonable price for something like this I thought.

It took a while before receiving the upgrade kit which, by the
way, is not Mr. Guion fault, but has something to do with the
postal services... The upgrade kit consisted of two Eprom's a
74ls259 and two 7438 chips, plus a bit of wire to make some
jumpers.

The most difficult part of the operation is the removal of the two
24 pin ROM chips, marked on the Disk Controller Card as U26 and
U27. It takes a long time and a lot of patience to remove those
two roms intact. The rest of the operation concist of piggy
backing two more chips and fitting a couple of jumpers plus
cutting a couple of existing tracks on the Disk Controller Card,
everything is very clearly explained in the instruction sheats
that are supplied with the upgrade kit. After fitting the
replacement parts onto the controller it is time to do the smoke
test, and see if it actually works. Which in my case it didn't
do. No fault of John Guion, just a case of starting to count the
pins from the wrong side with the card turned over. Of this
mistake you are warned in the instuction sheets. Anyway this
mistake was quickly rectified and the card worked as predicted by
the supplier.

A fourth drive can be added to your system which was not possiblle
before with a TI disk controller card. You can also use upper and
lowercase letters as file names. You can even change the head
stepping time and make it faster if so desired, but you must state

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so when ordering the upgrade kit. I didn't make use of this for
the simple reason that I bought my drives second hand and have no
information on them at all. Another usefull thing is that you can
now number your ramdisk as number one, and still use your floppy
drive as drive number one and auto load an Extended Basic program.

All in all I enjoyed doing this project. Looking to the future I
am sure some one will come up with a upgrade and because the
Eprom's are in sockets this time it is just a matter of pulling
them out and replacing them.

To do this upgrade one must know how to solder and how to use a
soldersucker.

Ending this review I have to say that I really enjoyed doing this
conversion. If you are like me and like to tinker around with
electronics this upgrade project is definitive for you.   John
Gulon can be contacted at PO BOX 4628, LUBBOCK, TEXAS 79409.

REMOTE POWER SUPPLY

SOLVE YOUR HEAT PROBLEMS - REMOTE YOUR POWER SUPPLY

By David Cotner, Mid-South 99ers UG

For several years I had read articles on the heat build-up
problems associated with the TI-99/4A console. I had experienced
the frustration of lock-up at the most inopportune time, and had
installed of the the "cool-running" power supplies that were
available as surplus items from many sources, including Radio
Shack. I even went so far as to purchase different types and
sizes of fans to improve the cooling of the console, but the
enclosure was too bulky to fit under my home-made computer desk's
lower shelf that overhangs the back of the console. Then I saw my
answer in Dr. Ron Albright's ORPHAN SURVIVAL HANDBOOK. Although I
am not sure who the author was, the article on relocating the
power supply outside the console, became the basis for solving my
console heat problem.

With slight modifications to the orginal plan, here is how I built
my remote power supply. I found no better box for mounting the
power supply, and used Radio Shack part no. 270-253, a ventilated
aluminum and steel project box. Additionally you will need a DPDT
switch, a 12 volt DC pilot light, some wire, approximately 24 gage
perferrably stranded, 3 small wire nuts and a plug/jack set
capable of 4 connectors. The orginal author used 5 pin DIN and
two lengths of two-conductor zip-cord tied together with small
nylon cable ties, I used a 6-pin connector set and hook-up wire
because I had it in my junk box. You will also need some nuts,
washers, machine screws, etc.

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Tools: Method of making neat holes (I used a drill, small bits,
hobby knife, files, and a nibbler), needle nose or small
hobby-type pliers, soldering pencil, screw drivers (phillips and
flat-blade). I also used a VOM to verify my wiring before final
assembly and power-up.

CONSTRUCTION: First, you will be doing all of the mounting work
on the aluminum portion of the project box. The bottom comes
pre-drilled for the rubber feet---redrill those holes to put the
feet in the extreme corners to allow room for the power supply
mounting screws. Position the box with one of the aluminum ends
is facing you, and place the power supply in the box aligned so
that the ON-OFF switch is in the lower left portion of the box.
Depending on the type of power supply you are using, this will
place the output connector (to the console) either to your lower
right or upper middle (slightly right of center). This placement
will permit the output line to run along the right side of the
power supply and we will be placing the transformer power input
socket towards the left (on the back panel of the box).

If you are like most TI enthusists, you probably have extra power
supplies for your TI-99/4A. I did and used one in this project so
there would be no computer down time during the early phases of
construction. During this portion of the construction is where I
strayed from the orginal author. Rather than making the unit
permenant, this design would make the replacement of the external
power supply or the returning of the power supply to the console a
simple task.

Mark and drill the three holes for the three mounting screws that
will support the power supply's PC chassis board. Position the
power supply in the box making sure the board is supported about
1/2" above the bottom of the box. (Do NOT mount the power supply
permenantly in the box until all the drilling, filing etc., is
completed.) Using your DPDT switch as a guide, position the switch
in the vicinity of the boards ON/OFF switch and mark the box.
(Leave a 1/2" space from the top of the box.)

About 6" from the transformer power input socket (include the
toroid choke core [the two small gray magnet-looking things with
the wire wrapped around/through them]) cut the wires and strip
1/4" insulation from the newly cut ends. (NOTE: if you have an
older power supply with the 3 wire input, use it rather than the
newer 2 wire version. This will enable you to use any of the
power supplies should you ever have to replace it later, and you
can still use the newer 2 lead supply as I did. Cut the necessary
hole for the transformer input socket in the upper left portion to
the box, leaving about 1/2" space from the top of the jack to the
top of the box. Placement is not critical, but you want to keep
it clear of the heat sinks and box top. (If you don't use the
power transformer and power input socket from the orginal black
and silver 3 wire power supply, the black lead will be missing,
and you will have to redesign the pilot light hookup. More about
that later)

Mount the transformer power input socket into the box end. (I
used hot glue, but silicone or similar glue/sealer would work just
as well.) In the front center of the box, drill the hole for the

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pilot light. Smooth all burrs etc. This not only makes the
project look neat, it keeps you from scratching yourself on any
sharp edges. You will notice that the aluminum is fairly soft and
can be cut/trimmed with a small sharp hobby knife (if you are
careful not to cut yourself in the process, this can be an easy
way to trim holes to fit your components quickly and neatly.) The
last hole needed will be for the output wires to the computer.
These can either go out the front or back, depending on where you
plan to place your new power supply box in relation to the
computer console. Cut a suitable hole for your particular setup
and sized to fit your wire bundle.

Now we come to the fun part - instead of hard-wiring the wire
bundle to the console and power supply, I used custom connectors
to plug into the orginal components. (If you have old parts
available you can skip the fabrication step, and use the
connectors from an old power supply and/or console.) To make a
plug to fit the power supply's jack, use the inserts from an old
connector (TV/radio/etc) or the pin connectors from a mini-pin
vacuum tube socket. (Ask an older member of the user-group what a
vacuum tube is.) Dissemble the part and solder a connector to each
of the 4 wires in your wire bundle. Take the connector ends,
place them on the jack pins, making sure they fit snug for good
electrical contact. Make a plug by filling in around the
connectors with hot glue or silicone sealer. When cool/dry you
have a custom plug for the power supply. Be sure to build up the
outboard side of the plug so it can be inserted only in one
direction to keep the wires straight.

At this point, you will need to determine how long a wire bundle
you will need. Cut the wires accordingly, and solder the plug
half of the connector set to the end of your wire bundle. You now
have a custome plug for the power supply on one end, and the plug
that will connect it to the console on the other end. Now make
another shorter wire bundle about 12" long for inside the console.
Keeping track of which wire goes where based on the color code for
your other wire bundle, solder the wires to the corresponding pins
of the console-jack half of the connector set.

Now the plug for connecting to the console must be made or
soldered in place. At this point, you will have to open up your
computer and remove the power supply. The connector plug (on my
console it was white with light brown wires) will plug into the
new short wiring bundle you just made. If you are making the
connector, select some stiff wire the same size as the connector
pins in the power supply jack (you might try one of the larger
than normal paper clips, etc.). Smooth the ends of any sharp
edges that might hang-up inside the console connector, and ensure
that the pins fit snuggly without having to force them. Once the
pins are properly sized, solder one to each wire in the wiring
bundle. This next part is critical -- there can be no errors!!!!
Carefully trace each wire from the power supply to the pin at the
console end. As you verify each wire's position, place it in the
corresponding hole in the console's connector. When all 4 are in
position, fill in around the pins with hot glue/silicone as you
did for the power supply end. When cooled/dry, carefully remove
the new plug from the console end, and from the power supply
board, and recheck the wiring for proper placement...+5VDC goes to

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+5VDC, etc. When you are positive all is correct, build up the
console plug so it can be inserted only in the correct direction.
(If you unsolder the jack from the power supply and use it for the
console end plug it will lock to the console connector and prevent
slipping or improper connecting.)

Install the switch and pilot lamp. Solder wire jumper leads about
2 1/2" long to the terminals of the switch. To keep the color
coding correct, solder one red jumper to a lower terminal of the
switch, and a black jumper to the other lower terminal. On the
"red" side of the switch, solder the red lead from the transformer
input socket to the center terminal, and to the other center
terminal, solder the black lead from the transformer socket. The
top two terminals are not utilized.

With three small wire nuts, connect the following wires
together,making sure all wires remain clear of components on the
PC board -- especially the heat sink:

     a) Connect the red wire from the power supply PC board and
the red jumper from the switch.
     b) Connect the black wire from the power supply PC board, the
black jumper wire from the switch and one lead from the pilot
light.
     c) Connect the white wire from the power supply PC board, the
white wire from the transformer input socket, and the other lead
from the pilot light.

(If you are using a two wire power transformer and power input
socket, you will have to redesign the pilot light hook-up. There
is no black lead (8 VAC to power the 12 volt pilot light we
planned using. You can either get an 18 volt pilot lamp assembly
and hook the lead to the red wire from the switch, or use a 12
volt unit with a dropping resistor inline with the lead connected
to the red wire from the switch. You could also try the LED
installation suggested by Richard Lumpkin in his power supply
article [Houston UG newsletter--Aug 88])

The last portion of this project is mounting the console-jack in
the hole where the original transformer power input socket was
mounted. Having done that make one final check of your wiring,
and then mount the power supply in the box. Make sure the orginal
ON-OFF switch on the PC board is turned ON!! This will save you
that terrible sinking feeling when you first fire it up and it
doesn't work!

You may feel that the aluminum ends of the box are not rigid
enough to withstand pushing in of the transformer power input
plug, and may want to reinforce them. This can be done by either
installing a brace between the two ends just above the transformer
socket, or by bolting "L" shapped brackets to the aluminum ends
with machine screws and fastening them to the top with metal
screws.

One final consideration derived from an article orginally from the
Houston Users Group--Aug 88/P5/6 BITS AND BITES: CONSOLE POWER
SUPPLIES by Richard Lumpkin. The power supplies available as
industrial surplus and sold by Radio Shack sometimes proved faulty

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-- those that were bad often sent +23 volts out the +5 volt lead
-- ie., no more chips in your console!! He recommends "cooking"
new power supplies overnight with a resistor load (5 ohm/10 watt
resistor on 5 volts, 30 ohm/10 watt resistor on the 12 volt and
100 ohms on -5 volt). The resistors do get HOT!!! Short of that
and to add to your console's safty, insert an inline fuse holder
in the +5 volt line from the power supply to the console, and use
a 1-amp QUICK/BLOW fuse. This can be accomplished easily as you
make up your wire bundle from the power supply

Well that's about it. Like any wiring project, I did it and it
worked for me, but, these modifications are not approved by TI and
the user always takes his own risk in making these types of
modifications. Good luck with yours, and I think you will enjoy
your new "cool" TI-99/4A.

NASA FREQUENCIES

Edited by Henry Badon

This file was downloaded from the HAMTEXT BBS in Memphis
(901)327-9334. The board is full duplex and 8N1. The board is
primarily for hams, however, Joey (N4QMI) the sysop, invites
everyone interested in ham radio or shortwave listening to logon
and look around. There are programs for the Commodore on line
also IBM programs are available on request after leaving Email to
Joey.
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The following is a list of frequencies used by NASA, during a
shuttle flight.

2.622 NASA BOOSTER ROCKET RECOVERY
2.678 CAPE RADIO RANGE
3.385 NASA TRACKING
5.518 TRACKING
5.810 BOOSTER RECOVERY VESSELS
6.693 NASA AIRCRAFT
6.708 AIRCRAFT
6.783 TRACKING
6.896 AIRCRAFT
6.983 TRACKING
7.461 AIRPORT
7.675 KENNEDY OPERATIONS
7.765 TRACKING

ALL FREQUENCIES ARE USB UNLESS NOTED.

10.780 USAF CAPE RADIO (PRIMARY)
20.390 USAF CAPE RADIO (SECONDARY)
11.205 NASA PACIFIC OPERATIONS

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11.407 NASA BOOSTER RECOVERY
13.170 AIRCRAFT
14.456 TRACKING
20.186 TRACKING (ASCENSION IS.)
20.191 TRACKING (ASCENSION IS.)
20.197 ASCENSION ISLAND (LSB)
20.393 TRACKING

THE SHUTTLE FLIGHTS FOR THE REST OF 1989 ARE AS FOLLOWS.......

10/12: 4 DAYS ALTITUDE 160 MILES. (D.O.D)
11/13: 5 DAYS ALTITUDE 190 MILES.
12/11: (D.O.D)

To listen to the real time air-to-ground conversations of the
crew, and ground control, listen to the following frequencies,
broadcast by the Goddard Amateur Radio Club, WA3NAN SSB mode:

3860 NIGHTS 6 PM-10 AM
7185 DAYS 8 AM-6 PM
14295 CONTINOUS
21390 INTERMITTANT
28650 INTERMITTANT
147.45 If you are close enough for FM simplex.

NOTE.....D.O.D. MISSIONS ARE NOT REBROADCAST. THE BROADCASTS
         WILL NORMALLY BEGIN ONE HOUR BEFORE SCHEDULED LAUNCH.
****

TROPICAL BANDS -- BEST IN THE EVENINGS.

2300-2500 KHZ.   120 MTR BAND
3200-3400 KHZ.   90 MTR BAND
3900-4000 KHZ.   75 MTR BAND
4750-5100 KHZ.   60 MTR BAND
5900-6250 KHZ.   49 MTR BAND

MIDDLE SW BANDS CROSS-OVER EVENINGS AND DAYTIME.

7100-7500 KHZ.   41 MTR BAND
9400-10000 KHZ.   31 MTR BAND
11600-12000 KHZ.25 MTR BAND

INTERNATIONAL BANDS - DAYTIME

13600-13900 KHZ.   22 MTR BAND
15000-19600 KHZ.   19 MTR BAND
17600-17900 KHZ.   16 MTR BAND
21460-21850 KHZ.   13 MTR BAND
25600-26100 KHZ.   11 MTR BAND

THESE FREQUENCIES ARE SHIP TO SHIP.

8.825.0
8.846.0
8.843.0
8.891.0
8.216.5

8.828.0
8.240.0
12.435.5
12.339.2

THESE FREQUENCIES CAN BE RECEIVED WITH EITHER A GENERAL COVERAGE
RECEIVER OR A HAM TRANSCEIVER CAPABLE OF RECEIVING GENERAL
BROADCAST BANDS.

For those interested in NASA and the shuttle flights, NASA has a
BBS online. It is called NASA SPACE LINK BBS, I do not know the
systems parameters. The phone number is 1-205-895-0028, it is
located in Huntsville, Al.

Have fun and good DX'ing.......Henry - WB4VDN

CONSOLE POWER SUPPLY

Article by Richard Lumpkin - Houston, TX UG.

FROM: HOUSTON USERS GROUP--AUG88/P5/6
BITS and BITES: CONSOLE POWER SUPPLIES:
(FROM QB MONITOR~QB-99'er NEWSLETTER)

OK, already. I keep seeing "information" on the switching power
supplies for the TI console, so I will throw in my five cents
worth. In the first place, there were three models of power
supply produced for the TI 99/4 and 99/4A consoles, and (possibly)
for the 99/8. The most common one, and the ONLY one (apparently)
which ever was supplied in the consoles for domestic (USA) use,
was the "hot" one with the "L-shaped" heat sink for the 78M12
(+12v regulator). Typical board pr part no.s were "4A PS";
"1049689-2 or -3". It used a 79M05 regulator for the -5 volts,
derived from the "extra" wire (black, pin 2) from the transformer.
The +5 volt section is a simple "series-pass" design using a TIP31
transistor. These units generated approx. 4 watts of heat on the
12 volt regulator, and approx. 8 watts on the +5 volt transistor
(approx. 10 watts with Ext. Basic module operating due to 125ma.
current draw of the module. The console typically draws 550 ma,
125 ma for x-basic and 100 ma for speech, for a total of 3/4
amps+. With 1/2 watt inside the x-basic module, and 14 watts
cooling below it, and very little ventilation except PAST the
module, temperatures of 50 F. above ambient were attainable, or
125+ F. in a 75 F. room. THIS = Lockups.

TI was possibly aware of this, and in March of 1983, a Japanese PS
was started, by I.T.Kogyo Co, using the TI 7812 chip, a TIP30
xstor, and a pair of NEC UPC494c chips; one to regulate the
transistor as a switching device, thus lowering the heat output of
the power supply from about 14 watts to around 7 watts. These
power supplies were produced in two versions: Board # 1053201 was

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used up to May 1983, with serial numbers as high as approx. "a
25000", so aparently 15 to 20 thousand per month were being made.
In May 1983 this circuit was "revised" to model # 1053214-2, to
remove the LED pilot and resistor R-6 (300 ohms) for the pilot.
Guess what also happened in May 1983? The black and silver console
was replaced by the biege console 4A, the very same motherboard
was used but NO PILOT LED. It is obvious that TI commissioned
this KOGYO PS for the 4A (and probably had it in mind for the 99/8
also) from th exact mounting holes and plugs matching to the TI PS
in the consoles. These power supplies are identifiable also by
the large number of vertical capacitors, bright red and black, and
the two identical "w-w" shaped aluminum heat sinks. DON'T short
these two bare metal heat sinks together--one is grounded, and the
other is at +23 volts direct from the rectifier! Instant death to
the diodes!!!(and the power supply and Console!).

The KOGYO was manufactured through August 1983 with serial no.s as
high as "A 95000+", and probably represents an initial order by TI
for 100,000 units, typical in such industries. So far as I have
been able to determine, NONE of these units were EVER used by TI
in consoles, although it would be interesting if owners of the
(few) 99/8's could check and see if THEY got this type of unit,
since there have been a few which had different plugs from the
99/4A plug, and there may have been for the 99/8. These Kogyo's
have shown up all over the surplus market, and are the ones which
Radio Shack sold about 25,000 of during 1986 and 1987. And they
are still floating around from some places like Lolir in Dallas
and Computer Parts Outlet in Del Ray Beach Florida, for less than
$4.00 each now, I was told.

The THIRD model of power supply was one made by TI itself, and
used virtually the same components as the orginal "hot" supply,
but in a switching type circuit for the +5 volt section. These
were manufactured ONLY in Sept, Oct, and possibly Nov 1983, no
serial numbers on the boards so no idea how many were made, but
the board part no. was "PWB 1053201-0002, Rev F", with TI's logo
on the board, and marked "ASSY 2704130" on the top. These PS
units were all made without LED and are a simpler circuit design
(read, "cheaper to make"), and use the 7812 +12v regulator chip,
the TIP31 xstor, and a 7905 -5 volt regulator chip. These units
(and the Kogyos also) use a transformer on the board to derive the
negative voltage for the negative regulator, and therefore both
types only use the 10 volt AC lines (pins 1 and 2 on the
transformer plugs) and thus two wires.

This TI PS is a fairly good design, regulates better than the
orginal but not as good as the Kogyo, and runs the heat sinks
(Black "U" or "W" shape, perforated) slightly hotter than the
Kogyos; also make a slight whining noise in operation, but they
are a reliable and easy "drop-in" change for the orginal "hot"
supply. The only design fault I see on them is that the +12 volt
regulator is used to control the +5 volt circuit, therefore if the
+12v goes down, the 5 volt will go down with it. AND, since the
over-load (or over-heat or even general-failure) mode of the 7800
series chips is to reduce voltage and current output progressively
to cutoff, this would cause the whole supply to go off as a unit
if part of it failed. Which really is not such a bad idea after
all!

21

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I have used these--HUG TIBBS is on one and runs much cooler,
especially with 35 or so 1/8th inch holes drilled through the top
of the plastic deck directly over the heat sinks so the hot air
goes directly up instead of back through the console and module,
and the X-Basic module runs much cooler. Again, the heat sinks
are Ground and Hot and you MUST NOT let then touch eadh other or
let the outside back one touch the mother-board shield or you will
have a disaster. It IS a close fit. These "type 3" units have
been on the surplus market also, and were sold through "all
Electronics" in California with the "black brick" transformer, for
less than $5.00; also at some local places.

The change of power suopplies is probably the number one
modification that you should make to your console as the reduction
of the heat generated inside will greatly decrease the occurence
of Ext-Basic lock-ups and alse greatly increase the expected life
before failure of components.

>> Now, a warning to you. The Kogyo supplies have a fairly
sophisticated design and provide a very well stabilized and
regulated +5 volt output, but then have two weaknesses: 1) the -5
volt regulators have been known to fail or at least to go to low
voltage (-2 or -3 volts) after some use. This will give some very
flaky problems in Basic or esp. in Ex .Basic, typically a
"colorfilled" screen or lock-ups, due to not driving the GROMs
properly. NOT a permanent problem, just change the PS again to
the original or another Kogyo, B U T F I R S T !, and before EVER
installing ANY power supply into ANY device, check the voltages
carefully, preferably under load (resistors) and with a scope, but
at the very least with a VOM, or you may discover the Kogyo #2
problem: The FAILURE MODE OF THE KOGYO SUPPLY, on the +5 volt side
is to Short the transistor back to the +23 volt rectified
supply--this olaces +23 VOLTS OUT THE "+5 VOLT" lead and INSTANTLY
you have NO MORE CHIPS IN YOUR CONSOLE, period. Pull the GROM
angle plug and the keyboard out and scrap the rest!!! The Kogyo's
do not seem to fail in operation, but only if the output is
shorted or loaded past 1.5 amps, and the xstor fries. AND, worse
yet, MANY of the Kogyo's sold by Radio Shack were "returned" units
(bags obviously opened and then resealed) and you know what? EVERY
ONE LIKE THIS THAT I CHECKED HAD 23 VOLTS ON ITS 5 VOLT OUTPUT!,
and other than one Kogyo which I blew out myself while destruction
testing (into RESISTORS, of course), I have found NO OTHERS that
were defective in this way, or which went bad. But I HAVE HEARD
of people who put in these little jewels and smoked their consoles
in other groups!!!

The obvious caution is: CHECK THE P.S. BEFORE INSTALLING IT, and
PUT AN IN-LINE FUSE HOLDER IN THE +5 VOLT LINE FROM THE PS TO THE
CONSOLE, and use a 1-amp QUICK-BLOW fuse. This will protect from
PS failure, from any accidentally shorting that you do inside the
console or the Speech Synthesizer, AND to some extent, from
over-current due to power line surges. The 7812 chips are all
current limited and shut down to approx. zero volts when they see
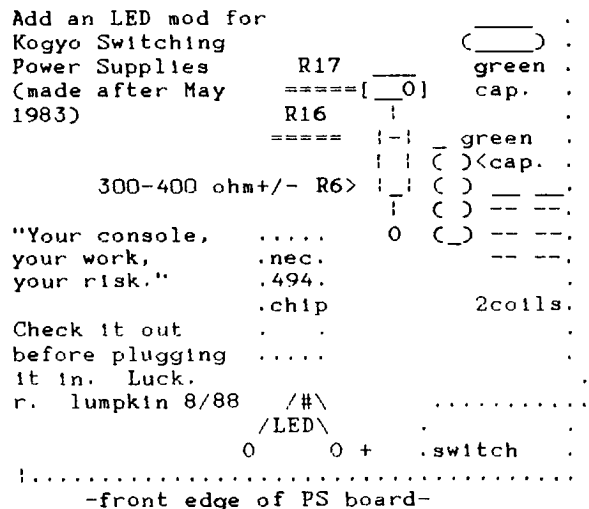a short to ground on their output, so there is not so much problem
there.

So what did I just say? Well, for all those people who are out
there using these little power supplies for "disk-drive" power to

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external drives, GUESS WHAT! You are skating on thin ice--if you
happen to pick up a large start-up surge or if you just accidently
short something down at the drives, what will follow down that
line will wipe out the drives and all the way back into the
controller card! Lesson is this:

1) ALWAYS !>ALWAYS<! check out power supplies before hooking them
up, even if they are brand new.
2) Don't use "kluge" power supplies or hook-ups for purposes not
intended unless you KNOW exactly what you are letting up and how
it is going to work.
3) FUSE all possible lines. I even put fuses into my surge
protector outlet strips in place of the silly circuit breakers.
Circuit breakers are too slow and imprecise and don't trip unitl
heavy current has already passed.

Just to finish this all out--about a year ago I noted that the
Kogyo supplies which did NOT have an LED exhibited a tendency to
pulse the +12 volt line. This corrects itself when any load is
placed on the +5 volt line, even as small as a LED pilot light,
therefore I advised to add the LED back into the board: it goes
into the two holes at the front beside the switch, sometimes
marked A and K. The re-placed resistor R6 goes into the two holes
(not marked) about 1 in. back, beside the oval green capacitor
and pointing front to back, at the right-hand ends of R16 and R17,
which go side-to-side. The back of R6 electrically joins the end
of R17. R6 may be from 300 to 400 ohms, +/-, depending on the LED
you use. The positive end of the LED goes Right, toward the
switch; if it doesn't light, turn it around and it should work.
If it seems too bright, increase the resistor value. I usually
use a 390 ohm.

Layout drawing for LED for Kogyo power supply:

Add an LED mod for   _____ .
Kogyo Switching   (_____) .
Power Supplies   R17   ___   green .
(made after May   =====[__0]   cap. .
1983)   R16   !
                      ===== !-! _ green .
                             ! ! ( )<cap. .
       300-400 ohm+/- R6> !_! ( ) __ __.
                             !   ( ) -- --.
"Your console, ...   0 (_) -- --.
your work,   .nec.   -- --.
your risk."   .494.
                     .chip   2coils.
Check it out   .   .
before plugging   .....
it in.   Luck.   .
r. lumpkin 8/88   /#\   ....
                    /LED\   .   .
             0   0 +   .switch   .
!.....................................
       -front edge of PS board-

It is also possible to add an LED to the TI "type 3" PS units; not

                        23

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needed unless you want to retain the LED for the black and silver
consoles, or wish to drill a hole beside the switch in the beige
console so you can have an LED pilot there, like I did:

There are two circuit traces running across the front of the board
underneath the series of capacitors; one is ground and the other
one is +8 volts. You will have to drill through with a 1/16th
drill bit or smaller, carefully between the capacitors, and solder
in the LED + resistor:

        Layout for LED addition to
        TI Type 3 power supply:

~~~~~~=Trace lines (hold board up to
light to see thru to copper

```
!                           .
!   U1    R1                 .
!   __    [ ]  !  !  [ ]     .
!  ! ! !  [ ]  !  !  [ ]     .
!  ! ! !  [ ]  !  !  [ ]     .
!   __         !  !          . 300 ohm Rstr
!~~~~~~~~~~~~+8v!            .
!~~~~~~~~~~~0~~ __~     )    .<0_[====]\
!Cpctrs__ !       C4   )    .            \+
!  __ (  ) L (  )      )    .holes   LED()
! (  )~--~~E~~--~~~~~~~     . to         /
!  --  C5  0                .drill       /
!~~~~~~     ! ground........            /
> ground   0       .switch.<0------/
!.........................
```

1)solder LED to Resistor
2)insulate leads w/tape or "spaghetti"
3)carefully solder into holes you have
   drilled.
4)if it doesn't light, you either have
have the LED reversed or the resistor is
   too large value.

I have done a dozen of these and the Kogyo supplies, and I always
"cook" them overnight with a resistor load (5 ohms on 5 volts (10
watt resistor), 30 ohms on the 12 volt (use 10 watt resistor here
also), 100 ohms on -5 volt) and have had none go bad after that.
The resistors get HOT!; Be careful in case it smokes, literally.

DISCLAIMER: Again!...be aware that any wiring done on ANY
equipment may void the warranty. Also, with any work done on
power supplies the possible exists for total destruction of the
device if you make a mistake on voltages or polarity. I am
providing this as a service for information only, and I Cannot be
responsible for the work YOU do on YOUR equipment. POWER
SUPPLYS/rtl-Aug88/5/6

        Address of suppliers follow:

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Lolir-Main; 13933 W. Central Expy,#212; Dallas TX 75234;
214-234-8032; (Other parts avail also) (P>S) at $3.50 ea.)

Computer Parts Outlet; Attn: Steve Sullivan; 2275 S.Federal Hwy
#2239; Del Ray Beach, FL 33483; 1-407-265-1206 ("old" TI type at
10 /$12.50 + ship)

TI-99/4A SUPPLIERS

List compiled by Gary W. Cox

Below is a list of the major suppliers of TI99/4a products.
This is by no means a complete list as there are more plus
others outside of the U.S. that supply TI products as well.
Please support these people and they will continue to support
us!

Tenex
P.O. Box 6578
South Bend, IN 46660
(800) 348-2778
(219) 259-7051

Triton
P.O. Box 8123
San Francisco, CA 94128
(800) 227-6900
(415) 574-2559

Joy Electronics
P.O. Box 542526
Dallas, TX 75354-2526
(214) 243-5371
(800) 442-3892 Texas
(800) 527-7438 Outside Texas

Texcomp
P.O. Box 33804
Granada Hills, CA 91344
(818) 366-6631

L.L. Conner Enterprise
1521 Ferry Street
Lafayette, IN 47904
(317) 742-8146

Bud Mills Services
166 Dartmouth Drive
Toledo, OH 43614
(419) 385-5946

Asgard Software
P.O. Box 10306
Rockville, MD 20850
(703) 255-3085

Tigercub Software
156 Collingwood Ave.
Columbus, OH 43213
(614) 235-3545

Texaments
53 Center Street
Patchogue, NY 11772
(516) 475-3480
(516) 475-6463 24hr BBS

Great Lakes Software
804 E. Grand River Ave.
Howell, MI 48843
(517) 546-0566

Competition Computer Products
2629 W. National Ave.
Milwaukee, WI 53204
(800) 662-9253 (national)
(800) 242-7902 (wis)

Hunter Electronics
4 N. 370 Pine Grove
Bensenville, IL 60106
(312) 766-9503

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(414) 672-4010

Disk Only Software
P.O. Box 244
Lorton, VA 22079
(800) 736-4951

Inscebot Inc.
P.O. Box 291610
Pt. Orange, FL 32029

Not-Polyoptics
P.O. Box 4443
Woodbridge, VA 22191
(703) 491-5543

Genial Computerware
P.O. Box 183
Grafton, MA 01519
(617) 839-4143

Quality 99 Software
1884 Columbia RD #1021
Washington, DC 20009
(202) 667-3574

Rave 99
112 Rambling Road
Vernon, CT 06066
(203) 871-7824

Myarc Inc.
P.O. Box 140
Basking Ridge, NJ 07920
(205) 854-5843

Corcomp Inc.
2211-G Winston Road
Anaheim, CA 92806

Trio+ Software
P.O. Box 114-A
Liscomb, IA 50148

CaDD Electronics
52 Audubon Road
Haverhill, MA 01830
(603) 895-0119

The Bunyard Group
P.O. Box 62323
Colo Springs, CO 80962-2323

Queen Anne Computer Shoppe
6102 Roosevelt Way N.E.
Seattle, Washington 98115
(206) 522-6558

Midwest Engineering
(Chicago Ramdisk)
203 Arcadis Drive
Vernon Hills, IL 60061

Pilgrim's Pride
5 Williams Lane
Hatboro, PA 19040
(215) 441-4262

Alboes Computer/Suppliers
6298 Hamilton Rd.
3G Main Street Village
Columbus, GA 31909
(404) 327-4900

Braatza Computer Services
719 E Byrd St.
Appleton, WI 54911
(414) 731-3478 (order line)
(414) 731-4320 (after 6pm)

Laflamme Wrigley Wholesale
5480 Canotek Road, Unit #16
Glouchester, Ontario K1J 9HG
Canada
(613) 745-2225

Harrison Software
5705 40th Place
Hyattsville, MD 20781
(301) 277-3467

TI/GENEVE SUPPORTIVE PUBLICATIONS

Micropendium Magazine
P.O. Box 1343
Round Rock, TX 78680
(512) 255-1512
$20 year (U.S.)

Computer Shopper
5211 S. Washington
P.O. Box F
Titusville, FL 32781
$21 year (U.S.)

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IN THE MIDNIGHT HOUR

By Michael Dorman

Tragic Loss

John Guion, the maker of the SEB Multi-Mod and the P-Gram PEB
card, was killed in an automobile accident with a man who chose to
drink and drive. John was well-known in TI circles as a
personable and helpful young man. He had a reputation of giving
of his time to help others.

John, a student of Texas Tech University in Lubbock, would have
been 23 in December. Please send any donations to the Blood
Center at Wadley, Dallas, Texas.

John's disk controller modification is reviewed elsewhere in this
month's issue. The status of John's projects is uncertain at this
time. Robert Jones and John Creviston will be meeting with John's
father. It is possible that his products will soon be marketed by
Bud Mills Services.

Food and Festivities

This month we will have a cookout/get-together instead of the
usual Saturday workshop. Mac and Patricia Swope have graciously
invited the users group over for a cookout starting around 11:00
am on Saturday, September 23rd. The address is printed on the
back outside cover.

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Come and enjoy MidSouth TI fellowship!!!

The Midnight Hour BBS

It's been quite a month! I updated the board to the new version of
QuickBBS only to find that Telco had conflicts when uploading to
the board using QuickBBS 2.04's new protocols. So, I set about
installing Doorway (a PC program controlling DOOR programs) and
FileDoor (an alternative to the built-in QuickBBS protocols.)

Well, after many hard hours of work, it worked <whew>! Things were
looking up. One day before I was going to install a second 30-meg
hard drive to the system, my hard drive controller failed. As
you've probably guessed by now, I didn't have the BBS backed up to
floppies. But I did have a backup on an alternate hard drive.

Guess what! In the process of dying, the hard controller card
wiped out enough of the beginning sectors to render both hard
drives useless. Ah, well! I reformatted the hard drives and set
the board back up. However, we lost the message base and many of
the newer programs. So, if you notice a file missing and would
like to reupload, I would greatly appreciate it.

The good news is that there is a wealth of new graphics files for
both the TIPS program and the PIX program. There is also the new
Tetris game (based on a Russian program) in the entertainment
section.

In addition, there is a complete set of Delphi's TI Net messages
for the 9640 as well as MY Basic 2.99 and Barry Boone's GETKEY
program. The GetKey program allows a keyboard press to be used in
MDOS batch files. Highly recommended!

Mitsumi 1.44 meg drive

I recently got a Mitsumi 1.44 drive from Tenex for $89.95. Using
R. Johnson's formatting program, my HFDC with my 4A can format and
use 1.44mb 3-1/2" drives. However, until MDOS 1.15H is completed,
I can only use 720K with my Geneve. My thanks to Beery Miller for
providing me with the patch to use 80 tracks with my Myarc Floppy
Controller (which also works with CorComp controllers.)

This drive is excellent! One of the reasons that the drive can be
marketed cheaper is the fact that it does not have the circuitry
to look for the hole in the plastic disk that High Density 3-1/2"
diskettes have. This means that the drive will format a standard
2S2D 3-1/2 diskette as either 720K or 1.44mb. This is true on
both my work's AT or my 4A. Very nice. I believe that soon most
drive manufacturers will do away with this rather arbitrary
hole-searching scheme.

By the way, HFDC144 is the name of R. Johnson's HFDC floppy
formatter program. It is available on The Midnight Hour BBS (see
page 31 for more information on the BBS.)

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New MidSouth 99 Publication

There's now a new newsletter edited by Marshall Ellis. This
publication is a collection of technical and hardware articles and
is hoped to be published periodically.

The first issue of this publication is ready and will be available
at the regular users group meeting. This publication will NOT be
mailed out to all members (It's expensive enough to publish this
newsletter!), but will be available at the meetings.

Thanks for your hard work, Marshall!

Reorganization for Genial Computerware

This information is from a conference held by J. Peter Hoddie on
TI Net - Delphi on September 10, 1989.

Genial Computerware is splitting into two companies. Genial's
software branch, which was located in Grafton, MA and operated by
Peter Hoddie and Corson Wyman, will be spun off and become JP
Software. The name of Genial Computerware will be retained by
Barry Traver who publishes the excellent Genial TRAVelER diskazine
in a separate operation.

This will allow Barry to spend more time on his diskazine, his
sysop duties on both CompuServe and GEnie, and his column in
Computer Shopper.

Joining Peter as a partner will be Paul Charlton. Tom Ward will
handle JP Software's shipping.

The address for JP Software is:
                    JP Software
                    2390 El Camino Real, #107
                    Palo Alto, CA   94306

JP Software currently has Warren Agee's FirstBase update in
beta-testing. All registered FirstBase owners will receive the
update free-of-charge. The update will include binary and fuzzy
search capabilities.

Other JP Software packages being developed are: a package of
TI/IBM translaters for PC Transfer by Mike Dodd; an unnamed
product that will identify the types of files on a disk (e.g.
Basic program, Extended Basic, EA3, EA5, TI-Artist, GIF, RLE,
etc.) by Mike Dodd; and a new 9640 version of Triad which includes
a fully scriptable terminal emulator by Wayne Stith.
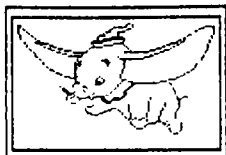
Finally...

This month's newsletter is the largest one to date! Who says the
TI-99/4A is dead?

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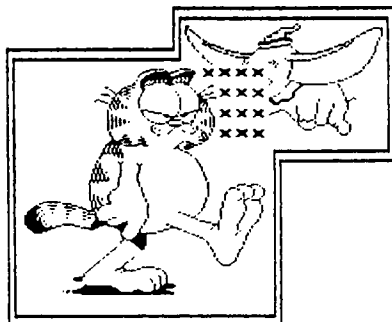# HOW PAGE PRO 99 HANDLES PICTURE DISPLAY
By Ed Johnson

Normally, any picture will occupy a rectangular area.

Here is an example:

With PAGE PRO, it is possible to have 2 or more pictures overlap with each other. It is not possible to "merge" the pictures so the picture in the background will "shadow" through the picture(s) above it. The picture on top will always take priority over the ones underneath it. Using this method, you would expect to see something like this when you overlay pictures:
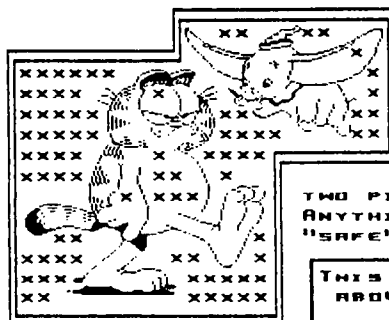

The "x"'s indicate where the top picture took priority over the bottom.

Mean 'ol Garfield has bitten off part of Dumbo's face!

Because PAGE PRO can't "merge" pictures, doesn't mean that you will will necessarily get results like those in the example above. When PAGE PRO loads a picture, it checks for "white" space and ignores it. By doing this, the picture underneath will only be over-written where the top picture actually has something to display.
The result is this:

With a bit of planning, some EXCELLENT RESULTS can be had!

Garfield looks as grumpy as ever, but Dumbo is definately much happier!

The "x"'s indicate the areas that were ignored after these two pictures were loaded in. Anything in those spots is "safe" from the pictures.

This page was created in about 20 minutes using PAGE PRO 99

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NOTICE

Information contained in TidBits is accurate and true to the best
of our knowledge. Viewpoints and opinions expressed in TidBits
are not necessarily that of the Mid-South 99'ers. We welcome any
opinions/corrections from our readers. Articles may be reprinted
elsewhere as long as credit is given to the author and newsletter.

GROUP INFO

Visitors and potential members may receive 3 free issues of
TiDbits while they decide if they wish to join (no obligation).
On the top of your label is a code. A Y means you are a member, N
means 3 free list, UG means user group and S means a business.
Beside the Y is a date, one year from that date your dues are due.
A dollar sign ($) on the label will indicate that your dues are
due. The library is open only to members. Library list is $1.
Mail order disk library access is $2 for the first disk and $1 for
each additional disk - max of 5 disks per month. Order by disk
number only. At meetings, library access is FREE if you exchange
your disk for ours or $1 per disk for our disks. Send all mail
order library requests to librarian's address! Send dues and
correspondence to group address.

CALENDAR

MEETINGS: September 21, October 19, November 16 (3rd Thursday!)
WORKSHOPS: September 23, October 28, November 25 (4th Saturday!)

24HR TI BULLETIN BOARD

The Midnight Hour BBS   300/1200/2400/9600 Hayes   501-735-9980
Dial 735-9980 from Memphis area for toll free call.

GROUP MAILING ADDRESS

Mid-South 99 Users Group
P.O. Box 38522
Germantown, Tn. 38183-0522

LIBRARY ADDRESS

David Ferguson
3377 Creighton Ave.
Memphis, TN 38118

MEMBERSHIP APPLICATION

NAME _____ |‾| $15.00 FAMILY
ADDRESS_____ |_| $10.00 JUNIOR (under 15)
CITY_____ ST__ ZIP_____
PHONE(____)___-_____ : INTERESTS_____

EQUIPMENT,ETC._____

Detach and mail with check payable to: Mid-South 99 Users Group,
P.O. Box 38522, Germantown, Tn, 38183-0522.

NOTICES

MEETING
7:00 P.M.
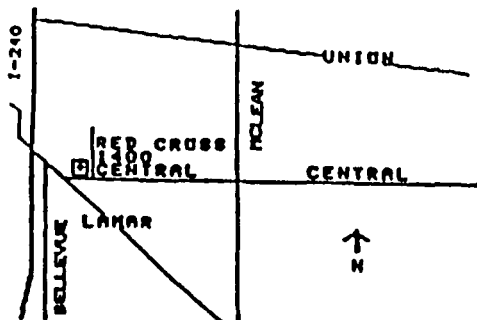Thursday, September 21st
Red Cross Building
1400 Central Ave.

COOKOUT
11am till whenever
Saturday, September 23rd
Mac & Patricia Swope
3880 Warrington Cove
363-3880

Mid-South 99 Users Group
P. O. Box 38522
Germantown, TN 38183-0522