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Milwaukee

# HOCUS

Home Computer
Users Spotlight
a monthly publication of the
Milwaukee Area 99/4 Users Group

MAY - 1987

MILWAUKEE AREA USER GROUP
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Next Group Meeting
June 13,1987
Wauwatosa S&L 7500 W. State
12:00 Noon - 4:00 PM
Next S.I.G. Meeting
June 2, 1987
Security S&L 5555 Pt. Wash.
7:00PM - 10:00PM
Annual Membership Dues
**Individual - $10**
**Family - $15**


cresci

ACCOUNTING REALLY APPRECIATED THEIR NEW COMPUTER. NOW IT ONLY TAKES THEM A THIRD OF THE TIME TO FIGURE OUT HOW MUCH MONEY WE'RE LOSING.



"What burns me up is that I programmed the computer that recommended firing me."

[illegible]...

The [illegible] for the new FORTRAN [illegible] LGMA Products in [illegible]. It comes complete with a text editor, a compiler, linker, [illegible] library [illegible]. The language [illegible] intended programmers as customers. Anyone wanting a more comprehensive product review, see the MSP 99 NEWSLETTER in our library.

[illegible]...

[illegible] is an integrated software [illegible] from Germany. Available from [illegible] for $[illegible]. The package includes a full featured editor, command processor, [illegible] compiler & linker. [illegible] management [illegible] should be able to use existing standard PASCAL programs.

THREE-SLOT EXPANSION KIT...

The Lehigh 99'er UG [illegible] kit from "The Captain" which sells for only $[illegible]. The kit comes already partially assembled but [illegible] are not included. [illegible] to help you build your own.

PRODUCT ANNOUNCEMENT

TIGERCUB SOFTWARE
156 Collingwood Ave.
Columbus, OH 43213
(614) 235-3545

Tigercub Software has released Nuts & Bolts Disk #3, containing another 140
subprograms in MERGE format. Contents include 19 screen character fonts, etc.;
17 screen display routines; 6 screen formatting, 8 plotting, 6 joystick and
keyboard, 32 math, 4 time and date, 10 input and accept, 9 string handling, 15
file handling, and 9 miscellaneous routines. The 11 pages of documentation
contain a programming example to demonstrate the use of each routine.

The three Nuts & Bolts Disks now provide a total of 348 subprograms which even
a beginning programmer can merge into his own programs and use, almost like
having another 348 CALLs available in Extended Basic. The price of all three of
these disks has been reduced to $15 each, postpaid.

The four Tips From The Tigercub disks, and the 18 Tigercub Collection disks,
have been reduced to $10 each, postpaid. The 130 individual Tigercub programs
have been reduced to $2 each, plus $1.50 per order for cassette or disk and
postage (minimum order $10). Cassette orders will only be filled until stocks
of blank cassettes have been exhausted. Tigercub catalogs are available for $1,
deductable from first order, until stocks are exhausted.


## POWER SUPPLIES

BJ Mathis - Southwest Ninety Niners, Tucson, AZ - Apr '87. In February, Steve
Lisonbee of SLAVE 99ers in Utah visited us. He noticed our constant problem with
lock-ups on our main console. He mentioned the power supply from Radio Shack had
solved that problem for many members of his users group. We put new power supplies
in both our consoles. Lock-ups caused by what we thought was dirty contacts on our
modules, or by Extended Basic have been eliminated. The only lock-ups now are
programming errors. One of the consoles we took to the February meeting lost its
color, we thought the video processor had gone out. On a chance of fixing it (can't
hurt) Jack put in a new power supply, the color came back!.

We replaced several power supplies for various members of the group at the General
Users Workshop in March. We found the +5 volt line on many old power supplies was
putting out around +5.25 to +5.40 volts. On the new power supply we adjusted the +5
volt line to approx. +5 volts. Members who thought they needed new Extended Basic
cartridges found their XBasic no longer caused them any problem.

Some of the power supplies we obtained from Radio Shack (Cat.#277-1016) had a
unsteady 12 volt line, jumping between 9.5 and 11.5 volts. We were able to return
them and found those with incorrect 12 volt lines had a part number on the board
(above the serial number) of 1053214-2 the good ones had a part number of 1053201.
All the good power supplies had LEDs, so Jack put a neat hole in our white consoles.
Now we have a power indicator light, too.

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## BUGS!!!
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Chick De Marti - LA 99ers, CA - Mar '87.  Barry Traver is the publisher of the
GENial TRAVeler Disk-a-zine and author of ARCHIVER, a popular program used to pack a
number of files into one big package, in order to maintain integrity when
uploading/downloading to BBS's.  In the latest issue of G-T, he announced a minor bug
in the display of file sizes.  This bug did not affect the operation of the  program,
but simply gave some "interesting numbers".  Change line 635 to:

    635 KK=(Z-1)*(100*INT((KK-1)/50)+1)+2-Z

Mike  Dodd  - LA 99ers, CA - Mar '87.  DM1000 has an annoying little bug if you
happen to own a CorComp disk controller.  When DM1000 formats disks in double
density,  it  puts  16  sectors/track  on  the  header,  even  though  it  formats 18
sector/track.  Which is fine if you keep it on a CorComp controller, because  the
CorComp controller never even heard of 16 sectors, so it doesn't care what the header
says.  HOWEVER, if you send the disk to someone who has a MYARC disk controller,  the
MYARC  controller  looks at the header and sees "16 sectors per track".  It reads the
disk based on that information.  But it's 18  sectors  per  track!  The  MYARC  card
reports a blank disk.  After having several people complain about my "blank" disks, I
found a fix for DM1000.  For V3.5, edit the first sector of the MGR1 file.   At  byte
216,  you  should  see  (in  hex) 10 00 02 D0 00 5A.  Change the 10 to 12.  Write the
sector back out to disk, and never worry about it again.  If you  are  using  another
version  of  DM1000 that has the same problem (I don't know if any others do), search
for 10 00 02 D0 00 5A.  It should be very close to the beginning.

Jack & BJ Mathis - SW 99ers, AZ - Apr '87.  If you have  the  source  code  for
DM1000, you can change it by finding SCT CNT in MGRPART1, change >1000 to >1200.

# THE THEORY OF DARK SUCKERS

by Paul Holgren
Condensed by Rick Alston

(Reprinted from MADHUG Newsletter, Sept. 1986)

For years it was believed that light was emitted from an electric bulb, recent information has proven otherwise - dark is sucked into the bulb therefore, the bulb is a dark sucker. This theory also proves dark is heavier than light, and dark is faster than light. A few examples follow.

ELECTRIC BULBS: There is less dark near an electric bulb than at a distance of 100 feet when it is operating, therefore, it is sucking dark. The larger the electric bulb the more dark it is able to suck, this is easily proven. Also note that when an electric bulb becomes full of dark it ceases to suck dark

and is itself dark, indicating it is full of dark. This phenomena can also be observed in flourescent bulbs, the end of these bulbs indicate when they are becoming full of dark.

CANDLES: These are primitive dark suckers, the center core is a dark sucker protected by a soft insulator to extend its life expectancy and maintain rigidity. Proof of its dark sucking abilities is relatively simple. Examine new, unused candle. Notice that the center core is not dark. Ignite the center core and allow it to burn for 5 minutes. Notice the lack of dark around the candle! Now extinguish the candle and observe the center core. It is now dark, proving the candle has sucked dark. Moving a pencil through the flame further illustrates the dark sucking capacity of the candle. When this is done, the pencil blocks the flow of dark and dark is deposited on the pencil.

DARK IS HEAVIER THAN LIGHT: Dark always settles to the bottom of lakes and rivers. This can be proven by descending into a lake or river, the deeper you go the more dark there is! This phenomena can be observed when looking into deep holes where dark has fallen, proving dark is heavier than light.

DARK IS FASTER THAN LIGHT: If you were to open a drawer very slowly, you would notice light going into the drawer. (You can see this happen.) You cannot see the dark leave the drawer. Go into a closet, close the door and turn off the dark sucker. Now have a friend open the door about 1 inch, neither you or your friend will see any dark leave the closet. Now open the door until the closet is half dark. Since 2 objects cannot occupy the same space at the same time, you will not feel any change in pressure by compressing the dark. So it is logical to assume that dark is faster than light.

"There is a new piece of legislation that could screw up modem access by costing us much more to make a call with a modem. This legislation is called "COMPUTER INQUIRY III". Please write to the Honorable Mark Fowler, Chairman of the FCC, Washington D.C., 20554, and tell him in no uncertain terms that this regulation must not be enacted! Please put this message on every BBS you call and include the name and address. Everyone must write."

## 1

### MULTIPLAN
### an Electronic Spreadsheet
### by Tom Kennedy

ELECTRONIC SPREADSHEETS...CELLULAR ANALYSIS...FORMULAS...
CELLULAR REFERENCING... WORKSHEETS...ABSOLUTE REFERENCING...

These are buzzwords of a form of Data Processing that on the surface appears to be incomprehensible to all but accountants and the bridge crew of the Star-Ship Enterprise. As Word Processing is to writing a letter, Data Processing is to using a multiplication table.

Many people have a hard time using spreadsheets, because working with data in this format is similar to learning a new language. But once you learn to use the commands, and the procedure of working with data in a two-dimensional row/ column format instead of a one-dimensional equation, you'll find many ways in which Multiplan will allow you to "crunch numbers" faster and easier than using a calculator and notebook. More than that, Multiplan is flexible enough to be used anytime you want to display, or use, numbers or words in a row/column format. In fact, you could even adapt Multiplan to use it as a Word Processor!

What is a spreadsheet? In business, you often hear reference to "our books". The "books" that the businessmen, and you & I, keep are a pen & paper record showing the Debits and Credits of various bills paid and assets gained, plotted against a scale of time. Each intersection of row and column contains an entry for a value. The last column and/or last row contain a sumation of all previous columns or rows. In an electronic spreadsheet, you recreate the printed form with the addition that each "cell" (a row/column intersection) can also contain a mathematical equation, or "formula", that automatically acts upon pre-defined cells and displays the result accordingly. If any value in any cell is changed, the formula instantly updates displayed results. This self-maintenance ability is what pays off in using an electronic spreadsheet, such as Multiplan.

To operate the Multiplan software on the TI, you must have 32K memory expansion, and at least one disk drive. An RS232 card and a printer are also handy, but not mandatory because unlike word processing, where the end result is a printed piece of paper, the end result with a spreadsheet is useful data, which may be used many ways. Most worksheets are well over 80 characters in width, (up to 2016!) and this requires a cut-and-paste job, so a wide-carriage printer is preferable.

To load Multiplan, you insert the cartridge and program disk, select Multiplan from the menu, and press <ENTER> to load. Before pressing <ENTER> you can select one of eight screen color combinations by pressing the space bar.

The first thing you will see is a grid across the top and left side of the screen. These numbers are the row and column locations in the top left, or "HOME" position. There are 255 possible rows and 63 possible columns, with the screen framing a small section. Each "CELL" is referred to by its row/column location, such as: R1C1, R10C22, etc. In R1C1, the Home position, there is a solid rectangle, as large as the width of the cell. This is your cursor, or "CELL POINTER", which is where any entry will appear. Below the cell grid is the COMMAND LINE, which shows the primary commands you will use. There are a number of sub-commands related to each of these, but you must type the first letter of the primary command first, or place the cursor over the command and hit <ENTER>. Below the command line is the MESSAGE LINE, which prompts you for further information when needed. In the bottom left corner is the current cell pointer location, and to the right of that is the contents of the current cell. Lastly, in the bottom right corner is the available memory space remaining.

## 2

Appendix A is a list of the twenty commands shown in the Command Line, with the forty sub-commands that apply to each.

**:::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::**

ALPHA     The first command given before entering text into the current cell location. All alpha-numerics can be used, but numbers will be treated as text, and can't be used as values for calculations.

BLANK     Used to erase the contents of a specified cell or range of cells. Blanked cells retain their location and format.

COPY     Allows you to duplicate any cell or cells in any number, including both cell format and content.

DELETE     Completely erases a row or column.

EDIT     Allows you to edit the contents of a cell, or the formula in that cell, without re-entering the data. Requires careful use of the EDIT keys.

FORMAT     Defines all of the various parameters of cell width, content, and display of data.

GOTO     Moves your cell pointer imediately to any cell, by giving the row/column or pre-defined name. Also used to move from one window to another.

HELP     Calls up a detailed HelpFile (from disk) that covers the whole Multiplan software, including a command summary.

INSERT     Inserts a blank row or column, formatted to DEFAULT settings.

LOCK     Protects the cell, or formula, from accidental overwrite.

MOVE     Moves a cell, or group of cells, to specified row/column, deleting the original.

NAME     Allows you to give a name to a cell to aid in future references to that cell. "Total" or "Sales" are examples.

OPTIONS     Covers global options such as RECALC, MUTE, & ITERATION. The most important of which is canceling RECALC, to avoid waiting for each entry to recalculate the entire worksheet.

PRINT     Used to print the worksheet. Before printing, you must first define the extent of the field to be printed with MARGINS and OPTIONS, then select PRINTER to start output. PRINT FILE outputs to disk instead of the printer to be included into a Word Processor file, or other cases where you need the worksheet stored in ASCII format.

QUIT     Self explanatory, provides a "safe" exit.

SORT     Sorts entries in cells in a specified column, in either ascending or descending order.

TRANSFER     Includes six sub-commands which are used: to LOAD, SAVE, RENAME, or CLEAR an active worksheet. Also, to DELETE a file from a disk, and an OPTIONS command to define disk filename and format.

VALUE     Used to enter a numerical value or formula into a cell. This must be used for numbers that will be used in calculations.

WINDOW     A window is used to overlay one or more portions of a worksheet with another. As an example, to hold the titles of columns fixed while the data scrolls underneath. The sub-commands define how the windows are opened, closed, or linked together. A border can be defined to offset it from the worksheet.

                            (more)

eXTERNAL Allows related worksheets on disk to be linked as a source of data for the active sheet. Any range of cells can be drawn up for reuse. Multiple worksheets can be linked relative to each other so as to work together.

::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

Appendix B is a list of the Key Functions used in the TI Multiplan version. Most functions have two optional keystrokes choices. This is to allow flexibility as to how you prefer to access them.

::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

**CELL POINTER CONTROL KEYS:**

F-E
F-X        Typical cursor keys, scroll the sheet up, down, left, & right. As
F-S        in BASIC.
F-D

C-E
C-X        Page scroll. Similar to cursor scroll, except moves in one
C-S        screen-width or -height blocks.
C-D

C-6 (C-W)  Moves cursor to the next window as defined with the WINDOW
           command

C-3 (C-F)  Jumps to the next unlocked, unblank cell to the right, skipping
           over cells protected with the LOCK command.

C-1 (C-Q)  Jumps to the "HOME" position, ROW 1/COLUMN 1, which is the view
           seen when first starting up Multiplan.

F-1 (C-2)  Opposite of C-1 ("HOME"), except stops at the lower right corner
           boundary of the area you are working on.

**ACTION KEYS:**

<SPACE>    In Command mode, (when command choices are displayed) skips
           through the commands, highlighting each with the cursor. Hitting
           <ENTER> selects the highlighted command. In the command menu
           tabs through each response field.

C-H (F-9)  (When not editing) Backspaces through the response field,
           opposite of <SPACE>, to make selections of options.

C-A (C-I   TAB key. Tabs over a response field to the next selection.
 & C-2)

C-C (C-=)  Cancels current operation. A failsafe "escape" to abort command
           selection.

F-4        (When printing file) Aborts printing operation.

<ENTER>    Activates a menu selection or command.

F-7 (F-I)  Activates and displays the helpfile, which must be on the default
           disk drive (see TRANSFER OPTIONS)

F-8        Recalculates the entire worksheet when the RECALC feature has
           been cancelled with the OPTIONS command.

<-, +,     Invokes the VALUE option of data entry, as opposed to ALPHA, for
 & 0-9>    text entry.

**EDIT KEYS:**

C-H (F-9)  Backspaces through data entry for editing

---

F-0 (C-Y)  Single-character delete.

C-4 (C-L)  Skips to the next character right (like "F-D" in BASIC)

F-4 (C-K)  Skips to the next character left (like "F-S" in BASIC)

C-5 (C-P)  Skips to the next word right.

F-5 (C-O)  Skips to the next word left.

C-7        Changes all relative references to cell locations (I.E. R+1C+2)
           to absolute references. (I.E. R2C5)

::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::::

Upon selecting a command, a command menu appears with a number of response fields shown. In each response field is a proposed response, which is the default selection unless you change it. To use a command, type it's key letter and fill in the response fields. To move through the fields, use the tab key until the cursor is highlighting the correct area. Type in your response, and either tab to the next field or hit <ENTER> to activate the command.

When the necessary response is a row/column cell reference, there are two ways to respond: Absolute and Relative. Absolute referencing is a numerical definition of the cell location, such as R5C10 (the intersection of ROW 5 and COLUMN 10). A group of cells, a RANGE, is called by giving the boundary intersections separated by a colon(:), such as: R2C1:R4C10 defines a 3-by-10 cell grid consisting of columns 1 through 10 on rows 2 through 4.

Relative referencing involves identifying the desired cell by displacement from another cell, usually the one the cell pointer is currently on. As an example, if you are on row 5, column 10, (R5C10) and you wish to refer to a cell two rows up and three columns over, (R3C13) you could type in R-2C+3 or use the cursor keys to move the cursor over R3C13.

The relative address will automatically update as you move. When the cursor is in place, hit <ENTER> (or tab to the next field) and the reference is defined.

So far, I have covered what you see on the screen and in response to the various commands; what the commands and key functions are; and how to fill in response fields where needed. Before going on to building a worksheet, you'll need to know how to save what you're working on, and how to load it back in. Besides the fact that you'll want to take a break occasionally, it's nice to be able to experiment with the commands, "messing up" the worksheet, and then loading the "clean" version back in to continue.

The LOAD and SAVE commands are under the command TRANSFER (a lousy name). Hit "T" and the menu will be displayed. Since the first option is LOAD, hitting <ENTER> now will prompt for a filename. To select SAVE, (or another option) hit the first letter and <ENTER>, or tab through to the desired item and hit <ENTER>. When loading or saving, you'll be prompted for a filename the first time, which will become the default response.

Multiplan also incorporates an extensive helpfile contained on disk. When the command line is displayed, you select HELP with either the Help action key (<AID> or "?") or by typing "H". The worksheet will be replaced by the beginning of the helpfile. If a command has been selected, hitting the help key will display the specific section of the helpfile that pertains to the command you are using. The help menu allows you to RESUME (return to command menu), START at the top of the helpfile, or move to NEXT or PREVIOUS page of information.

(more)

TI FORTH Clearing House - 4122 Glenway Street - Wauwatosa, WI 53222

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## Public Domain Disks

| Tutorials | UG Source | Pages |
|---|---|---|
| Beginning | MSP | 3 |
| Customizing | Edmonton | 2 |
| Disk Fixer | Edmonton | 1 |
| Loops | NewHorizon | 1 |
| Parameters | Dimensions | 1 |
| File Transfer | Milwaukee | 1 |
| Arrays | Milwaukee | 3 |
| DSDD | Milwaukee | 1 |
| Autodecimal | Milwaukee | 1 |
| Stack Use | Kentucky | 1 |
| Floating Pt | KY & VAST | 5 |
| Bit Map | Kentucky | 5 |
| FORTH Glossary | | 9 |
| Windowing | Lehigh | 3 |
| 4th-Riter | Milwaukee | 1 |
| Grid-Plot | C.A.F.I.G. | 2 |
| System Debugs & New Words | | 1 |
| System A documentation | | 5 |
| 2D Docs | | 1 |
| NOTEINDEX Documentation | | 1 |
| FORTHPLAN Documentation | | 3 |
| FORTHRITE Documentation | 1 | |

TI FORTH System Disk
FORTH Source Code "A"
FORTH Source Code "B"
TI Graphics/Sound Demo
DATA 1 ............. John Volk
DATA 2 ............. John Volk
DATA 3 ............. Clearing House
DATA 4 ............. "    "    "
DATA 5 ............. "    "    "
DATA 6 ............. "    "    "
DATA 7 ............. "    "    "
DATA 8 ............. "    "    "
DATA 9 ............. "    "    "
Doodles .......... Howie Rosenberg
Sonnets .......... Howie Rosenberg
XB Loader ....... Tom Freeman
System II ........ Gene Hitz
System A ......... Gene Thomas
System A Source.. Gene Thomas
Utility4th ...... Rich Bailey
Utility4th Source Rich Bailey
FORTH Manual ....  5 Disks
FORTH TUTOR(1-6) George Smythe
FORTH TUTOR(7-12) George Smythe

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## Freeware Disks

2D FORTH (JP Graphics) .......... J.P.Morin
    Artist Program Disk with Demo
2D DOCS (DV80 documentation) .. J.P.Morin
FORTHFONT ....................... H.H.Arnold
    Font & Label Designer Program
GPL Compiler/Decompiler ........ Ottawa UG
FORTHPLAN ....................... H.H.Arnold
    Forth Spreadsheet
FORTHRITE ....................... H.H.Arnold
    Forth Word Processor
NOTEINDEX ....................... H.H.Arnold
    MICROpendium User Notes File

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## * * D i s k   H i - L i t e s * *

DATA 1
  Airplane Shoot - Battlestar - Diamond Draw - Suicide Ships - Nuke Attack
DATA 2
  Disassembler - XB->Forth - Life - Breakforth - Micro Jaws - Screen Dump
DATA 3
  Disk Init - Fast Copy - Shoot'em Up - Number Race - Disk Fixer - DSR Peeker
DATA 4
  Cosmic Conquest - Decompiler - File Transfer - Calendar - Slot Machine - Speech
DATA 5
  Grid Plot - Talking Editor - Body Snatchers - 4th Riter - Sound Control
DATA 6
  Disk Utilities - Windowing - Alpine Skiing - Sketcher - Music Routines
DATA 7
  Terminal Emulator - DS/DD Alterations - Primes/Factors - Graphics - Bug Catcher
DATA 8
  Fast XB Load - Lower Case - Balance Game - Screen Dump - Freq Synth - Fractals
DATA 9
  Sector Dump - Reverse Video - Turtle Graphics Demo - DrawGrid - Pick & Roll
System II
  XB Load - Disk Fixer - File Transfer - Disk Init - 3 Pass Copy - Cataloger
  DSR Peeker - Decompiler - Screen Dump - Auto Repeat Keys - Auto Decimal
System A
  64 Editor - Sound Access - Printer Words - Decompiler - Hi Res Screen Dump
  Arrays - Graphics Words - Starting Forth Words
Utility4th
  On Dsk Docs - Screen Dump - Disk Init - Disk Utilities - Sector Access
  Disk Copy - Printer Codes - Customizing - New Words
Forth Tutor (1-6) & (7-12)
  2 Disks of Forth Tutorials in DV-80 files with Fast File Scroller - Forth Forum
Forth Manual
  5 disks with complete Forth manual printed in DV-80 files.

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