

Setting the alarm clock for 5 A.M...

We got tired of short months. So we created the 61-day month by combining June and July. All of you will have 1 month added to your subscription so that you won't lose any issues. If you ordered CLOAD for a year, you will still receive 12 issues. Why do this? For the first time in 5 YEARS we'll publish on time (why are you laughing?)! You'll get Christmas programs BEFORE Christmas! And now we can begin to call ourselves a normal magazine. No? I'll just pretend a little...



P.O. Box 1448, Santa Barbara, CA 93102

June-July 1983

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*****
*
* Side Title Filename Turns Count *
* CTR-41 CTR-80 CCR-81 *
*
* **** ML Cover A 10/257 6/151 4/129 *
* ** ** Otter B 65/295 38/174 26/155 *
* ** ** Alphanumeric Conundrum C 124/340 73/200 53/189 *
* **** Sammy Slug (SYSTEM /) SAMMY 216/412 128/241 103/253 *
*
* ** Quiz A 12/259 7/152 5/130 *
* *** T-Rex B 161/370 95/218 72/214 *
* ** Conqueror (SYSTEM /) CONQRR 224/419 132/247 108/261 *
* ****
*
* Tape CLOADing Notes - This tape may load at an ODD RECORDER VOLUME. Set the volume LOWER than normal for your first attempt,
* then increase it slightly until the tape loads. If the first copy of a program won't load, try the second. That is why it is
* there. Model I only: Put an AM radio very close to the keyboard, tune it to a non-station, and you can listen to the tape
* loading in. Adjust the recorder volume so the hash from the computer sounds 'cleanest' during a load. Model III only: Load
* the tapes at the LOW speed (POKE 10913,0).
*
* Subscribers - The month on the mail label is the last month of your subscription. If you have a cassette subscription, the
* number next to the month is the amount it would cost to convert the rest of your subscription to the disk version ($4.20 per
* issue for 6 or less months, $3.75 per issue if more than 6 months).
*
*****

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See what machine language can do in ML Cover (by Alex Kreis).

Maybe I oughter do something else... Chase the Otter (by Tim Pickenheim) away from the pond. Use the arrow keys to move and the <spacebar> to throw rocks. The program has sound so connect the AUX plug to an amplifier.

Figure out what A+B equals in Alphanumeric Conundrum (by Kevin C. Needlands). You are given a normal mathematical equation, but there are letters substituted for the numbers. Your task is to figure out what number each letter represents. My idea of a fun weekend!

Use Snairol - In Sammy Slug you maneuver your slug up through several revolving walls. You only get points when you reach the top (100 plus a time bonus). To load and run the game type SYSTEM<enter>, answer the *? with SAMMY<enter>, and answer the next *? with /<enter>. Notes: The game has sound, so connect the AUX plug to an amplifier. Also, you can use the Alpha Joystick if you have one. The beginning, ending, and entry addresses are 28480, 32511, and 28480.

Just testin' - Quiz (by Joshua Barinstein) gives you multiple choice questions on any 4 subjects, each with 3 subtopics. It comes set up with preset topics and a batch

of questions, but these can be changed by editing the DATA statements in lines 22 to 163. The following notes may be helpful in modifying the data:

- 1) If you are setting this up to test someone else, you may want to delete the **PRINT*Instructions on changing program listing?** at the end of line 4 and delete line 5.
- 2) The data in the current program was typed in with a linefeed (<down arrow>) before or after each element. The linefeed AFTER each main topic (ie: there is a linefeed after the WHO in line 22) is expected and required by the program. However, the linefeeds before the 'possible question answers' are ignored and are not necessary, but they sure add to readability.
- 3) You MUST have 4 main topics, and 3 subtopics for each main topic. You can change the number of topics by changing the 4 in lines 6 (**X=1T04**), 8 (**C>4**), and 168 (**T=1T04**). You can change the number of subtopics for each topic by changing the 3 in lines 10 (**3+D**), 168 (**G=1T03** and **3+G**), 176 (***3** and **X=1T03**), and 188 (**K>3**) and change the **C\$(12)** DIMension in line 2 to **C\$(#topics x #subtopics)**. But be sure that the number of topics and subtopics in your DATA agrees with the newly assigned values.
- 4) You can have as many questions as you wish (limited to the amount of memory you have) under each subtopic. Be sure to end each batch of questions with * (ie: **DATA ***). The program was numbered by 1 to cram it into 16k, so you might have to renumber it to add more questions (you can tack new questions onto the end of old ones if you are careful). Each question has the form: QUESTION, ANSWER 1, ANSWER 2, ANSWER 3, CORRECT ANSWER (number).

Let him take on a cockroach... You are a Tyrannosaurus Rex in search of food (ie: other dinosaurs) in **T-Rex** (by John Orchard). As you roam your world, you will meet other dinosaurs and decide whether to attempt to kill and eat them or flee (T-Rex had brains?). The main types are as follows:

Easy meat: Ornithopods, Iguanadon, Trachadon, Lambeosaurus.
 Strong vegetarians: Triceratops, Stegosaurus.
 Giant marsh dwellers: Brachiosaurus, Brontosaurus, Diplodocus.
 Armored teeth breakers: Paleoscincus, Anklosaurus.
 Meat eaters: Allosaurus, Elamosaurus, Gorgosaurus.
 Mean Brothers: Tyrannosauri.

Be the Napoleon of space - play **Conqueror** (by Troy Lyndon). Use the arrow keys to move and the spacebar to fire. And watch out for those upper levels! Notes: The game has good sound, so connect the AUX plug to an amplifier. Also, the game is Alpha Joystick compatible. The beginning, ending, and entry addresses are 25000, 28396, and 25002.

Too big fer its britches...

If you have a 16k Model III, you got an OM error when you ran April's **Odyssey Adventure** or last month's **Music Composer** with the **Demo**. To fix **Odyssey Adventure**, delete lines 150 and 1300-1406 (unfortunately, you lose the LOAD and SAVE routines). The fix for **Music Composer** is neater, just delete the REMs at lines 0 and 10.

Arrows point the way...

Last month's **Laserblitz** used strange keys to move and fire. So Thomas Krehbiel of Buffalo, New York made these changes so he could use the arrow keys and the spacebar:

```
3 IFPEEK(O)AND32.....ELSEIFPEEK(O)AND64...
4 ...IFSGN(-P)AND(PEEK(O)AND128)...
5 IFPEEK(O)AND32.....ELSEIFPEEK(O)AND64...
70 O=14400:...
```

He also gave these patches for using the Alpha Joystick:

```
3 IF(255-INP(0))AND4.....ELSEIF(255-INP(0))AND8...
4 ...IFSGN(-P)AND((255-INP(0))AND16)...
5 IF(255-INP(0))AND4.....ELSEIF(255-INP(0))AND8...
```

Sunnin' a bit...

Al LeShane of Portland, Connecticut wanted to have the the sunrise/sunset answers from last month's Sunterm come out in his own timezone (once you get a computer, you want it to do all the work...). Here are his mods:

```
15 CLEAR 100
191 PRINT:INPUT"US Time zone (Eastern E,Central C,Mountain M,Pacific P";TZ$
192 PRINT:INPUT"Standard (S) or Daylight Saving (D) Time";TC$
193 Z$=TZ$+TC$+"T"
194 IF TZ$="E" THEN ZZ=5
195 IF TZ$="C" THEN ZZ=6
196 IF TZ$="M" THEN ZZ=7
197 IF TZ$="P" THEN ZZ=8
198 IF TC$="D" THEN ZZ=ZZ-1
350 P$="Sunrise ##:## "+Z$+"          Sunset ##:## "+Z$
360 PRINTUSINGP$; FIX(RI)-ZZ,60*(RI-FIX(RI)),FIX(SE)-ZZ+12,60*(SE-FIX(SE))
```

Home for unwanted lines...

Richard Osborne of Logan Lake, B.C., Canada wrote me about a way to delete BASIC lines from the beginning or end of a program while the program is running. This involves a couple of pointers:

16548 and 16549 point to the start of the BASIC program.

16633 and 16634 point to the start of the variable table (every time a new variable is used, it is added to this table for reference later).

Why would one want to delete lines from a program while it is running? Deleting lines from the beginning of a program can speed the program up and deleting lines from the end of a program frees more memory for arrays and strings. There are just a few things to note:

- 1) Once the variable pointer has been moved, all of the values of any variables previously declared are lost.
- 2) Do not use GOSUBs when moving the variable pointer, since the 'stack' (the area used to get you back to where you said GOSUB following a RETURN) is lost.
- 3) The end of a BASIC program is marked by two 0s (the pointer to the next line in the program is 00).
- 4) The end of the variable table is marked by two 0s (when the table is moved, the 0s are at the beginning since the table is empty).
- 5) The first two bytes of a BASIC program line point to the actual beginning in memory of the next BASIC line. The next two bytes are the line number. The last byte in the line is 0.

Let's say that you have a program with four pages of instructions starting at line 1000. These instructions are not needed after they are read once and the space could be better used for a sort routine. Here's what you could do:

```
10 GOTO 1000: REM READ INSTRUCTIONS (NOTE: NOT A GOSUB)
20 REM REST OF THE PROGRAM
```

999 END

```
1000 CLS: PRINT"INSTRUCTIONS"
```

```
4090 INPUT"HIT ENTER TO DELETE THE INSTRUCTIONS (LINES 1000 AND UP)";Q$
5000 REM ** WALK THROUGH THE PROGRAM TO FIND LINE 1000
5010 A=PEEK(16548)+256*PEEK(16549): B=A: REM GET BEGINNING OF PROGRAM
5020 IF PEEK(A+2)+256*PEEK(A+3)=1000 THEN 5100: REM CHECK FOR LINE 1000
5030 A=PEEK(A)+256*PEEK(A+1): GOTO 5020: REM POINT TO THE NEXT LINE
5090 REM ** LINE 1000 FOUND - DELETE 1000 AND UP
5100 POKE B-2,(A+2)/256: REM PUT HIGH VARIABLE POINTER BYTE IN SAFE PLACE (2 BYTES
BELOW THE START OF BASIC)
5110 FOR I=A TO A+3: POKE I,0: NEXT: A=A+2: POKE 16633,A AND 255: POKE
16634,PEEK(PEEK(16548)+256*PEEK(16549)-2): CLEAR: GOTO 20
```

What line 5110 does:

- 1) Marks the end of the BASIC program and the end of the variable table with 0s.
- 2) Sets A to mark the beginning of the variable list.
- 3) POKEs the new low byte of the variable pointer. The variable pointer is now contaminated and all of the variable values are lost. This is why the high order byte was safely tucked away in line 5100.
- 4) Gets the high order byte and POKEs it into the variable pointer.
- 5) Goes back to the program, now minus lines 1000 and up.

Note: Line 5110 can NOT be broken up!

If only it was so easy to delete these editorials...

See ya in August,

Dave

THE ALTERNATE SOURCE

Spellbound

Shoot-em-ups not your style? Consider Spellbound, a sophisticated word game that will both "please" and "astound": "please" because you will always have a capable partner at the flip of a switch and "astound" because you can demonstrate the superior capabilities of your TRS-80. Spellbound conducts a word search using its 12,000 word on-line dictionary in less than a minute. Words are extracted from a matrix of random letters by both you and your TRS-80. One to six humans can play: the word matrix is designed using a unique graphic configuration. The ideal demonstration program for your pedantic friends. Spellbound is written in a combination of Z80 and Fortran: original purchasers can also purchase the source code for an additional \$10. Sorry, this program only comes on disk. Both Model I and III versions are included for \$19.95. Because of critical real-time task processing, this program will not work with Newdos/80.

TASORT The Alternate SORT

TASORT is a high speed sorting program, designed for easy use in BASIC programs that need powerful sort capabilities. TASORT is fast, sorts up to 65 arrays simultaneously, sorts any combinations of

variable types, is completely relocatable, respects high-memory, and will sort ascending, descending and tag-along. TASORT works with all Model I and III configurations, tape and disk, and is the perfect bridge for making your programs 100% compatible with all environments. TASORT is \$19.95, tape or disk. Write for information on licensing TASORT for your commercial applications.

Modem 80

Need a top quality terminal program that works under a variety of environments? Modem 80 and its support packages have the TRS-80 talking with dozens of systems, both micros and mainframes. A special protocol permits easy and reliable communication with CP/M systems, too! Modem 80 allows you access to DOS commands while online, route screen displays to your printer, change all local communication parameters at any time, upload and download, send files larger than memory (if the other system recognizes XON and XOFF protocol), and even includes a HOST program so that you may access your unattended TRS-80 from a remote site. Four separate translation tables are included for communication output, video, printer and disk files. These are user modifiable. The Modem 80 package of seven programs and user's manual is \$39.95. This program is one of our best buys!

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small BASIC program generated by your response to prompts (this allows your printer to work at the fastest possible speed and reports only need be defined ONCE); reports support titles, page numbers, column headings, footers, literals, end of file totals, special control characters LPRINTed before the report and more; documentation has been expanded to cover items such as error trapping, utilization of disk space, sample user sessions and information about how ISAR stores the information necessary to access a file (making conversions between ISAR and other data base managers easier). ISAR I, Version 2.0, complete with all enhancements and documentation, \$39.95. (Unregistered ISAR Expanded Users: Upgrades available!)

The Alternate Source Programmer's Journal

A software toolbox for your TRS-80 Model I and III. Each issue of TAS features utilities and applications that enhance your investment in the revolution. And more. We tackle comparison reviews, Model I/III compatibility, useful patches for popular programs, modifying BASIC, using Z80 assembler and many other languages. The Alternate Source is \$24 for 12 issues. If you haven't seen our journal, request a sample copy with any product on this page.

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