CLOAD
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Here's January!

And January of a new decade to boot. This is the traditional time for all to stop a moment and predict what the new year / decade might bring in the way of advancements, and as this is a computer magazine, it would be proper to consider the advancements in the field of computers and computing. I never was much of a traditionalist, though. Here's a directory of this issue:

Level	Title	Turns Count CTR-41	Turns Count CTR-80
IIIIIIIII	Random Walk (cover)	23 & 262	13 & 154
II	Who's On First	59 & 289	35 & 173
II	Stars (instructions)	130 & 343	76 & 202
II	Stars	173 & 377	101 & 222
IIIIIIIII	Two Dates	207 & 404	123 & 238
IIIIIIIII	Random Walk (cover)	13 & 36	8 & 21
II II	Hi Calc	59 & 120	35 & 70
II II	Two Dates	177 & 209	104 & 124
II II	Midway	240 & 272	141 & 160
II II	Ram Test (SYSTEM TEST /)	302 & 326	178 & 192
IIIIIIIII	Stars (SYSTEM STARS /24320)	349 & 395	206 & 232

Who's On First is a problem in deductive logic. This kind of problem is solved relatively) easily by a branch of mathematics called Boolean Algebra, named after its inventor, George Boole. In the mid 1800's it replaced what was at that time the ne plus ultra of the field, an inconsistent system called Aristotelian Logic.

Stars is Yet Another Space Game, the object of which is to maneuver as many rocketships as possible from the bottom of the screen to the top. The ship on the right is controlled by the (->) and (CLEAR) keys, and the ship on the left is controlled by the up and down arrow keys. The appeal in this version, at least to me, is the substitution of nice, dumb stars for the evil Klingon Warriors. Future space travel in the immediate vicinity of Earth may end up like this, as astronauts try to get to a space station without getting creamed by all the nuts, bolts, wrenches and screwdrivers left in orbit by careless construction workers.

Two Dates is a distance finding program that works in the fourth dimension, time. It is based on the Julian calendar, corrected to this century. The Julian calendar has three years of 365 days followed by one year of 366 days. These so-called "leap" years occur on years divisible by four (1980 is a leap year). The Gregorian calendar (the one we use today) has an extra provision: a century year is not a leap year unless it is divisible by 400. That makes the rule run as follows: a year has 365 days, unless it is divisible by four, in which case it has 366 days, unless it is divisible by 100, in which case it has 365 days, unless it is divisible by 400, in which case it has 366 days. The triple exception occurs in the year 2000, which is a leap year. Thus the program Two Dates is valid from March 1st, 1900 until February 28th, 2100. Anyone planning a social event 120 years or more from now will have to provide a correction. For more mundane tasks, the algorithm is correct. The time interval from June 5th, 1967 until March 2nd, 1973 is correctly given as 2097 days.

The daily and weekly value options of this program provide a handy way to relate a value to time. For example, if you devote 3 hours a week towards building an ark, set the weekly value to 3. Then when you compute the time between two dates, the amount of time spent building the ark will be displayed automatically.

"Hi Calc" is a fairly precise four-function calculator. The basic precision is 1500 decimal places. There is a command (.) which allows you to set any number (up to 1500) of places. This is only used by the division routine - it tells it how far to go (to the right of the decimal point) before it rounds the number off. The result will be exact unless it notifies you with the "ROUNDING" messsage. A series of ***'s means a series of

zeros (long strings of 000's are hard on the eyes).

Did you know that there are exactly 80,658,175,170,943,878,571,660,636,856,403,766,975,289,505,440,883,277,824,000,000,000,000 different ways to shuffle a deck of 52 cards?

That there are exactly 10,299,016,745,145,627,623,848,583,864,765,044,283,053,772,454,999,072,182,325,491,776,887,871,732,475,287,174,542,709,871,683,888,003,235,965,704,141,638,377,695,179,741,979,175,588,724,736,000,000,000,000,000,000,000,000 different ways to shuffle a Canasta deck of 104 cards? Assuming, that is, that the two decks are distinct.

Our December issue had a level II program called "Morse", which taught Morse Code. For those of you who would like to shift the sound to a small amplifier (such as Radio Shack #277-1008), edit the OUT 255,4 statements in lines 2480 and 2510 to read OUT 255,2. Leave the rest of each line as is. This routes the sound to the grey audio plug that normally goes to the AUX input of the cassette recorder. Plug it into the amplifier input and adjust the volume to suit.

Bryan Mumford sends us these instructions which modify our November program "Mail List" to operate with a disk system:

Do not bother to set MEMORY SIZE. Adjust the CLEAR statement in line 60 to suit your memory size. Try 15000 for 32K machines and 30000 for 48K machines. Also, you may now use more than 100 entries, the number being limited by your memory size and amount of RAM CLEARed. You will also want to change the directory entries to refer to disk I/O instead of tape I/O. There are more efficient ways to handle a disk based mail list program, but these changes will make this tape program passable as a disk program.

Delete the following line numbers:
100-110, 680-700, 730-750, 780-860, 900, 920-950, 970, 1310-1340

Add the following lines:

```
680 CLS : INPUT "FILE NAME"; F$ : PRINT640, "LOADING...."
690 OPEN "I",1,F$
730 INPUT #1, N$(X) : IF N$(X)="ZZ" THEN 780 : REM ZZ IS EOF
750 INPUT #1, P$(X), A$(X), C$(X), S$(X)
780 CLOSE : GOTO 120 : REM 120 IS DIRECTORY LEVEL
790 CLS : INPUT "FILE NAME";F$ : OPEN "O",1,F$
900 PRINT #1, N$(X)
920 PRINT #1, P$(X) : PRINT #1, A$(X) : PRINT #1, C$(X) : PRINT #1,S$(X)
970 CLOSE : GOTO 120 : REM 120 IS DIRECTORY LEVEL
```

These changes have been run and they work. They have not been thoroughly tested.

At this point, I would like to insert a plug for level I programs. As programmers know, the power of level II is much higher than level I. This means that most of our authors have level II machines. This, of course, means that most of our submissions are in level II and are not "downward compatible" to level I. This would not normally be of much concern to us, except that most of our readers start out with level I, and quite a few institutional types - schools and such - opt for level I machines on a permanent basis because you can purchase 1.7 times as many of them with a given amount of funding, and can teach the concept of computing just as easily.

So, send 'em in, folks. We still pay cash up front for programs. If you're new at this game, ask us for a copy of our submissions procedure.

And while I'm promoting, how about our new "Best of CLOAD", Volume II? Our second six months of existence have been anthologized, and we're accepting orders at $15.00 a copy. These programs come complete with hardcopy listings and inane commentary. Our price of $15.00 a copy is somewhat higher than our "Best of", Volume I - based on our experience with costs. We still claim to be the best software deal in existence, however.

Contents: Seekers (cover) - *Artillery - Ohm's Law tutorial - Four Color (map problem) *Road Rally (level I only) - Star Wars (level II only) - *Sketch (level II only) - States (level II only). New Improved versions marked (*).

Do It!

Ralph

Ralph McElroy
Publisher

CLOAD MAGAZINE'S FIRST OFFICIAL LIST OF TRS-80 USERS' GROUPS

Monterey Bay Users' Group
Contact: William S. Pitt, P.O.Box GH, Pacific Grove, CA 93950
Meetings: As announced
Santa Rita School Multi-purpose Room, 2014 S. Santa Rita, Salinas, CA

TRS-80 Users' Group - New York
Contact: Klaus Rittenback, Route 1, Box 8, Milton, NY 12547
Meetings: Monthly
Radio Shack, Route 17K, Newburgh, NY (next to Zaire's Shopping Center)

Delaware Users of Microprocessor Systems
Contact: Jodie S. Hobson, President, 318 B Chapel Avenue, Claymont, DE 19703
Meetings: First Monday of the month
University of Delaware

TRS-80 Users' Group - Washington
Contact: Walt Nash, 21814 Pacific Highway South, Lot #40, Des Moines, WA 98188
Meetings: Second and fourth Wednesdays of the month - 7:30 PM
Pine Terrace Trailer Court Rec Room, 21814 Pacific Hwy. So., Des Moines, WA

C.A.C.H.E. - Chicago Area Computer Hobbyists Exchange - TRS-80 Special Intrest Group
Contact: Leah R. O'Connor, Chairperson, P.O.Box 52, South Holland, IL 60473
Hotline (for prerecorded announcements) (312) 849-1142
Meetings: Third Sunday of the month - 12:00
Northern Illinois Gas Building, just north of Golf and Shermer Roads, Glenview, IL

TRS-80 Users' Group Ottawa
Contact: 2 Larsen Court, Kanata, Ontario, K2L 1Y8, Canada
Meetings: Third Wednesday of the month - 7:30 PM
National Research Council Building, Sussex Drive, Ottawa, Ontario

Delaware Valley Computer Club
Contact: Victoria Miller, P.O.Box 651, Levittown, PA 19058

TRS-80 Users' Club - Washington
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Meetings: First Thursday of the month - 7:30 PM
Radio Shack, 26th and Pronor, Tacoma, WA

Redwood Empire TRS-80 Users' Group
Sonoma, Marin, Lake, Mendicino and surrounding counties
Contact: John Revelle, 7136 Belita Avenue, Rohnert Park, CA 94928

TRS-80 Users' Group - North Carolina
Contact: R. Gordon Lloyd, 7554 Southgate Road, Fayetteville, NC 28304

TRS-80 Users' Club - Belgium
Contact: Richard L Lenoir, Data Div., 93 rue Renardi, 4000 Liege, Belgium

North London Hobby Computer Club
Contact: Robin Bradbeer, Dept. of Electronics and Communications Engineering,
Polytechnic of North London, Holloway Road, London, N7 8DB, England

TRS-80 Free Program Exchange
Contact: 4418 Morrow Road, Modesto, CA 95350 (stamped, self-addressed envelope)

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