

Don't scare me like that...

Most of you have yellow labels on your cassette this month. We used to use yellow labels when one side of the issue was for Level I 4K and the other side was for Level II 16K machines. We are not returning to that format! Both sides are for Level II or Model III computers. What we ARE trying to do is get our regular labels back on the cassettes by next month. Wish us luck. If the 3 printers and 2 label manufacturers that we went through in the last two months are any indication, we need luck...



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*	Side	Title	Turns Count	
*				*
*			CTR-41	CTR-80
*				*
*	****	Burger Cover	15 & 258	8 & 152
*	** **	Bowling	77 & 304	46 & 179
*	** **	Calendar (Mem 31414 Sys C /)	192 & 394	113 & 232
*	****	Calendar Demonstration	211 & 409	124 & 241
*				*
*				*
*	**	Frankenstein Adventure	8 & 255	5 & 149
*	***	Heat & Energy Audit	153 & 364	90 & 214
*	**	Disk Exec Patch (Model I DOS)		
*	****	see notes below	242 & 436	142 & 256
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*				*
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 notes - Load the tapes at the LOW speed (POKE 16913,0). An occasional program will NOT run. There may be upper and lower case goofs in some programs. Arrow keys often are translated as follows: (↑, ↓, ←, →) = ([, \, ], ^).				
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Make mine a cheeseburger! There's a hamburger chain (that most of you on the east coast know well) where it takes about a dozen of their burgers to fill a person up. Who would have guessed that little green men would develop a taste for those dime-sized goodies? It's all documented in black'n'white in Burger Cover.

Alright! You rolled that ball perfect! It's hooking right into the pocket... and a ten pin remains standing! Wait, don't kick the machine! The TRS-80 isn't built to take it like the ball returns at the local alley. I know how you feel, though. Bowling is just as frustrating as the real thing! It has sound, so hook up the big gray plug that normally goes to the recorder to an amplifier (or leave it in the recorder, push the play-record buttons down, and listen through an earphone plugged into the spot where the big black plug normally goes).

By the way, CLOAD Inc. is sponsoring a bowling team that yours truly is on. After seven weeks, the CLOADers (they are the ones in the glaring green shirts) are in second place. Yea! Unfortunately, the first place team is waaaay out in front. Boo! We could really use the trophy here. There is a spot in the bathroom that would be perfect for it...

Attention - the following program is rated L2 for Level II only. My



apologies to those Model III users (at this time) and DOS users who won't be able to use Calendar and Calendar Demonstration.

Oh, no!!! Another calendar program. But wait, this one is a bit different. The first part of the program, Calendar, is a machine language utility that creates two new BASIC command words. The second part of the program, Calendar Demonstration, is a BASIC program that demonstrates the usefulness of the utility. You can, by looking at the second program, easily see how the utility works and interface it into your own programs.

What does Calendar do? It does not wash windows! It does create the BASIC command words 'DATEGR' and 'GRDATE', however. 'DATEGR' needs to be fed the variables MO (month), DA (day), and YE (year). It then spews out the variables GR (the number of days from the day that the Gregorian calendar began - October 15, 1582) and WE (the day of the week). 'GRDATE' only needs the variable GR, and it then drops MO, DA, YE, and WE into your lap. You understand all of that, right? Ok, so I wasn't cut out to be a teacher. How about a couple examples.

What day of the week were you born on? This routine does it:

```
10 W$="SUNDAY MONDAY TUESDAY WEDNESDAYTHURSDAY FRIDAY SATURDAY "
20 INPUT "BIRTHDAY (MM,DD,YY)";MO,DA,YE
30 DATEGR : REM GET 'GR' AND 'WE'
40 PRINT "YOU WERE BORN ON ";MID$(W$,WE*9+1,9)
```

Now let's expand the program. We know the day of the week you were born (hey, hey, hey) and we also know how many days that momentous date was from October 15, 1582 (remember, 'DATEGR' also returns 'GR'). Now we want to find out how many days you've been alive:

```
50 GB=GR : REM SAVE THE BIRTHDAY VALUE
60 INPUT "TODAY'S DATE (MM,DD,YY)";MO,DA,YE
70 DATEGR : REM GET TODAY'S 'GR'
80 PRINT "YOU HAVE BEEN ALIVE";GR-GB;"DAYS"
```

Another example: Your rich uncle has promised you a million dollars after you have lived 10,000 days. You definitely want to know what day that is, and you want to be sure that the banks will be open that day:

```
10 W$="SUNDAY MONDAY TUESDAY WEDNESDAYTHURSDAY FRIDAY SATURDAY "
20 INPUT "BIRTHDAY (MM,DD,YY)";MO,DA,YE
30 DATEGR : REM GET 'GR' - DAYS FROM OCT. 15, 1582
40 GR=GR+10000 : REM ADD 10,000 DAYS TO BIRTHDAY
50 GRDATE : REM GET NEW MO, DA, YE, WE
60 PRINT "THE MILLION DOLLAR DAY IS - ";MO;"/";DA;"/";YE
70 PRINT "AND IT FALLS ON A ";MID$(W$,WE*9+1,9)
```

Also, if you input an invalid date, or one that falls outside the range from October 15, 1582 to February 28, 4000, 'GR' is set to 0. This can be used for error checking:

```
10 INPUT "DATE (MM,DD,YY)";MO,DA,YE
20 DATEGR : IF GR=0 THEN PRINT "DATE ERROR" : GOTO 10
```

For the best example on how Calendar can be used, load and run Calendar Demonstration. The one thing that really impresses me about this demo is its ability to figure out the 'MO', 'DA', and 'YE' variables from almost any format you use to input a date. This is a user-oriented program!

How to load Calendar: Set the Memory Size to 31414. Type 'SYSTEM'<enter>. Answer the '\*' with 'CLNDR'<enter> and load the program



in. Answer the next '\*?' with '/'<enter> and the 'READY' prompt should appear. You are now ready to build your own programs around the 'DATEGR' and 'GRDATE' commands or load and run Calendar Demonstration.

Misc. notes: All of the variables (MO, DA, YE, GR, WE) used by Calendar must be single precision. The 'DATEGR' and 'GRDATE' commands are created by intercepting the syntax error routine. The program resides from 7AB9-7FFF and is entered at 7F80.

Now here is something for everybody. And it's appropriate for the season. Frankenstein Adventure. As with all adventures, the object is to accomplish some feat by using your wits in discovering and decoding all of the hints that you run across in your travels. You tell the computer what you want to do using one or two word commands, then suffer the consequences...

Extra goodies - all of the commands can be abbreviated to four characters per word (for the impatient typists among you). To go a certain direction, only one letter is needed (ie: N, S, E, W, U, and D for north, south, east, west, up, and down). And you can save the current status of the game onto tape or disk by saying 'SAVE' and load it back in by saying 'LOAD'.

Why is this place so cold? Let's plug in Heat & Energy Audit and find out. All we have to do is feed it the basic construction of the building and it will throw back an energy waste estimate. It then will give us an approximate energy savings report based on the implementation of certain conservation techniques. In the meantime, I'll get a jacket...

Last month I said that I'd get the author of Disk Exec (August 1981) to look at the program again to see if he could find a way to make it work for programs like Alien (March 1981). Well, Alex half succeeded. He found a couple of pointers to set so that it works on the Model I. But the same fix caused a reboot on the Model III. Darn! Anyhoo, by merging this patch with the original Disk Exec, more machine language programs (but probably still not all) can be saved and run from Model I disk. To merge Disk Exec Patch with Disk Exec, follow the sequence below (or follow the Yellow Brick Road if you'd rather have witch run-ins):

1) Put Disk Exec Patch on disk using TAPEDISK, LMOFFSET, or some equivalent tape-to-disk utility. Call it something like 'DPATCH/TMP'. The load addresses are start=8082, end=8264, entry=8211 (in decimal: 32898, 33380, 33297).

2) From DOS, load in the old copy of Disk Exec (from August's issue) that you saved to disk (probably under the name 'DISKEXEC/CMD'). Do not execute!

3) Still in DOS, load in 'DPATCH/TMP'.

4) Now dump the new program to the disk:

DUMP DSKEXNEW/CMD (START=X'7A27',END=X'8265',TRA=X'7A27')

5) Run 'DSKEXNEW'. If it works, you can then rename it as 'DISKEXEC/CMD'. If it doesn't work, start over at step 1 until it understands that you are the boss.

Tell Rand-McNally...

Got a couple comments on the April 1981 Mapdisk program. If you had trouble with the screen printout option, Mel Mauck of Lexington, Virginia sent a fix for line 430:

```
430 D=0:G=22:GOSUB 440 :D=24:G=46:GOSUB 440 :D=48:G=68:GOSUB 440 :
    D=70:G=78:PRINT:GOSUB 440 :PRINT:PRINT"ANOTHER DISK?";
```

He also suggested changing the 'CLEAR 1300' in line 30 to 'CLEAR1800'.



Now, if you have 40 track drives instead of Radio Shack's standard 35 trackers, John Delaney Jr. of Wood River, Illinois sends this patch to you:

```
30 CLEAR 1300:CLS:DEFINT A-G:DIM G$(80)
80 B=0:F=0:FOR A=(&HB068) TO (&HB08F) : D=PEEK(A)
420 FOR A=0 TO 78 STEP 2:LPRINT (A+2)/2;" ";A+1;" - ";G$(A);TAB(35);
    A+2;" - ";G$(A+1):NEXTA
430 (same as the line 430 above)
```

Skeletons in the computer...

Bud Russell of Pittsburgh, Pennsylvania managed to play August 1981's Wall Street until it crashed (the program, not Wall Street - bad pun, eh?). To avoid getting that 'ILLEGAL FUNCTION IN 10' error, he suggests editing line 8 to read:

```
8 H1=H1+1:....:IFH(I,0)<10THENH(I,0)=10ELSEIFH(I,0)>255THENH(I,0)=255
```

Sheldon Kramer of Schaumburg, Illinois prettied up last month's RPN Calculator to suit his needs, and in the process found a problem in the degree option. Towards the end of line 1, there is a statement that reads 'CV=100/PI'. He discovered that it should read 'CV=180/PI'. I'll still take a TI calculator any day...

Up the lower staircase...

If you want your program to accept both upper and lower case input in response to a question, but you don't want to check to see what the person answered in both upper and lower case, there is an easy way to fold every character to upper case (thanks to Ron Tansky of Oakford, Pennsylvania). You just have to AND the ASCII value of each character of the input with 223. For instance, in line 50 of this month's Bowling we have:

```
50 Q9$=INKEY$:IFQ9$=""THEN50ELSEQ9$=CHR$(ASC(Q9$)AND223):IFQ9$="Y"
    THEN5000ELSEIFQ9$<>"N"THEN50
```

The above line looks for a yes or no answer. So any value of Q9\$ is folded to upper case (see the underlined portion) before it is tested to see if it is a 'Y' or an 'N'.

A is for aardvark...

Just a reminder that all of the BASIC programs on each side of the tape are CSAVED with the filename "A" for the first one, "B" for the second one, and so on. The second copy of each program has the same filename as the first copy, however.

Cheap ad...

Are you missing any (or all) of the back issues from October, 1978 to date? We have them all available for the cheap price of \$4.50 each (\$4.77 in California). Write for a list.

I have a horses head in need of attention, Donna's bird beak needs another coat of paint, Robin's arm is getting tired holding up the green Lady of Freedom's torch, and Tom has a green streak in his hair. Halloween is in the air! It just seems odd that Tom put his costume on weeks ago...

Boo,

*Dave*