

101 things to do with...

Those little white things that you find stuck in the middle of the cassettes are called hublocks. Exciting, huh? They are so exciting that we now have a wall covered with a 'Special Series on Hublocks.' Who says labelling cassettes gets boring? There is the 'Common Species of Hublock', 'Rare Species of Hublock' (red), 'Disabled Hublock' (broken legs), 'Tagged for Scientific Purposes' (a wire wrapped around one), etc. Grady started it. Grady is warped...



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*	Side	Title	Filename	Turns Count		*
*				CTR-41	CTR-80	*
*						*
*	****	Pyramid Cover	A	11 & 267	6 & 155	*
*	** **	Planet Orbiter	B	48 & 294	28 & 170	*
*	** **	Bond	C	142 & 366	82 & 212	*
*	****	Falling Aliens (System FALL /)	FALL	233 & 439	135 & 255	*
*						*
*	**	Building of Death	A	10 & 265	6 & 154	*
*	***	Air Nav	B	147 & 369	85 & 214	*
*	**	Disk Copy	C	247 & 449	143 & 260	*
*	****					*
*						*
*	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 (Pulse 10y13,0).					
*						
*	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 0 or less months, \$3.15 per issue if more than 0 months).					
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A trio of triangles in Pyramid Cover.

Do rings around the planet with Planet Orbiter. You position 1 to 4 different sized planets on the screen. Then you take your spaceship and attempt to put it in a stable orbit around them! Note: You may want to take out the **RESET(H,V)** in line 145 to see a trace of your ship's path (and subsequent crash).

Money in bondage - If you're a dabbler in bonds, then Bond is for you. The program will calculate YTM, yield before maturity, valuation, and all those bondy things with which I am unfamiliar. You should understand bond terminology to use this program fully.

Zap! Zowie! Shoot the Falling Aliens before they hit the ground (don't get hit by one of their missiles). This machine language program has sound (connect the AUX plug to an amplifier) and is joystick compatible.

Falling Alien notes: The beginning, ending and entry addresses are 29184, 31904 and 29184. CLOAD Tape - Type **SYSTEM**<enter>, answer the *? with **FALL**<enter>, and answer the next *? with **/**<enter> to play the game. CLOAD Disk - Falling Aliens will run from the **AWAY** menu or you can put **FALL/CMD** on another disk and run it from DOS by typing **FALL**<enter>. The 'B' option may not return you to Disk BASIC.

Just in time to miss Halloween - Building of Death. This is an adventure game

with many ways to die. You are trying to leave the building by using one or two word commands (ie: GO NORTH, EXAMINE CHAIR, etc.). Note: You only need to type the first three letters of each command word (ie: EXA CHA for EXAMINE CHAIR) and only one letter to go a direction or take an inventory (ie: N for GO NORTH, I for INVENTORY).

Pilot to co-pilot - Plan your next flight with Air Nav. There are two parts to this program. 1) You feed it the lat, long, and magnetic deviation of two or more airports, and based on your speed and the wind (velocity and direction) you are given the mileage, course, heading, ground speed, and flight time of the flight. 2) You tell it the weight of the people and baggage you are carrying and it'll tell you whether you are unbalanced or overloaded.

Air Nav notes: The program is obviously set up for the author's plane and home state. He gives notes on how to modify the Weight & Balance section for another plane, however. But to use the Navigation section for other areas, you'll first have to put **END:** at the beginning of line 62. Now you can just run the Navigation section and input the magnetic deviation, the latitude, and the longitude of the airports you're using (you'll be asked for this info if the airports you specify are not in the DATA list). If you wish to modify the DATA list (lines 6 to 24), it is in the form:

Airport name, Radio frequency, Magnetic deviation, Latitude, Longitude

If you only have 1 disk drive, Disk Copy is especially for you (but you multi-drivers can use it also). It is a BASIC program that will copy any (at least all of the ones we tested) 32K or smaller file from one disk to another. The beauty of the program is its simplicity. It reads a file into memory and dumps it back onto a disk by treating the file as if it was a data file with 256 byte random records.

More lies...

Recently I was accused, in a rather nasty letter, of sloppy reporting. That's bad enough, but it's worse when I deserve it. Last month's Disk Cass does not work as I thought. It will take programs to and from disk and memory, but it only saves and loads a data file to and from tape. In other words, Disk Cass can only read tapes that were created through Disk Cass. You can create tapes to serve as program backups, but that's about it. Durn!

Key minus...

I've just learned that the auto-repeat option in August 1982's Keyplus does not work on the @ABCDEFGH@abcdefgh keys. I don't know how to fix it (I'm soooo helpless), but the author or someone else may have a fix. Hello?

Zapped...

I (why is it always me?) forgot to mention that the start, end, and entry addresses for May 1982's Zapper were F870, FEFE, and F870.

Heaven on his mind...

William Oaks has a fix for a bug in last month's Moon Track that appears whenever the clocks are set forward or backward. It is:

720 IF M=10 GOTO 870

Also, he mentioned that you can get the different Moon Track displays without rerunning the program by hitting <break>, typing GOTO2000, GOTO3000, or GOTO4000 (corresponding to menu selections 1, 2, and 3), and hitting <enter>.

Be vewwy quiet...

I modified last month's Match so the sound would work on the Model III. And screwed up the sound on the Model I. So change the 64 in line 10060 to a 61 and forgive me(?).

Makin' noise...

So you want to have your programs make sound, too? Sit back in your easy chair and read on -

First, we start with a common machine language sound routine for the Model I. We READ it from DATA, put it in memory (protected by the Mem Size), and access is via the USR(X) (where X generates different frequencies and lengths):

```
Set MEM SIZE to 31999
10 DATA 205,127,10,62,1,14,0,237,91,61,64,69,47,230,3,179,
    211,255,13,40,4,16,246,24,242,37,32,241,201
20 AD=32000
30 FOR I=AD TO AD+28: READ N: REM GET THE MACHINE CODE
40 POKE I,N: NEXT I: REM PUT CODE IN PROTECTED MEMORY
50 POKE 16526,AD AND 255: POKE 16527,AD/256: REM FOR USR()
```

This is fine, but it restricts the routine to Model I's and limits disk users to 4K of program storage. The machine language routine is relocatable, however, so let's put it in a string (then we won't have to set MEM SIZE!). First, we need to get rid of the '0' in the DATA statement, so we replace it with '1,13' (for you assemblee buffs, we now load C with 1 and decrement C instead of loading C with 0). Then we need to create a string (preferably at the beginning of the program) with 30 spaces to store the routine. Finally, we need to point to the beginning of the string and make it accessible by the non-disk and disk USR functions:

```
1 ML$="123456789012345678901234567890"
10 DATA 205,127,10,62,1,14,1,13,237,91,61,64,69,47,230,3,179,
    211,255,13,40,4,16,246,24,242,37,32,241,201
15 ML=VARPTR(ML$): REM GET LOCATION OF STRING DESCRIPTORS
20 AD=PEEK(ML+1)+PEEK(ML+2)*256: REM GET ADDRESS OF STRING
30 FOR I=AD TO AD+29: READ N: REM GET MACHINE CODE
40 POKE I,N: NEXT I: REM PUT CODE IN STRING
50 IF PEEK(16396)=201 THEN POKE 16526,PEEK(ML+1): POKE 16527,PEEK(ML+2)
    ELSE DEFUSR=AD: CMD"T": REM SETUP FOR TAPE OR DISK USR
```

As soon as you run the routine the first time, the machine language routine will be in the string in line 1. Then, as long as you **do not** edit or delete line 1, you can delete lines 10, 30, and 40. Don't get too excited, however. It still won't work on the Model III. Ya see that '61' in the DATA statement? It has to be a '59' for the Model III. But we can change it dynamically in the string with a PEEK and a POKE:

```
1 ML$=" this will look like garbage "
15 ML=VARPTR(ML$): REM GET LOCATION OF STRING DESCRIPTORS
20 AD=PEEK(ML+1)+PEEK(ML+2)*256: REM GET ADDRESS OF STRING
45 POKE AD+10,61-SGN(PEEK(84) AND 254)*2: REM MOD 1 OR III
50 IF PEEK(16396)=201 THEN POKE 16526,PEEK(ML+1): POKE 16527,PEEK(ML+2)
    ELSE DEFUSR=AD: CMD"T": REM SETUP FOR TAPE OR DISK USR
```

Now you have a sound routine that you can call with USR(X) from a Model I or III with or without disks. This may not look too elegant, but it works (my kinda routine)! You can add the following line to test it:

```
60 INPUT X: PRINT USR(X): GOTO 60
```

Clearing out the attic...

We have 31 **Best of Volume I's** left. We want to get them out of the way (Robin's tired of tripping over the box). This special issue contains 9 programs (Flags Cover, Yield to Maturity, Sandcastle, Knight's Tour, Pool, $Y=mX+b$, Break, Pinball, and Jukebox) from our first 6 months of existence (March 1978 thru August 1978) and it includes hardcopy listings of the programs. These programs are not available on any back issues, so grab a bit of history for the 'Get them outa my way' price of \$7.00 (\$7.42 in Calif., \$8.00 overseas). First 31 people get 'em, so hurry (maybe I should sell used cars)...

Get on the phone...

It has come to my attention that some of CLOAD's programs have been put on a few of the networks for the network users to copy onto their own systems. Bad, bad. We do copyright our programs against unauthorized distribution. I believe that this is just an oversight on the part of the operators and users of those particular networks, and will be corrected.

Time to celebrate...

The first CLOAD disk version is out! Yea (I hope)! And I'm off for a week in the High Sierras! Brrr (I hope not)!

Later,

Dave

ed.

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!

Information Storage And Retrieval

ISAR I, Version 2.0, is the ideal beginning data base manager. ISAR allows you to create data files to your specifications and add, change and scan records as desired. Version 2.0 features include: Sorting of all ten fields at once; reports are generated by a

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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