

THE Clone Newsletter

DEDICATED TO FRUSTRATED DISK USERS



 * SPECIAL SOLUTIONS NEWSLETTER *

As has been done once before, we have decided to dedicate this entire issue of the CLONE NEWSLETTER to solutions and letters sent in by our readers. Based upon the response we received from our first 'solutions issue', many of you seem to want this type of content. However, those of you who do enjoy the technical articles can rest assured that next issue we will return to our normal format.

To start this issue off, the following instructions for backing up SPELL NOW! by Cardco was submitted anonymously:

SPELL NOW! has a special track 34 that just has an extra long sync mark on it and nothing else. The program apparently times out this sync to determine the authenticity of the disk. To copy this program, you must first format two disks with the same name (arbitrary) and ID's equal to BD. Next, use the TOUGH NUTS UTILITY, option 1. Select track 35, reference sector 0, range 17, and 'N0' to Density bits. Copy onto one of the two formatted disks. Then, use the CLONE'S Track/Block editor to look at track 35, block 0 of this copy disk. Remove this disk, and insert the other formatted blank disk. Locate byte \$85 on the screen and change it from \$03 to \$3D. Hit the return key to save the change onto the disk. Finally, just copy tracks 1 to 33 from the original disk to this copy by using SUPERCLONE. To make any further backups, you don't have to repeat any of the above. Just use the FOUR MINUTE BACKUP to copy your new backup.

\$ 100 Reward for your efforts

That's right!! We will pay from \$10 to \$100 or we will provide free merchandise for articles, short stories, news, etc. dealing with subjects that are of interest to owners of the Clone Machine. Send to:
EDITOR: Clone Newsletter
c/o Micro-W PO BOX 198
Butler, N.J. 07405

We are sorry that all submissions can't be acknowledged or returned. If possible, include your phone number so that we can contact you if we are interested in using your article. Thanks for your support.

 ***** BUGS/FIXES *****

In the September issue of the CLONE NEWSLETTER, Martin Weseley of Stamford Conn. described in the LETTERS TO THE EDITOR column how he managed to produce a working backup of ZAXXON by using the TNU. Every step of his procedure was correctly printed with the exception of one major thing: the TRACK number! It is track 20 and we apologize for the omission.

Also in the September issue, a way to backup the popular game RAID OVER MOSCOW was described by P.Sayah of Clifton N.J. Although the technique outlined by Mr.Sayah was thoroughly tested and found to work perfectly, soon after publishing, we began to hear from subscribers who were having trouble in getting any results. It became obvious that a new version of the game had been issued that could not be backed up by following Mr.Sayah's instructions. This new version allows the player to select either a fast load or normal load while the original version (the one that Mr.Sayah was referring to) does not. We were able to obtain for ourselves a copy of the new version and from it determine what the problem was. The good news is that the differences between the two versions are very minor and only affect step four of Mr.Sayah's directions. If you have the new version of RAID OVER MOSCOW (with the fast or normal load option) then use the following in place of step four in the instructions:

Go to track 18, block 0. Change the 12 bytes starting at \$84 to:

\$11 \$FF \$FF \$01 \$11 \$FF \$FF \$01 \$11 \$FF \$FF \$01

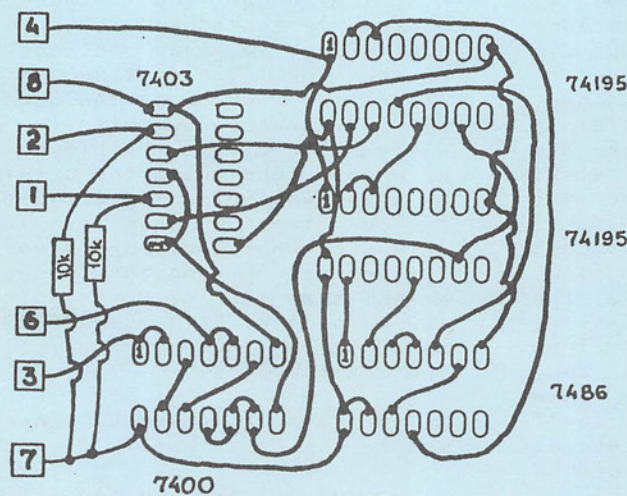
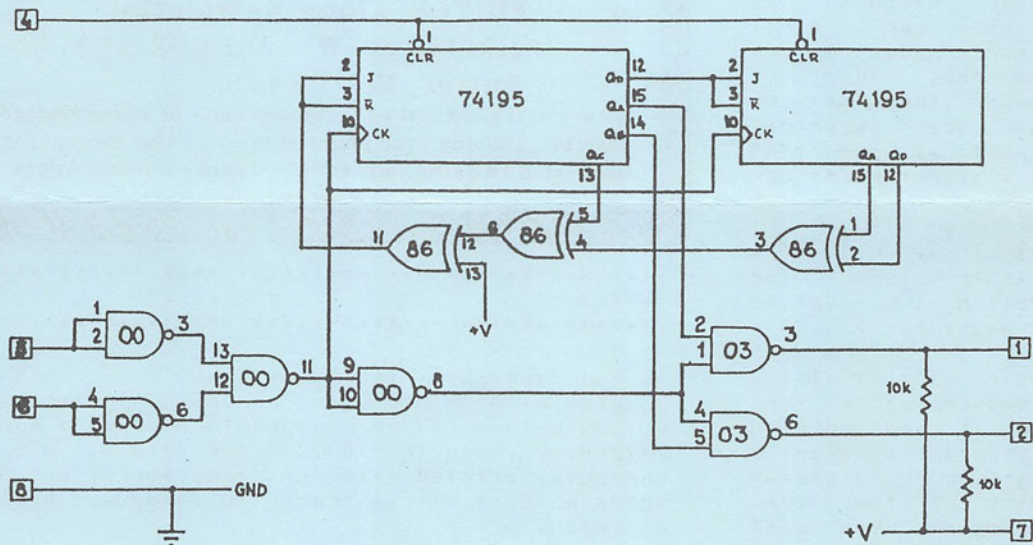
Finally, in the Nov. issue, Michael Brown described his way of 'unlocking' NIGHT MISSION PINBALL. We recently received from Mr.Brown the missing information: Edit track 8,block 0.

HOW TO BUILD A DONGLE FOR PAPERCLIP

Of the six word processing programs that I have, I use PaperClip almost exclusively. The software is not protected, so backups are not a problem. I did have a problem with the dongle at one time, though, and decided to build a replacement.

Shown below is a schematic of the dongle. Batteries Included went to considerable effort to prevent parts identification by obliterating all package markings, but yankee ingenuity won out. They use a fairly sophisticated design built with low-power schottky parts and an 8-bit shift register. Since mine was constructed with parts on hand, I used standard TTL parts and two 4-bit registers as shown.

William R. Clabo
Governors Island, N.Y.



- BOTTOM VIEW -

SOLUTIONS

Here is a copy plan for OIL'S WELL by Sierra On-Line:

1. Copy with the FOUR MINUTE BACKUP.
2. Using THE CLONE MACHINE, change byte \$1A of track 18, block 2 from \$32 to \$30.

This will effectively "unprotect" the program. Apparently, the program only looks to see if the first character of the DOS error message begins with a two. Changing the byte as above makes the program look for a first character of zero; a DOS "OK" message.

Jonny Johnson
Dover, Delaware

I have been successful in copying F-15 STRIKE EAGLE by Microprose. The TNU is required.

1. Copy with SUPERCLONE tracks 4 to 34.
2. Using TNU: Option #1 - NON-STANDARD SECTORS
Select track 1
Alter Density Bits: NO
Reference Sector: 11
Range: 21

Repeat this same pattern for tracks 2 and 3.

3. Using TNU: Option #3 - REFORMAT A TRACK
Select track 35
Use ID From Disk: NO
Enter ID1: 185
Enter ID2: 206
Standard Offbytes: YES

This will make an exact duplicate of the original. There may be a quicker way to copy it, but this method does work.

The WORLD'S GREATEST BASEBALL GAME side 2 (WGBBG, for short) has a copy protection scheme that neither SUPERCLONE nor TNU can duplicate. However, thanks to a weakness in the program, and some investigating, I was easily able to defeat the protection scheme.

It seems as though locations \$6000 to \$6100 are erased or not loaded from memory when the drive detects the copied disk. So, to get around this, here is what I did:

1. Copy WGBBG with the FOUR MINUTE BACKUP.
2. Rename the file called "3" to something else, e.g.

OPEN15,8,15:PRINT#15,"R0:OLD3=3":CLOSE15

Do this in the immediate mode.

3. Load the original WGBBG disk. After about a minute and 55 seconds, it checks for the protection and then it should prompt with three lines beginning with:

ENTER THE VISITING TEAM NUMBER

This is when you should press [RUN/STOP] and [RESTORE] simultaneously. The READY prompt should appear on the screen (this is the weakness).

4. Type NEW and hit [RETURN]

5. The code that the filename "3" occupies is from locations \$0C00 to \$A000. So, borrowing a routine written by P. Sayah in an earlier article, here is a way to save the code residing from \$0C00 to \$A000 onto the copy diskette:

```
10 OPEN15,8,15:A$="3":EH=160:EL=0:SH=12:SL=0:ZP=251
20 X=PEEK(45)+256*PEEK(46)+3:POKE183,PEEK(X-1)
30 POKE187,PEEK(X):POKE188,PEEK(X+1):POKE781,EL:POKE782,EH
40 POKE251,SL:POKE252,SH:POKE780,ZP:SYS65496
```

This BASIC routine can be used to save any location in memory, provided that you know the starting and ending addresses. The A\$ contains the name of the file, EH contains the ending high byte address (160 or \$A0), EL contains the ending low byte address, SH contains the starting high byte address (12, or \$0C), SL contains the starting low byte address, and ZP contains the zero page offset.

The copy disk can now be loaded, and everything should work properly. For those who thought that this process was too easy, the protection is located on track 18, probably at sector 3. Also, although SUPERCLONE handles side 1 of WGBBG, I find that the copy loads only about 75% of the time. The same steps can be used for side 1 that were used for side 2, except that there are two files, "9" and "8", which correspond to the one and two player games. There is not enough room on the disk to perform the rename and save, so you will have to scratch "8" and "9" before saving the new files (remember to reassign the A\$ to "8" and "9" respectively).

Carl K. Moy
Chicago, IL.

Ed. Note: Excellent work, Carl! Help on side 2 of WGBBG has been a long and often requested item.

Here is my copy scheme for SUMMER GAMES by Epyx without any error coding on the disk:

1. Copy original disk by using either FMB or TCM. Make sure error 29 on track 35 is not copied.
2. Edit track 18/0, bytes 144 (\$90 hex) to 149 (\$95 hex) should be changed to 53, 55, 4D, 4D, 45, 52 (SUMMER in hex).
3. Edit track 18/4: Change second byte to FF
. The directory can now be listed.
4. Edit track 15/4: Change byte 204 (\$CC hex) from 32 to 30. Change byte 215 (\$D7 hex) from 39 to 30.

The last two bytes changed were used to check for error 29. The program is no longer protected and it can be copied by copying the individual files.

Alex Lai
Charlottetown, P.E.I.
Canada

I just received the current CLONE NEWSLETTER. I typed in THE EXAMINER, excellent results. I was able to make a copy of IMPOSSIBLE MISSION which I had previously been unable to make a working copy of. Here is the routine I used:

1. Copy with FOUR MINUTE BACKUP.
2. Load TNU, select option #1: NON-STANDARD SECTORS.
3. Copy track: 16
Alter Bits: NO
Ref Sector: 12
Range: 21

Thank you very much for a fine product and the information to make it work.

L. A. Fortune, Jr.
Jacksonville, Fla.

To crack RAID ON BUNGLING BAY by Broderbund:

1. Copy using FOUR MINUTE BACKUP.
2. Use T/B editor and view track 12, sector 7 of the copy. Change byte \$1D from \$37 to \$30 and byte \$24 from \$33 to \$30.

This copy will still check for damaged sectors, but will run only if the sectors are undamaged. Therefore copy all the files on the copy disk to one more disk, OR reformat tracks 2, 34, and 35 on the copy disk using TNU,

To crack Tennis by Gamestar:

1. Copy using FOUR MINUTE BACKUP.
2. Use T/B editor and view track 19, sector 3 of the copy. Change byte \$75 from \$08 to \$0B.

This copy will no longer check for damaged sectors and will run if the sectors are undamaged. Any file copier can be used in the future to transfer the programs to another disk.

Henry Retter
Danbury, Ct.

Here are some parameters for some current programs. The first two use the TOUGH NUTS UTILITY.

1. BREAKDANCE

- a) Copy with FOUR MINUTE BACKUP.
- b) Error 23 on track 1, sector 1.
- c) Error 23 on track 19, sector 0.
- d) Error 23 on track 19, sector 1.
- e) TNU - NON-STANDARD SECTORS.
- f) Track = 15.
- g) Alter Density Bits = NO.
- h) Reference Sector = 00.
- i) Range = 21.
- j) Repeat procedure for track 16.

2. PITSTOP II

- a) Copy with FOUR MINUTE BACKUP.
- b) Error 23 on track 1, sector 1.
- c) TNU - NON-STANDARD SECTORS.
- d) Track = 16.
- e) Alter Density Bits = NO.
- f) Reference Sector = 00.
- g) Range = 21.

3. SEVEN CITIES OF GOLD
 - a) Copy side one with SUPERCLONE.
 - b) Copy side two with FOUR MINUTE BACKUP.

4. DR0L
 - a) Copy tracks 3/0 to 17.
 - b) Copy tracks 18/1 to 33.
 - c) Copy track 35/0 to 35.
 - d) Error 23 on track 2, blocks 0 through 15.
 - e) Error 23 on track 2, block 20.
 - f) Error 27 on track 34, block 0.
 - g) Copy 18/0.

5. SPACE SHUTTLE
 - a) Copy with FOUR MINUTE BACKUP.
 - b) Error 23 on track 18, block 9.

6. GOTHMOG'S LAIR
 - a) Copy with FOUR MINUTE BACKUP.
 - b) Error 23 on track 1, block 1.

7. THE PRINT SHOP (sides 1 and 2)
 - a) Copy with FOUR MINUTE BACKUP.
 - b) Error 23 on track 2, blocks 0 to 20.
 - c) Error 27 on track 34.

Mike Reid
Address withheld

Let me start off by saying that THE EXAMINER, published in the last issue of the CLONE NEWSLETTER, is a fantastic tool and an excellent partner for the TNU. With it, I have developed a short-cut solution for TRIVIA FEVER, namely:

- 1) Format a destination disk.

- 2) Copy tracks 9 through 17 with SUPERCLONE.
- 3) Use TNU, option #1, range 20 for tracks 18-22.

John Mastropolo
Forest Hills, N.Y.

NICK'S SWIFT COPY

1. What you need:

- a) The original program, or an image of it with or without the errors on tracks 36 and 37.
- b) A blank formatted disk.
- c) A monitor that loads in above \$0400.
- d) A file copier.
- e) A sector editor.

2. Method:

a) The 'real' directory is on track 35, so move it on down to track 18 (don't forget to adjust the pointers after doing the changes). You can now list all the files.

b) Load in the monitor, and load in the program called 'BOOT' from the NICK'S disk. The boot program will locate itself at \$032C to \$03CD.

c) Make the following changes:

(i) \$0351 BEQ \$0359
 becomes
 \$0351 BEQ \$036B

(ii) \$037C JMP \$8000
 becomes
 \$037c JMP \$8061

d) Save from \$034C to \$03CD on the blank formatted disk.

e) Copy all the files from the NICK'S disk onto the second disk (except for the file called DOS).

f) You now have a genuinely broken NICK'S SWIFT COPY.

g) Now to load it. Here are some options:

LOAD "BOOT",8,1 and type SYS844

or

Write your own loader which calls and loads the boot, e.g.:

```
10 IF F=0 THEN F=1:LOAD"BOOT",8,1
20 SYS 844
```

KNIGHTS OF THE DESERT

1. What you need:

- a) The original program, or an image of it with or without the error on track 33.
- b) A sector editor.
- c) A blank formatted disk.
- d) A file copier.

2. Method:

- a) Using the sector editor, change the first four files as follows:

```
H (followed by 15 shifted spaces-hex160)
O (           "           )
R (           "           )
G (           "           )
```

- b) Load the file called "R" and make the following adjustments:

- (i) On line 14410 change the 'IF E=0' so that it reads as 'IF E<>0'.
- (ii) On line 14420 replace the 'SYS64738' with the line number of the next line.

- c) Copy all but the XXX file to the blank formatted disk.

- d) Now to load it. You can either:

```
LOAD "H",8 and then RUN it
```

or

Change the "H" to something that better identifies the program, e.g. "KNIGHTS/DESERT".

BATTLE FOR NORMANDY

1. What you need:

- a) The original program, or an image of it with or without the error on track 33.
- b) A blank formatted disk.
- c) A sector editor.
- d) A file copier.

2. Method:

a) Using the sector editor, change the first four files as follows:

* (change to something else, e.g. BATTLE/NORMANDY, since you cannot write a file called '*' to a disk). Complete the file length with the appropriate number of shifted spaces (hex 160).

```

O (followed by 15 shifted spaces-hex160)
D (           "           )
G (           "           )

```

b) Load the "D" file and make the following changes:

(i) On line 16110 change 'IF E=0' to 'IF E<>0'.

(ii) On line 16120 change 'SYS64738' to point to the next line number, i.e.: 'THEN 16130'.

c) Copy all files to the blank formatted disk.

d) Now to load:

LOAD"whatever you changed the * file to",8

and then RUN.

Additional Submissions compiled by readers

Larry Boyd
 Charlottetown, P.E.I.
 Canada

QUICK LOAD - (broken by Carol F.)
 SC Copy Tracks 1-14 16-35
 TNU: Option 1
 Track: 15
 Alter No
 Ref 0
 Range 21

ENCOUNTER
 Use FMB
 TNU Option 1
 Track 21
 Alter No
 Ref 0
 Range 20

LETTERS TO THE EDITOR

Dear Sirs:

I received Broderbund's THE PRINT SHOP and LODERUNNER for Christmas and in making backups I discovered both programs were protected with identical errors:

Track 2, all blocks have error 23.

Track 34, all blocks have error 27.

Instead of copying with CLONE and creating errors, the easiest method proved to be copying the entire disk with FASTCLONE. Both programs worked correctly after backing up.

Again thanks for a fine product.

L. A. Fortune, Jr.
Jacksonville, Fla.

Dear Sirs:

Just a couple of comments concerning copy techniques sent in by cloners.

ZAXXON (Synapse): I tried to copy ZAXXON several times according to the scheme by Martin Weseley of Stamford, Conn. The copy would not run properly until I made the copy on a blank (unformatted) disk; then the copy ran perfectly. I figure it might have something to do with the non-standard sectors used on track 20. Prior to receiving the updated version of SUPERCLONE, I too had spent many hours trying to make a backup of ZAXXON.

RAID OVER MOSCOW (Access): Try as I may, the back-up technique described by P.Sayah of Clifton, N.J. does not work. I can load the opening screen and the scenerio explanation, but that's about as far as the copy will go. Attempting to load the main program will result either in about a one minute load with the drive stopping with the screen blank, or a one minute load with the drive stopping and the program breaking to a BASIC screen ("READY" prompt) but with a locked up keyboard! I've run through the routine several times with the same bad results. I am beginning to suspect that the protection scheme has been changed on the latter versions of RAID OVER MOSCOW which is a fantastic (and tough) game.

SUPERCLONE is the best backup program of the several I have tried as far as versitility and claimed performance. But, I do think that a "Disk Analysis" program is sorely needed for the new and complex protection schemes now coming into use. I would like to see a program that would analyze for half-tracking, bad sectors, extra sectors, non-standard sync marks, extra tracks, bad track numbers, etc; all the new "tricks" being used for disk protection. I have a limited knowledge of disk protection schemes, and an appropriate disk analyzer program would be of great assistance to "cloners" like myself.

Thanks again for a great program and I hope my comments will help someone else. Seasons greetings and best wishes for the new year.

Steve Ballo
Plymouth, Pa.

Ed. Note: We appreciate your comments very much, Steve. The problem with RAID OVER MOSCOW was reported by many of our readers who like you possessed a slightly different version of the disk than the one that Mr.Sayah had written about. See elsewhere in this issue for the solution. As for the analysis program you desire, all that you described and more will be forthcoming shortly from Micro-W.

OUR NEW MUSIC PRODUCTS ARE COMING

We have concluded an agreement with QRS Music Roll Co. to encode the entire library of over 10,000 songs on Floppy Disk for the Commodore 64. Since the SID Chip only has three voices we have invented a new MIDI interface (A keyboard type RS232) that has become the music industrys standard (MIDI means Musical Instrument Digital Interface). We will be offering a sample pack with 6 QRS songs and a MIDI Interface for \$49.95. You need a MIDI Keyboard to enjoy them however. We also sell Casio Keyboards, Korg, Siel Keyboards, and other types of music keyboards. We also are manufacturing a special MIDI cable that will interface two keyboards with one cable. These are a few of our new projects for 1985.

WE NOW ALSO HAVE A VERSION OF THE CLONE MACHINE FOR THE MSD DUAL DRIVES. THIS VERSION HAS INCLUDED IN IT A TRUE NIBBLE COPIER. IT'S AVAILABLE TO YOU FOR ONLY \$20 INSTEAD OF THE \$39.95 LIST PRICE

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