

# PUT SYNCHROMESH IN HIGH GEAR

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The INDUS GT disk drive for the Atari is capable of reading disk data at 2 to 4 times the speed of other disk drives. However, the software supplied with it takes so long to load in, that any advantage is lost. This article describes a procedure for making a boot-load Synchronesh disk for the INDUS which loads in just a few seconds. With this disk, Synchronesh is more practical. The Synchronesh software is supplied as part of DOS XL 2.35I. In order to engage Synchronesh, you must boot load the DOS XL 2.35I disk at power up time.

This load takes about 50 seconds, enough time to raid the refrigerator and still be back before the beeps and chirps have stopped. Once loaded, Synchronesh reads disk files very quickly. For example, a 204 sector file reads in 17 seconds. By contrast, DOS 2.0 loads in 8 seconds. However, that same 204 sector file requires 56 seconds. Now it might seem as if DOS 2.0 is incredibly slow, but if you compare the total boot plus loadtimes of both approaches, you'll find them about the same...they're both slow!

The ideal situation, of course, would be to speed up the boot time of Synchronesh so that the boot plus load time is greatly reduced compared to DOS 2.0. The steps about to be described reduce the Synchronesh boot time from 50 to 19 seconds.

Here are the tools you'll need to create your speedy Synchronesh disk:

1. Two blank disks
2. The DOS XL 2.35I System Master Diskette supplied with Synchronesh
3. A utility capable of modifying single bytes on a disk sector. Examples are DISKSCAN, OMNIMON, and DISKEY.
4. To speed up the boot process a little more, an optional step requires the use of the Archiver/Editor/Chip or Happy Enhancement and a sector copier utility.

Step 1 is to boot the DOS XL 2.35I diskette described in item 2. This is the 50 second refrigerator break boot. So go enjoy an apple while you wait. Next, type I while the DOS XL disk is still in the drive. This is the "Initialize Disk"

command. Now insert the first blank disk. Type the number "1" to "Format Disk Only". When formatting is complete, type number "4" to "Reformat Boot Tracks Only". This is followed by "3", "Write DOS.SYS Only". The last step in this sequence is "5", "Return to DOS XL".

While this disk is still in the drive, type "X" for the "Xtended Command". Type in the following when prompted for Command:

```
"TYPE E: STARTUP.EXC".
```

This allows you to create the startup file. When you hit return, the screen goes blank. Type in the following:

```
NOSCREEN
GTSYNC ON
DO CARTRIDGE;RUN "D:MENU.BAS"
SCREEN
END
control and lower case 3
```

This takes you back to the main menu. Swap back to the DOS XL 2.35I diskette. You now need to copy two files from this disk. Press "C" for "Copy Files". The "From File" is GTSYNC.COM. The "To File" is also GTSYNC.COM. Answer the "Single Drive" question with a "Yes". Follow the screen directions to copy the file from DOS XL 2.35I to the disk on which you wrote the "STARTUP.EXC" file. Repeat this same procedure to copy "DO.COM" to your disk.

The next step reduces the number of drives checked by Synchronesh. At this point, boot in your utility for modifying disk sectors. Use the utility to find the starting sector of the GTSYNC.COM file. The starting sector is probably 003A hex (58 decimal). Modify byte 3A of the second sector of GTSYNC.COM to be one more than the number of drives you want to check. For instance, if you want to check for two drives, plug in 03 at byte 3A. The location you just changed should have read 09 (one more than the 8 drives Synchronesh checks) prior to the change. If the procedures to this point were followed exactly, the second sector will probably be 003B hex (59 decimal). The value 09 is in sector 003B at byte 3A. Now write your modification to the disk using the utility. At this point, Synchronesh will boot in 27 seconds.

The next step is optional. Using it will cut another 8 seconds off the boot time. This step involves reformatting tracks 0,1,2,3 and 4, but you will need the Archiver/Editor/Chip or the Happy Enhancement to do the job. The first step is to use DOS XL 2.35I to format the second disk (which is now blank). Use the I function to Initialize the disk with DOS XL 2.35I still in the drive (same as before). On the menu, select Option 1 (Format Disk Only). Swap disks and insert the blank disk. Be very careful not to wipe out all your work to this point by inserting the wrong disk! You might want to label the first disk "Super Synchronesh" and the second disk "Scratch" or "Temp". Finish formatting the "Temp" disk using Option 5. You do not have to use Options 3 and 4 as you did in creating "Super Synchronesh". Boot in your sector copier utility. Set it to copy tracks 0,1,2,3 and 4 from the "Super Synchronesh" disk to the "Temp"

disk. Boot in your Archiver or Happysoftware and set it up to process only tracks 0,1,2,3 and 4. Insert the "Super Synchronesh" disk in the drive. Go to the formatter feature and set the formatter for the following sequence:

```
11 0F 0D 0B 09 07 03 01 12 10 0E 0C 0A 08 06 04 02
```

Format tracks 0 through 4.

Reboot your sector copier utility. Copy tracks 0 through 4 from the "Temp" disk to the "Super Synchronesh" disk. Your "Super Synchronesh" disk will now boot in 19 seconds.

The STARTUP.EXC file that you created transfers control to BASIC and runs a program called "D:MENU.BAS". You may change this file to meet your needs.

To use your new "Super Synchronesh" disk, your best bet would be to writeprotect this copy and use Archiver or Happy to make future copies. Adding your software to these copies gives you fast "boot and go" disks.