HIGH PERFORMANCE OS-9 DRIVERS AND
UTILITIES FOR THE TANDY COLOR COMPUTER 3
WITH HARD DISK BOOT SYSTEM

Copyright (C) 1989 by
RGB Computer Systems
All Rights Reserved.

No part of this software or documentation may be copied, loaned, uploaded
to a BBS or "borrowed" by a club. Each file on the disk and the disk itself
contains an encoded serial number, registered to the LEGAL purchaser of the
RGB distribution disk.

A LOT of hard work has gone into writing good drivers and we WILL prosecute
if this work is stolen. However, we encourage you to make your own copies
for PERSONAL backup protection.

The software supplied on this disk is for OS-9 Level 2 and the Color
Computer 3 only. Some of the utilities and drivers on this disk MAY work
with OS-9 Level 1 and/or the Color Computer 2, but we do NOT support it and
we do NOT guarantee it. This software is sold AS-IS, with no warranty
either expressed or implied.

Although these drivers and descriptors support all popular hard disk
INTERFACES, they may not support all hard disk CONTROLLERS. These are SCSI
drivers and they are meant to be used with modern SCSI devices. The drivers
do NOT support outdated SASI controllers and/or PC-BUS controllers. The
drivers will probably not work with surplus, used, refurbished or bargain
flea market hard disks or controllers.
GETTING STARTED...

The RGB Computer Systems OS-9 Drivers and Utilities disk has been specially formatted to allow storing both Disk Basic and OS-9 information on it. For this reason, it is necessary to make any backup copies using the "BACKUP" command IN DISK BASIC. If you attempt to backup this disk using OS-9, you will actually only backup the OS-9 portion and NOT the Disk Basic portion.

Before proceeding, make a backup copy of the distribution disk and put the ORIGINAL away in a safe place.

Do this by starting with a blank, formatted floppy disk (formatted in Basic OR OS-9 is OK). Insert the RGB distribution disk into drive zero and the blank, formatted disk into drive one. Type in the command: BACKUP 0 TO 1 press <enter>. If you have only one disk drive, type in this command: BACKUP 0 press <enter> and follow the prompts to switch disks.

It might be a good idea to place a write protect tab on the ORIGINAL RGB distribution disk, but do not use one on the WORKING copy since the installation software does write some information to disk. The installation program will not work if a write protect tab is installed on the disk.
SOME INFORMATION...

There are really TWO separate things which need to be done. The first is, of course, to get the hard disk up and running in OS-9. This can be done either by manually loading the hard disk device driver and descriptor(s) into memory and then COBBLER a new boot disk, or by adding the device driver and descriptors into your MODULES directory of the config disk and then running the CONFIG utility to generate a new boot disk. Since all the information necessary to make a boot disk is given in the OS-9 Level 2 manual, we will not repeat it here.

It is important to note here that the hard disk drive must have been already formatted in Disk Basic to continue. The reason for this is that the Basic formatter does all the "dirty work" of formatting, looking for bad sectors and finally mapping out any defective sectors found. At this point, the hard disk is fully formatted, error checked and blank. In order for OS-9 to recognize the hard disk, it must be formatted using the OS-9 FORMAT program. The FORMAT program will NOT do another physical format since this has already been done in Basic. What it WILL do is set up your Identification Sector (LSN0) and build the Allocation Bit Map (LSN1 to LSNxx). What this means is that you will be setting up your root directory (/H0 and/or /D0). The hard disk will not be usable in OS-9 until the root directory is set up by the FORMAT command (in OS-9). Until the OS-9 portion of the hard disk is set up, it will probably return an error #218 which means simply that the disk has no attributes at all and therefore you have "no permission" to use it.

Since all media defects were found and removed by the Basic formatter, it is NOT necessary to have the FORMAT command do the "Physical Verify" since this will simply find zero errors. It won't HURT to do it, it will just waste your time.

After "formatting" the hard disk for OS-9, you should next copy your OS-9 Level 2 system master to the hard disk. Also copy any other OS-9 programs and utilities you may have, including the RGB distribution disk itself. Use the DSAVE command. You cannot use BACKUP since the floppy disks are, of course, a different SIZE than the hard drive and the BACKUP command will fail. Instructions for using DSAVE are given in the OS-9 Level 2 users manual.
WHAT'S NEXT, CONTINUED...

Insert your backup copy of the RGB distribution disk into drive zero and type RUN "LINK" press <enter>. The program will ask you which drive the OS-9 disk is backed up onto. Type 50 (or whatever drive number YOU used) and press <enter>. The OS-9 hard drive boot disk will be linked into OS-9 automatically.

To boot up OS-9 Level 2 directly from hard disk, you now need only to type the command DOS 50 (or whatever drive number YOU used), press <enter> and you will boot directly into OS-9 from hard disk.

NOTE: You must have a RUNNING, WORKING OS-9 hard disk (with CMDS directory, a SHELL, GRFDRV and all other support modules on hard disk FIRST). If you have DS SAVE'd your Level 2 system master to hard disk, then you DO have all the proper modules. Be SURE that the attributes of SHELL are set for Execute and Public Execute (ATTR SHELL E PE). OS-9 boot will fail if these attributes are not set properly!

NOTE: This installation procedure needs to be done only once. The new hard disk boot modules will "replicate" themselves onto each boot disk you make. Making a new boot disk is just as easy as before. Simply OS9GEN, COBBLER or CONFIG a new boot floppy, back it up to any "drive" on the hard disk. Finally, run "LINK.BAS" to install the new boot on the OS-9 disk. YOU MUST re-run "LINK.BAS" EACH TIME you change, move or update your boot disk since the SIZE and/or LOCATION of the OS9Boot file may change, and OS-9 needs to be informed of these changes.

Lastly... When making boot disks for a friend, be SURE to boot up using a backup copy of the ORIGINAL TANDY OS-9 DISK. This is so that you have a FLOPPY BOOT in memory when you generate the new boot disk. Otherwise, you will generate a hard drive bootable disk which will be useless to your friend (unless he, too has a hard disk... with the same interface YOU have).

That's all, folks! If you have any questions, complaints or suggestions, please feel free to call:

KEN-TON ELECTRONICS, INC.
187 GREENACRES ROAD
TONAWANDA, NEW YORK 14150
(716) 837-9168

Dealer NAME HERE.