Reading and Writing Color Computer OS-9™ Disks
on GIMIX OS-9 Systems

Because of differences in disk formats, OS-9 disks formatted for the TRS-80® Color Computer are not directly interchangeable with OS-9 GMX I, II, or III disks. However, the GIMIX DMA floppy disk driver (G68) edition 9 or later is capable of reading and writing Color Computer compatible disks when used with special Devices Descriptors. If a copy of the Color Computer "FORMAT" utility is available, it is also possible to format CoCo compatible disks with a GIMIX system. Note: In order to format or write CoCo compatible disks, the system must include at least one 40 track (48 TPI) drive. If only 80 track (96 TPI) drives are available, the disks can be read but not formatted or written.

In order to read or write (40 track drives only) CoCo compatible disks the appropriate special Device Descriptor file (see below) must be loaded into memory using the OS-9 "LOAD" command. Once the descriptors are present in memory, CoCo disks can be accessed by referencing the appropriate device name in a path list. If you wish to include the ability to read CoCo disks on a more permanent basis, the descriptors for one or more CoCo drives can be included in the OS9Boot file using OS9Gen. (Individual descriptors can be obtained by loading the descriptor file and using "SAVE" to copy the desired descriptors to separate files.) Note: The inclusion of the special descriptors does not affect the ability to read standard format disks in the same drive(s). It is possible to switch between standard and CoCo formats in the same drive, simply by referencing the appropriate Device Descriptor.

Device Descriptors

The CMDS directory of the GIMIX OS-9 system disk contains two special Device Descriptor files. The file "rs.540" contains four descriptors (rs0, rs1, rs2, and rs3) for use with 40 track (48 TPI) drives. The file "rs.580" contains four similar descriptors for use with 80 track (96 TPI) drives.

In order for the disk driver to distinguish between standard and CoCo format disks, a previously undefined bit (bit 7) in the Device Descriptors density field (IT.DNS, at offset $16) is used. If this bit is set (1) the driver assumes a CoCo format disk and performs the necessary conversions internally. The remainder of the descriptor follows the standard format as described in the Color Computer and Microware OS-9 manuals.

Formatting CoCo compatible disks

The special Device Descriptors used to read/write CoCo format disks can also be used to format blank disks with the CoCo format. In order to format disks, a copy of the Color Computer "FORMAT" program must be used in place of the standard GIMIX/OS-9 formatter. Note: The Device Descriptors provided generate disks with the standard CoCo format (Single-side, Double-density, 35 track).

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1   Revision B