North Star DOS for North Star Horizon Computer

Disk Image Files (double density controller)

NSDOS-50-SSDD.NSI – North Star DOS 5.0 double-density disk image. Includes BASIC, floating point BASIC, and monitors. Drives are always single-sided, slow stepping.

NSDOS-51-SSDD.NSI – North Star DOS 5.1DQ double-density disk image. Includes BASIC, floating point BASIC, and monitors. Drives are configured as single-sided, slow stepping.

NSDOS-51-DSDD.NSI – North Star DOS 5.1DQ quad-density disk image. Includes BASIC, floating point BASIC, and monitors. Drives are configured as double-sided, fast stepping.

NSDOS-52-SSDD.NSI – North Star DOS 5.2DQ double-density disk image. Configured to load at 0100h instead of 2000h. Includes BASIC, floating point BASIC, monitors, RAM test and the MOVER utility for relocating DOS. Drives are configured as single-sided, slow stepping.

NSDOS-52-DSDD.NSI – North Star DOS 5.2DQ quad-density disk image. Configured to load at 0100h instead of 2000h. Includes BASIC, floating point BASIC, monitors, RAM test and the MOVER utility for relocating DOS. Drives are configured as double-sided, fast stepping.

Single-Sided versus Double-Sided Versions of DOS

North Star DOS versions 5.1 and 5.2 support double-sided and fast-stepping drives. The DSDD configuration is referred to as quad-density. A new personalization byte, CONFG, was added at offset 34h in the DOS image (typically 2034h or 0134h in RAM) to provide DOS information about each of the four possible drives in the system. This byte can also be found at offset 834h in the disk image file.

1) The upper four bits tell which drives are double-sided. Bits 7 down through 4 correspond to drives 1 up through 4, respectively. The corresponding bit should be 0 for single-sided drives and 1 for double-sided drives.
2) The lower four bits enable faster stepping between tracks. The slow step is about 40ms per step, the fast step is about 5ms per step. Bits 0 up through 3 correspond to drives 1 up through 4, respectively. The corresponding bit should be 0 for slow stepping drives, 1 for fast stepping drives.

For example, a CONFG byte of FFh configures all four drives as double-sided and fast stepping, and a CONFG byte of 00h configures all four drives as single-sided and slow stepping. As a final example, a CONFG byte of C1h configures drive 1 as double-sided, fast stepping, drive 2 as double-sided, slow stepping, and drives 3 and 4 as single-sided, slow stepping.