CP/M for North Star DD controller running on a Sol-20.

Disk Image Files

CPM 223DQ-24K-SSDD.NSI – this is an image of an original, single sided distribution disk of Lifeboat CP/M 2.23DQ for the North Star DD controller. The console type byte at offset 20h (120h in memory) in the file CONFIG.COM has been set to 81h for Sol-20 console I/O. This disk was made from Dave Dunfield's image file " C223A_24.NSI" which has the console type byte in CONFIG.COM set to 83h for the Horizon computer.

CPM 223DQ-48K-SSDD.NSI– this is a single-sided image of Lifeboat CP/M 2.23DQ with the user area patched for optimum Sol-20 I/O. The console I/O does not have the CR return problem of that found in version 2.22DQ and the DEL key provides normal destructive backspace. A customized MOVCPM is included to size CP/M for different amounts of RAM (run MOVCPM followed by SYSGEN). This image also includes the utilities PCGET and PCPUT for loading and saving files between the CP/M system and a PC along with Word Master configured for use on the Sol-20.

CPM 223DQ-48K-DSDD.NSI – double sided version of CPM 223DQ-48K-SS.NSI.

SOLGAMES-SSDD.NSI – this is a single-sided 48K CP/M disk with a number of popular Sol-20 games. Most of the programs are the original version, but each with a CP/M compatible loader at the start of the file to allow them to be launched from the CP/M command line. Since most of these games clobber page zero of memory, a computer reset and cold boot of CP/M is typically required to re-enter CP/M after playing a game.

Also on this disk is the PCGET utility to make it easy to retrieve other games from a PC via the serial port. The STAT utility is present to allow determination of disk free space. Finally, the program RUNENT can be used to run ".ENT" files, a popular archive format used to store Sol-20 programs on a PC. This version of RUNENT has been modified to assume a default file extension of ".ENT", to display only addresses as the ENT file loads instead of the entire file (speeds up the load process), and to automatically set the run address to the first address in the .ENT file if the run address is not specified on the command line.

Source Files

CBIOS.ASM – this is a disassembly by (Jim Battle?) of Lifeboat CP/M 2.22DQ for the North Star DD controller. The user area is patched with console I/O code for the Sol-20. This version of the Sol-20 console code deletes the command line from the screen when return is pressed (still works, the line just disappears) and the DEL key echos the deleted character teletype-style instead of a destructive backspace.

SOLIO.ASM – source code for the user area as patched in the two 48K CP/M images listed above.

Rebuilding CP/M

The customized MOVCPM on the 48K images above generates a ready to run system for the Sol-20. Note, however, that the unmodified MOVCPM on the original 24K image has no console I/O configured. Before using SYSGEN to write the CP/M image to the boot tracks, be sure to either:

1) Patch the user I/O area with SOLIO.HEX (see the SOLIO.ASM header for instructions), or

2) Verify the file CONFIG.COM is on the disk. In these disk image, this file already has the console type byte set to 81h for the Sol-20.