PC2Flop and Flop2PC (Micropolis Controller in Poly-88)

PC2Flop writes a Micropolis floppy disk with a disk image transmitted from a PC. Flop2PC saves an image of a Micropolis floppy disk to a PC. The disk image is transferred through the Poly-88 serial port using the XMODEM CRC or checksum protocol. The image is read or written directly from/to the floppy in raw format (270 bytes per sector, 16 sectors per track, 35 or 77 tracks).

The Poly-88 can only run the disk images found in the Poly-88 directories, it cannot run other Micropolis disk images (e.g., Vector Graphic versions).

By default, the Printer serial port at 9600 baud is used for disk image transfer. To use the Cassette serial port or to change the baud rate, use the SB (Set Baud Rate) command in Polex prior to loading the program or booting CP/M. For example, “SB 0D” selects the cassette port (zero in the MS nibble) at 4800 baud (D in the LS nibble).

These programs run standalone at 0x100 or under CP/M. Standalone operation may be required to create a bootable disk when no other bootable disk is available. Use the HL (Hex Load) command in Polex to load PC2FLOP.HEX, then type EX 100 to run the program. To prevent over-run during the hex load, use the “don’t echo” parameter (zero) on the Polex command line, e.g., “HL 0”.

When copying a disk image to the PC (Flop2PC), the program attempts several retries, including restoring the track both from zero and from past the current track. If the read still fails, the error is noted and the copy process continues so that the remainder of the disk can still be recovered.

The disk image format matches the Vector Graphic Image (VGI) format defined by Howard Harte for his VG work on the Simh emulator. Each sector in the PC file is 275 bytes in length, organized as follows:

Length	Content
1	Sync byte (always 0xff)
1	Track number (0-76)
1	Sector number (0-15)
266	Sector data payload (CP/M uses last 256 bytes of this)
1	Checksum
4	ECC for HD-FD controller (not used by floppy)
1	ECC valid flag (not used by floppy)