

CP/M on the Altair 8800

There is conflicting information as to the date of first commercial version of CP/M for the Altair 8800, but we know for sure that CP/M 1.4 was available for the Altair in 1979 from Lifeboat Associates as “CP/M 1.41.”

(Lifeboat CP/M 1.41 for the Altair can be found in the “CPM 1.4” folder)

In 1980, the “Burcon” computer store in Houston released CP/M 2.2 for the Altair. The Burcon BIOS is simply the Lifeboat 1.41 BIOS modified with the few changes required to support CP/M 2.2. Primarily, this involved moving the disk parameter tables and interleave table/lookup out of the BDOS interface section and into the BIOS. The original release was sized for a 60K system (though it reported the size as 59K) and a MOVCPM was not created. The release did not support Lifeboat’s CONFIG utility, and as such, the USER area (console, reader, punch, and list I/O) was hard coded for Altair boards. To save space, the USER area was moved off of a page boundary and butted up against the preceding end of code. This had the affect of moving the MODE byte, normally one location prior to the USER area, and therefore at an offset of xxFFh, to an offset of xx59h. This left the MODE byte hard to find and to use. All of these things point to Burcon CP/M being just an end user getting CP/M 2.2 up and running on the Altair rather than being a formal, commercial distribution of CP/M.

Unfortunately, due to the fact that no active Altair hobbyist had a copy of the Lifeboat release of CP/M 2.2 (see next paragraph), the Burcon release has been the only original CP/M 2.2 that Altair hobbyists have had for the last couple of decades. To expand the number of Altair systems that could run Burcon CP/M, I disassembled the Burcon BIOS to recreate the source and also created a MOVCPM for it. The MOVCPM found on the Burcon disks is the one I created – not an original.

(Burcon CP/M 2.2 for the Altair can be found in the “CPM 2.2→Burcon CPM” folder)

Lifeboat CP/M 2.2 for the Altair was released in 1981. This was the typical full-featured CP/M distribution provided by Lifeboat. It provided several improvements over Burcon CP/M including IOBYTE support, MOVCPM, and a variety of support utilities including CONFIG and support for the USER area. Unfortunately, no active Altair hobbyist has had a copy of this disk for the last couple of decades – though it was clear the release existed. Luckily, the distribution disk showed up twice in 2020 as part of two unrelated eBay listings for random disks, so we now have Lifeboat CP/M 2.2 for the Altair archived.

Lifeboat CP/M 2.2 for the Altair can be found in the “CPM 2.2→Lifeboat CPM” folder

Modern Day Versions of CP/M for the Altair 8800

CP/M 2.2b is a track buffered CP/M offering substantial speed improvements over the original CP/M versions while at the same time remaining fully compatible with original disks.

(CP/M 2.2b for the Altair can be found in the “CPM 2.2→CPM 2.2B” folder)

CP/M 2.2AT is a track buffered CP/M connecting to drives A & B through the Altair floppy controller and to drives C & D through the Tarbell controller.

(CP/M 2.2AT for the Altair can be found in the “CPM 2.2→CPM 2.2AT” folder)

The Altair FDC+ can make high density 5.25" floppy drives and 8" DSDD drives work as 1.5Mb drives. A version of CP/M to support these 1.5Mb drives is available up one directory level from this .pdf file in the "1.5mb_floppy" folder in the Altair software download area.

(1.5Mb CP/M 2.2 for the Altair can be found in the "Altair→Software→1.5mb_floppy" folder)

CP/M 2.2 for 8Mb Serial Disks supports 8Mb drives on drives A & B along with standard Altair floppy drives on drives C & D. The drives are hosted on the serial disk server supported by the Altair FDC+ board. The 8Mb drive looks like a standard Altair floppy drive but with 2048 tracks instead of 77 tracks.

(8Mb CP/M 2.2 for the Altair can be found in the "CPM 2.2→FDC+ 8Mb CPM 2.2" folder)

CP/M 3 for the Altair (unbanked)

(CP/M 3 for the Altair can be found in the "CPM 3.0" folder)