

Mini-M68k and KISS-68030 BIOS

Release Notes

Version 10.1

2016-04-28:

File: bios68.tar.gz 8mb

Contents: .rom files for Mini and Kiss boards in 128k and 512k sizes
full source code to make BIOS, CP/M-68, CPM ROM images
all of the CP/M-68 files I can find, too may for ROM, but transferable to a CP/M partition

License: GNU General Public License version 3 or later.

A copy of the license is contained in the file 'copying' in the source directory, and is also available from "<http://www.gnu.org/licenses/>"

The software is licensed for hobbyist use on the RetroBrew Mini-M68k and KISS-68030 CPU boards.

Copyright:

John R. Coffman 2011-2016

William R. Sowerbutts 2016

ChaN 2015

Digital Research 1982,1984

Requirements: Mini-M68k or KISS-68030 CPU and memory board

Multifunction/PIC board for console, RTC, NVRAM, and PPIDE (8255).

Minimum memory:

Mini: 1mb, more if RAMdisk is desired

KISS: 16mb; Linux requires 32mb

Compact Flash card and IDE-CF adapter for external storage.

CP/M – 16mb or larger card suggested.

Linux – 8Gb or larger card required.

Optional (BIOS supported):

Dual IDE board (IDE portion only)

DiskIO v2 board (IDE portion only)

Dual SD (planned)

New:

1. The binaries are made in a Linux environment in ELF format.
2. The KISS ROM is able to boot Linux from Will's distro.
3. Both ROMs contain CP/M-68, like the older Mini-M68k BIOS
4. The ChaN file system support for FAT16 and FAT32.
5. Able to load and execute binary files in multiple formats: .ELF, CPM: .68K and .SYS in addition to .OUT (coff)
6. Executes text command files: .CMD
7. full 'help' built-in command.

Organization (directories):

2016-04-28 – contains .ROM images and .MAP files
cpm68e – CP/M-68 source code
rom – makefile for creating various size CP/M ROM images
ROM?? – levels of CP/M utilities
DISK – all of the CP/M-68 stuff I can find on the 'net
bios-10n – bios source code and makefile

Making:

You will need Will's distro of the cross-development compiler for 68000 on Linux.

1. Make CP/M-68 in 3 versions: 68000, 68010, and 68020/68030
 - cd cpm68e
 - make new
 - make all
2. Make ROMdisk images
 - cd cpm68e/rom
 - make clean
 - make
3. Make BIOS and burnable .ROM files
 - cd bios-10n
 - make spotless
 - make RETAIL=1 KISS=1
 - make clean
 - make RETAIL=1 MINI=1
 - make clean
 - N.B. CPU board specification is obvious. RETAIL=1 suppresses making the Debug version of the ROM. If the RETAIL specification is omitted, only a 128k debug version of the ROM is created. NOT all CP/M utilities will be available due to truncation of the CP/M file system.

Disclaimer:

This release retains one known CP/M bug, which existed in the earlier Mini-M68k BIOS release; namely, the RAMdisk is not accessible until a CF card drive has been activated.

Will's 'autoboot' mode using a timeout to boot 68030 Linux is omitted while timer codes are being revisited. It is suggested that his "BOOT.COMD" be renamed "BOOT" or simply "B" to make starting Linux quick and easy. Linux may always be started by typing the full (and tedious) "vmlinux root=..." command line.