Read Me

The Following Files are supplied in the ZIP folder.

Root FOLDER

1. Read Me.pdf

FOLDER: Simulator

This folder contains the Basic Simulator program, support HEX files and instructions to run the simulator. The Basic, HEX and disk DAT files should be placed in the root directory of the CMM2 SD card.

1. **Z80SimCMM2.pdf**. Manual/Instructions.
2. **Z80CPM22.bas**. The main MMBasic source file
3. **Z80Sim_CSUB.INC** (the CFunction)
4. **BDOS.HEX**
5. **BIOS.HEX**
6. **CCP.HEX**
7. **CPM_Disk_A.dat**. The CP/M disk A loaded with relevant CP/M files that would be normally supplied with CP/M. It also contains the file EXPORT.COM for exporting files to the CMM2 SD card (note it will also copy files but the CP/M PIP.COM program is best for copying files within CP/M).
8. **CPM_Disk_B.dat** contains some Basic and assembly files that can be run.

FOLDER: Simulator\Source

1. **Z80Sim.c**. The source file for the CFunction CSim,
2. **OS2CCP.asm** is the original 8080 Console Command Processor source that has the OPTIONS \8080 \REG_SUB statement added to ensure correct assembly.
3. **OS2BDOS.asm** is the original 8080 Basic Disk Operating System source that has the OPTIONS \8080 \REG_SUB statement added to ensure correct assembly. There was a minor corruption on line 356 which was corrected and noted.
4. **CBIOS.asm** is an adaption of Digital Research's Skeletal Basic Input/Output System source as detailed in Appendix B of Digital Research CP/M Operating Manual (1983) that has the OPTIONS \8080 \REG_SUB statement added to ensure correct assembly
5. **Export.asm**. This code can be used to export a CP/M file to the CMM2 SD card.

FOLDER: Assembler

1. **Z80MacAss.pdf**. Manual/Instructions.
2. **Z80 Assembler.exe**. Windows Console assembler for the Z80
3. **MacManualASM.asm**. Test routines to check generated code is compliant with Digital Research manual examples.

4. **MacManLib.asm**. A Macro Library file that is used with MacManualASM.asm.

FOLDER: Demo Programs\ASM

1. **Clock.asm**. This is the assembly program for the analogue clock. It demonstrates how an assembly program can link back to MMBasic and the use of an in-line macro to generate tables. The assembled program has been converted to a COM file using the CP/M LOAD.COM and placed on the CP/M Disk B:
2. **SpeedTst.asm** is an assembly source file to approximately calculate the speed of the simulator.
3. **SpeedTst.hex** is the assembled hex file of the above that has its start address (ORG) at 0H so if placed in the root directory of the CMM2 SD card can be run directly from the main simulator panel using the LOAD HEX button.
4. **MBETime.asm** is an assembly source file with ORG set to 0D000h that creates the elapsed timing interface between the simulator and some Microsoft Basic programs. Depending on the setting of CALL_USAGE or USR_USAGE the created hex code can be interfaced to the Microsoft CALL or USR functions (see below). The generated HEX code (minus address and checksum etc data) has been pasted as DATA statements into the Basic programs of MBCALL.BAS and MBUSR,BAS.

FOLDER: Demo Programs\MBasic

1. **MBCall.bas** source file is a Microsoft Basic source file that is based on the TBS speed Benchmark program that also demonstrates the Microsoft Call function to get elapsed time from the Z80 Simulator to measure the program timings.
2. **MBUSR.bas** source file is a Microsoft Basic source file that is based on the TBS speed Benchmark program that also demonstrates the Microsoft USR function to get elapsed time from the Z80 Simulator to measure the program timings.
3. **MBComp.bas** is a Microsoft Basic source file that is based on the TBS speed Benchmark program that demonstrates obtaining the Z80 Simulator millisecond counter to measure the program timings. This program can be compiled using Microsoft BASCOM.COM and linked with L80.COM.

Notes

1. The Unofficial CP/M Web ,under Digital Research Source Code/CPM 2.2/CP/M Original Source is where the CP/M source files where obtained.
2. The Microsoft Basic interpreter, compiler and linker were obtained from this site. These are not provided as there is no details on their current licence status.