

## 1. Burn PROM

The Boot Monitor is supplied as a SRecord file and should be burnt at address \$FC0000 as per the standard 68030 monitor..

## 2. Console selection

The Boot Monitor can utilise either the Propeller Console board or the USB port on the Serial I/O board as the system console. The selected console is determined by the two least significant bit of IO Port \$00EF which corresponds to the IOByte DIP switch on the System Monitor Board.

\$0 Serial I/O Board, USB port.

\$1 Serial I/O Board, Serial Port 1 (9600N81)

\$2 Propeller Board

\$3 Serial I/O Board, USB port if present, otherwise, Propeller Board.

If the System Monitor Board is not present, the IO Port should read as \$FF.

## 3. Use

When booted, the Boot Monitor should display something similar to:

```
S100 68030 Boot Monitor V0.3.0.R6
Damian Wildie, 11/05/2021

A: TOSHIBA THNCF256MDG
  Sectors: 0007A400
  Partition Start      End      Sectors  Id   Type
  [0]*      00000800    0004B7FF 0004B000 5F   Cromix
  [1]      0004B800    0006B800 00020001 52   CP/M
B: CF 256MB
  Sectors: 0007D600
  Partition Start      End      Sectors  Id   Type
  [0]*      00000800    0007D5FF 0007CE00 5F   Cromix

A:0$ █
```

It will display information from any CF cards present in the IDE/CF Board including the MBR partition table.

The screenshot above shows two CF cards:

A Has two partitions, one Cromix and one CP/M

B Has a single Cromix partition.

The prompt identifies the currently selected CF card and partition, in this case CF Card A, Partition 0.

A different CF Card can be selected by specifying the card's letter followed by a colon.

A different partition on the current card can be selected using the *part* command.

```

A:1$
A:1$ b:
B:0$ a:
A:1$ part 0
A:0$

```

To view the contents of a partition, use the *dir* or *ls* commands.

For a Cromix partition, the emulated ST drive's geometry and the content's of the root directory are displayed. It is not possible to view the contents of sub directories.

```

A:0$ dir
Drive geometry:
  cylinders:    1225
  sectors/track: 20
  surfaces:      11
  bytes/sector: 512
  start cylinder: 1
  first fs block: 0x8dc

    51 D   11:50:30  9/10/1987  etc
   103 D   11:46:47  9/10/1987  bin
    19 D   11:49:01  9/10/1987  cmd
   132 D   11:49:10  9/10/1987  dev
     8 D   11:50:23  9/10/1987  equ
  91544 F   17:07:11 14/04/2021  cromix.sys
    12 D   11:51:55  9/10/1987  usr
    16 D   11:51:11  9/10/1987  gen
     1 D   04:05:49 21/11/1997  tmp
     0 F   15:26:07 16/05/2020  floppy
     0 F   07:02:45 22/12/2020  ide

A:0$ █

```

For a CP/M directory, all files are displayed.

```

A:0$ part 1
A:1$ dir
CP/M directory listing for drive A

0:LABEL.TXT           128
0:AR68.REL           39296
0:AS68INIT.           6400
0:AS68.REL           50560
0:ASSERT.H            384
0:BIOSTYPS.H          768
0:C068.REL           53760
0:C168.REL           46592
0:CE.SUB              256
0:CLIB.              37120
0:CLINKE.SUB          128
0:CLINKF.SUB          128
0:CLINK.SUB           128
0:CONFIG.REL          32128
0:COPY.REL            39424
0:CP68.REL            52992
0:CPMLIB.             8192
0:CPM.REL             61824
0:CTYPE.H             1792
0:ERRNO.H             1024
0:C.SUB              256
0:LOADBIOS.H          384
0:DDT10.REL           3584
0:DDT68000.68K        55168
0:DDT68010.68K        56320
0:DDT.REL             3584

```

To view the available commands, use the *help* command:

```
A:0$ help

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Available commands:
a          : Select drive A
b          : Select drive B
cas        : Show the cache control register
cai        : Enable the address cache
cdi        : Enable the data cache
console <[A|B|P|U]> : Set the console device
boot <file> : Load CP/M S-Record <file> into memory and execute
cromix <file> : Load cromix.sys S-Record <file> into memory and execute
dir        : Display directory of current drive
def        : Display the CPM disk definition
error      : Read the error register of the current drive
fdisk      : Display the current drive's MBR partition table
help       : Display the list of commands
id         : Display the drive's id info
init       : Initialise the current IDE drive
irqm       : Display or set the IRQ mask
irqc       : Display the IRQ counts
irqz       : Zero the IRQ counts
key        : Display key strokes as ASCII, terminated by new line
lba <val>  : Set selected drive's LBA value
mbr        : Read the current drive's MBR partition table
mem <addr> <len> : Display <len> bytes starting at <addr>
u          : Read the next memory block
i          : Read the previous memory block
part <partId> : Select partition <partId>
pin <port>    : Read from portNo
pout <port> <byte> : Write byte to portNo
read <lba>    : Read and display the drive sector at <lba>
>           : Increment LBA, read and display the drive sector
<           : Decrement LBA, read and display the drive sector
regs        : Display the registers
scmd <[A|B]> Reg Val : Send Val to register Reg for port A, B
sinit <[A|B]>      : Initialise serial port A or B
sloop <[A|B|U]>    : Loopback serial port A, B or USB
sout <[A|B|U]>     : Console out to serial port A, B or USB
sstat <[A|B|U]>    : Get the status of serial port A, B or USB
sreset      : Reset both serial ports
ssp <addr>      : Set the stack pointer to <addr> and restart
stack       : Test the stack
status      : Read the status register of the current drive
testb <addr> <len> : Memory test <len> bytes starting at <addr>
testd <addr> <len> : Memory test <len> double words starting at <addr>
testf <addr> <len> : Memory fast test <len> double words starting at <addr>

A:0$
```