MASTER 512 RELEASE NOTICE

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1. Introduction

This release notice accompanies version 1.00 of the bundled software supplied with the Master 512. It covers undocumented features of the system software, unsupported utilities supplied on Disk 4, and any known problems with the software and documentation.

2. Undocumented Commands

The following commands are included on Disc 1 but are not documented in the User Guide:

2.1 BYE

Use the BYE command to park the heads on your hard disc before switching it off.

Syntax:

BYE

Explanation:

To prolong the life of your hard disc you should issue this command before switching off. The result is the disc drive heads are moved to a special parking zone on the disc. If you do not issue this command the drive heads can come to rest anywhere, potentially causing damage. This command need not be used on floppy only systems.

Example:

```
C>BYE
```

2.2 CHKDSK

Check the integrity of a DOS disk.

Syntax:

CHKDSK {d:}

Explanation:

This command will check a DOS disk and give you information on how the space is being used. If any faults are uncovered then CHKDSK can also be used to fix these.

Example:

```
A>CHKDSK C:
10,592,596 bytes total disk space
    65,536 bytes in 5 hidden files
   167,936 bytes in 41 directories
10,227,712 bytes in 846 user files
   131,072 bytes available on disk
```

2.3 MEMDISK

Installs a Memory Disk as drive M.

Syntax:

MEMDISK {n}

Explanation:

The MEMDISK command tells DOS Plus you want to set aside some of your memory to be a very fast disk. This is sometimes known as a RAM disk. When you have installed a Memory Disk you can use drive M as you would any other disk.

The default disk size is 128k but you can specify other sizes, always assuming you have enough free memory. BACKG will tell you how much you have free but remember you will need some to run programs. MEMDISK will not accept values that leave you with no free memory but remember that some applications (eg. GEM), require all the memory and you cannot have even a small Memory Disk.

Example:

A>MEMDISK 160

Creates a 160k Memory Disk.

2.4 NETPRINT

This allows you to print files on a BBC Econet Print Server.

Syntax:

NETPRINT filename { filename2 filename3 ....}

Explanation:

Normally a printer is connected directly to your Master. If you wish to use an Econet Print Server instead you can use the NETPRINT command to send files to the remote printer.

Example:

A>NETPRINT FRED.TXT

3. IBM Keyboard Emulation

The IBM keyboard driver returns a more complex value than just a single byte to represent the key pressed. The Master 512 keyboard driver written by Acorn is designed to return the same values as the IBM PC when any given key or combination of keys are pressed.

There are a number of special keys on an IBM keyboard which are emulated on the Master 128 keyboard. These are:

IBM Keyboard	Equivalent Master 128 Key
Alt	Copy
Home	7 on Numeric Keypad
End	1 on Numeric Keypad
PgUp	9 on Numeric Keypad
PgDn	3 on Numeric Keypad
Ins	0 on Numeric Keypad
Del	Delete on Numeric Keypad
Rubout	Delete (next to the Copy key)
Num Lock	/ on Numeric Keypad
PrtSc	* on Numeric Keypad
Scroll Lock	# on Numeric Keypad
Break	# on Numeric Keypad
Up Arrow	8 on Numeric Keypad
Down Arrow	2 on Numeric Keypad
Left Arrow	4 on Numeric Keypad
Right Arrow	6 on Numeric Keypad

Note that it is only the same value which is returned, this does not imply that the same function will be performed. What is done with the returned value is up to the application. For instance, pressing the PrtSc key at command level on an IBM PC initiates a screen dump. Although pressing the * key on the Master 128 numeric keypad will generate the same character code, it will not initiate a screen dump because DOS

Plus does not support this facility.

4. Example Program

In the subdirectory **example** on Disc 4 there is a program called **siren** which demonstrates the use of the sound facilities of the Master 128. The source code and an executable image are supplied.

5. Four Colour GEM

There is a screen driver on disc 4 which enables GEM to be run in four colour mode, this screen driver can be installed using GEM Setup as explained in the next section.

There are three points to note about the four colour screen driver:

(1) This driver is unsupported by Acorn.

(2) The horizontal resolution of the screen in pixels is only half the horizontal resolution of the screen when running in two colour mode, although the display width is still eighty characters. This results in some loss of legibility with text.

(3) The four colour drivers take up more memory that the two colour drivers. Some applications may not run as a result of this. In some cases this can be solved by deleting the GEM Desktop accessories. This must be done before starting up GEM Desktop, insert your working copy of disc 2 (not the master copy) into your logged on disc drive and type:

```
DEL \GEMBOOT\*.ACC
```

6. GEM Setup

6.1 Introduction

The GEM software must know the details of certain aspects of your computer system, these are:

(1) Whether you are running GEM in 2 colour or 4 colour mode.

(2) Whether your printer is connected to the serial or parallel port.

(3) The type fonts that are to appear in screen output or on the printer.

You must run **GEM Setup** if you want to change any of the above.

The following two sections on starting and using GEM Setup assume that you are familiar with using the GEM Desktop, if this is not the case then you should study the appropriate chapters of the Master 512 User Guide before proceeding.

CAUTION: Never use GEM Setup to modify the master copy of disc 2, only use it on your backup copies.

6.2 Starting GEM Setup

(1) Start up GEM Desktop as explained in the Master 512 User Guide.

(2) Insert disc 4 (labelled **Miscellaneous**) into floppy disc drive B.

(3) Open the drive B icon.

(4) Open the icon labelled **GEMSETUP.APP**.

6.3 Using GEM Setup

The **categories** menu allows you to select the part of your setup which you want to change (i.e. Graphics card, Printer or Plotter). Note that **Cameras, Tablets** and **Miscellaneous** are not currently supported.

To change your graphics card:

(1) Select the **Graphics Card** option from the **categories** menu.

(2) Drag one of the available graphics cards from the lower window to the upper window (labelled **Chosen Graphics Card**).

(3) Select **Screen Fonts** from the **categories** menu.

(4) Drag at least one of the available screen fonts from the lower to the upper window.

(5) Select **Mouse** from the **categories** menu.

(6) Drag **Acorn Mouse** from the lower to the upper window.

(7) Select **Mouse Port** from the **categories** menu.

(8) Drag **User Port** from the lower to the upper window.

To change your printer driver:

(1) Select the **Printer** option from the **categories** menu.

(2) Drag one of the available printers from the lower window to the upper window (labelled **Chosen Printer**).

(3) Select **Printer Fonts** from the **categories** menu.

(4) Drag at least one of the available printer fonts from the lower to the upper window.

To change your plotter, follow a similar procedure to that outlined for the printer.

Metafiles allow transfer of information between GEM applications. This category should always be installed.

The **file** menu contains five options:

(1) The **Open summary** option displays the current setup. When the summary window is on screen, this option changes to **Close summary**.

(2) The **Show info** option gives more details about a selected item in the **available** window.

(3) The **Clear choice** option removes all items from the **chosen** window.

(4) The **Save summary** option must be used before leaving GEM Setup to save your new setup.

(5) The **Quit** option returns to GEM Desktop. You will be warned if you attempt to quit without first saving your new setup.

After you have created your new setup you should save it using the **Save summary** option from the **File** menu, and then exit from GEM Setup. Your new setup will not take effect until you restart GEM by exiting back to the DOS Plus and typing **GEM** again.

The most likely cause of failure is when something has been partially installed (e.g. installing the four colour screen driver without re-installing the mouse).

7. The Z80 Emulator

The first thing to say is that this product is unsupported by Acorn. If you have any problems running your particular Z80 program then you are on your own.

Having said that you might still like a little advice on how to use it.

Enter

A>Z80 <RETURN>

and you will be in the world of the Z80 emulator, as evidenced by the new **Z80 A>**. You have available the standard CP/M 2.2 built in commands - **DIR, ERA, REN, TYPE, SAVE,** and **USER.** In addition you have **QUIT** which returns you to the DOS Plus world.

You can use any type of disk that DOS Plus recognises, including the Acorn Z80 format. On the subject of the Acorn Z80 many of the programs for that make use of the Z80 ROM. This is not supported - so don't expect your version of Z80 BBCBasic to run. The programs that do run are those written for any CP/M 2.2 system and not customised to any particular hardware.

You cannot use DOS Plus commands when running the emulator, so make sure you have everything set up before running Z80. This would include things such as getting into a subdirectory, because CHDIR is a DOS Plus command.

Some specialist CP/M 2.2 "system" programs, such as STAT, get confused by the emulator. This is because they assume things about CP/M 2.2 innards - just try running a CP/M 2.2 version of STAT under CP/M 1.4. Anything like FORMAT or SYSGEN are specific to one Z80 machine, and so won't run.

Despite the above comments most CP/M 2.2 applications do run, and can do so at a speed equivalent to a 1.5 MHz.

A final word to help you install packages. The emulator supports ADM3 escape sequences so try installing for this terminal type. Another good bet is the Heath/Zenith H89/19. Or if you want access to the BBC VDU sequences do the following before running the emulator.

A>DEVICE CONOUT:=RAW0

8. Problems

8.1 Printing

Many applications terminate lines output to the printer with a carriage return followed by a line feed. If your printer has the auto-linefeed option set then all your output will be double spaced. To correct this you should disable the auto-linefeed option on your printer (consult your printer documentation for details). In addition, if you want to use Master 128 applications such as View, you should disable the Master 512 Co-processor and use the Control Panel utility on the Master 128 Welcome disk to set the printer ignore character to 0.