

Learning Curve PC Emulator (V1.7) Release Note

Introduction

This release note contains information that was not available at the time the *PC Emulator Guide* was printed.

Package contents

The following items are included with the PC Emulator:

- Two 3.5" floppy discs:
 - the large PC emulator disc (called MDA/CGA/EGA Multi-tasking)
 - the small PC emulator disc (called CGA Single-tasking)
- PC Emulator Guide
- DR DOS 5.0 (in a separate pack)
- This release note.

The large and small PC Emulator discs are RISC OS format, while the discs in the DR DOS pack are DOS format and can only be read with the emulator or by using the MultiFS application. The section *Accessing DOS directories using MultiFS* in the guide describes how you can display the contents of DOS discs in standard RISC OS desktop directory displays.

Registration card and licence agreements

Please fill in and return the DR DOS registration card.

Reporting bugs

If you have problems running software on the Acorn PC Emulator which you have used successfully on a PC clone, please let us know. Write to Acorn Customer Services, Fulbourn Road, Cherry Hinton, Cambridge CB1 4JN, giving details of the software, the PC clone (make, memory, graphics cards, etc), the version of DOS used, and how you have configured the PC Emulator. Please write 'PC Emulator' on the outside of the envelope.

Memory and monitor requirements

If your computer has 2MB or more of RAM, then use the large emulator, PCEm. If your computer has 1MB of RAM, use the small emulator, PCEmS. See page vi of the guide for a description of the differences between PCEm and PCEmS. Note that you may need more than 2MB to use some of the EGA ECD and EGA+ screen modes.

If your computer has a medium resolution RGB monitor, it is recommended that the emulator be configured to emulate either CGA or EGA CD. If your computer has a VGA or multiscan monitor it is recommended that the emulator be configured to emulate either EGA ECD or EGA+. This recommendation is because it is not possible to use single-tasking mode with EGA ECD or EGA+ emulation on a medium resolution RGB monitor.

Before starting

Please make backup copies of all the discs before using them. Your *RISC OS User Guide* explains how to do this for the two RISC OS discs, whilst the section *A brief introduction to DOS* in the guide will tell you how to backup the two DOS format discs.

If your computer has a hard disc, the PC emulator and a DOS hard disc partition will already have been installed, in which case you do not need to do any further installation. You may find however that you want to alter the PC emulator to suit your own personal use, and instructions on this can be found in *Configuring the PC emulator* in the guide. This chapter in the *PC Emulator Guide* also describes how to create an additional DOS hard disc partition, which is the easiest way to expand your emulated PC system.

It is not possible to increase or decrease the size of an existing DOS hard disc partition. If you need a different size, you must first delete the old one (using the RISC OS filer) and re-create one of a different size, using the emulator. Any important data that you want to keep from the old DOS hard disc partition should be first copied onto floppy disc, so that it can be transferred back to the new DOS hard disc partition.

As a cautionary note, from the above description, it is easy to see how a DOS hard disc partition can quickly be deleted with loss of all data. You should back up the contents of your DOS hard disc partition on a regular basis, as is good practice with all hard discs.

Using !Merge

After using !Merge to update !System and !Fonts, you should save your work and then reset your computer (by holding down Ctrl and pressing RESET, or alternatively by switching off and then on) to implement the update before using the PC Emulator or MultiFS. This is not described in the manual.

Application compatibility list

The following list covers the more significant applications which have been successfully tested:

- Database:
 - DBase IV
 - Retrieve
 - Neris
 - Simis
- Spreadsheet:
 - Excel
 - Lotus 123 V2.1
 - SuperCalc 4
 - Symphony
 - MS Works
- Publishing:
 - Timeworks
 - Ventura 2.0
 - DeskPress 1.01
- Word processing:
 - Brief
 - MS Word V5
 - Wordstar Prof V6
 - WordPerfect
- Planning:
 - PC Planner
 - BYL
- Communications:
 - Crosstalk
 - Procomm
 - DRDOS FileLink
- Programming:
 - MS MASM
 - MS C V5
 - Quick C
 - GWBasic
 - Turbo Pascal V5
 - SmallTalk/V
 - ProFORTRAN77
- Graphical user interfaces:
 - Windows 3
 - GEM 3
 - DRDOS ViewMax
- Operating systems:
 - MSDOS 3.21 (but must use DRIVPARM = /D:0 /F:2)
 - MSDOS 3.30
 - DRDOS 3.41
 - DRDOS 5.0

The following applications have exhibited some problems or work better if the advice given is followed:

- Windows 3: Best if configured for VGA and run under EGA+. Note that even with an ARM 3, Windows 3 runs slowly.
- Harvard graphics: Run under EGA with ECD, or under EGA+.
- Turbo Pascal 5.00: Screen redraw is sometimes incorrect when using MDA. Use EGA.
- Locoscript: Best if configured to use BIOS scrolling, not hardware scrolling.
- Benchmarking utilities such as Norton Utilities, PC Labs, etc. can report incorrect clock speeds.
- Flight Simulator: Sometimes (particularly on ARM 3 machines) the aeroplane can become unstable and crash. Try configuring for VGA and running under EGA+.
- Microsoft mouse driver: This fails. Use AMOUSE.
- Zortech C++: Single stepping in the debugger fails.
- DeskLink: This fails.

General notes on using the emulator

If the PC application you are using allows any configuration options on how to address the screen, typically called "Direct" and "BIOS", then choose BIOS. ProComm is one such application.

If the application offers a choice in how to performing scrolling, then do not select hardware scrolling. Locoscript is one such application.

When working in windowed mode, in a 16 colour RISC OS mode (eg mode 12), the DOS colours will often not be mapped correctly. This is because the 16 colours used by RISC OS are not the same colours used by DOS. This is less apparent in a 256 colour RISC OS mode (eg mode 15). The colours will be mapped correctly in single-tasking mode.

The large model allows CGA, EGA, and EGA+ screens to be saved as text as well as sprites. This is not described in the guide.

The serial interface

Always configure any serial communications packages to use hardware handshaking. Do not use XON/XOFF handshaking (this is likely to fail because of the extra layer of buffering provided by RISC OS between the PC application and the serial chip).

When using serial communications the emulator should be in single task mode (in multi-tasking mode, other RISC OS applications may deny the PC Emulator enough cpu power to emulate the serial chip fast enough).

Using existing PC hard disc partition files

The format for hard disc partition files has not changed. If you already have an existing hard disc partition file (eg, \$.PC.Drive_C) and wish to use it, then do not follow the instructions for creating a PC hard disc partition file, but just type in the name of the existing PC hard disc partition file in the configuration dialogue box and save the configuration.

Differences between versions 1.70 and 1.60

Version 1.70 contains the following improvements over version 1.60:

It works on all Acorn's hardware platforms. In particular it works on the new A5000 and related hardware platforms. Note that version 1.60 will not work on these new hardware platforms.

It includes support for 1.44MB high density floppy disc drives, as used on the A5000 and related hardware platforms.

Support for the double-stepping of external 80-track 5.25 inch floppy disc drives has been withdrawn. The DoubleStep floppy configuration key word has been removed.

A number of minor faults in the emulation has been corrected.

MultiFS

Known problems

The intended use of !MultiFS is to transfer files between DOS and RISC OS file windows in the desktop. It is not recommended that it be used as an alternative general purpose RISC OS filing system.

Clicking menu on a long file name (more than 10 characters) with untruncated translation will generate the error 'not a heap block'.

Copying with Hierarchical name translation may attempt to copy the same files many times, so that the copying takes an unacceptably long time. The problem occurs if the source is a DOS directory containing several files of the same extension. The work around is to use Full name translation.

Some characters are valid in DOS filenames but invalid in RISC OS filenames. The characters \$, #, *, %, & and ^ are mapped to ?, +, [, ;,] and > respectively. Note that this can cause unexpected behaviour. For example, it is not possible to rename a file whose RISC OS name contains +.

!MultiFS should not be used simultaneously with any other program that offers similar functionality.

Not clear what! MultiFS is intended for an R5000

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