

Acorn Registered Developer Information About RISC OS 'Black'

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Introduction

As Acorn's proprietary operating system central to its trading, RISC OS is subject to continuous development. Later this year a new version of RISC OS codenamed 'Black' will be released to update the RISC PC models. RISC OS Black is being developed at the moment. This information pack consists of functional specifications of project 'Black' and is provided to help you, as Registered Developers, develop your products to take advantage of new opportunities provided by Black, and avoid compatibility problems.

Please note that the documents attached have been written during development, and while they are our best record of what we are working to achieve, they are not guaranteed to be accurate in every detail, and should not be read in quite the same way as the Programmer's Reference Manual.

JPEG

A major new feature of RISC OS Black offering many opportunities to Developers is the improved support throughout RISC OS for JPEG image files. SpriteExtend is updated to render JPEGs directly to screen memory or sprites, allowing (for example) DTP type applications to include JPEGs in documents unexpanded, rendering them straight to screen using SpriteExtend. Since a JPEG file can often be about 30 times smaller than the same image expanded to a 16M colour sprite, this makes possible the inclusion of such photo-realistic images in documents processed on modest (eg. 2MB RAM) machines in a way that would otherwise be impossible.

The following attached documents explain this in more detail:

Black Video Software FS - describing the new SpriteExtend.

Black Printing Enhancements FS - explaining support for printing JPEGs.

Black ChangeFSI JPEG Output FS - ChangeFSI is being upgraded to do this.

Black Draw FS - Draw is being updated to support documents containing a new JPEG Draw object type. This is perhaps an example of how JPEG support can be added to many applications. For example, SpriteExtend does not currently support rendering JPEG images rotated, and so Draw does not plot a rotate 'ear' on JPEG selections.

Black Paint FS - Paint has been updated to import as sprites JPEG files dragged to its icon.

RISC OS Contents

RISC OS Black is being supplied in 4MByte ROMs - twice the size of RISC OS 3.50 ROMs. This has made possible the new inclusion in ROM of software such as CDFS, Toolbox and Acorn Access modules, plus the return to ROM of some applications. !Printers, together with associated modules, is in ROM, to allow applications to print documents with a much lower RAM overhead. The Toolbox modules are included in ROM to support applications written using the Acorn product 'Acorn C/C++'.

The attached document 'Black ROM and Disc Structures FS' describes the contents of RISC OS Black.

Note that in some future RISC OS versions Acorn may choose to remove some software from ROM to make room to add new features. Please avoid constructing products which assume continued placement in ROM of some software. The software most likely to be removed from ROM in the future is the applications other than !Printers, which is likely to stay in ROM.

Filing Systems

FileCore and ADFS, together with other associated modules, have been updated to support IDE hard discs of up to 4GB in one partition - 8 times the previous limit of 512MB. Existing FileCore filing systems should continue to work with the new modules, but in order to offer support for discs greater than 512MB, will need modifying to use new SWIs. These changes are described in the attached document 'Black ADFS 512MB disc limit expansion FS'.

It is possible that some Acorn models will from time to time be supplied without a hard disc for use only as a network station (note NOT as a free-standing 'floppy-only' machine). Software changes to support this are described in the attached 'Black Support For Network Only Machines FS'.

Joysticks

We have had requests for OS support for analogue as well as digital joysticks and have taken the opportunity to add this. Analogue joystick support is similar to the previous support for digital joysticks. This is described in the attached 'Black Joystick Module FS'.