

# **ColourMobile**

## **Low-cost 24bit Colour Mobile Scanner for RISC OS computers**

**Irlam Instruments Ltd, Brunel Institute for Bioengineering, Brunel University,  
Uxbridge, Middlesex UB8 3PH, (01895) 81140]**

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# Welcome!

## Welcome:

Thank you for purchasing the Irlam Colour Mobile Scanner package. It combines high quality colour scanning with intuitive and simple-to-use software. So simple, a comprehensive manual is not necessary. Nevertheless - please do spend a couple of minutes reading this leaflet carefully.

## Suitability

This package is suitable for the following Acorn computers. If your computer is not one of these then please contact your supplier.

- A3010, A3020, A4000
- A4
- A5000
- A7000
- Risc PC

Windows™ software for PC compatibles is available for a nominal charge. Contact us for further details.

## Package contents

This package should contain the following items. If any are missing then please contact your supplier.

- Scanner c/w Interface and motor unit
- Mains adaptor
- Calibration sheet
- Floppy disc containing application software

## Hardware Installation

**Warning! Ensure that the computer and any peripherals are switched off. Failure to observe this may result in damage to the computer or scanner.**

**Disconnect any dongles or printers from the parallel port. Connect the scanner interface directly to the parallel port.**

**If you are using a parallel port CD-ROM drive, connect the CD-ROM drive directly to the parallel port. Connect the scanner interface to the rear of the CD-ROM drive.**

**Connect any dongles or printers to the rear of the scanner interface.**

**Clip the motor unit onto the back of the scanner, being careful not to damage the plastic mounting lugs. Ensure that the switch on the side of the motor unit is set to the on position. The switch does not have a particularly positive action.**

**Plug the mains adaptor into a convenient socket and connect the power lead to the scanner interface. the scanner light may illuminate immediately when power is connected.**

# Getting started

Switch the computer and any peripherals on. If the computer fails to boot-up as normal, switch everything off and carefully check the hardware installation.

## Software Installation

Insert the supplied floppy disc, and click on the Drive :0 icon. Copy the contents of the disc to a suitable directory on your hard disc.

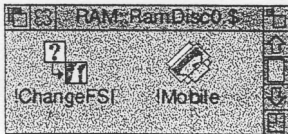
Dismount and eject the floppy disc, and store it in a safe place - you will need it to obtain future software upgrades. Reboot your computer.

## Testing the installation

Open the directory where you copied the software and double-click on the **Mobile application**. **Watch the scanner carefully - the light should briefly flash on then off again.**

**Check that any dongles or printers still function correctly. If anything fails to work as expected, switch everything off and carefully check the hardware installation.**

## About the software



**Two software applications are supplied with the scanner. Mobile is the scanner driver software, and ChangeFSI is Acorn's image mastering software.**

**There may also be a ReadMe file - this will document any changes made to the software since this manual was written.**

**The Mobile application is designed to be permanently loaded, presenting the scanner as a readily available desktop resource. It is therefore recommended that the Mobile application is loaded as part of the boot-up sequence.**

**ChangeFSI performs useful functions such as scaling, sharpening, and gamma correction. We supply ChangeFSI (under license from Acorn) with all our scanning packages because it is so useful. Within the application directory are several text files (!Help, FSInfo, FSUse, and FSformats) which describe, in some detail, the program and how to use it.**

## Getting started

**Open the directory where you copied the software and double-click on the Mobile application. Before initial use the scanner will probably require calibration.**

## Calibrating the scanner

**Open the Mobile application menu, and select Calibrate.** You will then be asked if you wish to proceed with calibration.

Ensure that the brightness knob on the side of the scanner is set to the middle, and position the scanner on the calibration sheet. The scanner and calibration sheet should be free from dust.

# User guide - Mobile

Select OK to continue - the software will wait for the scanner to warm up, before performing the calibration. The scanner may take up to a minute to warm up from cold.

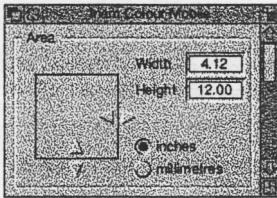
The scanner can be calibrated as often as necessary. It is therefore recommended that you store the calibration sheet in a safe place.

## The control panel

Click on the **Mobile application icon with the left mouse button to open the control panel. The control panel is used to set the various scanning parameters which are described below.**

**Click on the Mobile application icon with the right mouse button to close the control panel.**

## Width and height

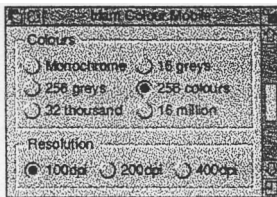


**The top of the control panel is used specify the width and height of the area to be scanned.**

**Values can be entered by typing them, or by using the nudge arrows. These values can be specified in either inches or millimetres. Remember to press Return after typing a new value.**

The maximum width and height are 4.12" (or 104.64mm) and 12" (or 304.80mm) respectively, and vice versa for landscape format.

## Colours and Resolution



The middle of the control panel is used to specify the number of colours used to represent a scanned image, and the resolution used to scan an image.

The number of colours can be specified from monochrome through to 16 million.

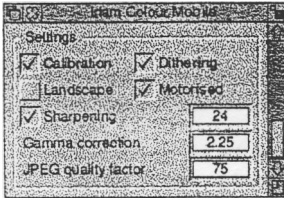
The ability to scan an image in 32 thousand or 16 million colours does not necessarily mean that your computer will be capable of displaying the result.

The resolution can be specified from 100 to 400 dots per inch (dpi) . A resolution of 100dpi gives an approximately life size result, 200dpi zooms by a factor of two, and 400dpi by a factor of four.

You will find that a resolution of 100dpi is adequate for most scanning applications.

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## Miscellaneous settings



The bottom of the control panel is used for several miscellaneous settings.

**Calibration should normally be enabled. This uses the data obtained from the calibration scan to compensate for any deficiencies in the scanner.**

**It should be disabled only to verify that the scanner has been correctly calibrated.**

**Dithering should normally be enabled. This uses clusters of pixels to create the illusion of more colours.**

**It should be disabled when scanning text in monochrome for use with Optical Character Recognition (OCR) software, or for scanning line art.**

**Landscape performs automatic rotation of a scanned image, to allow you to scan images that are wider than the maximum width of the scanner.**

**When scanning in landscape format, the scanner is positioned at the left of the image instead of at the top.**

**Motorised should normally be enabled. This uses the motor to drive the scanner along.**

**It should be disabled when scanning by hand with the motor detached. During hand scanning, the computer will beep to warn if you are scanning too fast.**

**Sharpening should normally be enabled. This helps to remove fuzziness and blurring.**

**It should be disabled when scanning text in monochrome for use with Optical Character Recognition (OCR) software, or for scanning line art.**

**A minimum value of 8 produces very harsh sharpening, and a maximum value of 32 effectively disables it. A typical value is 24. Remember to press Return after typing a new value.**

**Gamma correction brightens dark areas, leaving light areas unchanged.**

**A minimum value of 1 has no effect, and a maximum value of 4 produces maximum brightness. A typical value is 2.25. Remember to press Return after typing a new value.**

# User guide - Mobile

**Miscellaneous settings (continued)**

**JPEG quality specifies the output quality, and hence the level of compression for JPEG images.**

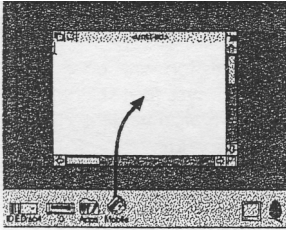
**A minimum value of 5 gives very high compression with poor image quality. A maximum value of 95 gives lower (but still high) compression with very high image quality. A typical value is 75. Remember to press Return after typing a new value.**

**Save choices**

The settings in the control panel can be conveniently saved for future use. Open the **Mobile application menu, and select Save choices.**

# User guide - Mobile

## Scanning an image



Click and hold the left mouse button on the **Mobile application icon** - the mouse pointer will pick up a **Sprite file icon**. Drag this icon to a directory viewer to save the scan, or to an application to export it. You will then be asked if you wish to proceed with the scan.

**Ensure that the brightness knob on the side of the scanner is set to the middle, and position the scanner at the top of the image (or the left for landscape format). Use the markings on the scanner to assist you.**

**Select OK** to continue - the software will wait for the scanner to warm up, before performing the scan. The scanner may take up to a minute to warm up from cold.

The scanner will move down the image (or to the right for landscape format), and the hourglass will display the percentage of the scan completed.

When the scanner stops, the hourglass percentage will cycle through once more while the scanned image is being processed. The image will then be saved to the directory, or exported to the application where you dragged the icon.

Use the right mouse button instead to save or export a JPEG image. JPEG images are highly compressed and occupy less disc space.

## Stopping the scan

Press the turquoise start/stop button on the scanner to stop the scan. The height (or width for landscape format) of the image will automatically be cropped to fit.

This button serves only as a stop button, as the scanner is started automatically by the software.

## Use with DTP packages

If you use a Desktop Publishing (DTP) package such as **Ovation** or **Impression**, there is no need to specify the width and height of the scan, as these applications can crop images themselves. **Simply create a blank frame and drag the icon to that frame.**



# Troubleshooting guide

## Poor image quality on screen

### Poor colour definition

Reduced colour detail is usually caused by the current screen mode having insufficient colours to correctly render the image.

- Change to a screen mode with 256 [or more] colours.

Images that are either too light or too dark are usually caused by incorrect calibration, or incorrect setting of the brightness knob.

- Recalibrate the scanner.
- Ensure that the brightness knob on the side of the scanner is set to the middle.

Saturated or false colours are usually caused by an incorrect value of sharpening or gamma correction.

- Set the value of sharpening to 24.
- Set the value of gamma correction to 2.25.

### Banding

Banding, especially at lower resolutions, is usually caused by scanning printed material. This banding is caused by interference patterns between the printed dots, and the image sensor pixels in the scanner.

- Increase the scanning resolution.
- Scan at a slight angle to the original.
- Increase the value of sharpening, or disable it.

### Jagged edges

Jagged edges, especially at higher resolutions, are usually caused by an incorrect value of sharpening.

- Reduce the scanning resolution.
- Increase the value of sharpening, or disable it.

### Vertical or horizontal lines

Vertical or horizontal lines are usually caused by dirt on the lens of the scanner, or incorrect calibration

- Gently clean the scanner lens with a soft cloth.
- Recalibrate the scanner.

# Troubleshooting guide

## **Poor image quality when printed**

If the image quality is good on screen, but disappointing when printed, your printer or its driver software may be incorrectly setup.

- Contact your printer supplier for assistance.

## **Computer beeps during hand scanning**

During hand scanning, the computer will beep to warn if you are too fast.

- Try to move the scanner more slowly.
- Use motorised scanning instead.

## **Repeated calibration errors**

Repeated calibration errors are usually caused by the software not being able to save the data obtained from the calibration scan. This should only occur on networks where the user does not have write permission to the **Mobile application directory**.

- **Ensure that the user has write permission to the Mobile application directory.**

## **Repeated scanning errors**

**Repeated scanning errors are usually caused by having insufficient free hard disc space to save temporary files.**

- **Free some disc space by deleting any unwanted files.**
- **Reduce the scan area.**

## **Repeated transfer errors**

**Repeated transfer errors are usually caused by having insufficient memory to process the scanned image.**

- **Reduce the scan area or resolution.**
- **Quit any unused applications.**

# Notes

## Scanning by hand

When scanning by hand, remember to disable the motorised setting, and detach the motor. During hand scanning, the computer will beep to warn if you are scanning too fast.

## Scanning text and line art

When scanning text or line art, remember to disable the dithering and sharpening settings.

For Optical Character Recognition (OCR) software, we recommend **Sleuth 2 from Beebug Limited**.

## Warm up

**The warm up procedure may be skipped by pressing Escape.** This will result in reduced image quality, but is useful for preview scans.

## Start/stop button

The turquoise start/stop button on the scanner serves only as a stop button, as the scanner is started automatically by the software.

## Printers

If you have a printer connected, it must be switched on in order for the scanner to function correctly.

