





## #1 Setting up the media ICM profiles for Epson SC-T Series and Hewlett-Packard RGB internal printer drivers

The Epson Internal driver is an RGB type and like the HP RGB driver does not require a profile to be built by the operator (the Create Profile button is grayed out). Go to the Profile area under Printer Settings for SmartWorks Pro. Select the windows sRGB\_Color\_Space\_Profile.icm profile (C:\Windows\System32\spool\drivers\color) or alternatively use an Epson supplied .icm profile for your paper type which should be located in the same Windows directory. The profile for any selected Hewlett-Packard RGB type printer should be set up in the same way. Note that CMYK profiles made by the operator are stored in C:\Users\User\AppData\Local\SmartWorks Pro\Printers\your printer type.

## #2 Epson Windows Driver - Media AutoSet

The Windows driver is extremely sensitive to the type of media profile selected. The Epson SC-T driver will attempt to automatically update itself to match the media loaded in the printer but this only works properly when the driver media selection interface is opened from Windows - not from within the scan software. Always set up the Epson Windows printer media type via Windows Control Panel. More information can be found in CAN21 (Information section of the Colortrac website).

## #3 Epson Internal Driver - RGB ICC profile

The Epson SC printer uses rgb printer data. If the manufacturer's rgb ICC profile is not available to set up the Colortrac internal driver then the standard Windows sRGB profile can be used in its place.

### What's the difference between Windows 'Yes' and 'Optional' ?

Where an Internal driver is available the Windows driver should be seen as Optional. This is because the Internal driver is always faster to start working and more efficient for one-off copies than a Windows driver, even though a Windows driver can be as fast once it starts, particularly at lower print resolutions such as 200 dpi or 300 dpi. This is particularly true of Windows printer drivers working in CAD or Fast colour modes. To increase the print speed of **Windows drivers** for CAD work generally avoid graphics modes. To increase the speed of the **Colortrac Internal drivers** go to SmartWorks Pro Printer Settings and change to Line Drawing modes (Canon printers) or Fast Graphics mode (HP printers).

### What is the difference in performance and quality between internal and Windows drivers?

There is no perceptible quality difference but at a scan resolution of 200 and 300 dpi the Windows driver printing speed can be as fast as Colortrac internal drivers. To achieve this set the Windows driver for Line mode instead of Graphics mode. At higher resolutions like 400 and 600 dpi Windows drivers tend to be slower to print than Colortrac internal drivers – true for HP and Canon. This is because the image is up-sampled in the printer rather than in the driver itself which is how the Colortrac internal driver works. For CAD work there is no advantage in printing at more than 300 dpi.

### What is the difference between using an RGB mode and a CMYK mode when using the internal printer drivers?

In RGB mode the printer driver does not produce profiling targets and instead the printer takes care of all colour management. This reduces the set-up time for the driver compared to working in CMYK mode and maintains the benefits of fast and almost immediate print activity and elimination of the need to specify an output paper size that matches the size of the copy. Colour copy accuracy when RGB mode printing depends heavily on making sure the printer is configured by the user properly and 'understands' the consumables the printer is being used with.

#### Tip #1

SmartWorks Pro supports mixed-mode copying which means that the resolution in the scanner and printer can be controlled independently. This is useful for making high quality scans and a draft quality copy - SmartWorks Pro Scan and Copy licence. For CAD copying when not making a separate hard disk scan file, avoid using scan resolutions above 300 dpi as this will cause the printer to print very slowly. This is especially true when using Windows drivers.

#### Tip #2

When using Windows drivers **DO NOT** set the paper size using the Paper Size pull down menu in the printer manufacturer Windows printer driver. Instead allow the Colortrac Windows Printer driver manager to automatically set the paper size. The automatically determined size will not be displayed in the printer's Windows driver GUI - it will probably still display A-size or A4. Next look for the paper economy settings in the driver that allow for the paper to be cut at the end of the printed information and not at the end of the page length.

The Windows driver **should not be used to rotate any print or copy**. Instead always attempt to rotate the original in the scan application's editor or orient the document in the scanner when it is loaded such that no software rotation is required at the printer or in the printer driver. This will be faster than trying to rotate in the printer or printer driver and will result in fewer operator mistakes.

#### Tip #3

When CAD copying and using Windows drivers look for the Quick Print or Draft modes as these will shorten print (copy) times without in most cases compromising the quality of the copy. Where solid fill is used it may be necessary to increase the print quality again to avoid banding (stripes) in the copy.

#### Tip #4

When CAD copying and printing using an internal driver and a Colortrac media profile created for **coated paper** it will normally be acceptable to use the same profile for plain paper as the colour precision required for CAD is not as high. To use a profile made for coated paper for a plain paper print or copy session browse to the directory where the profiles are stored (click three dots) and select the coated profile. The driver will now print or copy using this media profile. To change the quality of the print or copy alter the print dpi or printing mode AT THE PRINTER. The best all-round scan resolution for copying is 300 dpi. If you intend to enlarge the output increase the resolution to the 400 or 600 dpi.

#### Tip #5

When using the **internal printer drivers** the settings of the Windows driver are completely ignored and have no effect on the output. The Windows driver is used only to provide a connection to the printer and except for showing the status of the print queue can be ignored. All quality and media settings should be selected from within SmartWorks Pro. Normally for 100% copies or prints there is no need to do anything with the Windows driver settings. If you wish to make the output larger or smaller enter the appropriate number in the width or height box as required or use the percentage field in the INTERNAL driver settings dialogue box (File, Print menu) when printing from the screen or by changing the values in the copy boxes (COPY mode). Turn off the aspect ratio of 1:1 if you need to make the copy or print slightly longer in one of the axes. No rotation of the image can be specified prior to printing. Rotate the image in the editor or rotate the document in the scanner first.

#### Tip #6

If the printer profile and selected internal printer driver are suddenly lost from SmartWorks Pro it may be because you have recently installed a second Windows printer as a default Windows printer. To fix the problem: Delete the spooler.dat. This is located in the SmartWorksPRO directory. C:\Users\User\AppData\Local\SmartWorks Pro\Printers. Note: you may need to show hidden files & folders on your PC. Via the Windows start up menu Control Panel\Printers set the default printer back to the printer selected prior to losing the settings. Run SmartWorks. The problem should now be resolved.