

Gaining more control of the printer

One of the most frustrating things I found about Colour Magic when I started using it was the way in which it prints. I was used to more sophisticated imaging applications in which you could easily control the size of the printed image. Even MS Paint has reasonable control.

For the most part this does not matter. You are probably used to children creating a picture from scratch and printing it either in portrait mode (in which case it fills about half a sheet of A4) or in landscape mode (in which case it fills the whole page).

However, what if you want more control than this? First you need to know a little about digital images.

Introduction

Every digital image is stored with two pieces of information; its dimensions (measured in pixels) and its resolution (measured in dots per inch - dpi - yes, I would prefer cm too). Normally you would expect an imaging application to use these two pieces of information to determine the size of the printed image.

For example, if the image's dimensions are 50 pixels by 50 pixels and its resolution is 10 dpi, the printed image would be a five inch square. Photoshop, MS Paint and most imaging applications would print a five inch square. Colour Magic, however, would likely print a square of approximately half an inch. This is because, when printing, Colour Magic ignores the stored resolution and uses the computer's screen resolution to determine the print size. This resolution can vary from computer to computer, but it is likely to be set to the default value of 96 dpi. (You can check this value from the Windows Control Panel. Choose Display Properties. Choose the Settings Tab. Click on Advanced. Under the General Tab you will find the DPI Setting.) Armed with this piece of information, you have much more control over what you print.


Printing accurately

Imagine that a child has created a picture and that you wish to print it so that it fits into a small photograph frame. You have measured the frame and it is 3 inches by 2 inches.

Ideally, you would be able to enter the dimensions directly into Colour Magic in inches. Sadly this facility is not available. The only resizing that can be done is in pixels. The pixel dimensions therefore need to be set to 288 (3 * 96) by 192 (2 * 96).

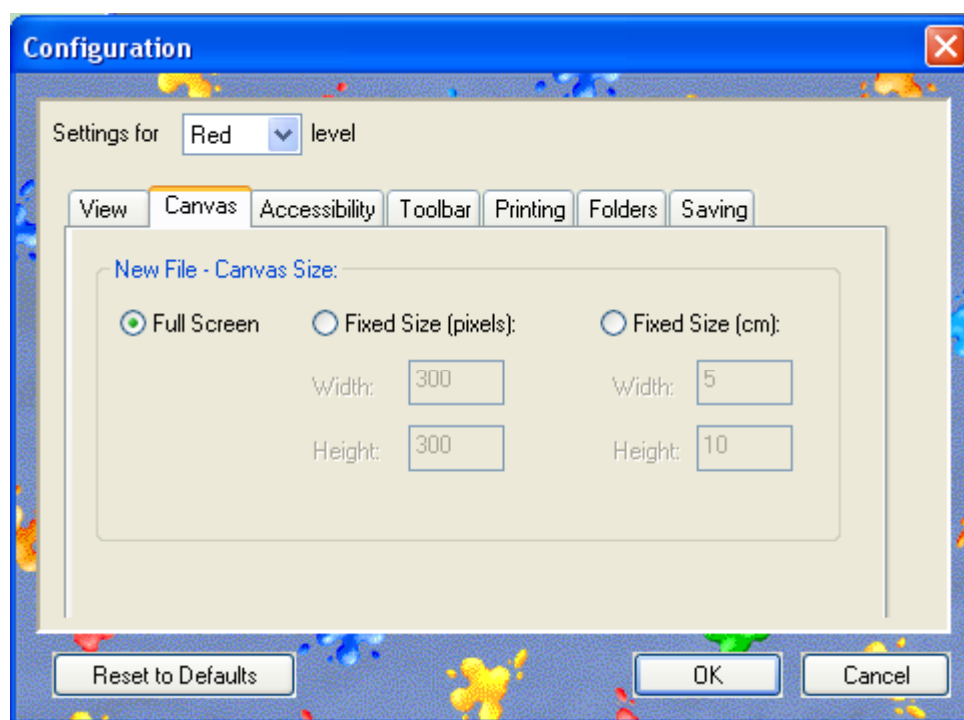
You would choose **Image** and **Resize** from the main menu and enter these values. (Some slight stretching or slight cropping would probably be necessary.) The image could now be printed at the appropriate size.

A note on Colour Magic's canvas size

There are two ways of creating a new image in Colour Magic. The quickest is by clicking on the **New** symbol . This will create a blank canvas which by default will be a full screen image. The other method is via the main menu by choosing **File** and **New**. Here you have the option of choosing the default size (always creates a full screen) or of choosing your pixel dimensions.

There is a way of changing this behaviour but in my opinion the feature is poorly designed, inconsistent and is best left in its default state. It is much better to control the sizing manually as described above.

However, you may have seen the feature and have even tried using it. So here is an explanation. The feature is accessible via the special **teacher mode**. Press CTRL, SHIFT, ALT and T together. Choose the canvas tab, which looks like this:



The default state is 'full screen' and leads to the behaviour already described. Choosing the fixed size (pixels) has the following effects on opening new files:

File, New

The default button results in a full screen image.

The 'choose your own dimensions' default to the pixels entered

New 

in the configuration box.

This results in an image with dimensions matching the pixel dimensions entered into the configuration box.

Choosing the fixed size (cm). Now, this is the only place in Colour Magic that CM are ever mentioned. I believe this feature was an after thought and is best avoided. Choosing this feature has the following effects on opening new files:

File, New

The default button results in a full screen image.

The 'choose your own dimensions' remain set to the pixels entered in the configuration box not the CMs.

New 

This results in an image with dimensions matching the CMs values entered into the configuration box.

Some words of warning regarding saving images

If you open an image created by another application and edit it in Colour Magic the image is stored with the original pixel dimensions and the original resolution. If you resize the image it is also stored with the original resolution.

If you create a new image in Colour Magic it is saved with a resolution of 150 dpi.

If you scan an image you get to control the resolution according to the scanner you are using.

Colour Magic and Print quality

When Colour Magic reduces the size of an image, it reduces the number of pixels contained in the image. This results in a loss of quality which can be very apparent when printing. Complex images such as photographs appear to suffer much less from this than artwork created from scratch in Colour Magic. Before carrying out a project that requires reducing an image in size, check that the type of image you will be using reduces acceptably.