



Colour in the office

Document fairy tale or cost demon?

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INTRODUCTION

The printer salesman began his pitch: “Once upon a time there was a poor, dull document that was of interest to no-one. Its vital information was ignored by one and all, and it stayed unloved and unlovely at the bottom of a drawer in the kingdom of Officeland.

Then one day a handsome printer salesman came riding into Officeland clutching a colour printer. Everyone was overjoyed, and the document - because everyone knew it was a very important document (just rather dull) - was reprinted in multi-coloured glory with charts and pictures galore, and they all lived happily ever after” or so it seems when you mention growing colour needs to your local sales representative!

Colour printing has become increasingly prevalent in the office environment in recent years and the challenge for those that control the printing budget is that the price tag attached to colour printing is typically ten times higher than a mono page. This price premium has traditionally been based on the perceived value of the colour output, and the more expensive technology involved in delivering it. While the value does exist, the use of colour used to be confined to specialist departments.

Yet, Newfield IT research shows that colour printing already equals one in every six pages printed in the office¹, which many companies will be unaware accounts for up to two-thirds of their overall print bill. The trend is that by 2010 one in three pages will be colour - at current (often contracted) consumable costs, this means office printing **costs could rise a staggering 72%**, or £225 per user per year, if unmanaged.

This white paper looks at why organisations now need to look beyond the argument of whether colour output is justified to how it should be managed in the office.

PLAYING THE PIED PIPER: HALTING THE ONWARD MARCH

To control the increases in colour printing, it's first helpful to understand why this increase has occurred:

1 The rise of the mono/colour printer

The value of colour in differentiating information and highlighting a message is now well accepted, but in the past colour output came from a dedicated machine, usually with limited access. The latest technology from the manufacturers delivers mono output from a colour machine at the same cost and speed as a mono only machine, so as these devices replace mono only devices, they become a Trojan horse for pushing more colour into the office.

2 New sources of information

Document volumes have historically increased by 14%² year-on year and colour volumes are increasing at a greater rate than mono volumes, driven largely by new sources of information - like the Internet. Web pages are a good example of real waste when it comes to colour printing. By their very nature, web-pages are not designed for the printed page and yet we print lots of lots of them; maps, menus, timetables and information that at one time we would have obtained on the telephone and written down now becomes a costly printed page. Not only that, web-pages usually print off on several pages when the only information we require is on the first one.

3 The value of colour

We have been conditioned by vendor marketing messages over the years to believe that use of colour in documents equals better understanding and that it is vital for effective communication. While that is true in some

¹ 16% as derived from NewField IT printed output audits ² Cap Venture: Western European Outsourcing report, 2002

circumstances, equally the use of colour in documents can be an expensive distraction, causing our eyes and our brains to focus upon the wrong information. This is frequently the case when colour is over used in spreadsheets and tables.

In 1999, as part of a “use of colour” workshop, the author conducted a controlled experiment with a group of some 25 office workers, ranging from secretarial staff through to senior managers. Each member was presented with a sheet of paper on which there were just two lines of text. The first line read “Do not raise your hand under any circumstances” (in mono) and the second line read “Raise your hand immediately you read this” (in red). The papers were handed-out face down and turned over on a signal. Immediately, over half of the hands in the room were raised, which was the wrong response!

The fact is that our eyes and our brains are programmed to pick-out the highlights on a printed page and our eyes will keep flicking back to highlights, distracting us from the real information on the page. The key message is that miss-use of colour is as detrimental to our understanding as proper use of colour is to the reader’s advantage.

The reason organisations need to take note of the rise of colour output in the office is that, unlike the use of Powerpoint presentations, the uncontrolled use of colour in an office has a major impact on cost.

THE EMPEROR’S NEW SUIT: ASSESSING THE TRUE COST OF COLOUR

Stripping away the mystery that surrounds how colour printing costs are incurred is critical to implementing a policy for change.

Most people think of a colour page as one containing large graphics elements, like a presentation slide, but in reality and in terms of the way we pay for colour, it can be a page containing *any* amount of colour

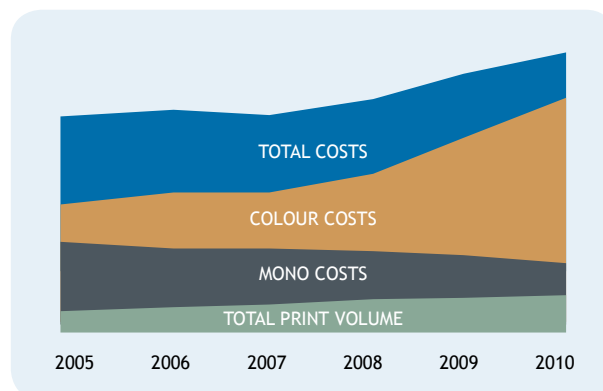
whatsoever, like a link to a web-page which appears in blue in an otherwise monochrome page, or a small colour logo that appears in an email signature; each of these examples automatically classifies the document as colour for cost purposes.

We print more colour pages than necessary simply because we can, because the computers, software and printers we use make it effortless for us to do so. The business problem is that while most organisations are trying to rationalise their printing costs, the uncontrolled rise in colour output is offsetting any savings achieved elsewhere.

DEFINING THE COST

Colour output is charged in two different ways. Firstly, there are the printer manufacturers. They place all the cost on the user, with toner charged based on the quantity used. Then there are the copier/ MFD manufacturers who charge a single cost per page produced, irrespective of the toner coverage, building in a margin of safety to protect themselves from over-usage. There are pros and cons of each approach, but the MFD cost per page model often proves most expensive as much of the office colour output is a highlight rather than a high coverage MS Powerpoint presentation.

The market has made much of the reduction in the cost of colour enabled devices and lower running but the differential between a colour and mono cost per page has remained around the same at ten times. As can be seen from the chart below, this means that costs will start to rise dramatically in offices as the proportion of colour output grows.



Some of the growth in colour cost has been mitigated by a step change decrease in price in the last 12 months, however, there is a long way to go before price parity between mono and colour is reached. We are also seeing moves in the market to measure the *actual* colour content of a page, instead of an assumed high coverage (manufacturers have in the past worked on 20%) and even charging a mono 'click' cost if the colour content is below a certain (low) level.

Nonetheless, a colour page cost differential remains high and organisations will need to look at ways in which costs can be controlled.

The key message is clear - fail to monitor and control colour output costs at your financial peril.

WAVING THE MAGIC WAND

Of course, there is no magic wand in the world of office management budgets, but controlling colour print costs is possible through a mixture of raised awareness and cost management software.

If asked, most end-users will not know the cost of producing a printed page, be it black and white or colour, and most will be surprised to hear that colour is up to ten times more expensive than a black & white page to produce.

This awareness alone will not serve to reduce colour output costs, as the effect is inevitably short-lived. Further action to reduce costs can be taken by ensuring the intelligent use of printer drivers. Most users only ever adjust the print-count in their driver but there are other features which can be utilised to good effect. For example, it is possible to print in greyscale only, where although the source page is colour, the output would be just as readable in mono. It is also possible to print multiple images on a single page for proofing purposes - again reducing per page print costs. NewField IT estimates that overall colour costs in the office could be reduced by between 7% and 10% through effective education alone.

Further effective cost controls can be put in place using software to support the education efforts. These solutions can be broken down into four categories:

1. Those which capture the cost of colour output and allow accurate reporting by user/department;
2. Those which route documents to the most cost-effective device by means of pre-determined rules and/or restrict colour printing by application or user.
3. Those which restrict output to those entering a PIN or swiping a valid access card;
4. Those which address the problem at the driver/hardware itself and simply take a more intelligent approach to how printed pages are charged for and how ink and toner are put onto the paper.

It is likely that a technology-led approach to controlling costs will feature in one or more of these categories, but it is essential to understand the current costs and the cost reduction opportunity before investing. Otherwise, the net result could well be an increase in costs rather than the desired reduction.

Here are some immediate actions for colour cost reduction:

- Default all printer drivers to “greyscale”
- Ensure that nobody has a colour printer as their default device
- Educate all staff to print intelligently, to question each and every use of colour and to only add colour if it adds value.
- Always use “Print page n” when printing web pages
- Monitor colour usage, set targets and report
- Investigate the use of pull printing and other print-limiting technologies
- Stop buying more colour printers, utilise the ones you have more effectively and if new colour printers are required, pay particular attention to what constitutes a colour page and how they are billed.

AND THEY ALL LIVED...SENSIBLY EVER AFTER!

Colour printing *is* necessary and it has its place in business. The message behind this white paper is that colour costs are rising faster than most companies realise and will continue unless some checks are put in place. This requires an understanding of current page volumes and costs, a clear corporate policy on the use of colour, focussed management attention and better user education.

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About the author: Nigel Hancock is a Senior Consultant with Newfield IT. He has over 25 years experience in the industry and has carried out strategic print management programmes at many large, international organisations.

NewField IT is vendor independent, specialist print management software and services provider and has carried out print reviews at over 40 different organisations employing more than 120,000 people.

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