

DESIGNING MAPS FOR THE SCREEN requires a different approach from designing for printed output.

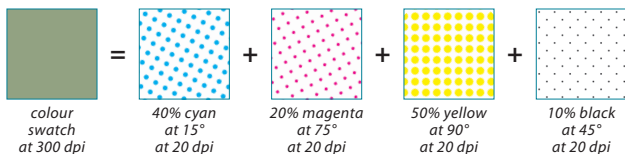
## PRINTED MAPS

Although production costs are higher, printed maps can show more information, use smaller symbols and use a wider range of colours than screen maps because they have a higher resolution. When designing for printed maps, bear in mind:

- You're probably going to print using the four 'process' colours (CMYK) and the colours you see on screen are RGB colours. Use a printer's colour chart to get the right colour, don't rely on what you see on screen.

- If a particular colour is required (eg for a company logo) it can be printed as a special colour in addition to the process colours — but adds to the expense.
- Resolution of images for printing should be 300 dpi.

Most printed colours can be created using the four process colours in different proportions, from 0 to 100% of each. The first step in the printing process is to generate colour separations to obtain the screens. Each screen consists of tiny dots - the higher the percentage, the bigger the dot. The primary screens are printed on top of each to form the colours. When viewed on the printed page the dots optically merge to produce the tint.



The khaki colour comprises 40% cyan, 20% magenta, 50% yellow and 10% black. The separated screens are shown enlarged to 20 dpi to illustrate the relative dot sizes and screen angles.

### did you know...?

Most printed products use a series of small, overlapping dots of cyan, magenta, yellow and black (CMYK) to make up full coloured images. The range of colour is achieved by mixing the dots in different proportions. The grid of dots (or 'screen') of each colour is angled differently to avoid unwanted patterns. In contrast, colours on a computer screen are created by mixing red, green and blue (RGB) in different proportions, and they appear in regular grid cells (pixels).

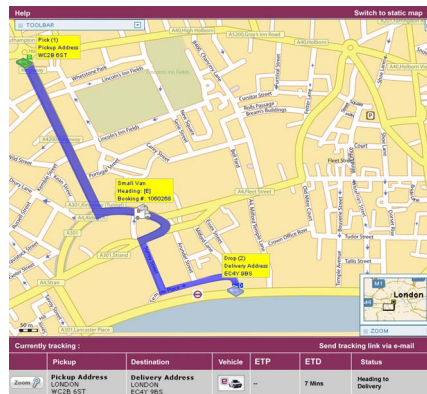
## SCREEN MAPS

Maps on screen are cheaper, easier to send out and can be interactive. But you're limited by screen size, available colours and lower resolution than printed maps. When designing a map for the Web, bear in mind:

- Design maps for screen-sized views, to avoid scrolling.
- Resolution should be 72 to 100 dpi for Web output.
- To ensure your colours will be displayed to most Internet users as you had intended, always select colours from the 216 web-safe colours. These colours should look the same on all browsers.
- Screen colours are mixed using RGB, not CMYK, so colours designed for printing won't look the same.
- Work with a few well-contrasting colours.
- Font options are limited on screen browsers, so stick to common typefaces.
- Increase the size of the text, point and line weight throughout.
- Avoid italics and text effects.
- Increase the size of symbols for screen maps, and generalise more.

### useful tip

GIFs and PNGs are small files and good for 'flat' graphics like maps and logos, JPEGs are good for continuous tones (like photographs) and PDFs are good for downloadable maps.



- If you're designing for the screen, it's good to have separate higher resolution printing options available (one colour, one black and white).
- Many people print in monochrome, so check that a colour map on screen still looks OK when printed out in black and white. Insufficient contrast between tones is usually the problem.

Delivery route: Courtesy of RIN