

6.7 Portable document format (PDF)

Portable Document Format is an electronic file format created by Adobe™, initially to provide a standard form for storing and editing publishable documents. Documents in PDF format can be viewed easily and printed by users via a variety of computer programs. They are the most popular document-sharing file format and are very popular on the world-wide web.

PDFs are generally a second-generation file format; the files are initially created in other software programs and then re-created as PDFs. Vector, raster and typefaces (fonts) are contained within the PDF. When creating PDF files the user has considerable control over the following characteristics:

- **Pages:** It is possible to select which pages are required as PDFs, particularly useful when working with large files consisting of several pages. Rather than processing the whole document, it only processes the pages required, saving time.
- **Bitmaps:** It is possible to sample the resolution of a bitmap at the scale required. This is particularly useful when reducing the file size by reducing resolution. The file size can be reduced still further by selecting the appropriate compression for the bitmaps such as JPEG or LZW.
- **Fonts:** When working with fonts it is essential that the fonts used are embedded or converted to curves/paths. If the font used is not embedded, it is possible that the PDF will substitute a multiple master font that provides the best match. If fonts are saved as curves they will no longer be a font but a curve, which makes them practically uneditable.
- **Colour modes:** It is possible to set the colour mode to suit the final purpose of the PDF. This can assist in reducing the file size and helps print bureaus, as the majority will work in CMYK mode. When printing in colour with digital or lithographic output always use the CMYK mode. When viewing on screen use the RGB mode. When the final output does not require colour but tints of black (greys), use the greyscale mode.
- **Pre-press:** It is common practice to send PDF files to printers for digital and lithographic print runs. When publishing PDFs the document can be set with crop and registration marks to assist in the finishing process. With the increased adoption of PDF, an industry standard has been defined – called PDF/X – to ensure more reliable pre-press data interchange. This file format standard is now widely used by designers to create a file that they can be confident will be printed predictably and correctly by the service provider, whether it is a commercial print job printed on one site, or an advertisement placed in many publications and printed across the world. Printers and publishers should ideally be provided with digital page layouts that can be confidently run through pre-press without requiring reworking or causing errors, ensuring they meet customer expectations of the final product.