**Desktop publishing**

Desktop publishing (DTP) is the process of designing newspapers, magazines, books, leaflets, booklets, and reports on a desktop computer. The industry that produces these items is the publishing industry. Designing the structure and format of the publication and the layout of each page is the job of the graphic designer, while the process of creating the publication on paper is printing.

**The history of printing**

Until recently, publications were produced using a labour intensive, mechanical printing process. A typesetter selected individual metal letters (types) and assembled lines of type on a 'composing stick'. The 'sticks' were arranged as text columns in a galley and the rows were spaced with strips of lead (hence the term leading). Once complete, the type was inked and paper was pressed on top of the galley. Over the years, the development of new printing technologies such as rotary presses and offset lithography (a high quality printing method used in high volume publications such as newspapers and magazines) has greatly improved the quality and speed of the printing process.

The introduction in the 1980s of powerful desktop computers and WIMP (Windows, Icons, Menus and Pointing device) interfaces has revolutionised the design and preparation of documents for reproduction. Slow and costly manual typesetting processes have been replaced by fast, flexible DTP software, which allows text and images to be quickly and easily imported and arranged to create exciting designs. Camera-ready artwork - used to develop lithographic printing plates for high-volume production- can be outputted directly from the computer. 'Plateless' digital printing technologies such as high-quality colour laser printers make low-volume publications fast and economical to produce.

**Benefits of DTP**

DTP provides a number of benefits to publishers and graphic designers:

- Design work and publication time is greatly reduced as designers can create standardized layouts to be used time and again.
- Text and graphics can be imported from a variety of sources and locations around the world.
- Text and graphics can be positioned accurately using grid and snap, scale, rotate and crop functions.
- The proposed layout can be sent electronically to the editor or client for approval prior to printing.
- Modifications can be made easily and quickly.
- Once approved, the final layout can be sent for printing electronically with little or no time wasted in pre-production.

**The client also benefits from the designer's use of DTP software:**

- The speed and quality of production are important to clients.
- Designers can quickly produce high quality visuals for presentation to the client.
- Visuals can be sent for approval electronically, saving time.
- The client’s modifications can be made quickly and easily.

**DTP hardware**

A typical DTP system would comprise a desktop computer (publishing companies use more powerful computer workstations) and a range of input and output devices.

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*Figure 1 - DTP Hardware*
For input, the following devices might be used:
- **a scanner** to create electronic copies of existing text and graphics
- **a digitising tablet** to 'point and pick' from a menu or create pictures
- **a digital camera** to take digital images for use in the publication.

For output:
- **a colour laser printer** for proofing (checking) and short runs
- **an ultra high resolution monitor** with a large screen. Publishers will use screens that display double page layouts actual size.

In addition, a **modem** provides both input and output for sending and receiving material from remote locations.

**DTP software**
DTP software has many features that enable the graphic designer to create exciting page layouts. There are a large number of software packages on the market, including:
- **image editing applications** for manipulating digital photographs and scanned artwork
- **drawing applications** for producing high quality line-based illustrations
- **page layout applications** for assembling text and images into finished documents ready for printing.

These applications offer the following important features.

**Colour fills**
Colour fills provide background colours, textures and fill effects that enhance publications and websites.

**Colour editing tools**
Colour editing tools give the graphic designer the choice of thousands of colours, tints and shades. A colour mixing palette enables graphic designers to mix their own colours.

Effective use of colour is vital in graphic design. It can be used to communicate a variety of moods to different target markets. Large companies have carefully chosen corporate colour schemes that help identify the organisation to the public. These appear on all of the company’s publications and websites.

**Drawing tools**
Many publications and websites need original artwork, which can range from simple boxes with colour fills to very complex drawings. Drawing tools enable these graphics to be produced and integrated into page layouts.
Picture and photo editing

Graphics play an important role in DTP. They can be used to illustrate an article or enliven a layout. Cropping images to reduce unwanted background or to remove the background completely are common editing features.

Cropped images can create a variety of shapes that provide a contrast with the rectangular structure of the page. A cropped graphic can be positioned close to or within the body copy so that the text can be wrapped around it.

Dave MacLeod on the third ascent of Leo Houlding’s 1999 classic route *Trauma* overlooking the Nant Peris pass in North Wales. After eight years without a repeat *Trauma* was climbed three times in three months in the spring and summer of 2007.

Cropping gives the graphic designer a great range of creative options and can help bring an article to life.
**Grids and guidelines**

Grids and guidelines improve the accuracy of positioning and alignment of elements. *Snap to grid* and *snap to guideline* functions make it easier to produce accurate layouts.

**Columns**

*A column* structure can make a publication or webpage easier to read. Columns also help improve alignment and page layout.

**Layers**

Layers give the graphic designer more control over the page layout. Headers and footers may be stored on one layer and the body text on another. The use of layers is especially useful in an international market where different languages can be stored on separate layers and added to different versions as required.

**Frames**

Text and pictures are contained in *frames* so they can be moved around independently of one another. This enables creative layouts to be designed. Handles allow selected frames to be resized and reshaped.
**Headers and footers**
Headers and footers run through the publication and contain information that repeats from one page to another, such as the publication’s name, section headings, topic titles and page numbers.

**Text**
Text may be put to many different uses in a publication, and the different uses need different typographic treatments. **Headings** and **titles** introduce an article while **subheadings** break the article down into smaller chunks. **Captions** explain a photo or graphic and **pull-quotes** draw the reader into an article. **Headers and footers** give additional information about the publication or section. The main body of text is called **body type** or **body copy**.

**Typeface (font style)**
Fonts come in **serif** and **sans serif** styles. Serifs are the decorative features at the end of strokes of letters, numbers and symbols.

**Serif fonts** tend to create a formal, serious look. They are often used for body copy in newspapers and magazines.

**Sans serif fonts** lack the decorative features and tend to give a less formal, more modern look.

Graphic designers can create contrast by using a sans serif font for headlines and a serif font for body copy. There are modern fonts in script, handwriting and fun styles that should never be used in body copy. They are fine for invitations, compliments slips and cards where the text is kept to a minimum and the line spacing (leading) can be increased.

Examples of each font style are shown below.

**Serif Fonts**
Times
Garamond
Palatino

**Sans Serif Fonts**
Arial
Tahoma
Verdana

**Fun Fonts**

**Brush Script**

**Impact**

**STENCIL**

Choice of font style is down to readability and the target audience of the publication, it is best not to use too many fonts in a publication.

Headings, sub-headings and captions should be different to your body copy fonts. When in doubt, use a sans serif font for headings and sub-headings and a serif font for body copy.
Text formatting

Text size is measured in **points**. Headings require large, bold sizes. Body copy is smaller.

**18 point bold text**
**10 point regular text**

**Kerning** is used to avoid unsightly gaps between certain pairs of characters, particularly those with sloping uprights and overhangs. Most fonts contain extra information, **kerning tables** that DTP software can use to kern text automatically.

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**Tracking**

-40 **WAVE RAVE**
0 **WAVE RAVE**
+80 **WAVE RAVE**

An **indent** creates a visual start to a new paragraph.

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**Bullet points** are visual aids and are excellent when listing facts or items.

- Trains are safe
- Planes are quick
- Boats are an experience

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**Leading** is the vertical space between lines.

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A **drop capital** signifies the start of an article and indents the body copy adjacent to the drop capital.

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Text formatting (continued)

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END OF PART 1