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There's a drawing package to suit everyone from dabbler to dedicated designer. We present a guide as to what you can do and which product does it best

Drawing Conclusions



When it comes to producing original artwork on your PC there are two types of program you can use to do the job. Painting software lets you paint images on screen as you would on a canvas, and it's mainly used for editing photographs. Once you've 'painted' something on the screen, you can only erase it or paint over it as you would with real paints.

Drawing packages, on the other hand, deal in independent shapes which can be picked up, moved around the page, stacked on top of each other, resized or stretched, rather like infinitely-elastic fridge magnets. This makes them ideal for drawing things like technical diagrams, illustrations, logos and the like.

If you're in the market for some drawing software, the choice is bewildering. You can pay from under £30 to over £500, but whatever your budget, the important thing is to get the software that suits you. Are you going to be drawing completely from scratch or do you need a library of ready-made clip-art? Are you

going to be using a home or office printer or sending the job out to a firm? Do you want to go it alone or would you prefer to use 'Wizards' and other ready-made projects? Read on for a guide as to what you can do and who does it best, then consult our feature table for a blow-by-blow comparison of 11 products.

Drawing tools

So, what can you do with drawing software? Well - obviously enough - you can draw. You'll usually get basic shapes such as rectangles and circles that you drag out on to the page, but many packages will offer more - such as ready-made stars or arrows - that save you the trouble of constructing these from scratch. Windows Draw and Serif Draw Plus score well with ready-made shapes.

More complex shapes are made up of 'Bezier curves' - lines that you can stretch and bend in any direction by dragging on 'handles' with the mouse pointer. The handles hide themselves when you've finished editing the curve.

You will often find that you'll need to swap between moving and sizing objects and fine-tuning their nodes and handles. Usually you'll need to change tools in order to rotate an object instead of move it, but Corel Draw offers a neat shortcut in that one click on an object produces the sizing controls and a second click the turning ones.

Filling it in...

Having created a shape you'll probably want to colour it in some way. Each object has an outline and a fill - you can vary the colour and thickness of the former, but there are many more options for fills. As well as plain colours or patterns, you can mix two or more colours in a shaded or 'fountain' fill that gradually changes across the object. There are many uses for this, the most obvious being to give realistic shading to representations of curved surfaces. Corel Draw is the outright king of the fills, with numerous options, and an additional set of fractally-generated patterns that can look like water, marble or limitless

abstract effects. A variation on fills is a 'transparency' feature, where objects can be faded to show more or less of what's beneath. Currently, only Corel Draw, Xara and Expression feature this.

Text tweaking

A fun thing to do with drawing software is tweak text. All these applications will let you place a line of text along a 'path' - either slanting down the page, in a curve or even rolled up in a spiral. Most (but not Adobe Illustrator) will let you edit the 'envelope' of text, which is rather like having the words printed on a sheet of rubber and stretching it about.

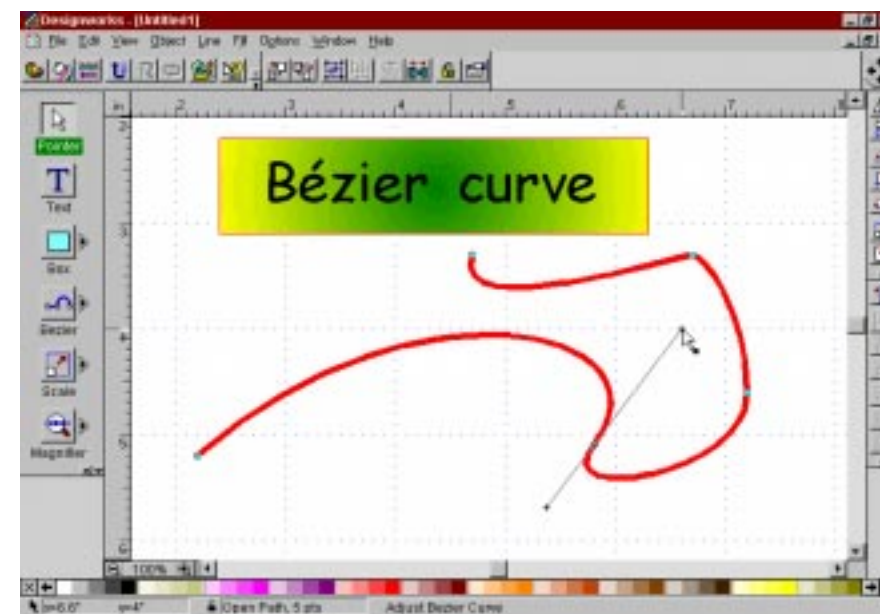
Colour control

If you're just going to output to screen or a colour printer, then colour control probably isn't that important. For commercial printing, though, there are four things to look for. First - colour hardware management systems that match scanner, screen and printed output. Second, colour library support. If you specify a colour from an industry-standard library, such as Pantone, you can be confident that the colour on the final printed page will match the corresponding swatch in a sample book.

Thirdly, it's useful while drawing to be able to manage the palette of colours used, rather than pick colours at random. This way, you can for instance, change all the shades of a particular colour into shades of another one - turning, say, a red car into a blue one. Finally, if you're going to print commercially, you need to create separations in both spot and process colour. This intimidating bit of jargon is simpler than it seems. For each ink colour, the printing firm needs a separate plate. Hence the need to 'create separations'. Spot colours are those used on their own. A company logo might consist of black text on a yellow background - needing two plates, black and 'spot' yellow. Process colour uses four plates - black, yellow, magenta and cyan - to create the complete range of colours by interspersing tiny dots. Of the cheaper packages, Designworks is the only one to offer separations and colour libraries.

Organisation

If your software will open more than one file at a time, it makes it much easier to copy items between drawings. All the software here will let you 'group' objects. This way you can select all the components of a logo, for instance, with one click, and not risk disturbing their carefully-arranged relationship. You can also stack objects on top of each other and change the order by sending a



Above: Dragging the 'handles' on a Bézier curve in Designworks.

Left: Xara's great transparency and one-click colour change.

selected object to the top or bottom of the stack. This isn't the same as 'layering'. You can assign objects to different layers then make a whole layer invisible or locked. This way you can temporarily hide distracting detail, or protect your work from accidental changes.

Clip-art

No one wants to re-invent the wheel, and most of us can't draw anyway. This is where clip-art comes in - you want a picture of a jumbo jet, a rainbow trout or the Eiffel Tower? Dig one out of the clip-art collection. There are three things to bear in mind with clip-art. First, quantity - you'll get anything between 1,000 and 35,000 images, usually stored on CD-ROM. Obviously, the more you have, the greater chance of finding exactly what you need for a project.

Second comes quality. This varies a lot. Corel and Micrografx, for example, use their own file formats and the quality is generally excellent. Serif and GSP, on the other hand, use generic formats that don't support as much detail and aren't properly editable. Third, you need to manage this library - ideally you need

both a printed catalogue and a 'browser' that will show you thumbnail previews of each picture grouped into categories.

Professional designers probably won't need a vast amount of clip-art, as they are usually paid to produce original work, but there are still useful libraries of standard international signs and symbols. Somewhat out on a limb is Fractal Design Expression - this doesn't have any clip-art but it does come with 500 'strokes'. A stroke can be a 'natural'-looking smooth or ragged brush stroke, or a small picture such as a plant or fish. No two strokes are the same, giving a very painterly effect, but every stroke is still an 'object' with a skeleton that can be stretched and twisted like any other curve.

Fonts

A few good fonts, used well, are much more worthwhile than many poor ones. Also important is the format. TrueType font technology is built in to Windows, but Adobe Type 1 fonts need their own Type Manager installed. In spite of this, they are generally preferred by professionals. Illustrator comes with 300 fonts - but only in Type 1 format. Micrografx





Drawing software compared

Product		Adobe Illustrator 7	Corel Draw 7	Macromedia Freehand 7	Micrografx Graphics Suite 2	Corel Xara 1.5	Fractal Design Expression	Arts and Letters ~Express 6	Windows Draw 5	Serif Draw Plus 3	GSP Designworks 3.5	Mini Office Draw
Product	Contact	Adobe 0181 606 4000	Corel 0800 973 189	Computers Unlimited 0181 358 5857	Micrografx 0345 089372	Corel 0800 973 189	Principal Distribution 01756 704000	Devenill Business Systems 01202 722554	Micrografx 0345 089372	Serif 0800 924925	GSP 01480 496666	Europress 01625 859333
	Price (inc VAT)	£351.33	£581.63	£528.75	£292.58	£199.75	£386.58	£99.95	£45	£59.95	£39.95	£29.99
	Will it run on Windows 3.1?	○	○	○	○	●	○	●	○	○	●	●
	Processor (min/recommended)	486/Pentium	Pentium 60/120	486/Pentium	486	486	486	386	486	386/486	486	386
	RAM (min/recommended)	16/32	16/32	16/32	8/16	8	12/16	4/8	8/12	8	8/16	3
	Disk space (min/max)	20/70	40/412	25/60	115/200	13/40	18/90	13/166	45/65	15/27	5/45	5
Features	Layers	●	●	●	●	●	●	○	●	●	●	○
	Colour separations	●	●	●	○	●	○	●	○	○	●	○
	Colour libraries	7	9	18	8	6	○	○	○	○	4	○
	Colour group management	●	●	●	●	●	○	○	○	○	●	○
	Colour hardware matching	●	●	●	○	●	○	○	○	○	○	○
	Multiple pages	●	●	●	●	○	○	○	○	○	○	○
	Multiple documents	●	●	●	●	●	●	○	●	○	●	○
	Pressure-sensitive pen support	●	●	●	○	○	●	○	○	○	○	○
	Transparency	○	●	○	○	●	●	○	○	○	○	○
	Fonts	300	1,000	493	437	500	0	1,000	250	400	54	200
	Font format	Type 1	TT and Type 1	TT and Type 1	TT	TT and Type 1	N/A	TT & Type 1	TT	TT	TT	TT
	Clip-art	1,000	32,000	10,000	35,000	10,000	500 strokes	15,000	20,000	17,500	1,200	2,000
	Clip-art browser	○	●	○	●	●	○	●	●	●	●	●
	Clip-art and font quality	★★★★	★★★★★	★★★★★	★★★★	★★★★★	N/A	★★★★★	★★★★	★★	★★	★★
Ratings	Text control	★★★	★★★★★	★★★★	★★★★	★★★★	★★★	★★★	★★★★	★★★	★★★★	★★★
	Ready-made shapes	★★	★★★	★★★	★★★★	★★★	★★	★★★	★★★★★	★★★★★	★★★	★★★★
	Speed	★★	★★★★	★★★★	★★★★	★★★★★	★★★	★★★★	★★★★	★★★★	★★★★	★★★
	Ease of use	★★	★★★★	★★★	★★★	★★★★	★★★	★★★	★★★★	★★★★★	★★★★	★★★★
	Documentation and tutorials	★★★	★★★★	★★★	★★★★	★★★★	★★★	★★★	★★★★	★★★★	★★★	★★★
Verdict	Extras	★	★★★★★	★	★★★★	★		★★★	★★★	★★	★★	★
	Overall	★★★	★★★★★	★★★	★★★★	★★★★	★★★	★★★★	★★★★	★★★	★★★	★★★
Verdict	Verdict	A tremendous improvement on the previous version, but still slow and poorly equipped for a high-end product – minimal clip-art and extras.	The one that has everything – expensive, but fabulously well equipped, with good help, tutorials and a host of extras. Faster and easier to use than version 6.	Sleek and professional, with excellent colour control, but not as fully featured or user friendly as Corel Draw. Also available in a graphics suite.	With plenty of extras, this is aimed more at the business user rather than the artist, and colour support doesn't match the other top-enders.	Although many of the brilliantly original features of this British-developed package have since been copied in Corel's main product, it's still faster.	A wonderfully original product, this doesn't really compete as an all-rounder, but would make a wonderful addition to a professional designer's toolkit.	A rather quirky interface and a higher price than the the other budget packages is compensated for by a superb and original clip-art collection.	The best of the budget buys – easy to use, with plenty of good-quality fonts and clip-art and a good range of projects.	Easy interface, with lots of help, many ready-made projects and fun features. Fonts and clip-art are plentiful but of poor quality.	Easy to use and the only budget package with 'pro' colour libraries and separations. Poor on fonts and clip-art.	Cheap and cheerful – this is, in fact, the previous version of Serif Draw Plus. Fun to use and very undemanding in terms of hardware.

○ No ● Yes ★ = Poor ★★ = Below average ★★★ = Average ★★★★ = Good ★★★★★ = Excellent

Designer (part of the Micrografx Graphics Suite) sticks to TrueType whereas Corel Draw and Freehand offer both sorts. At the budget end, Windows Draw has the best combination of quality and quantity. Both Serif and GSP use 'own brand' fonts which are not as good.

Ease of use
If you just want to get on with it Serif and GSP offer a very simple interface and lots

of helping hands in the form of 'Wizards' or 'PagePilots' to guide you through simple projects. Windows Draw is rather more complex, but again, there's plenty of help, and the ready-made projects are more elegant. At the high end, neither Illustrator nor Freehand are particularly newcomer-friendly, being aimed squarely at the professional. Micrografx Designer is aimed more at the general business user, with a selection of Project

Wizards and book-based tutorials. Corel Draw, despite its awesome power and complexity, is comparatively easy to get started with – there's a hint panel and a set of disk-based interactive tutorials.

Extras
Besides a drawing program, you can often get a whole range of extras – Corel Draw, for instance, includes fully-featured image editing and 3D programs,

as well as utilities for scanning and optical character recognition. Similarly, Designer as part of the Micrografx Graphics Suite, comes alongside image editing, flowcharting and 3D applications and its little sibling, Windows Draw, also includes simpler 3D and image-editing programs.

In the table above we've given each of the 11 contenders in this drawing software test marks out of five on the quality and quantity of extras. ●

WHAT PC? As an all-round winner, if money is no object, there can only be one choice if you are buying a drawing software package. Corel Draw is our outright best buy this year, as it has more of everything – including the all-important help and tutorials – has a great bundle of extras, and does the job better than anyone else.

WHAT PC? For the serious artist after a great drawing program without so many frills, Corel Xara is recommended – it pioneered many of the features new to the current version of Corel Draw, and still beats it on speed. For the budget buyer there is a hard choice, but the quality of fonts and clip-art tipped the balance in favour of Windows Draw.

Tim Nott