

DrawWorks



Release 2

iSV
Products

3QD
DEVELOPMENTS LTD

APDL

DrawWorksXL

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DrawWorks XL

What is it?

DrawWorks is a bolt on addition to Draw, the drawing program supplied with all RISC OS computers. DrawWorks is used alongside Draw and attaches itself to a Draw window whenever one is opened. A new toolbar will appear on top of the Draw window whenever DrawWorks is running.

DrawWorks XL will work on almost any RISC OS version from 3.1 and is 32 bit (lyonix) compatible. It will also work with the disc based versions of Draw supplied with RISC OS Select and Adjust as well as the standard version of !Draw and !DrawDA.

What does it do?

The DrawWorks toolbars provide easy to use shortcuts to many of Draw's features. For example, to change the fill colour of a selected object you would normally have to navigate the menu structure to find the fill colour dialogue box. With DrawWorks you simply click on the Style button and then on the Fill Colour button. This makes Draw much easier to use.

DrawWorks not only makes existing Draw functions easier to use but it also adds a host of new features. These work in such a way that although DrawWorks is performing these new features they all behave as though they are part of Draw itself. Any special tools or effects you use will happen inside the Draw window that you are using.

Interactive Help

DrawWorks supports Acorn's interactive help as well as the popular BubbleHelp application. In addition DrawWorks will display help text on its main tool bar as you are using it.

Before using DrawWorks

The DrawWorks suite consists of a number of integrated applications and products. Some of these are located on the DrawWorks CD, so when using DrawWorks you may need to place the CD in your CD drive.

RISC OS 3.5, Select and Adjust

If you are running RISC OS 3.5 or another version of RISC OS where the !Draw application is on the hard drive and not in ROM then you will need to run the program called !DrawPatch before you first load DrawWorks. Once you have run !DrawPatch once it can be safely deleted.

Loading DrawWorks

To load DrawWorks simply double click on its icon. A banner will appear and after a few seconds it will load onto the icon bar. Ideally Draw should be run after DrawWorks. If it is already running when DrawWorks is started then some DrawWorks functions may not operate correctly.

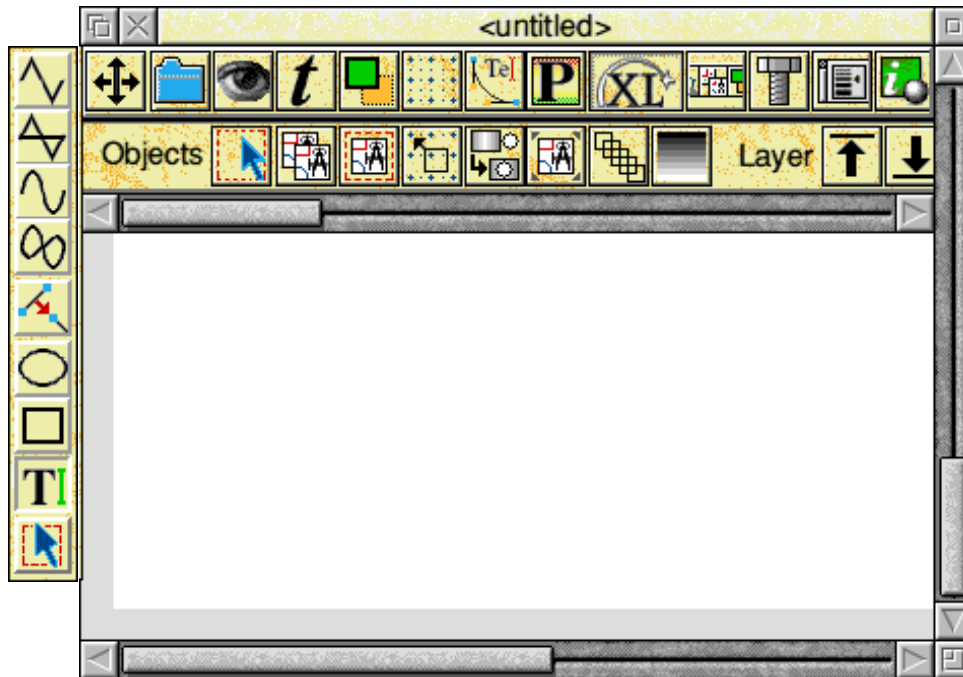
To ensure that Draw is run after DrawWorks it is possible to make DrawWorks run Draw when it is started, and this is the recommended method. However, if you have previously been using Draw on its own DrawWorks will need to force it to quit to avoid having two copies running. You will be warned before this is done, but make sure that any work you have been doing in Draw has been saved before you run DrawWorks.

Starting off

Once Draw and DrawWorks are loaded on the icon bar you are ready to start. Click SELECT on the Draw icon to open a new window. DrawWorks will detect this window opening and will attach itself to it.

The DrawWorks toolbar

The DrawWorks toolbar has two rows of icons with a scroll bar below the second row. DrawWorks has its tools arranged in groups. In the example shown the second row of tools are all used for editing. The tools on the second toolbar depend on which button is clicked on on the top row.



If you click on different buttons on the top row you will see the tools on the bottom row change. Note that tools are grouped by function with a small label next to each group. In the example above you can see two tools next to the "Layer" icon. These are Front and Back and are equivalent to Draw's "Front" and "Back" from the "Select" menu.

This manual will concentrate on the new facilities offered by DrawWorks. Buttons that control Draw's normal features will not be explained in depth as these are covered in the RISC OS Applications Guide. To get the best from DrawWorks the user must be reasonably familiar with Draw.

Controlling DrawWorks

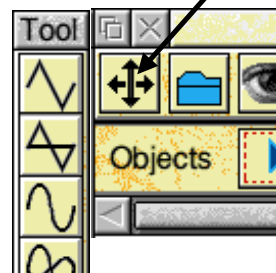
The DrawWorks tool bar is normally attached to the top of the Draw window and follows it around the screen. This is automatic and you do not need to do anything for it to happen.

As you will see later you can configure the toolbar to be either inside or above the Draw window.

If you want to place the DrawWorks toolbar at a fixed location on screen you can drag it by holding down SELECT on the drag button.

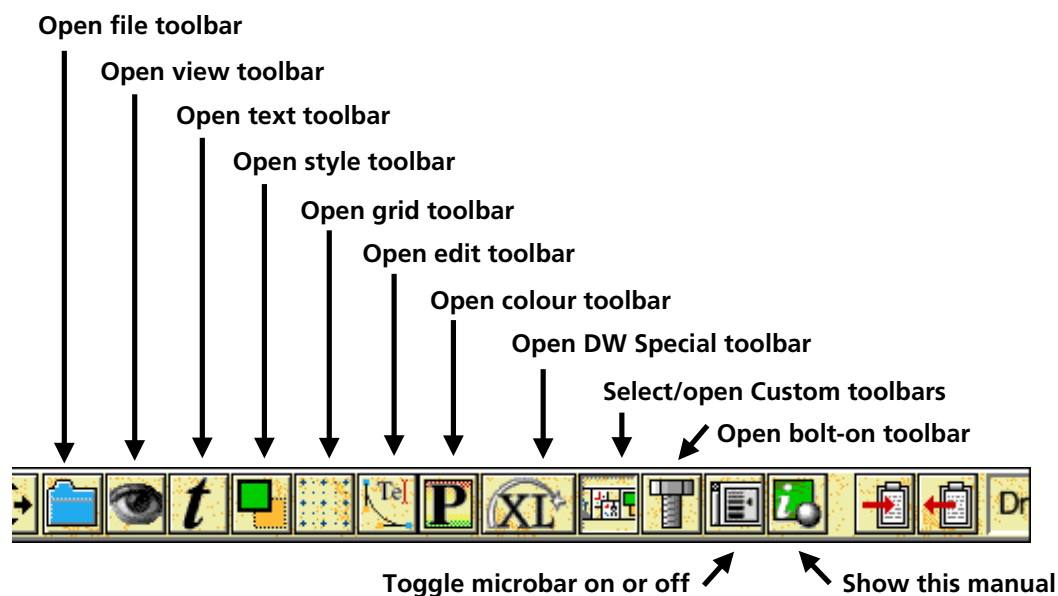
If The DrawWorks toolbar is obscuring part of a Draw window you want to see you can turn it off temporarily by holding down the ALT and T keys on the keyboard. Note that the DrawWorks toolbar will only appear on screen when a Draw window has input focus. If another task has input focus the DrawWorks toolbar will not appear. If you click back in a Draw window the toolbar will reappear.

Drag with **SELECT** to move toolbar
Click with **MENU** to re-attach toolbar



The top row

This is the top row of tools on the DrawWorks toolbar. Each button on the top row opens a new set of tools in the second row.



For example, if you click on the "Open colour toolbar" button on the top row the buttons in the second row will change to those related to DrawWorks colour pickers or colour and tint modification tools.

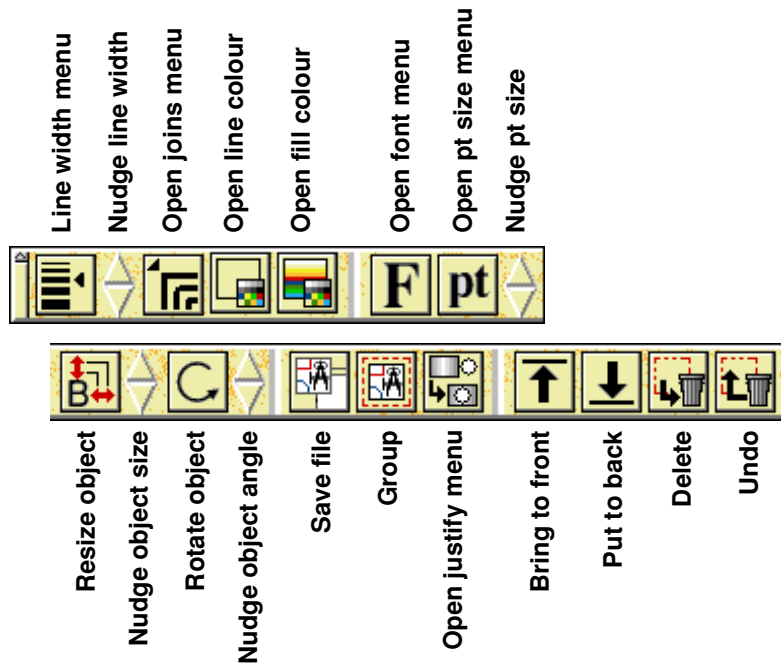
The DrawWorks toolbars contain a mixture of features. Some of these just offer a quick way of using Draw's standard operations. Others add completely new tools.

The DrawWorks Special toolbar contains special DrawWorks tools, none of which are part of Draw.

The two icons on the right hand end of the toolbar are used to Cut and Paste to and from the Universal Clipboard. They will only be present when using DrawWorks with RISC OS Select or Adjust.

The Micro Toolbar

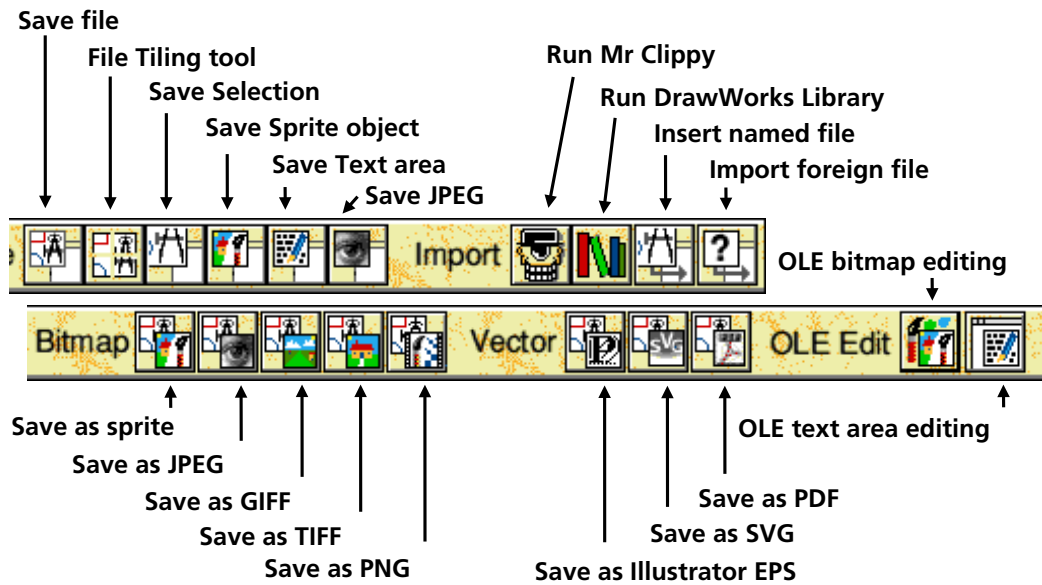
This is another DrawWorks special toolbar, the microbar. It contains many of the most commonly used DrawWorks buttons all in one place and saves having to switch between the various other toolbars for these tools.



The microbar can be moved around the screen by clicking on its left hand end and dragging. It can be closed with the little close icon in the top left corner. If you do close the bar and want to re-open it then you can do this using the "Toggle Microbar" button in the main DrawWorks toolbar.

The File toolbar

This toolbar is used for loading and saving files.



Some of these features are provided by Draw and others by DrawWorks. For example, export as Sprite/JPEG/GIF/TIFF/PNG/SVG are DrawWorks tools, Save file is a Draw tool. So to save a file you would click on the Save file button and a standard Draw Save dialogue box will open, then drag the file to disk.

Save Selection, Save Sprite object, Save Text Area and Save JPEG are Draw tools and are equivalent to selection these items from Draw's menu. Resolution

The "Import foreign file" tool allows you to import files produced in WMF (Windows MetaFile), EPS (Encapsulated PostScript) or ArtWorks. You can also import bitmap images such as GIF, JPEG, PNG and TIFF files.



File Tiling tool

A draw file can be up to A0 size, so the DrawWorks Tiling Tool can split up a large file into a number of smaller sections.

When you run this tool if you click on its button with SELECT then the entire file will be tiled, if you click with ADJUST then only the selected objects will be dealt with. This lets you tile only a section of a file which is still too large to be printed on a single sheet.

On the left of the window are details of the paper. At the top is the actual paper size. The three 'radio' buttons let you choose between A3, A4 or A5.

Below this are the sizes of the borders, the area around the edge of the paper on which the printer cannot print. You can enter the sizes directly into the icons, but unless you know exactly what you are doing the best way to set the paper size is to load the printer driver you intend to use and click on 'Read'. This will read the actual paper and border sizes from the printer driver.

Crop marks, if ticked, will place a faint 'L' shaped mark at the corners of the actual printed area. This lets you accurately trim off the borders if you intend to join the sheets together.

Overlap is an allowance in millimetres for the sheets to overlap. This is useful if you intend to crop the edges of sheets and join them together as it allows a small margin for error. On the right are various other options. Portrait and Landscape set the paper orientation. You can choose either, but for a particular file one will normally take less sheets, so it is usually best to try both and see which will be more economical. The number of sheets required is calculated and shown as Num sheets at the bottom of this section of the window. Each time you change one of the parameters this is re-calculated and updated.

Scale sets the scale of the tiles drawfiles. If you want to check the files before printing them it is often useful to have the 'Zoom' in Draw set to less than 1:1 so you can arrange them on screen. The number set here diminishes the scale, that is, is equivalent to the setting on the right hand side of Draw's Zoom setting.

The Save button at the bottom left of the window saves the settings in this window for future use so you don't need to reset them each time you use it. These settings are separate from all the normal DrawWorks Choices.

When you have set everything correctly drag the directory icon to a suitable filer window. You can change the name it will be saved under by altering the name in the icon to the left of the directory icon if you wish.

The DrawFile will be split up and saved as a series of files in this directory. The files will be given names which define their positions on a grid. Rows are defined by the letters A-Z, with A being the top row, and columns with numbers 01-99 with 01 being on the left hand side.

Export tools

The File toolbar has tools that allow selections to be exported in different formats. Some of these tools use !ChangeFSI for processing so you will need to ensure that a copy of !ChangeFSI has been "seen" by the filer before using any of them.

These tools all work in a similar way. You select the objects or objects that you wish to export in the Draw window and then click on the appropriate tool. Note that you can select any type of object to export, this includes text, text areas, vector artwork, sprites etc.

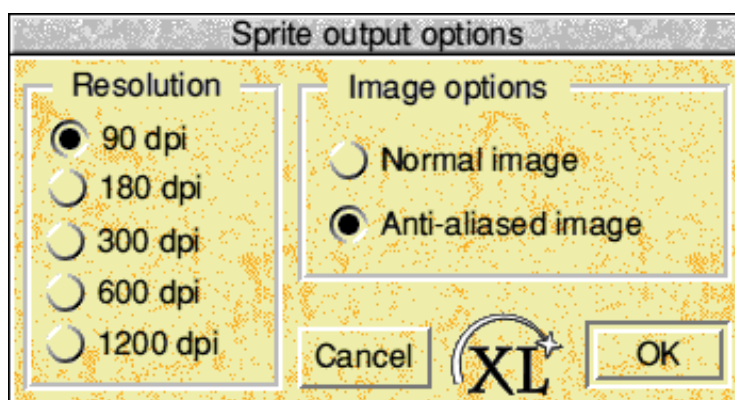
DrawWorks lets you set the resolution of exported bitmaps. The default, 90dpi, is the same as the screen resolution. 150dpi is twice screen resolution. You can choose resolutions up to 1200dpi for all the bitmap export tools, but exporting anti-aliased images at high resolutions will require a large amount of free memory.

Export as 256 colour sprite

This lets you export the current selection as a 256 colour sprite, with or without anti-aliasing. When you click on this a window will open and you can select either normal or anti-aliased.



Select the options you want and click on "OK". An hourglass will appear and after a few seconds a save window will open. Drag the sprite file from this window to an application or to an open filer window to save the file.



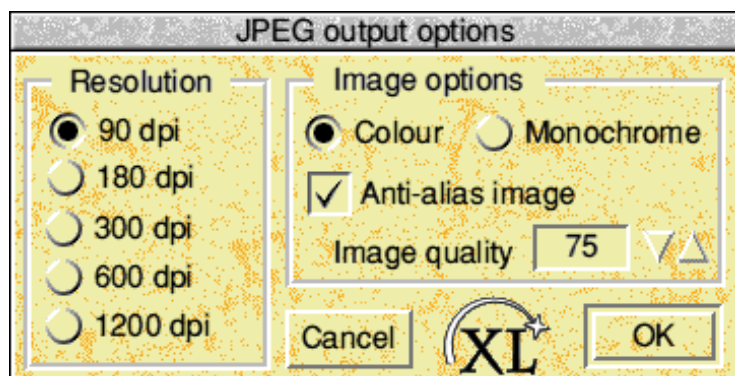
JPEG export.

After you have chosen the objects you wish to export and clicked on the tool the JPEG export window will open. Here you specify the type of JPEG you want.



You can produce a monochrome or colour JPEG image and select the quality. The higher the quality the larger the JPEG file will be, though higher quality will produce a better image, as will enabling anti-aliasing.

With RISC OS 3.1 the JPEG will have 256 colours, with RISC OS 3.5 or later it will have 24 bit colour. You can import JPEGs produced using this tool back into Draw. If you export it as a JPEG again at a later date using this tool rather than the save JPEG object tool the resulting image may suffer from a loss of quality. This is because of the way JPEG compression works. If you export an object at 75% quality and re-import the file and then use this tool on the JPEG again at 75% the resulting image



will only be at 56% quality (0.75 x 0.75). If you already have a JPEG file in a draw window and want to save it use the "Save JPEG object" tool rather than the JPEG export tool.

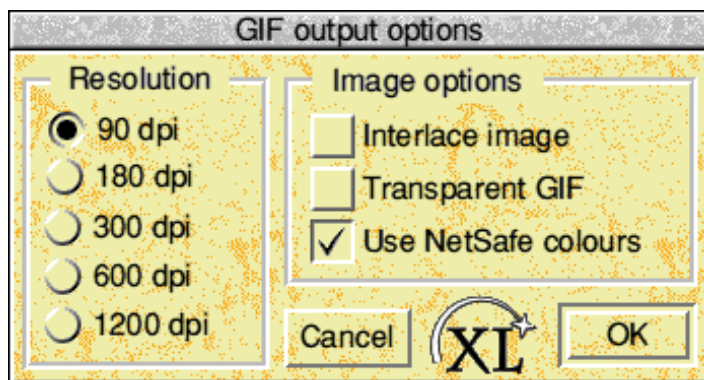


GIF export

The primary use for this tool is to produce GIFs for use in HTML documents as used on the World Wide Web. GIFs made by this tool all have 256 colours and are anti-aliased. The image can be normal or interlaced. You can also produce a GIF with white set to transparent.

For best results you should be in a 256 colour screen mode before using this tool. Also if you import GIF files into DrawWorks using the foreign file importer and then export them using this tool some colours may change very slightly.

The GIF exporter lets you produce GIFs that use only "NetSafe" colours. These are designed to look the same in all web browsers and operating systems. However they do have a smaller colour palette and images may look slightly different to those produced without "NetSafe" colours.

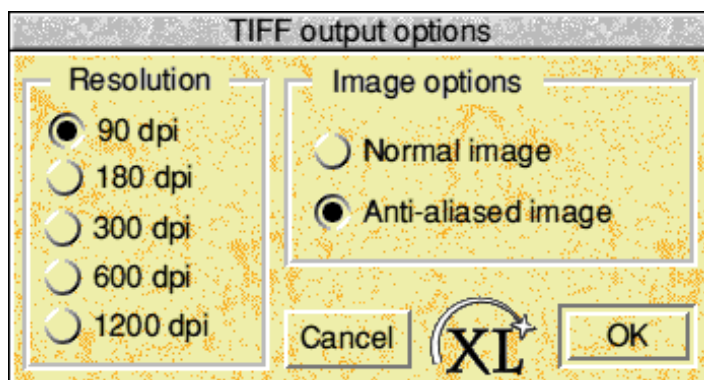


TIFF export

This opens a window after you have chosen the objects you wish to export and clicked on the button. Here you specify the type of TIFF file you wish to produce.

TIFF files are exported uncompressed with one strip containing all pixels. Files generated in this way can be read by many applications. However some versions of ChangeFSI are not able to read them wing to a slight fault in the ChangeFSI TIFF code.

Regardless of the computer this tool always exports a full 24bit image .

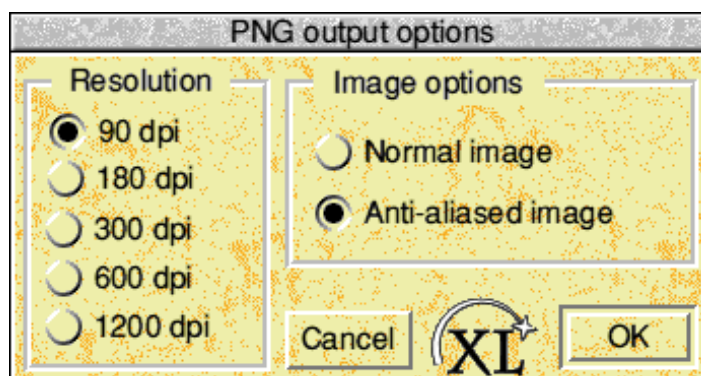


PNG export



PNG (Portable Network Graphics) is a type of bitmap graphics file mainly used for web graphics as it has certain advantages over both GIF and JPEG.

Images can be in full 24 bit colour with transparency, be progressive, have Alpha channels, and many other advanced features. However, most of these are superfluous when used with Draw, so the PNG export tool produces a straightforward 24 bit colour image.



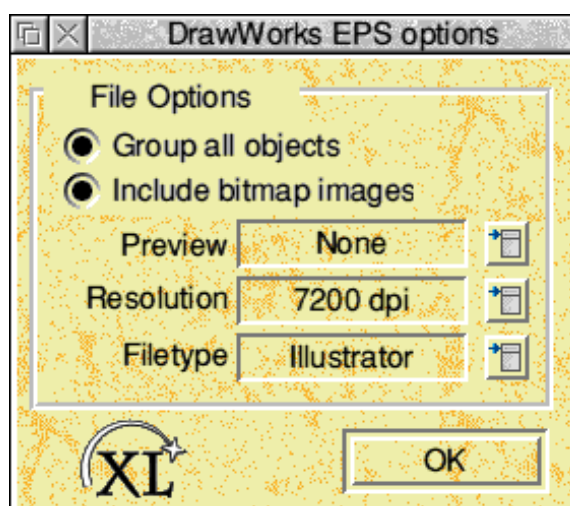
EPS export



EPS (Encapsulated Postscript) is a file format used on many platforms, including Apple and PCs. DrawWorks can export any vector graphics in Adobe Illustrator EPS format which can be read by a wide range of software on other types of computer.

Select the vector, text and sprite items you wish to export and click on this tool. The dialogue shown will open.

You can choose to include an Illustrator 7 preview image which lets PC or Mac users see what your file will look like before opening it. You can include any non rotated sprites that are selected and also group all objects in the EPS file. You can also choose to add an Illustrator filetype.



Different applications can produce different EPS files. EPS files saved from DrawWorks will load into most packages Corel Draw, Illustrator and Corel Xara2. Some applications render EPS files differently, for example Adobe Illustrator sticks rigidly to the PostScript winding rules which can render some objects incorrectly. If this happens you can go to Illustrators Objects Attributes option and choose the "correct path direction" controls. You can check if this problem will occur when exporting from DrawWorks by selecting all the objects and then going to the DrawWorks style toolbar and choosing "non zero" from the winding tool.

EPS export and text

Normally DrawWorks converts text objects to paths before exporting as an EPS file. This ensures that you don't have to worry about matching font names on other systems and the file will appear the same on all machines.

However sometimes it can be useful to leave fonts as actual text so that it can be edited on another system. Normally this is not possible, but DrawWorks can perform this action. To do this turn off the "automatically convert text to path" option in the DrawWorks preferences window and click on "OK". Now select the objects you wish to export and click on the EPS export tool. An EPS file will be created which can be saved to disk. If you now SHIFT double click on this file it will load into a text editor (normally !Edit). Near the top of the file you will see lines like this

```
%%DocumentFonts: Fruition,-Bold-Cond-Obl
```

This is a font definition. In this case a PostScript name for the iSV font Fruition.Bold.Condensed.Oblique. Using FontFiend you can export the fonts used in your document in PostScript format suitable for use with Adobe Type Manager running under Windows. Select each ungrouped text object in your document and click on the FontFiend button. Follow the instructions in the FontFiend manual for saving a PostScript font to make a PostScript font for each font used in your document. If you are not sure what fonts you have used the information tool will provide a full list. CTRL A will select all the objects, then click on the Info button from the DrawWorks special tool bar. If you now copy all the fonts you have made (each font is three files with unique names) and your EPS file to a PC formatted disk you will have a complete set of resources required to recreate the document. Note that we only recommend using this feature if you are experienced in the use of print bureaux and PostScript fonts.



PDF export

PDF (Portable Document Format) files were designed by Adobe. They allow any computer with a PDF reader to view a document as it was designed by the author. PDF files are very popular as they reproduce with great accuracy and they are small.

DrawWorks can export a file as PDF provided you have a copy of GhostScript 5.50 or later installed on your machine. Make sure that the GhostScript application has been seen by the filer then you can export your selection in PDF format using this tool.

GhostScript can be downloaded from the Internet, and is also supplied with RISC OS 4.



SVG files

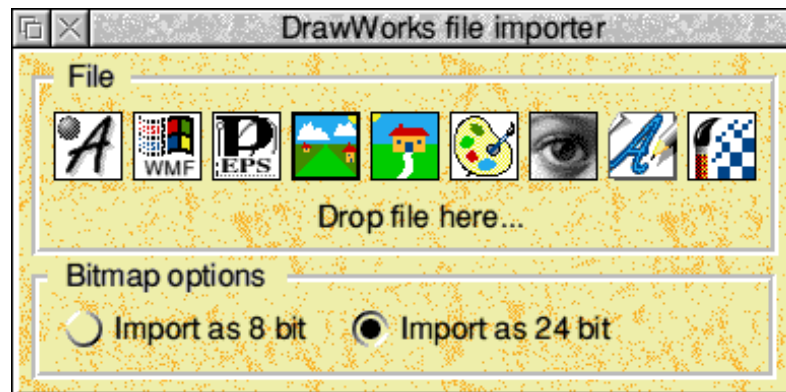
SVG (Scaleable Vector Graphic) is a file format intended mainly for web sites. It allows a site to include vector graphics which are much more compact than an equivalent bitmap.

A plug-in for RISC OS browsers that allows them to view SVG files is available from Warm Silence Software. Many browsers on other operating systems already support SVG.

Foreign file import



This lets you import files from other packages into DrawWorks. This includes WMF (Windows MetaFiles), Adobe Illustrator and EPS files as produced by many graphics packages. When importing a file it is converted into either a DrawFile if it is a vector object or a Sprite if it is a bitmap object. To import a file drop it on this window and it will be imported into your current document.



Note that if you have an object selected when you import a file the new imported object will replace the selected object.

Filetypes

In order to import files they must be either be filetypeed correctly or have a valid PC style 'dot' extension, which, on a RISC OS system will be shown in a filer window as a '/' character followed by the three letter extension.

Illustrator files have a file type of &B2D, WMF files are &B2F and EPS files are &808. To set the type of a file before importing it select it in a filer window and click MENU, go to the option "File <filename>" and then down to the option "Set type". Type in the correct filetype for the file e.g. &B2D for Adobe Illustrator and press RETURN.

Note that the WMF importer does not handle text/bitmap objects. Also some applications add non standard commands in EPS files. DrawWorks can load almost all files, however you may get a report that the file contains <x> unknown commands. The file should still import correctly.

Foreign bitmap import

DrawWorks can also import a number of "foreign" bitmap files. To import some of these types DrawWorks uses the !ChangeFSI program supplied with all RISC OS computer systems. Before trying to import a bitmap ensure that !ChangeFSI has been "seen" by the filer. Some other importer tools will require the new 32 bit 'C' libraries to be loaded.

The filetypes which can be imported are -

WMF (&B2F)	EPS (&808)	Illustrator (&B2D)
GIF (&695)	TIFF (&FF0)	JPEG (&C85)
Windows Bitmap (&69C)	PNG (&B60)	
ArtWorks (&D94) - imported as a bitmap rendering of the file		

Note that if you have ImageFS2 then you can just drag JPEG, GIF & TIFF files directly into the Draw window.

These files are imported in the same way as vector files. Simply drop the appropriate file onto the DrawWorks file import window. The hourglass will appear and the file will be imported. All files are imported in full 24 bit colour under RISC OS 3.5 or later, and as 256 colour with a custom palette under RISC OS 3.1.

JPEG importer

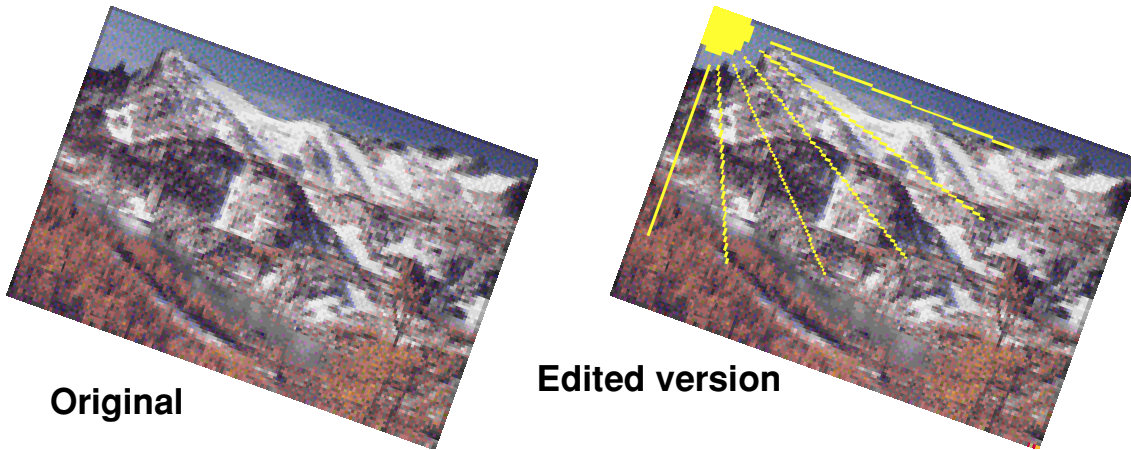
Draw under RISC OS 3.5 or later can load JPEG images directly, so you may wonder why DrawWorks allows JPEG images to be imported in another way. This is because the bitmap editing controls (for example those that allow you to adjust colours/tint objects) cannot work on JPEG images. In this case you can import the JPEG using DrawWorks, edit it, and then export it as a JPEG again later. Also

some applications cannot render drawfiles that contain JPEG images. Using the JPEG importer results in a larger file but it can be rendered in any package.

OLE Bitmap editing

Draw has no features for editing bitmaps apart from altering their size or angle. This tool allows a bitmap to be edited then inserted back into its original location in the document.

To use this tool select the bitmap object (not JPEGs) that you want to edit then click on this button. The bitmap will be OLE'd into an editor (this is normally Paint). It can then be edited.



Original

Edited version

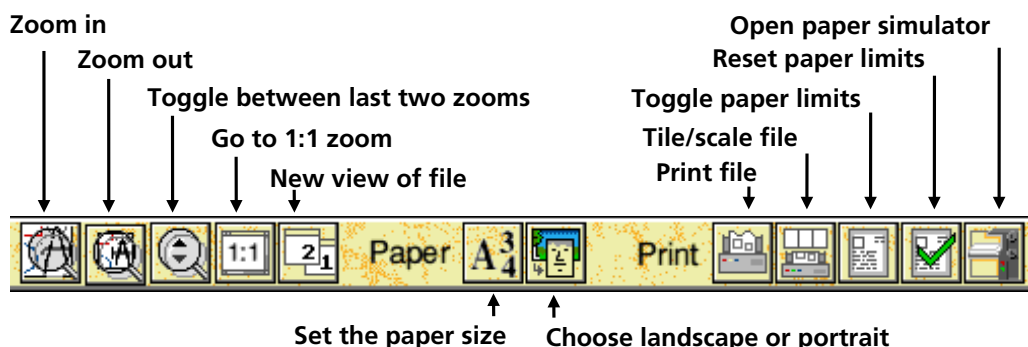
Edited version keeps rotation and size of original

Once the bitmap has been edited simply save it (this is done in paint by clicking MENU over the small thumbnail view of the image and then clicking on the "Save" option). The edited image will then reappear in your document in the original position. Any resizing or rotation applied to the bitmap will be retained. We recommend that all editing is done in one go rather than continually saving the bitmap back into the document.

Note that only one bitmap image can be OLE edited at a time.

The View toolbar

This toolbar has various items to aid viewing or printing the current file.



All these tools are operated with a single mouse click. Some, such as the Portrait/Landscape tool will open a menu. Some other DrawWorks tools work the same way. If the mouse pointer changes to a menu when you are over the tool then that tool has a menu attached to it.

These features are all provided by Draw apart from the paper simulator which is described on the following pages.

Hints on zoom tools

The zoom tools can be very useful for looking at detail. You can also zoom in to specific area by holding down CTRL and dragging a rectangle with SELECT. The current view will zoom into the area you have selected. You can have two different views of your file with different zooms set.

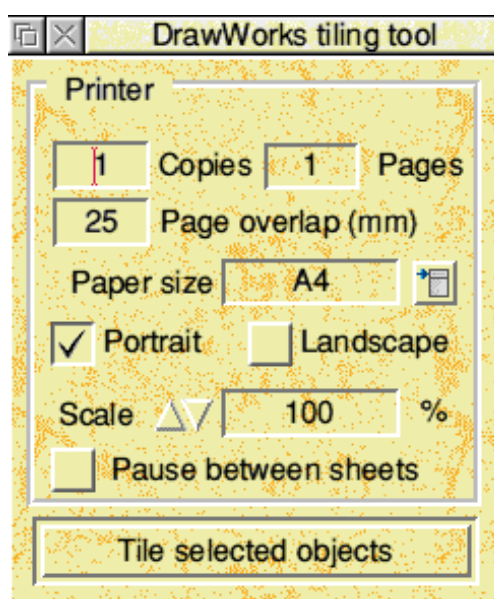
Print tiling/scaling tool

This offers an improved interface to the printer drivers. It lets you print files at sizes other than 100% and tile them so a large image is automatically split across a number of sheets of paper.



You can set the number of copies with the writable Copies icon. Next to this is the Pages icon. This shows the number of sheets of paper needed to print the objects selected using current settings. Changing the size of the paper to use or its orientation may alter the number of pages required.

You can set the size of the paper from A5 to A0



The Portrait and Landscape buttons let you choose the orientation of the paper. Changing between these may fit your design onto fewer sheets. The scale the objects will be printed at can also be changed and this may also have an effect on the number of sheets of paper required.

"Pause between sheets" pauses the printing process after each page. This allows users of printers without a sheet feeder to insert more paper.

Using Print tiling/scaling

To run this tool click on its button on the View Toolbar. If you click with SELECT then the entire file will be printed, if you click with ADJUST then only the selected objects will be printed.

Now select the page orientation (Portrait or Landscape) and the size of the paper in your printer (normally A4). Then choose the scale you would like your document printed at (100% is normal size - 200% twice size).

Setting overlap

The overlap is the part of each page that will overlap the previous page. This must include the print borders. For example if the overlap is 25mm then the document will be printed with an overlap of 25-print border size. If the normal print borders for your printer are 15mm then printing with an overlap of 25mm will actually produce an overlap of 10mm (25-15). Overlap should not be set to less than 20mm in normal use.

All you need to do now is click on the "Tile selected objects" button and your document will be printed as specified.

Note - if you change any part of your document or decide to print other objects you will need to close the print window and then click on the print/ scale tool on the toolbar again, i.e. the print scale and tiling tool will only print the objects that were selected when the print window was opened.



Printed paper simulator

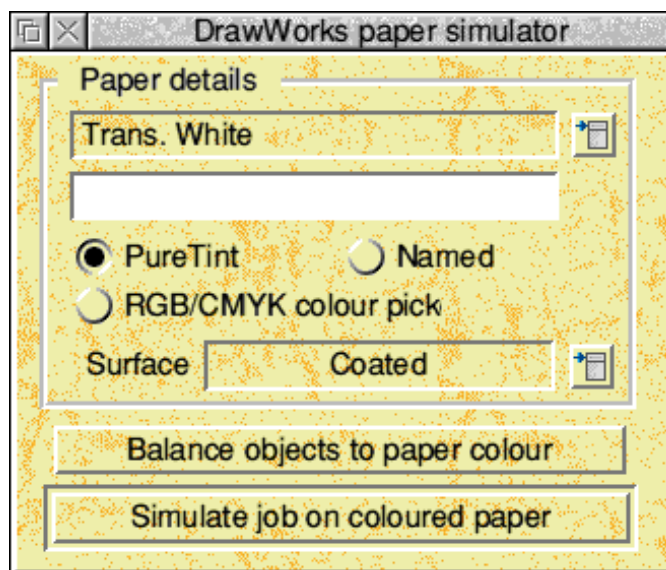
This tool provides a way of seeing what your design will look like when printed on paper of different types and colours.

In the example the paper colour is set to White and the paper surface is set to Coated.

You can set the colour of the paper using the menu icon next to the name of the paper colour (White).

You can choose the paper colour from any DrawWorks colour, including the PureTint range, the normal RGB/HSV/CMYK colour picker, or any named colour. Select the button that corresponds to the type of colour you want to use before you click on the menu button.

You can also set the type of paper the design will be printed on (Coated = Shiny/gloss paper, Uncoated = normal bulkpaper, Bright = paper with extra whiteners).



Once you have selected the colour of the paper and its type click on the "Simulate job on coloured paper" button. The hourglass will appear and in a few seconds a window will open showing the result of printing on the particular paper.

Paper simulator examples

The example picture will make it easier to understand what the simulator does.

Suppose we have an item of yellow text we want to print on blue paper. Using the print simulator we can see what will happen to the colour of the text when printed on blue.

Example

Text filled PureTint 101

Example

**The result of printing
on blue paper**

As you can see the text goes a muddy brown colour, not yellow. The DrawWorks print simulator can try to correct these problems. Select the objects that will be printed on the blue paper and click on "Balance objects to paper colour."

Example

**The same text after
using the colour balance**

Example

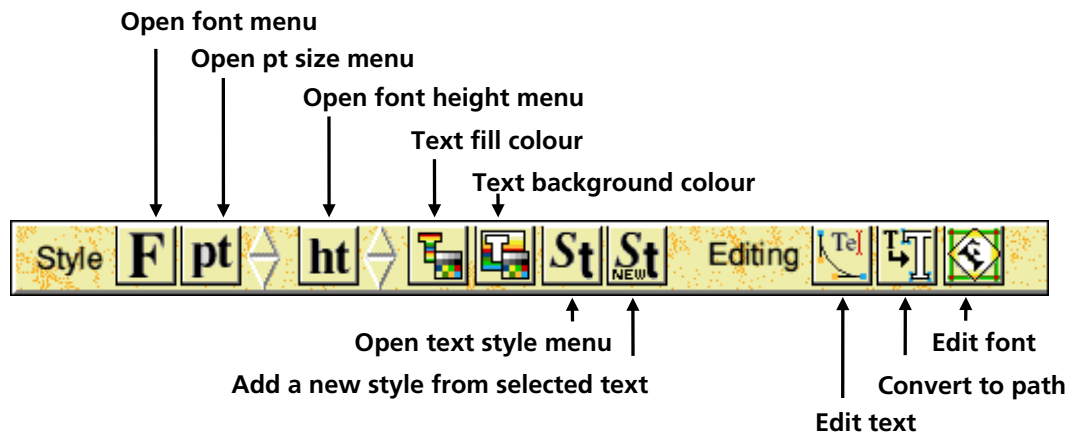
**The result of printing
on blue paper**

You can now see that the balanced version is a much closer match to the original colour of the first example. Although DrawWorks will do its best to compensate for the colour of paper it may not be possible to restore the exact original colour without some manual alteration of the colours.

The Text toolbar

This toolbar contains tools to deal with text and fonts.

Some of the tools on this toolbar open a menu. For example, the Select Font, Point Size and Height tools. Other tools such as the Colour and Edit tools will open a dialogue box on screen.



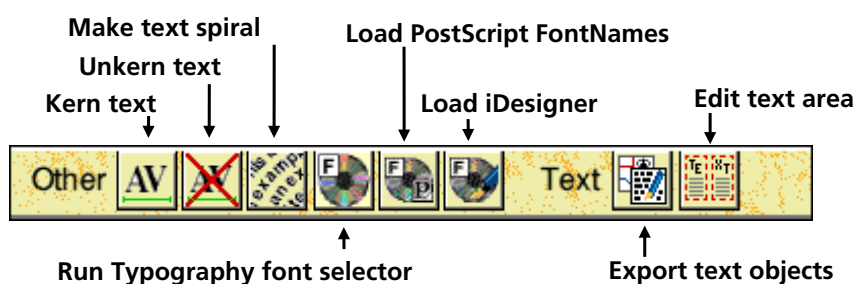
The Font menu button opens a normal font menu. The Point and Height buttons open an extended version of the normal Draw menu. These also contain a writable option. The "nudge" buttons next to the "pt" and "ht" buttons, let you increase or decrease size by 1point easily and quickly.

Clicking on the Text fill colour or Text background colour buttons will open the normal draw colour picker. Clicking on the Edit text button will open the normal Draw dialogue box for editing a line of text.

Clicking on the Convert to path button will turn the text into vector objects that can then be edited i.e. the shapes of letters can be changed, but not the words they spell.

The DrawWorks Text Style system is quite complex and is dealt with in its own section.

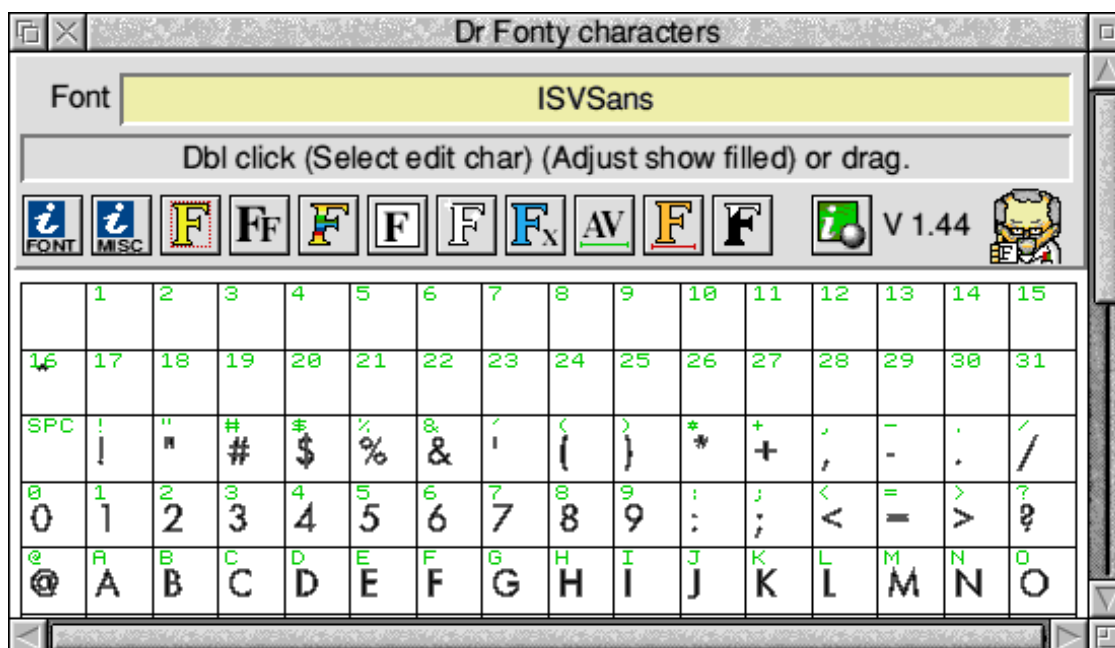
The other end of the text toolbar contains these tools. The Typography tools require a copy of !Typography 2500 which we hope to make available at some point in the future. Typography 2500 holds a large number of fonts and tools and has its own manuals.



Edit Font with Dr Fonty



DrawWorks lets you perform real time editing on fonts. If you type a line of text in your document and then click on the 'Edit font' button a copy of the font used in the of text will be OLE'd into the Dr Fonty application supplied as part of DrawWorks. If you edit this font and save it any changes made will be instantly shown in your document.



This option can be very useful as it allows you to quickly add new characters or custom characters to a font. For example you can type a line of text and then click on the 'Edit font' button to edit the font. New characters can quickly be drawn in the Draw window and dragged into the Dr Fonty character table. When the font is saved the new character will become instantly available. This option can also be used to generate PostScript versions of fonts used in your document (see the EPS export section of this manual). For more information on FontFiend click the manual button on Dr Fonty's toolbar after OLE editing a font.

Kern and Un-kern tools



These two tools allow kerning to be added or removed from a line of text.

To use the Kern tool select the line or lines of text you want to be kerned and click on the tool. This forces Draw to use the kerning built into many outline fonts. Obviously if the font has no kerning this will have no effect. High quality fonts like the iSV Typography fonts have kerning built in.

The Un-kern tool will simply remove the kerning from any selected text.

You can see the difference kerning makes by looking at the gaps between some of the letters in the example. For example, look at the difference between T and o in Total.

Note: You can kern all the text in a file by first clicking on the Select all tool and then on the Kern tool. In the example below you can see the kerning between the 'T' and 'o' of 'Total'.

This text is not kerned

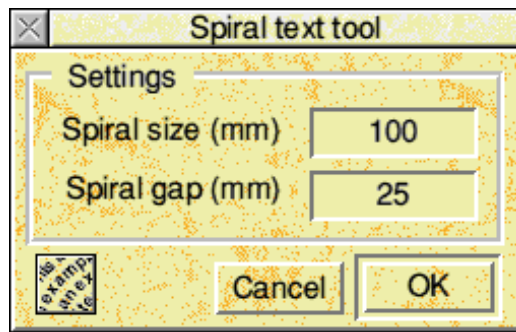
Total Aviation

This text is kerned

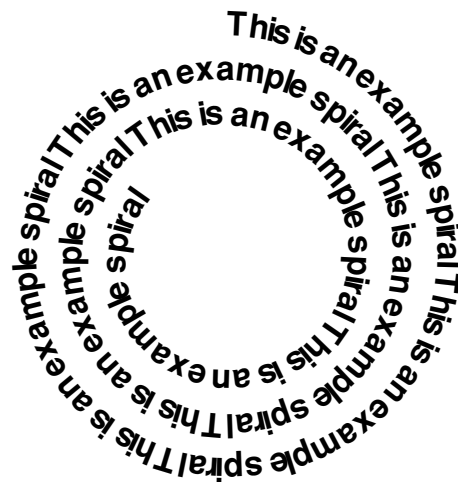
Total Aviation

The Spiral tool

This tool takes any number of text objects and combines them to make a spiral of text reading from the outside to the middle.



As you can see from the example the way to use this tool is to produce a line of text and then copy it a few times. Select all the copies and then click on the spiral tool. The spiral text tool window will then open.



You can set the size of the outer edge of the spiral and the gap between each ring. The example on the right shows the spiral produced from the text above with the settings shown in the spiral text window.

Note that that any text colour attributes may be lost, but you can easily select the text afterwards and set the colour.

If it takes a long time for your computer to draw the spiral your font cache may be too small and you should try increasing it.



Typography font selector

Clicking on this button will load the Typography font selector program from the DrawWorks CD (or from disk, if you have copied it to your hard drive). This lets you turn font groups on and off easily and quickly. You will need the DrawWorks CD in the drive for this tool to work correctly. When you click on a button that particular group of fonts will be turned on or off. The screen shot on the right shows all groups turned off. When you turn a group on the CD drive will spin for a few seconds, the hourglass will appear and then the fonts will become available.

For further details see the Typography manual.

FontNames and iDesigner

These two buttons will load the relevant application, see these programs own manuals for more details.





Export text objects

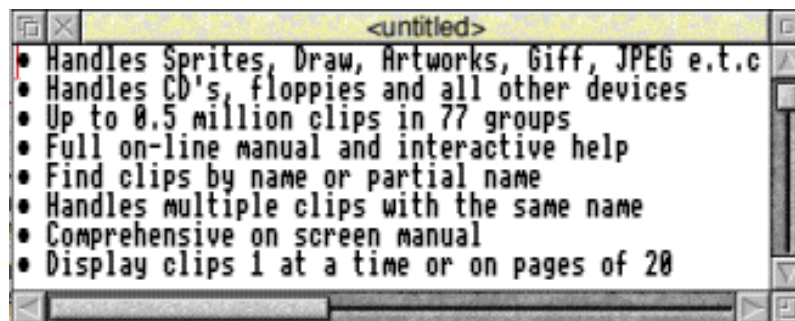
Draw handles text in two ways. You can drop a text file into draw and it will be treated as one object that can be manipulated.

However the normal way of typing text into Draw is to use the text tool and type line by line. This can present a problem at a future date if you need to extract the text from all these separate text objects.

This tool lets you save the text from any number of text objects as one single text file. DrawWorks will try to sort the text to extract it in the correct order, but depending on how you have entered the text objects sometimes the order may not be correct.

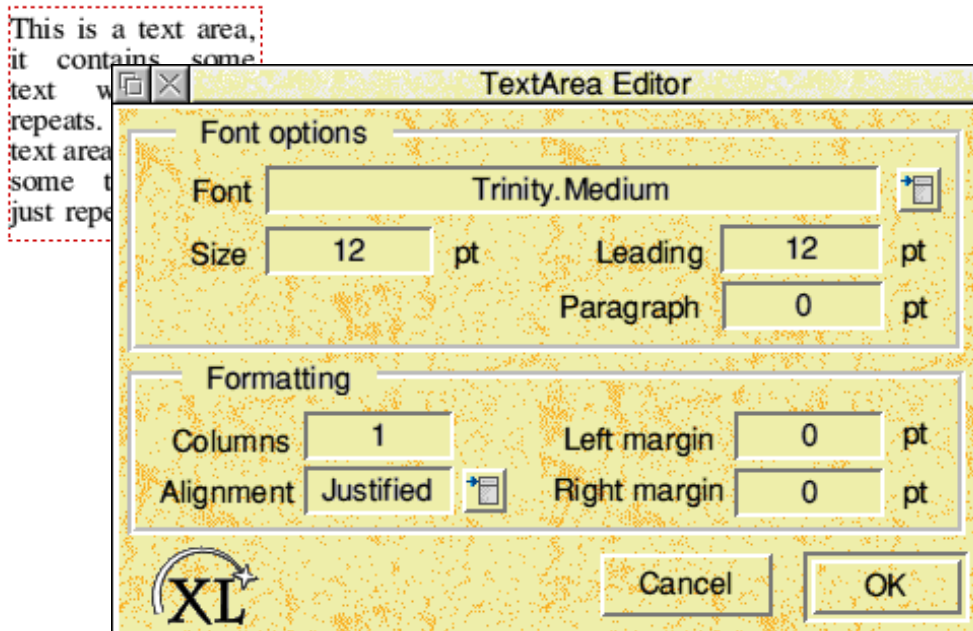
- Handles Sprites, Draw, Artworks, Giff, JPEG e.t.c
- Display clips 1 at a time or on pages of 20
- Handles CD's, floppies and all other devices
- Up to 0.5 million clips in 77 groups
- Full on-line manual and interactive help
- Find clips by name or partial name
- Handles multiple clips with the same name
- Comprehensive on screen manual

The original set of text objects and the resulting text file



Edit text area

This tool lets you alter the characteristics of text areas without having to remember all the formatting codes created by Acorn.



If you are not familiar with Draw text areas then we suggest that you read the information on them in the RISC OS User Guide.

You can change the font used, its size, the leading (line spacing) as well as the paragraph spacing. You can also control the formatting of the text area as well as specifying the number of columns used for the text.

The DrawWorks Text Style system

DrawWorks includes a font style system which lets you define up to 100 preset styles for text. These styles can include information on the font used, its colour, point size etc. Styles offer a quick and easy way to standardise text between different documents.

This is a very powerful feature, but it can take a little time to get to grips with.

A style may include a transformation matrix which will be applied to the text. This operates in a similar way to those used by the DrawTrix tool (see the DrawTrix section of this manual). It allows text to be rotated, flipped and distorted in many different ways.

Applying a text style

Applying a style to a piece of text is very easy. Select the line of text that you wish to apply the style to, then click on the Style tool. Now click on the style that you want to use from the menu and the style will be applied to that text.

Some styles are marked with a black border and some with a green border. Those that have a black border are complete styles including colour and font information. Those with green borders will simply apply the transformation to the current text, leaving the colour and font unchanged.

For example, if you were to select a line of text and then click on the green "Extended Text" style the line of text would change to extended. There is also a style for Oblique and Condensed. DrawWorks can automatically make these new weights for fonts that do not have them.

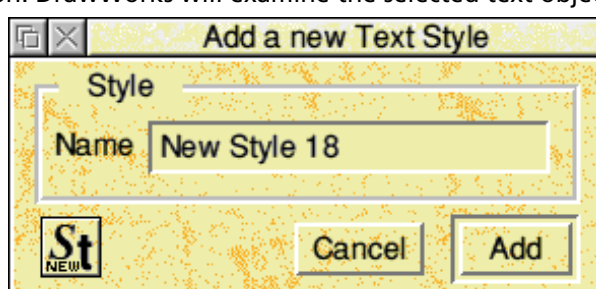
Note that styles only work on text objects and not text areas.

Adding a new text style

You can add a new style very easily. Any new style is based upon a text object in the Draw window that you are using.

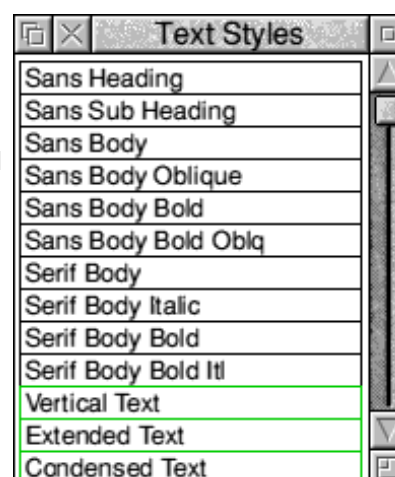
To make a new style type a line of text into the Draw window. Choose the font and size of the text. Select the foreground and (optionally) background colour. Now select this text and click on the New style tool.

The add new style window will now open. You can now enter the name of the new style and then click on the "Add" button. DrawWorks will examine the selected text object and add its attributes



(font, size etc.) to the style menu under the name you have chosen.

Once you have added a style it can be used at any time in any document. Unlike some other packages DrawWorks keeps all such information inside its own directory and not hidden inside the file you are working on.



The Text Style menu



Editing a text style

Once a style has been made it can easily be edited. Open the Style menu and then click MENU over one of the styles shown. The text style information window will open. This contains quite a lot of information.



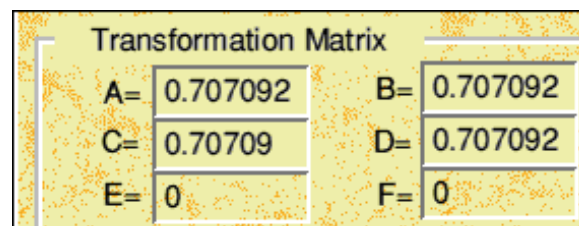
The image shows a 'Text style information' dialog box. At the top, it says 'Style Number 002'. Below this is a checkbox labeled 'Make these settings transparent'. The main section contains fields for 'Name' (Sans Sub Heading), 'Font' (Homerton.Bold), 'Size' (18), 'Height' (18), 'Colour' (black), and 'Background' (white). There are also icons for changing font, color, and background. Below these are radio buttons for 'PureTint' (selected), 'Named', and 'RGB/CMYK'. The bottom section is titled 'Transformation Matrix' and contains fields for A=1, B=0, C=0, D=1, E=0, and F=0. There is a 'Change to' button and a circular arrow icon with 'XL' inside. At the very bottom, there is another 'Make these settings transparent' checkbox and a row of buttons: 'St', 'Delete', 'Cancel', and 'Save Changes'.

The top section of the window sets up the font name, size and colour.

There are menu buttons to let you change the font used and its foreground and background colour. There are also two writable icons that can be used to change the size and height of the font.

Both these writable icons specify size in points. You can change the text fill and background colours to any PureTint, Named or RGB/CMYK colour. Just select the type of colour you want to use and then click on the relevant menu button.

The bottom of the window lets you set a transformation matrix. This is a mathematical way of defining rotation and de-deformation of an object.



The image shows a 'Transformation Matrix' dialog box. It contains a table of values for A, B, C, D, E, and F. The values are: A=0.707092, B=0.707092, C=0.70709, D=0.707092, E=0, and F=0.

Transformation Matrix	
A=	0.707092
B=	0.707092
C=	0.70709
D=	0.707092
E=	0
F=	0

In the example (A=1 B=0 C=0 D=1) the transformation matrix does nothing (this is called Identity - so called because any object changed by this transformation will be identical to the original).

DrawWorks comes with some built in transformations and these can be accessed from the Menu button. You can apply these transformations to any of the built in styles.

Try making a style from rotated text to see the transformations in action. Type a line of text in any font, then select it and rotate it with the top right handle. Now click on the "New Style" tool and add a style using the newly rotated text. The example is text rotated by 45 degrees.

Editing a style (3) Both of the sections in the text style information window have buttons called "Make these settings transparent". These buttons make DrawWorks ignore any style settings in that

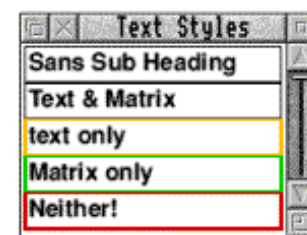
section when applying the style to a selected text object.

For example, if you have a style that contains both Font, size and colour definitions and a transformation matrix you may want to apply this style to a text object but not transform it in any way. You can do this by turning on the "Make these settings transparent" button in the transformation section of the window before applying the style.

Similarly you may have a style which has text running vertically up the window instead of horizontally. If you want to apply this transformation to another text object but not alter its Font/size etc. you can turn the "Make these settings transparent button" on in the top part of the text style information window.

Once you have made a change to a style you can save the changes by clicking on the Save Changes button. Clicking on Cancel will reset the style to the same way it was before it was changed. Delete will delete the current style after prompting to ensure that you are sure you want to delete the style.

Hint - You can easily find out if a style has either of the transparent buttons set from the style menu. A style with a black border has both off. Yellow has transformation set to transparent. Green has text transparent. Red is in case you turn both on!



Text style example

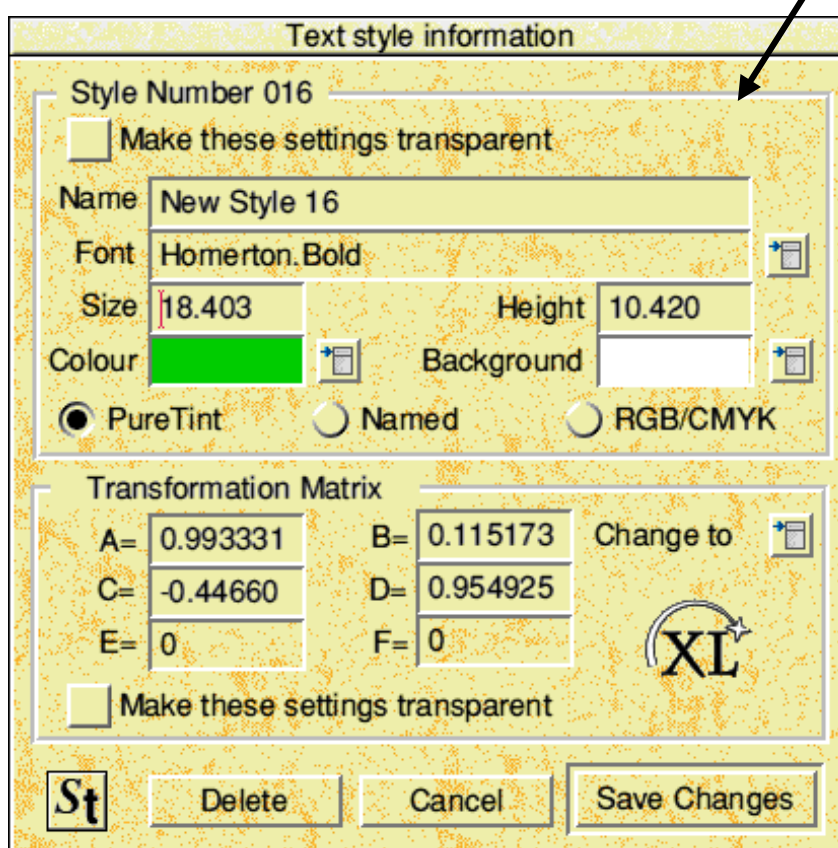
The best way to become familiar with styles is by using them. By combining styles that have none, or one of the other "transparent" buttons set very complex draw files can be produced simply and quickly.

Here is an example of a piece of text that has been dragged around and distorted and then turned into a style.

This is the original text typed into Draw
It has been changed so that it is filled
green and has been dragged around to
resize and rotate it

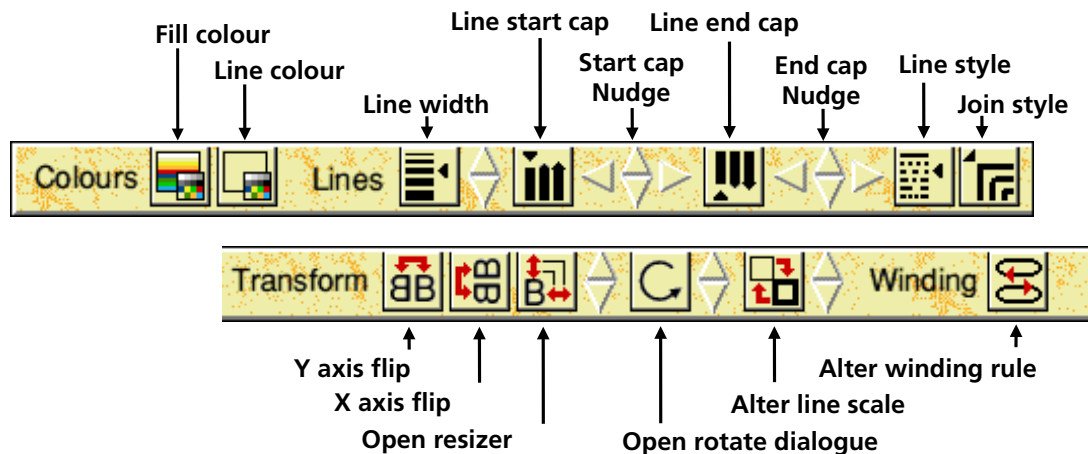
This is a style example

This is the style it makes



The Line Style toolbar

This contains various tools used to set and modify the style of drawn objects.



All these tools are operated with a single mouse click. Most have an attached menu or dialogue box from which you can choose their setting. The two colour buttons open normal Draw colour pickers.

The line buttons open copies of Draw's normal menus except for Line Width, which opens an extended menu. Note the two line width nudge buttons next to the line width menu button. These let you change line width in 0.25mm steps.

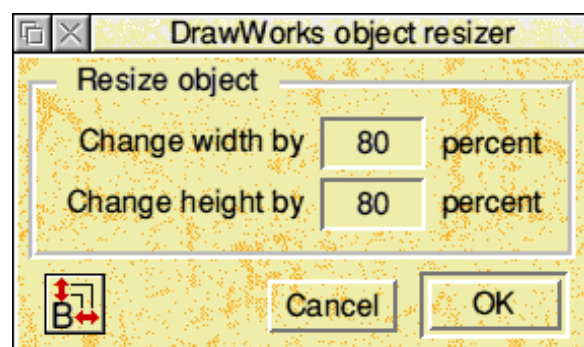
The second part of this menu duplicates Draw's Transform menu with a couple of changes. The "axis flip" buttons allow you to quickly produce a "mirror image" of an object in either axis. The object resizer allows the width and height of an object to be altered using percentages, e.g. to double or halve the size of an object. The rotate dialogue allows objects to be rotated (NOTE JPEG images cannot be rotated). The alter line scale tool allows all lines to be changed without changing the objects size.



The Resizer

This alters the width and height of objects as well as changing their line thickness. In the example the object would be scaled to be 80% of its original size. If the object was made up of lines then all line widths would be 80% of the original.

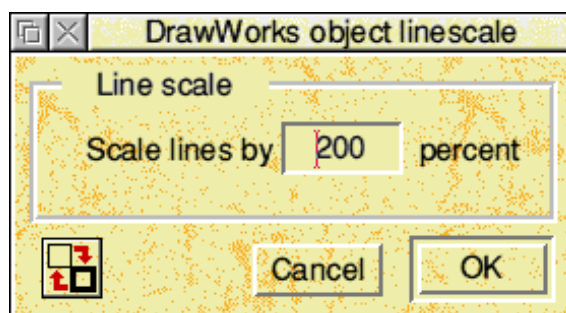
This is not the same as dragging an object's resizing handle as Draw's resizing handle changes the object's size but not the line thickness.



Line scale

This lets you alter all the line thicknesses in selected objects.

For example, if an object had lines 2mm thick and a line scale of 200% was applied the lines would become 4mm thick but the object would stay the same size.



Winding rule tool

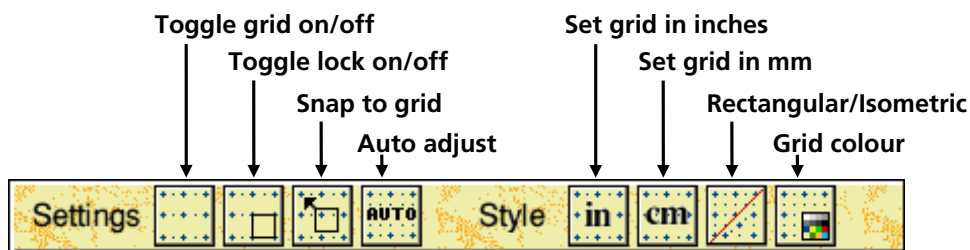
This requires a little more explanation. A winding rule alters how objects are rendered when they are filled. As you can see from the example below altering the winding rule can alter the appearance of an object. Draw, and many other packages use an even-odd rule. Adobe Illustrator uses a non-zero rule. As you can see this can result in some objects being rendered incorrectly when exported.



This tool can be very useful for previewing objects before exporting them in EPS format. It will show any problems caused by changes to the way EPS handles winding rules.

The Grid toolbar

This toolbar lets you control Draw's grid.



All of these tools are operated with a single mouse click. Some of them, such as Turn on grid, are operated just by clicking on them. Others such as the in/cm tools have a menu attached.



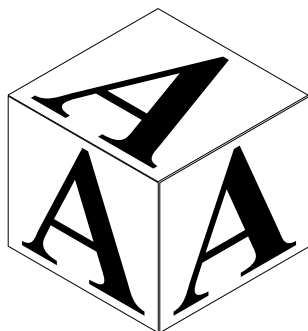
Isometric/Rectangular

Draw can display two types of grid, a normal rectangular grid and an Isometric one.

Isometric allows pseudo 3D projections to be produced. This grid is best used with the DrawTrix Isometric effects.

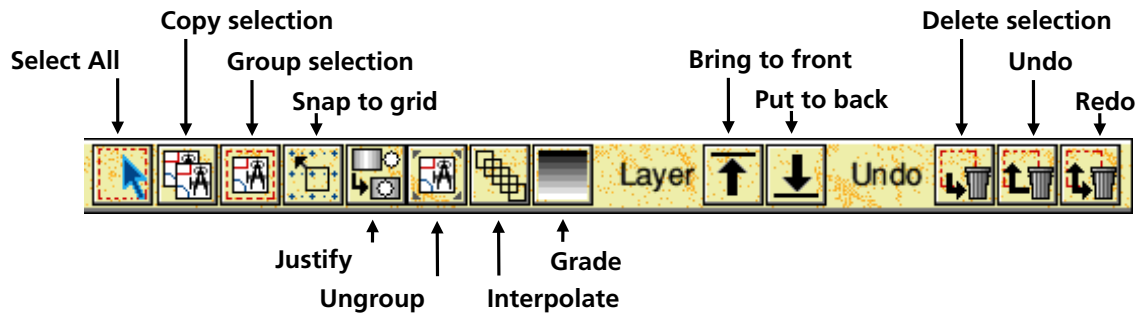
The example below shows a cube produced with DrawTrix. This looks three dimensional - but it really isn't. The sides have no vanishing point.

Isometric projection is often used by designers to show how flat designs would look projected up into three dimensional space.



The Edit toolbar

This toolbar is much larger than the other toolbars and is split into two sections. All of these tools are operated with a single mouse click.



The justify tool

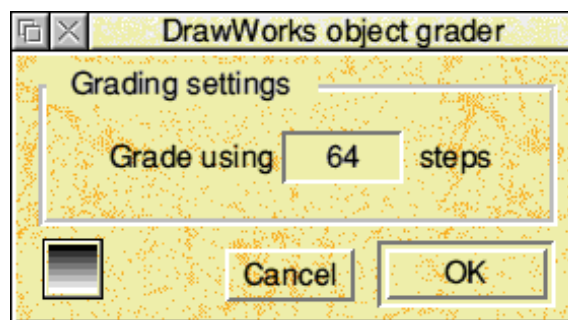
The justify tool will open a copy of Draw's justify menu. However unlike the normal Draw justify tool the DrawWorks justify tool does not need to have selected objects grouped before they are justified, that is, this tool will automatically group objects for you before they are justified.



Grade tool

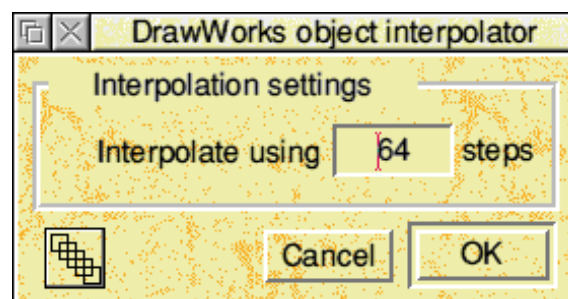
This opens a dialogue box from which the number of steps in the grade can be set.

This duplicates the settings on Draw's Select menu.



Interpolate tool

As with the Grade tool this opens a dialogue from which the number of steps can be set.





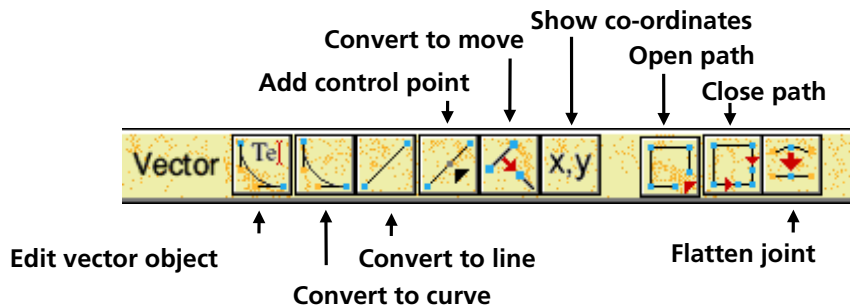
Undo and Redo tools

DrawWorks uses a special buffer to hold undo/redo information. This is set using the Draw preferences option (see later in the manual). If you do not have a large enough buffer DrawWorks will not be able to undo some operations.



The default buffer size is 50K

The second half of this toolbar is intended for more experienced Draw users and is concerned with editing the control points that make up vector objects.



Vector object tools

In order for any of these tools to work you must have a vector object selected (a single object not a group). Once you have selected the object you wish to edit click on any of the editing tools. You will now see your object shown with all its control points and bezier curves.

To use these tools select the control point of the object that you wish to alter using ADJUST. For example, select the object (SELECT), click on one of these tools (SELECT), hi-light a control point (ADJUST).

Editing Vector objects

Once you have a vector object selected with its control points highlighted you can edit it.

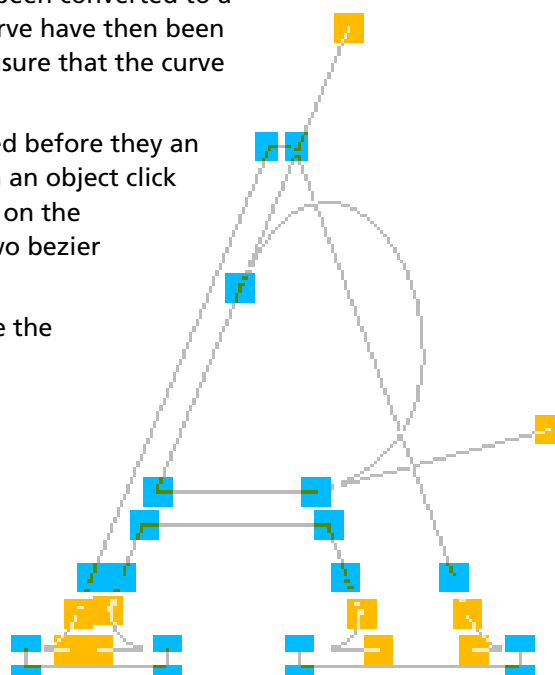
In this example a letter A in Trinity has been converted to path and then selected and edited. One of the shape's control points has been selected.

Note that when editing all mouse operations must be performed using ADJUST and not SELECT.

Other control points can be selected simply by clicking ADJUST on them. In this example the selected line and control point have been converted to a curve. The bezier curve control points for this new curve have then been moved around and the joint has been flattened to ensure that the curve is smooth.

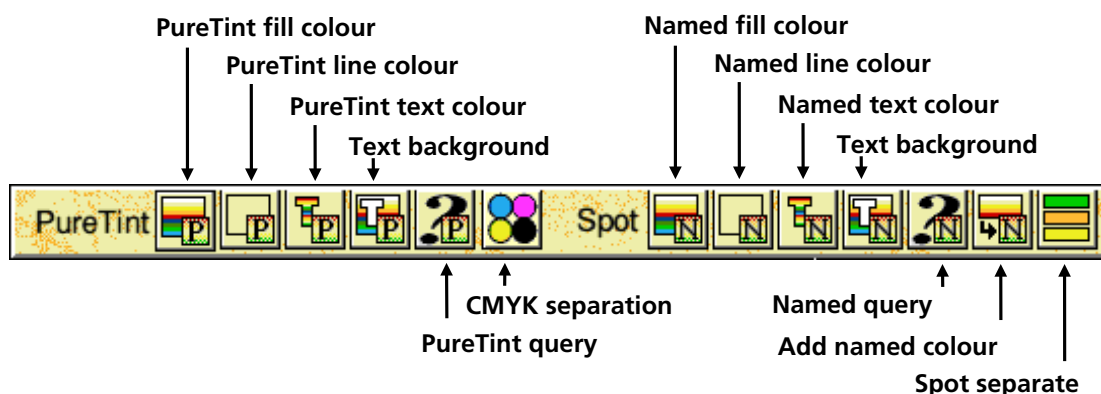
All of these tools require a control point to be selected before they can be used. For example, to convert a line to a curve in an object click ADJUST on one of the line's control points. Now click on the "Convert to Curve" button. The line will now have two bezier handles which can be moved around with ADJUST.

For more details on editing vector objects in Draw see the RISC OS applications manual.



The Colour toolbar

This toolbar has two sections. The first section is concerned with the PureTint and Named colour systems provided by DrawWorks.



PureTint colours

The PureTint colour system was developed by iSV Products exclusively for use with DrawWorks and Draw. It provides over 700 colours that are a close match to a well known colour reference format. These colours can be used on any Draw object in any draw file.

Named colours

DrawWorks also has named colours. You can store up to 1000 named colours in DrawWorks. These colours are used for spot colour designs and can be colour separated by DrawWorks.

Always remember to use the correct colour picker. To set the line colour use the Line picker, to set fill colour use the Fill picker, etc.

All of the colour pickers on the colour toolbar work in a similar way. They will only change the colour of any selected objects. If you try to click on one of the colours from a colour picker without previously selecting an object then DrawWorks will display an error message.

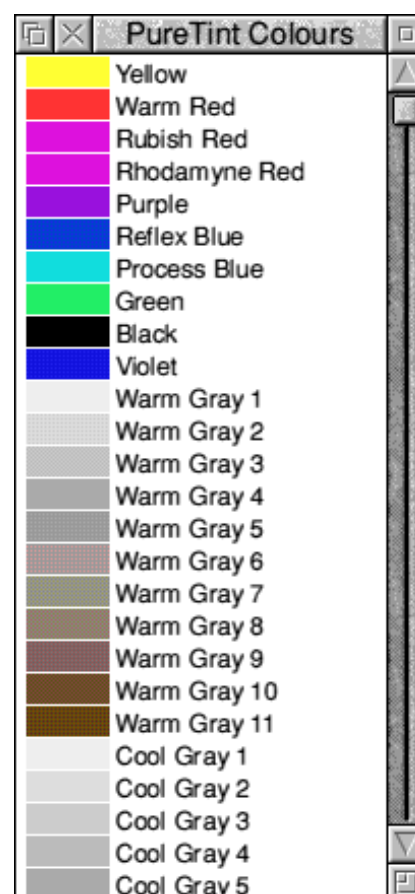
Colour Pickers

The PureTint colour pickers let you set either the fill colour, line colour, text colour or text background colour of any selected objects.

For example, if you select all the objects in a draw file and then click on the Text PureTint colour picker tool the text colour picker will open. If you then click on a colour from the menu all the text objects selected will have their colour changed to the one chosen. Any non text objects, for example rectangles, circles etc., will remain unchanged.

As you can see from the previous example, if you select all objects in a file and then change the fill colour to a particular PureTint only the fill colour of vector objects would be changed. Line colours and text colours will remain the same.

The named colour pickers work in the same way as the PureTint colour pickers. However, you can add you own colours to the named list (see overleaf). Named colours are very useful. Once you have produced a named colour it can be used repeatedly in any number of files and can be spot colour separated.



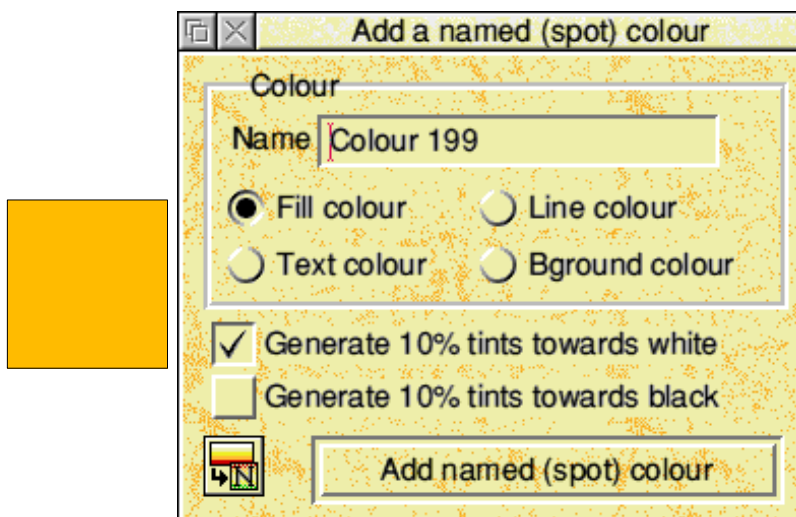
Unlike many graphics packages DrawWorks named colours are not stored in the particular file but are stored inside the DrawWorks application itself. This means that if a colour is created in one draw file it can be used in any other draw file very easily.



Adding Named Colours

You can easily add new named colours to the list supplied. The named colour extractor can take colours from either vector or text objects. To add a new named colour from an object simply select the object and then click on the New Named Colour tool. The window shown will open.

Select which of the colours in the object you want to use as the new named colour. In the example we want to use the objects fill colour as the new named colour.



Enter the new colour's name and click on "Add Named colour". Although this new named colour has been added from the fill colour of an object it can later be used for a line, text or background colour.

Automatically generate 10% tints.

These options (if selected) will make a further set of new colours which are tints of the new named colour. You can see this from the example on the right which shows tints of a colour called iSVOrange. Note that 0% of any named colour is white not black.

Deleting colours

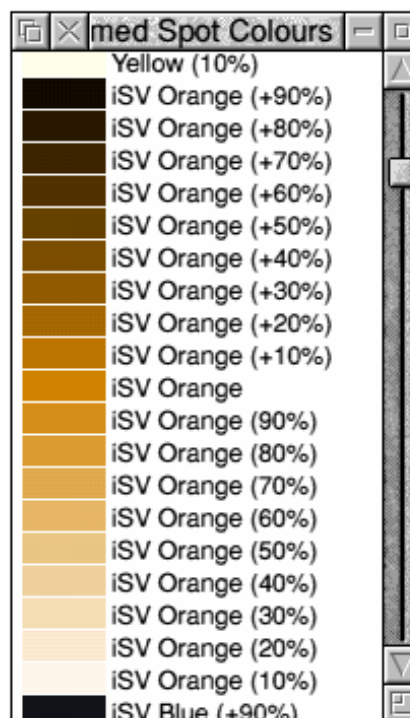
You cannot delete colours in the PureTint colour picker as these are all defined by DrawWorks. You can however delete a named colour.

Open any of the named colour pickers and click MENU over the colour you wish to delete. A menu will open from which you can delete the colour.

You will be asked to confirm before the colour is actually deleted.

Error messages

The colour system can produce one of two main error messages. The first is if you try to choose a colour from a picker without selecting any objects. The second is if, when defining a new named colour, you try to define it (for example using the "fill colour" button) but do not first select any objects that have a fill colour.

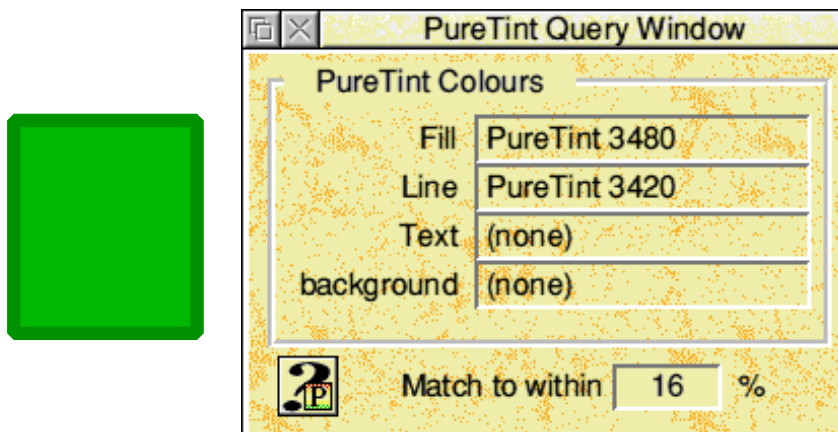


Query Windows

Both the PureTint and Named colour systems let you find out colours used in a particular object easily and quickly.



To find which PureTint colours are used in an object or group of objects just select them and then click on the PureTint query tool. A window will open showing the PureTint colours used or the nearest colours to those in the selection. If no exact match is found then DrawWorks will show that the colour is Near the PureTint colour.



With the example shown the object (a rectangle) is filled PureTint 3480, with a line colour of PureTint 3420. Since no text objects were selected the text and background options show "none".

You can adjust how accurate the colour matching system is by using the writable 'match to within' icon.

The named colour query window operates in exactly the same way as the PureTint query window.

These query tools are provided so that you can easily find out the colours used in an object. If you were to use the normal colour pickers the colours would be reported in RGB/CMYK format and not by name.

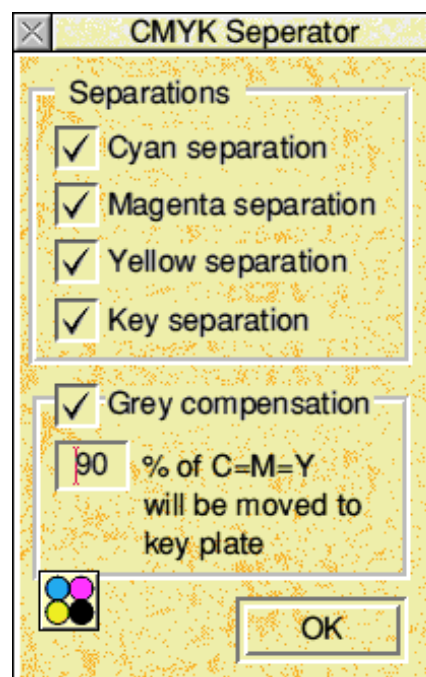
CMYK Separations

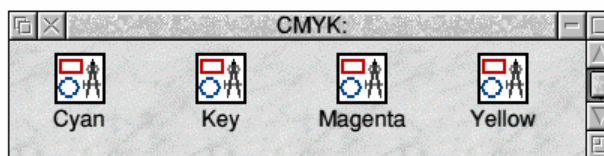
DrawWorks can produce full (CMYK) colour separations from any vector or bitmap artwork (except JPEGs). Select the objects that you would like to be separated (CTRL A will select all objects), then click on the CMYK separator tool.



The window shown will open. You can then select the separations that you wish to make. Normally this would be all four. Clicking on the OK button will start the colour separator. Note that you can also apply grey component compensation to the separations.

After a short time a window will open with the four separation files. These are normal draw files, one for each of the CMYK colours.





Cyan



Key Black



Magenta



Yellow

The CMYK separator window has a button labelled "Grey component compensation". This is designed to improve the CMYK output and help deal with one of the problems of handling CMYK colours correctly.

Computers assume that if the C (Cyan), M (Magenta) and Y (Yellow) components are the same then the colour can be represented as black (Key). This is reasonable in theory but in practice can cause problems.

Look at the colour sample shown on the right. This is composed of at least 30% of each CMY colour with no black.

As 30% of each colour (CMY) is seen as black by the computer they are altered as shown on the right.

On screen these two colours look identical. However, if printed the first colour would look a bit muddy. the second would look flat and lifeless. In fact both ways of representing this colour are wrong.

"Grey component compensation" produces a half way house version of this colour. A small amount of black is added (about 10%) and all the other colours are reduced by 10%. This prevents the muddy brown effect of printing too much CMY together, but also stops the colour going "flat" by having too much black. If you are producing CMYK separations for commercial use then you should have this option selected.

60% Cyan
40% Magenta
30% Yellow
0% Black

30% Cyan
10% Magenta
0% Yellow
30% Black

50% Cyan
30% Magenta
20% Yellow
10% Black

Spot colours explained

There are two main ways of colour printing using a printing press. Full colour uses four inks Cyan, Magenta, Yellow and Key Black. Spot colour colours each part of the design. For example, if you have a design that is mainly black but has a red logo it would not be sensible to print it using four inks. Instead the black parts would be printed using black ink, and the red spots printed using red ink, hence the term spot colour.

For each colour used when printing on a press a "plate" is needed. This is a paper or metal sheet that has the design etched on it. The ink is picked up by this plate, transferred to another roller and from there transferred to the paper. You would need four plates to produce this design using CMYK colour, but only two plates to print it using spot colour. This means it is cheaper to produce colour designs that use spot colours.

Spot Separation

DrawWorks can produce spot colour separations from a design. However the spot colour separator will only work correctly if ALL colours in the design have been chosen from a named colour picker.



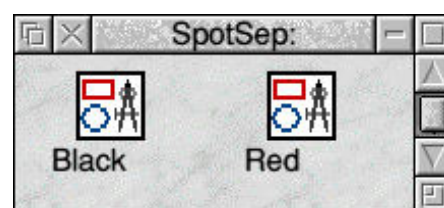
An example logo using
named red & black

Spot Colour
The spot colour company ltd.

The example can be spot colour separated by DrawWorks, The text is named red, the borders are black and the drop shadow is red (60%). All these colours were applied using the named colour pickers.

When you are ready to spot separate a design click on the Spot Separator tool. DrawWorks will confirm that you are about to produce spot colour separations and that only named colours will appear. Click on "Continue".

After a few seconds a file window containing the spot separated files will open. These are normal draw files and contain your separations. The black separation has the text outline and the company name, the red separation the filled text and drop shadow.



The black separation

Spot Colour
The spot colour company ltd.

The red separation

Spot Colour

The spot colour separator can also handle bitmap images so you could use the "Colour Tinting tool" to tint a bitmap object a named colour and then spot colour separate it.

32,000 colour sprites will not spot separate correctly as their colours are only stored in 15 bits. DrawWorks operates in full 24 bit for all other objects. Colour accuracy will be lost when using 32,000 colour sprites and named spot colours may be incorrect.

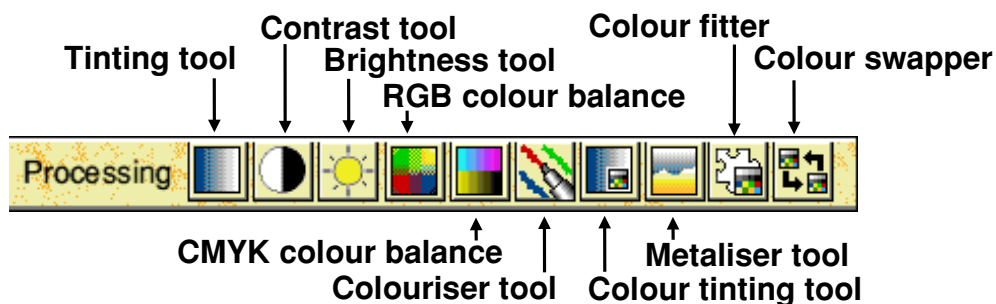
Tinting bitmap images a named (spot) colour can give very good results. For example, the logo above could contain a picture in either the black or red separations



Original image Image tinted spot red

Colour toolbar, RH end

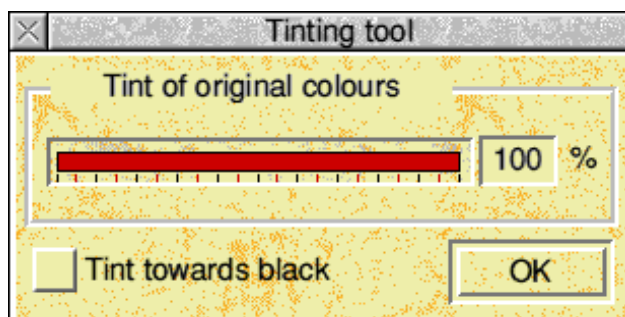
The right hand end of the colour toolbar contains tools used for colour and image processing.



The Tinting tool

This alters the tint of selected objects either towards white, making them lighter, or towards black, making them darker.

Select the objects you wish to alter and click on the Tinting tool.



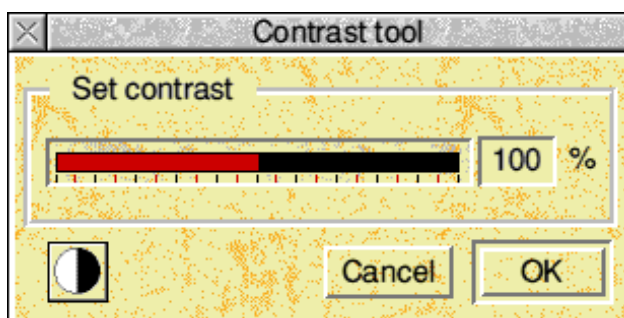
Dragging the slider and clicking on "OK" sets the tint of the object. The example below shows the effect of tinting to 50%. Note that you can tint any objects with named colours and the spot separator will still be able to separate them.



Contrast tool

This alters the contrast of objects. To use it select the objects you wish to alter and click on the tool. Then drag the slider to the required position.

The examples below show what happens when you alter contrast. Increasing contrast makes light objects lighter and dark objects darker.





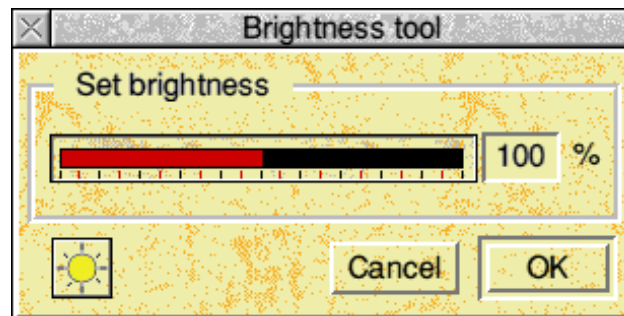
Original

200% Contrast

50% contrast

Brightness tool

This works in a similar way to the contrast tool but varies the brightness of selected objects. A value above 100% makes an object brighter, a value below 100% makes it darker.



Original

200% Brightness

50% Brightness

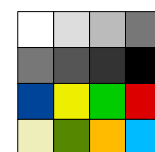
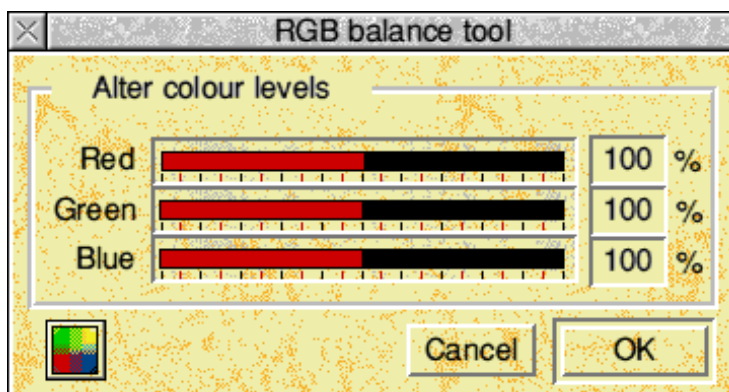
RGB Colour balance

This lets you alter the colour balance of the selected object.

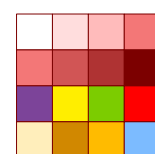


Its main use is to correct colours in bitmap images. If an imported bitmap image was too green the colour could be corrected by increasing red and blue, or by reducing green. For example, altering the red value to 149% will give the object a red tint.

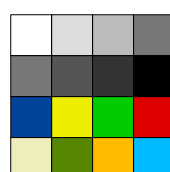
Unlike a normal colour picker which shows absolute amounts of each colour, this tool shows the percentage increase of each colour based upon what colours are already there. For example, taking an object and increasing the green level by 19% (119% total) several times will result in the object being tinted more green on each application.



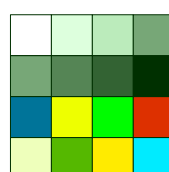
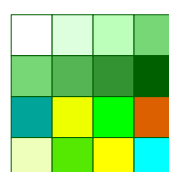
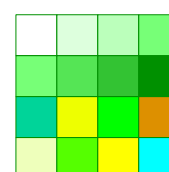
Object



Red 149%



Original

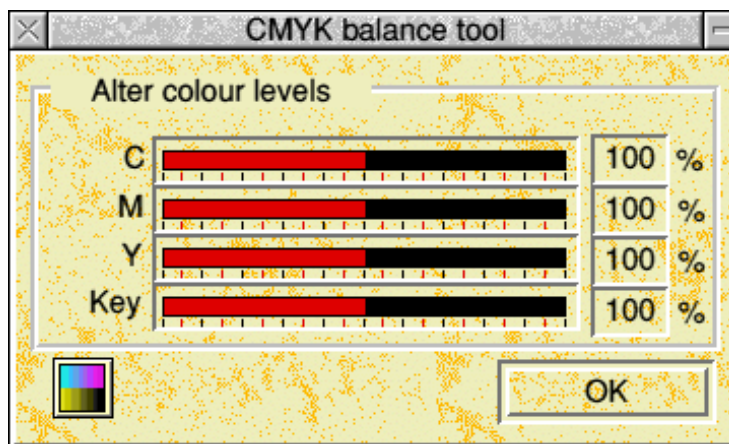
Tint Green
19%Tint Green
19% AgainTint Green
19% Again



CMYK Colour balance

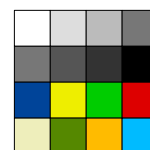
This operates in the same way as the RGB balance tool but instead of altering RGB levels alters CMYK levels

For example, increasing the yellow level to 149% will give the object a yellow tint. Like the RGB tool this can be used to correct the colour balance on imported bitmap images.

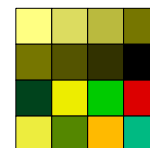


This tool can also be used to colour balance a document when it is printed on a colour printer. If your colour printer produces prints that have too much yellow you could reduce the amount of yellow in the objects that make up the document. When printed the paper version would then more closely resemble the version on screen.

If you want to "colour calibrate" your printer in this way then some trial and error may be required. Once you have a balance that works simply write down the numbers for C, M, Y and K and then you can "calibrate" any other documents by selecting all the objects and using this tool.



Object

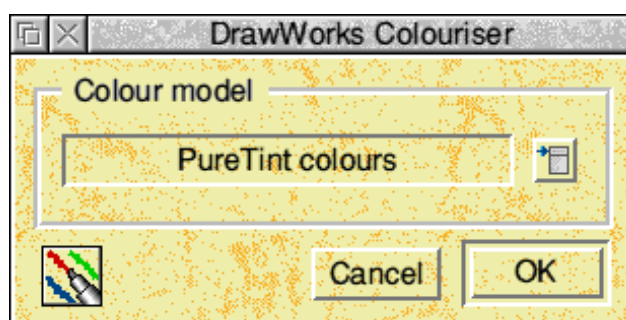


Yellow 149%



Colouriser tool

This tool is designed to add colours to an existing object, or to alter the objects current colours in a number of ways.



The options from the top part of the menu colour the selected objects using the chosen colours. For example selecting an object and then selecting "PureTint" colours and clicking OK will alter the objects line, text and fill colours to PureTint colours chosen by DrawWorks.

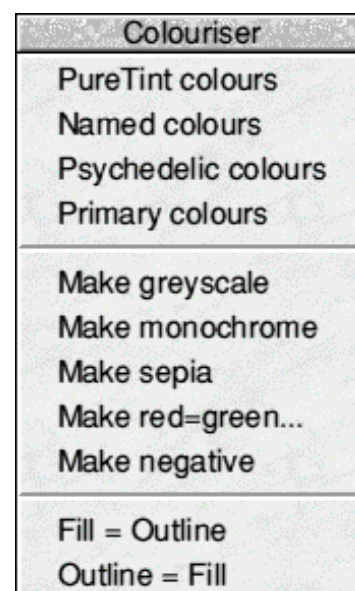
Make greyscale converts the image to shades of grey

Make monochrome converts the image to black and white.

Make sepia is like greyscale but uses warm grey colours.

Make red=green flips colours around so red becomes green, green becomes blue and blue becomes red.

Make negative produces a photographic negative of the original image.

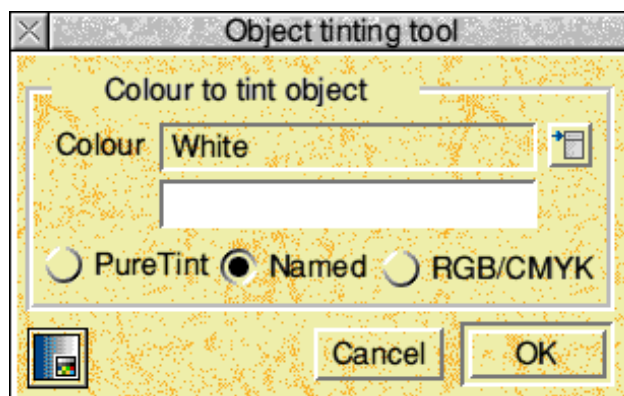


Colour tinting tool

This lets you tint an object using any PureTint, Named or RGB or CMYK colour.



The radio buttons along the bottom of the window alter the type of colour menu that will open when the menu button is clicked. This tool can be used with any vector or bitmap object.



As you can see the white parts of an object stay white. Black is replaced by the specified colour and all intermediate colours between Black and White are made up from tints of the chosen colour. This tool can be used with the spot colour separator to produce objects that will only appear on one separation.



Original



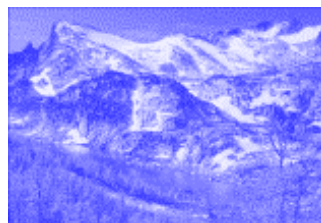
Tinted Green



Tinted Orange



Original

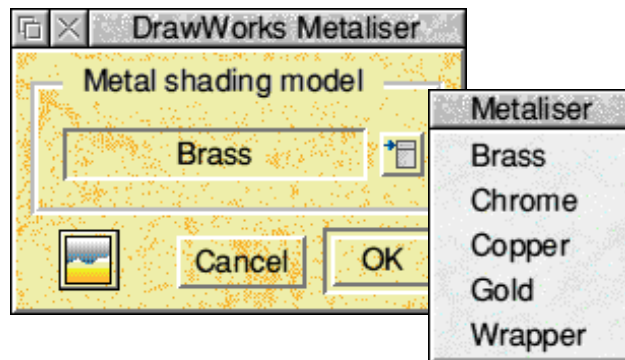


Tinted named blue



The Metaliser

This tool has a rather specialised purpose, it takes objects and attempts to add metallic shading to them. The type of shading used can be chosen from the menu. Note that this tool works best on greyscale images. The Colouriser can be used to convert colour images into greyscale and then the Metaliser can be applied.



Original greyscale image



Brass



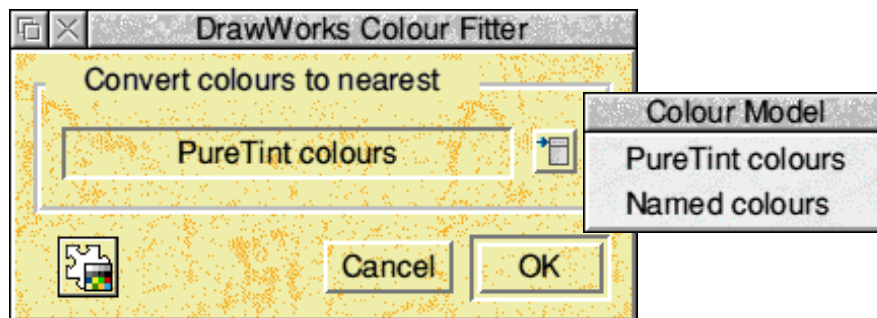
Copper



Chocolate Wrapper

The colour fitter

This takes an object or a group of objects and alters their colours. It will process a selection and then convert all the colours in it to the nearest PureTint or named equivalents.

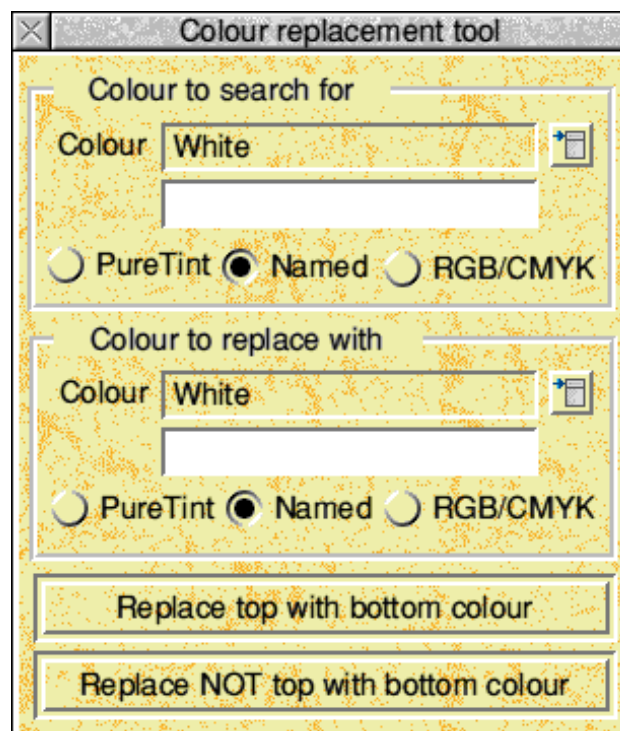


Colour Swapper

This processes a selection and changes one colour for another. In the example on the right the colour black will be replaced by yellow. You can choose which type of colours you want to change by using the PureTint, Named and RGB radio buttons.

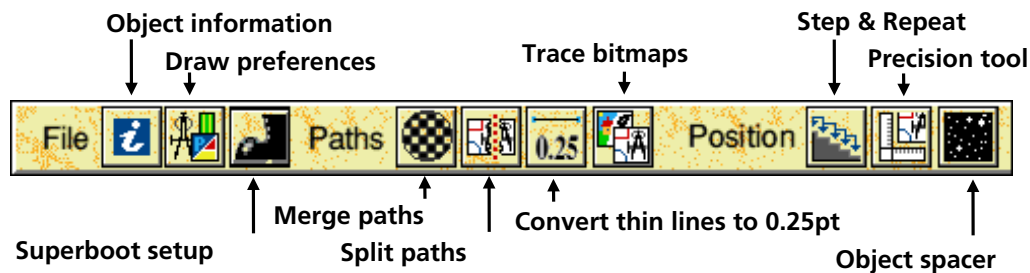


Note that you can also use this tool to replace any colours that are not the same as the search colour (top) with the replace colour (bottom).

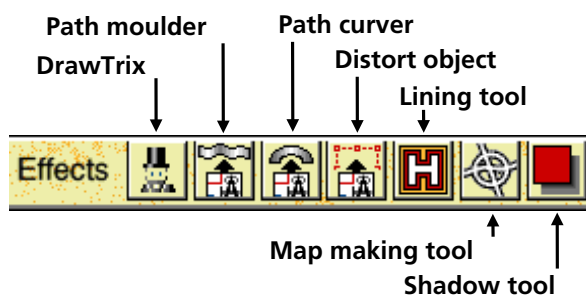


The DrawWorks special toolbar

This toolbar only contains special tools provided by DrawWorks. All these require an object or group of objects to be selected before they are used.



These tools are covered in the following pages of the manual. Some of them, such as the DrawTrix tool, can produce some quite amazing effects with selected vector objects.



The Information tool

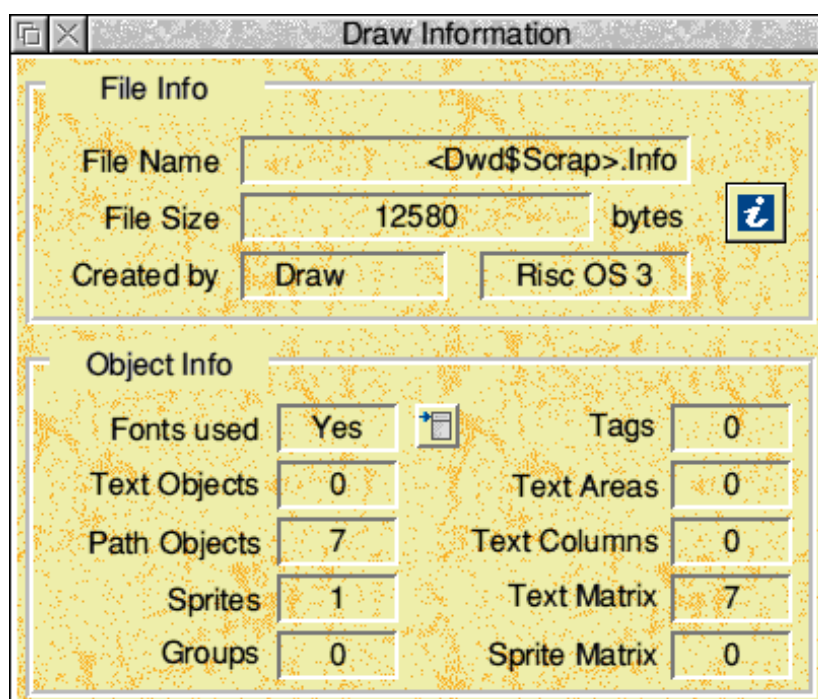
This provides access to the DrawWorks information window.

This gives detailed information on a selection. Simply select the object(s) that you would like information about and then click on the Information button. The information window gives full details on the selected objects. Most are self explanatory but some require clarification.

Tags - these are special objects inserted into a file by another application, such as TableCalc. They are tagged so that they can easily be identified by a third party program.

Text Matrix - this is a transformed or altered text object. For example, any kerned text objects will appear under this heading. Also any text objects that have a style applied to them will be shown here.

If when you load a drawfile some text appears in the system font then click on the Select All tool and then the Information tool. The Fonts Used menu will tell you what font(s) are required.



Draw Preferences

The Draw Preferences window is opened by clicking on the Preferences button on the DrawWorks special toolbar.



Tools

This lets you choose which tool is selected when !Draw is first loaded.

Page

This lets you set the default page size from A5 to A0, the page orientation and if print borders are shown or not.

Undo Buffer

To use the undo/redo functions from the DrawWorks toolbar you must set the Undo buffer size. 50K is normal.

Zoom

Allows the selection of the default zoom (1:8 to 8:1).

Grid

This lets you set the grid option. Remember to set both Show and Lock.

Default font

The final section of the window lets you set the default font and point size Draw will start up with. As experienced Draw users will know Draw always starts up with the System Font and a very strange size by default. With this option you can make Draw to start with a sensible font and point size.

Other settings

Under this heading are the options to set the default line width and the default level of grade and interpolate. Draw normally defaults to using 8 for grade and interpolate, and this

enables more sensible defaults to be set. The levels of grade and interpolate can still be set to different values if required using the dialogue boxes from the DrawWorks Edit toolbar.

Saving preferences

Once you are happy with your new preferences you can either save them with "Save" or just temporarily set them ("OK" button). If you have changed your mind then click on the "Cancel" button.

Whenever DrawWorks is loaded these preferences will then be automatically applied to Draw. However, note that for the preferences system to function DrawWorks must be loaded before Draw is loaded.

These preferences will override Draw's normal preferences. The reason for this rather than just modifying Draw's normal preferences is that it lets you have standard preferences when using Draw on it's own but have a difference set of preferences when using DrawWorks.

Also note that DrawWorks will attempt to save some of these preferences inside any draw files used

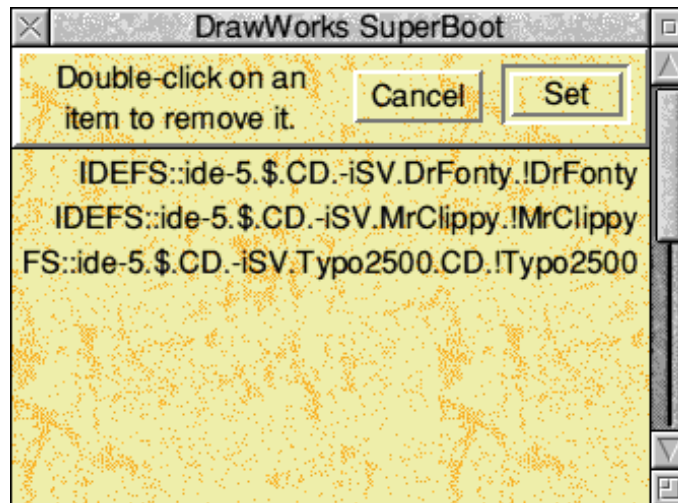
so that even without DrawWorks loaded grid, paper size, zoom and Undo buffer settings can be preserved.



SuperBoot

DrawWorks is designed to interact with some of the other programs supplied on the CD such as Mr Clippy, Dr Fonty, Typography font selector, the DrawWorks Library, etc. In order for DrawWorks to do this these programs would normally need to be 'seen' by the filer first. To avoid this when DrawWorks is run it executes a file in its application directory called 'SuperBoot'. This file 'boots' these programs so that DrawWorks can interact with them.

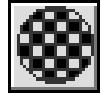
Once you have installed the various DrawWorks components to your hard drive click on the SuperBoot button and the window shown will open. Drag the program icons from your hard drive to this window and their names will appear there. Once you have done this (and you can drag any applications that you want 'booted'), just click on 'Set'.



If you move a program at any time or rename the drive or folder it is in the location will no longer be correct. You will therefore need to remove the item from the list and add it back again.

To do this just double-click on its name and this will delete the item from the list. You will then need re-drag the program icon to the window to set the new location.

Merge Paths tool



This merges multiple path objects to produce one object. It will even merge path objects created using the Grade and Interpolate tools. Briefly, this tool can do two things.

1. Combine many objects as one so they can be graded.
2. Make shapes with holes in.

If a merge goes wrong you can recover from it using the Undo tool.

Multiple Merges

You can Merge a group of objects, make a copy of them and then Merge the two copies. Try experimenting with this. However, remember that unless you set the Fill Colour you will just see a set of lines the same as your original.

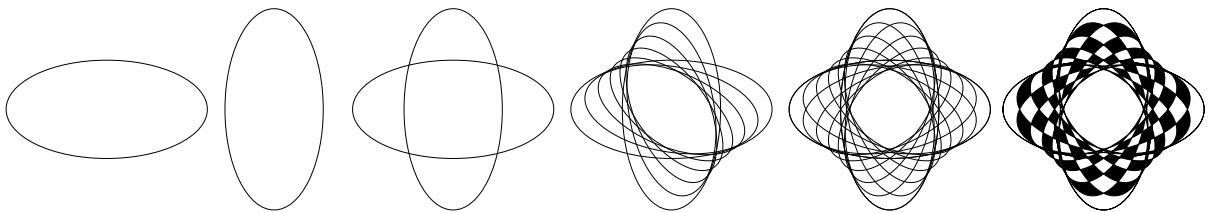
Merge Example (Spirograph)

Make an ellipse shape with the circle tool. Make a copy of the ellipse with the Copy tool Rotate the ellipse by 90 degrees using the Rotate option on the Transform Menu.

Group the pair of ellipses and then use the Justify tool to align the objects to the Centre and Middle. Click on the Grade tool. You will now have part of a Spirograph.

Copy the part of the spirograph with the Copy tool. Rotate the copy by 90 degrees. Select both parts of the Spirograph and GROUP them. JUSTIFY them to the CENTRE and MIDDLE.

You now have a Spirograph shape. Click on the Fill colour tool and select Black. Now click on the Merge tool and you should have a completed Spirograph.



Merge Example (Stencil)

Enter a line of text and then choose the font that you wish to use (e.g. Trinity.Medium) using the Font tool. Set the text size (e.g. to 20 point).

Draw a rectangle around the outside of the text leaving a gap between it and the text. GROUP the text and the rectangle. Click on the Convert to Path tool. Click on the Fill Colour tool and select Black. Now click on the Merge tool.

The object now appears to be white text in a black box. However the text is actually a hole through which you can see objects underneath.

This is a Stencil

This is a Stencil

This is a Stencil

Merge tool notes

Line objects created in Draw are made from paths. The Merge tool can merge these. However, the following objects are NOT paths and hence will be discarded when processing the file.

Text Areas

Text not converted to a path*

Sprites

JPEGS

* If the option "Automatically convert text to paths" is on from the DrawWorks preferences window on the icon bar then text will be converted to a path by DrawWorks. You will not need to do it by hand.

Unknown Objects

Some programs put special object types into Drawfiles. The Merge tool will try to guess the type of object and merge or discard it as appropriate.

Known Problems

Due to a couple of bugs in Draw merging of objects created using the Grade and Interpolate options may not produce what is expected.

When Interpolating Draw produces TWO paths for each line, not just one, so the file made by Merge will not be correct. Always use the GRADE option and you will not experience this problem. Until this is fixed in a future release of Draw Interpolated objects should be used with care.

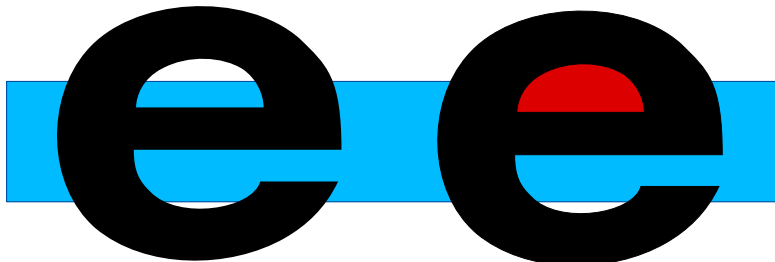


The Split Objects tool.

This tool operates in exactly the same way as the merge paths tool, except that it will split an object up into separate smaller objects. This means that a merged object can actually be un-merged.

Note: This tool works by taking each path and separating it. For example, take the letter "e" from an Outline font. This actually consists of 2 paths, one for the outside of the "e" and one for the inside. The split tool will take this "e" and produce two objects from it. You can see this in the example. The centre of the original "e" is a hole. The center of the split version is a separate object.

This is an e converted to path



It has then been split using the Split tool.
The centre which is a separate object
is now filled with a different colour

Convert thin lines

This tool will change any "thin" lines in the file to a thickness of 0.25pt. The purpose of this is to prevent thin lines vanishing when rendered on a hi- resolution output device such as an imagesetter.



Any lines not set to "thin" will be left with their original thickness.

You will not be able to see any difference on screen but when your file is printed on a 600dpi plus printer the difference will become apparent.

EPS Export

Note that the EPS (Encapsulated Postscript) exporter automatically calls this tool before making any EPS file. This ensures that if a file is exported to a Mac or a PC lines some will not disappear when rendered.

Hint: Before saving a file Select All and then click on the "Convert thin lines tool".

The Step & Repeat Tool



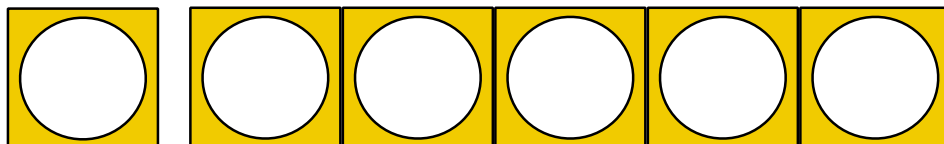
This lets you take a number of objects and copy them in a controlled way.

In the example four copies of the original will be made offset by 21.23mm (the object's width) across the page. Step & Repeat can be used to produce borders and other repeat pattern designs quickly and easily.

Hints: To copy an object across the page set the Y offset to zero. To copy up the page set the X offset to zero.

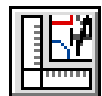
When using the Step & Repeat tool remember that if you make four copies you will end up with five objects, the original plus four copies.

The item which is going to be copied



The result of the step & repeat made above

The Precision Tool



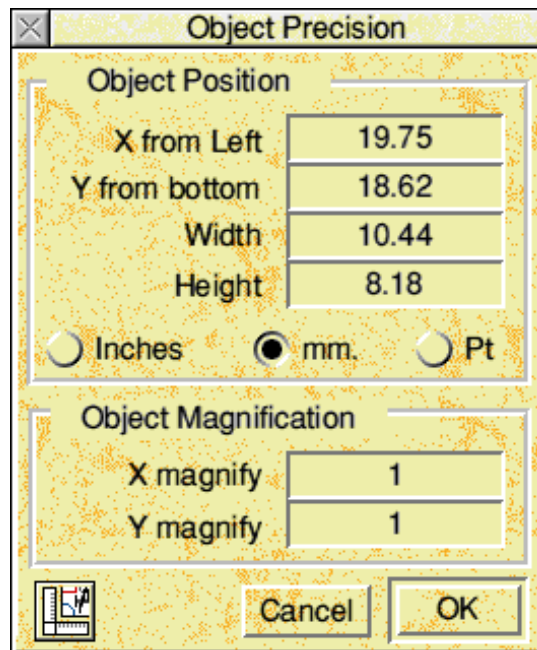
This tool allows you to precisely position a set of objects on the page. To use it simply select the objects that you would like to position and click on the precision button. You can then type in the exact position of the objects and also a width and height that you would like them to have.

Note that you can set an object's position in Inches, millimetres or points.

If you only want to alter an object's position on the page and not its size then just change the "X from left" and "Y from bottom" settings. To alter an object's size, not its position, change the "width" and "height" settings.

Magnifying objects

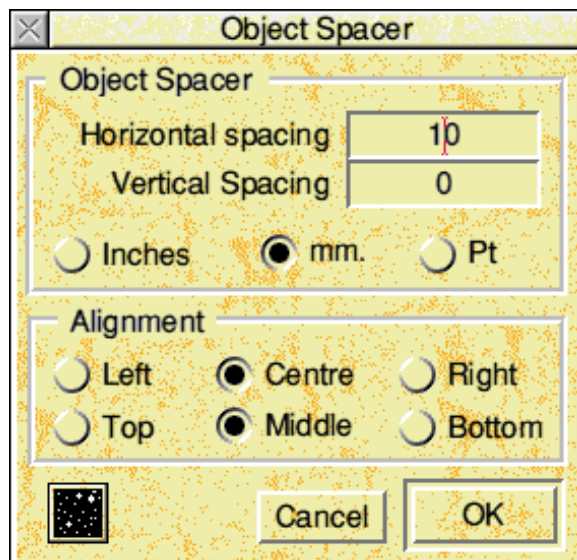
You can also use this tool to magnify objects. To make an object twice its original size set both the X and Y magnify options to 2 and click on 'OK'



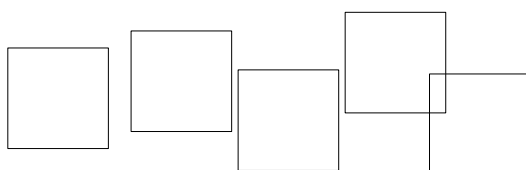
The Spacer Tool

This is designed to quickly and easily align and space out objects and can be seen as an extension of the Step & Repeat tool. You can set horizontal and vertical spacing between objects using the two writable icons near the top. You can also set the measurement system used with the radio buttons.

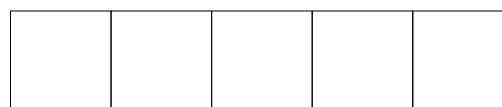
The alignment section lets you set horizontal and vertical alignment.



The Spacer tool ignores the width and height of objects and will position each object with the spacing specified. For example, if you have a set of 10mm wide rectangles and you set the horizontal spacing to 10mm each rectangle will fix snugly with the one next to it.



Original objects



Objects spaced out using settings shown above

The Spacer tool can also be used to format text. The example on the right shows the original text objects and the result of using the spacer tool with a zero horizontal spacing and a vertical spacing of 10pt.

This is line 1	This is line 1
This is line 2	This is line 2
This is line 3	This is line 3
This is line 4	This is line 4

The DrawTrix tool

DrawTrix is a sophisticated image manipulation tool. It can perform many types of transformations, called "effects", to path objects. As with other tools it will have no effect on sprites or text objects.



DrawTrix supports interactive help and we recommend that you use this while you are becoming familiar with the DrawTrx tool.

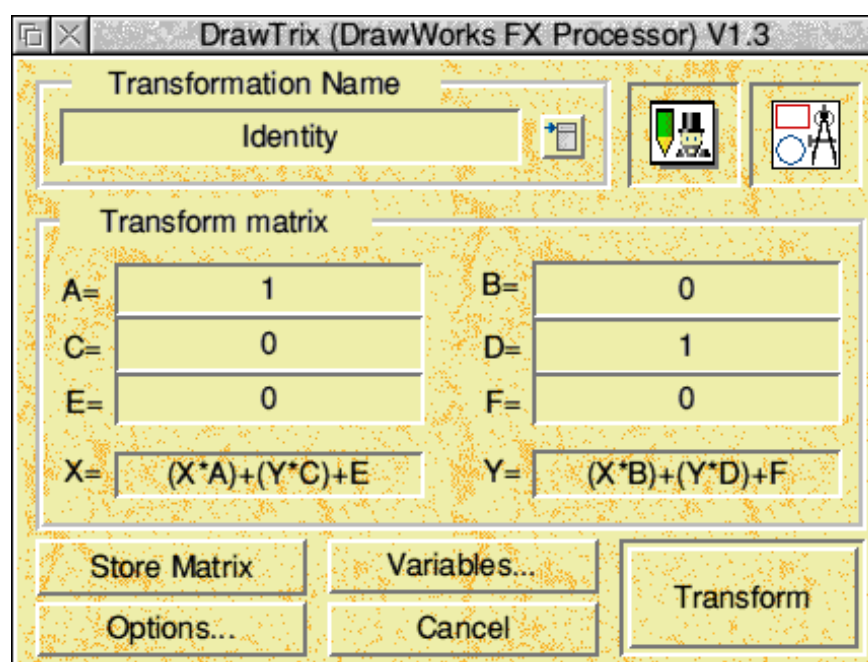
Using DrawTrix

The easiest way to use DrawTrix is to select one or more vector objects in Draw and then click on the DrawTrix tool in the DrawWorks toolbar. The DrawTrix window will then appear.

DrawTrix Effects

DrawTrix supports a number of pre-defined effects. These can be accessed with the menu button next to the word "Identity". Click SELECT on this and a menu will open. Choose the effect you want and click on the "Transform" button. After a short delay a preview window will open.

If this preview is satisfactory close this window and drag the Drawfile icon from the main window into an open Draw Window. Once this file has been loaded you can then close the DrawTrix window



DrawTrix Options window

Clicking on the "Options..." button in the main DrawTrix window opens the DrawTrix options window.

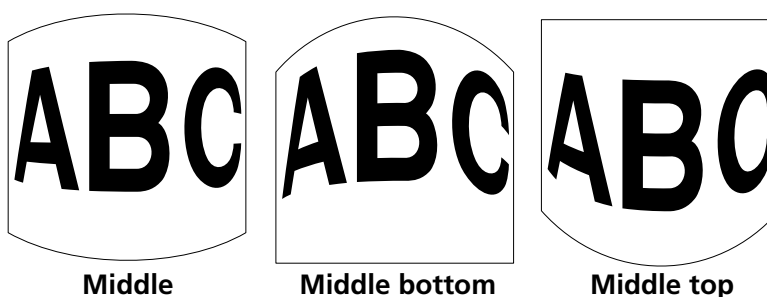
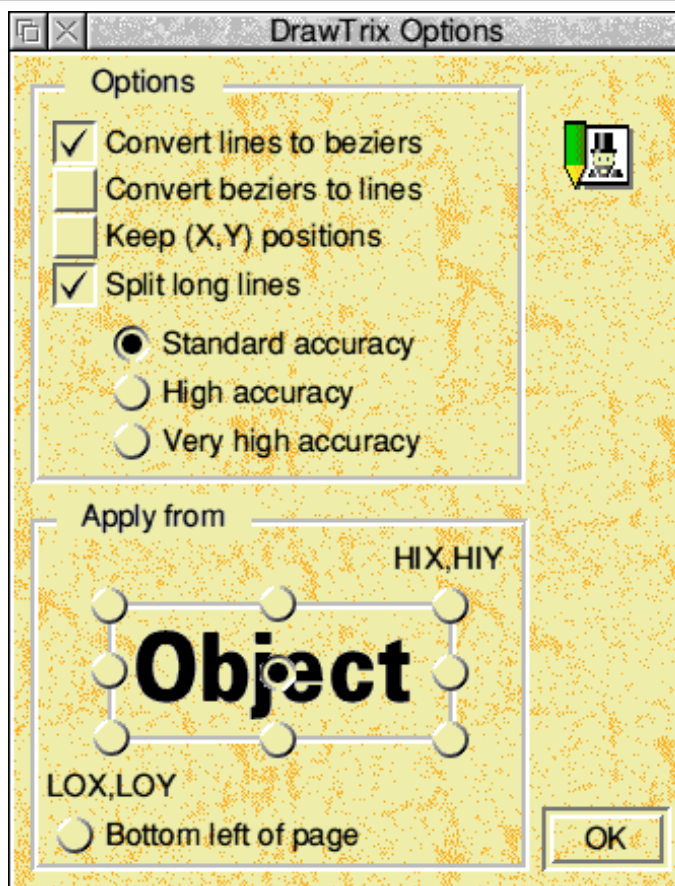
When a transformation is saved the current Options settings are saved with it, so if you load different effects the settings in the option window will change.

For most effects "Convert lines to beziers" should be On as this allows DrawTrix to bend straight lines.

Keep XY will add the effects of any change to the existing point position.

Split long lines lets DrawTrix split up long lines to improve the quality of its effects. The accuracy alters how much a line is split. For most effects "Standard accuracy" is adequate.

The lower half of the options window lets you specify how an effect is applied. Most effects are applied from the centre of the object. To see how this works try using the "3D Cylinder" effect with the "apply from" button set in the centre, at the bottom centre and at the top centre. As you can see (next page) this alters the viewpoint of the perspective cylinder.



The Variables window

This window displays the variables you can use to produce DrawTrix effects. As you can see the name of each variable is shown together with what it signifies. In the bottom of the window is a list of the mathematical functions that can be used in an effect.

"Show Numerical Values" will open a window showing the actual values of these variables for the current selection.

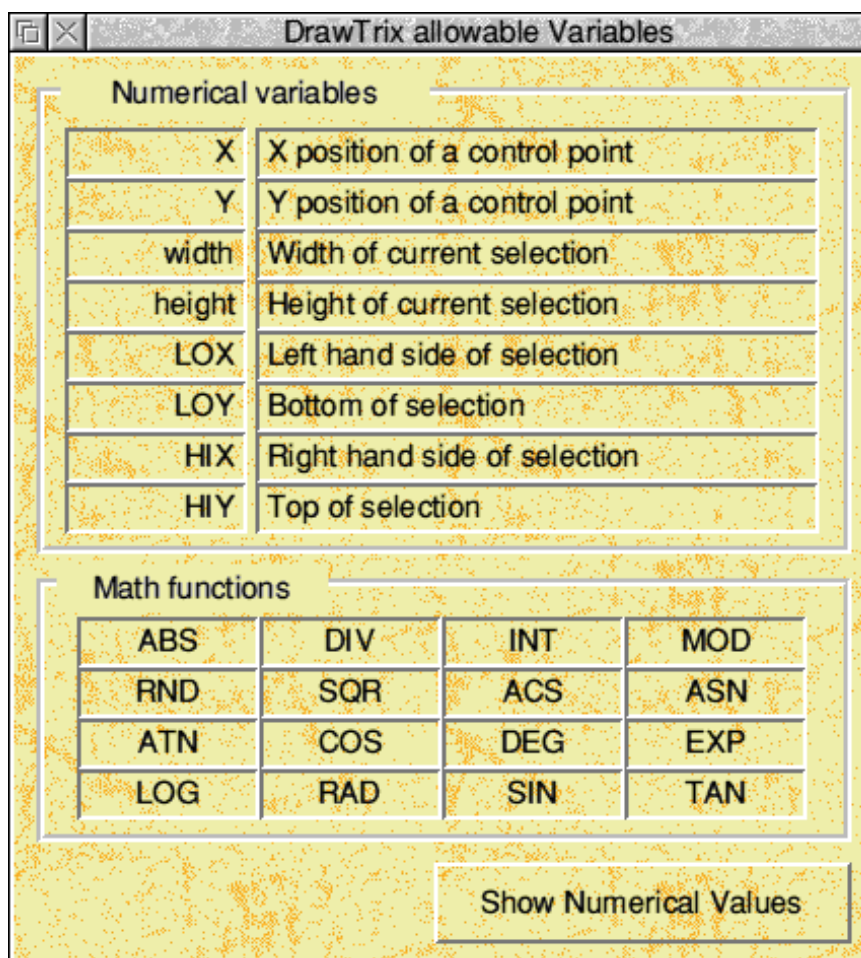
All DrawTrix effects are produced using these variables constructed to form a series of equations which are then used to manipulate your selected draw objects.

Example equation

These equations are for the 3DBulge effect.

$A = \cos(Y/\text{height})$	$B = 0$
$C = 0$	$D = \cos(X/\text{width})$
$E = 0$	$F = 0$

This is the example 3D cylinder effect shown above.



Making an effect

You can easily make your own effects and keep them permanently. It is best to base a new effect on an existing one. All the DrawTrix effects are defined using the six writable icons in the main window. If you choose an existing effect from the main menu you will see the equations in these change.

These equations form a transformation matrix which is applied to each point in your selection according to the X and Y equations shown in the window.

If you are trying out an effect to see if it works it is much quicker if you have the accuracy set to "Standard".

When making a new effect we recommend that the Interactive Help application is loaded.

Once you are happy with your new effect click on the "Store Matrix" button and your effect will be permanently stored on disk and will always be available from the DrawTrix menu.

There are samples of some of the effects on the CD in the WorkSheets directory on the DrawWorks CD



Path Moulder

The path moulder tool will take one set of path objects and mould them into a shape defined by another set of path objects.

Select the objects you wish to mould and click on the path moulding tool.

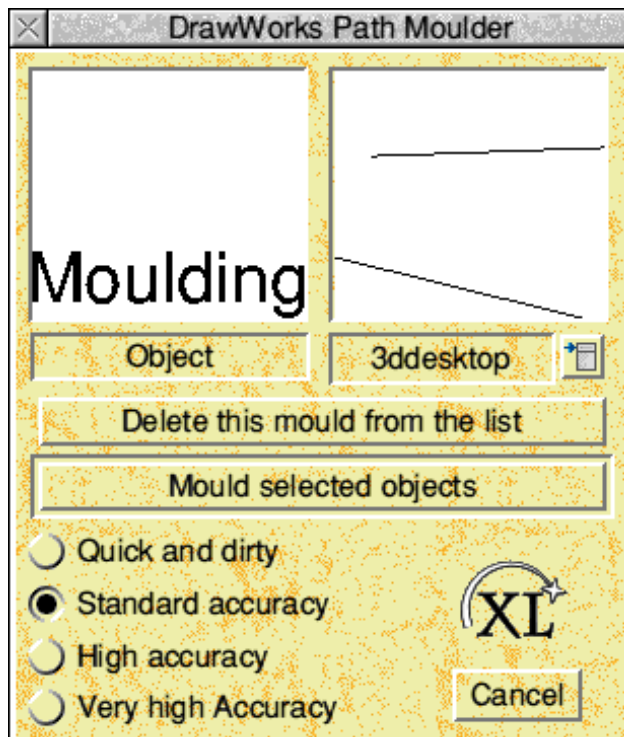
Using the moulder

DrawWorks comes with a number of ready made moulds which you can use immediately. Click on the mould menu button and a list of the moulds will open. Click on the one you would like to use. The shape of the mould will be shown in the right of the Path Moulder window.

Clicking on the "Mould selected objects" button will take the object and fit it into the mould.

The hourglass will appear and the path moulder will start work. Depending on the complexity of the selected objects and the speed of your computer this may take several seconds.

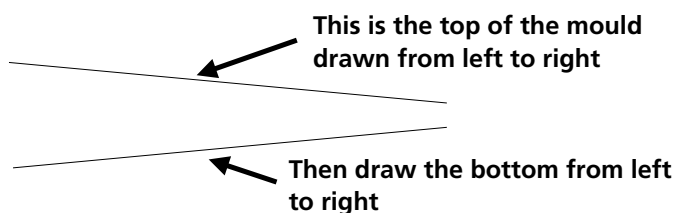
Once the object has been moulded the save moulded object dialogue box will open. You can now drag the draw file icon from this box back to the Draw window or to an open file window to save the moulded shape.



Making your own moulds

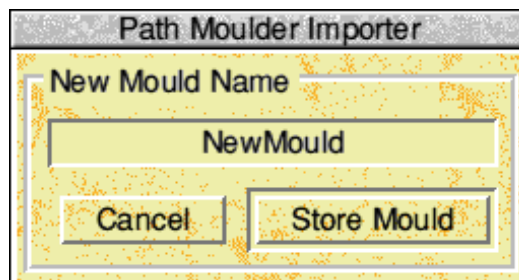
You can also make your own moulds and add them to the list of those available. A mould consists of two lines, one for the top and one for the bottom of the mould. A new mould must be drawn in the Draw window in the correct order.

Draw the top line of the mould from left to right, then the bottom line of the mould again from left to right.



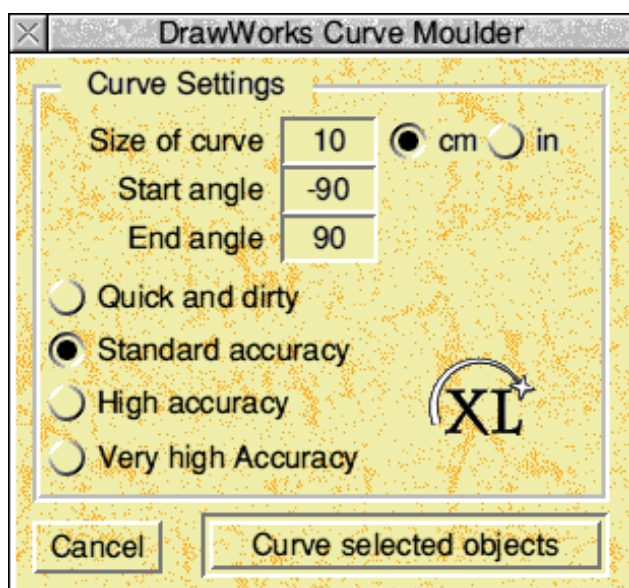
Having drawn the mould select both parts, click on the Save Selection tool from the DrawWorks toolbar and drag the draw file icon into the Path Moulder window. The Path Moulding tool will check the mould to make sure it will work correctly. If the mould is faulty you will be told why. Common faults include not having two lines (one for the top and one for the bottom) and having a move path command somewhere in one of the lines that makes up the mould.

Provided the mould will work the mould importer window will open. Type in the name of this new mould and click on "Store Mould".



Curve Moulder

The curve moulder is designed to take a set of path objects and bend them around a curve. For example, to bend a line of text around a circle. Select the objects that you wish to curve and click on the path curver tool.



Curve Moulder settings

By default the path curver will be set to wrap the selected object around the top half of a circle as shown above.

By altering the start angle you can change the starting position of the text around the circle. A start angle of 0 will start text at the top of the circle. A start angle of -90 will start the text on the left of the circle. Curved objects are saved in the same way as those produced by moulding.

The Path Curver

examplesThe path curver

Start angle=0
End Angle =360

The path curver examples

Start angle=-90
End Angle = -270

The path curver examples

Start angle=-30
End Angle = 30

Object distortion

This tool lets you alter the way an object looks by dragging handles along its edges. It only works with vector objects, not bitmaps.



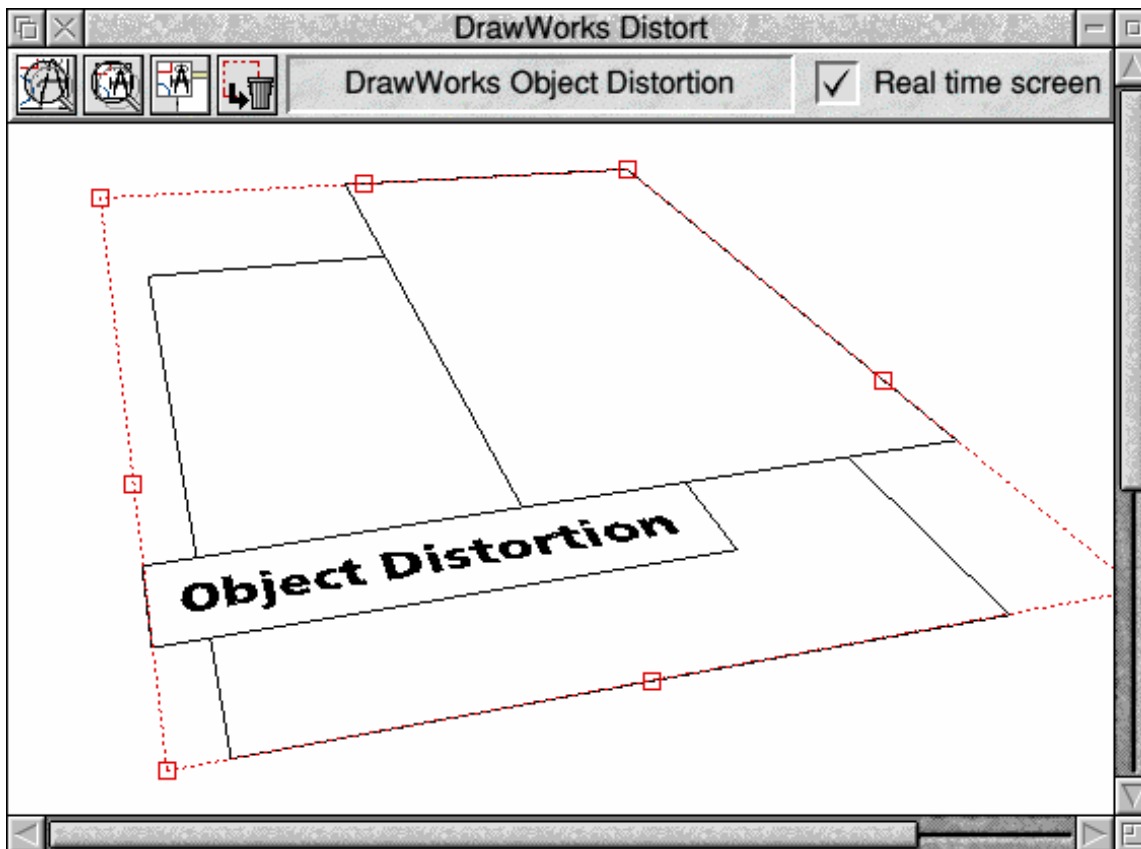
If you drag the red handles with SELECT then the object will be distorted.

If you drag the red handles with ADJUST then you can drag the object about.

The toolbar along the top lets you zoom in and out, you can also save the new distorted object using the save button.

Dragging one of the handles at a corner will move that corner about and change the shape of the object. Dragging a handle along an edge will move that edge and the two corners connected to it. This tool will normally show a real time screen update as you drag the mouse. On slower machines this can be turned off from the Object Distortion toolbar.

Note that once the Object Distortion tool is open you can drag and drop further vector objects into this window and manipulate them as well.



The Lining tool

This tool is designed to provide interesting effects around the edges of vector objects. It often works very well when using text

The default lining style applied to an object is "none". A menu of available styles can be opened by clicking on the menu button next to the icon with the word "(none)".

Once you have chosen a style the colours will become set in the small colour icons. Also the line width icons will no longer display 0 (zero).

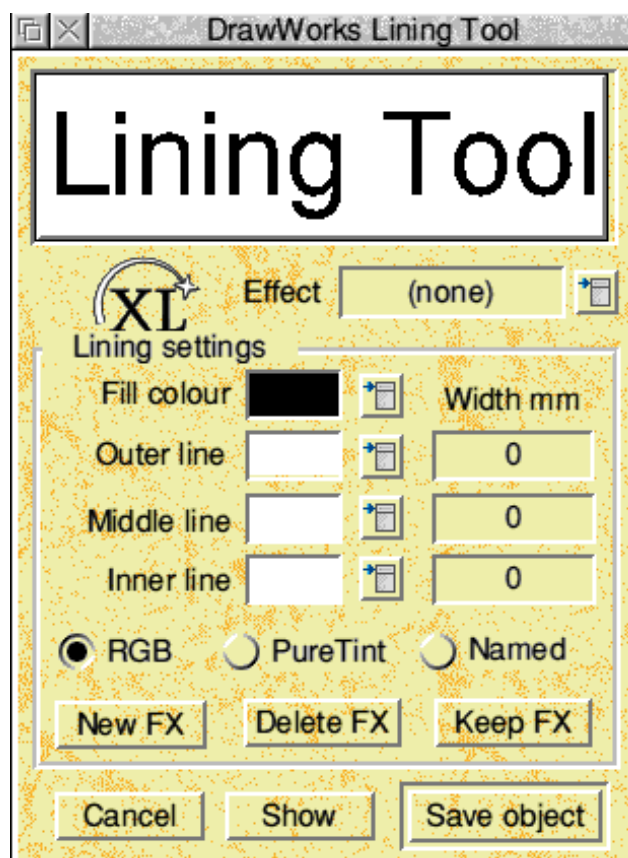
As you can see the fill colour of objects can be set, using either RGB, PureTint or Named colours. The colours and widths of up to three lines around the outside of the objects can also be set.

Some examples of built in styles

Once you have chosen a style using the lining tool it can easily be edited. As you can see you can change the colours of the inside fill, or any of the lines around the edge of your object. You can also change the thickness of any of the lines around the edge (a thickness of 0 means the line does not appear).

If you change a style and want to keep any changes you have made you can click on the "Keep FX" button.

If you want to delete one of the existing styles you can click on the "Delete FX" button.



Lining Tool

Inline2

Lining Tool

Lighter

Lining Tool

Inline1

Making a new style

You can make a new style and keep it for later use with the lining tool. In the writable icon that shows the style name type in the name of your new style. Now click on the "New FX" button.

You can now alter the line widths and colours until you have produced the style you want. While you are working on the style the display at the top of the window will continually update to show the results of your changes. Once you are happy with the new style click on the "Keep FX" button.

Saving the finished object

Once you have applied the correct style to the object and want to save it back into the Draw window click on the "Save Object" button. A save dialogue box will open. You can now drag the drawfile from this window into an open Draw window.

The Mapping tool



This is a very specific tool that is designed to produce maps from sets of lines and circles.

To use this tool draw a rough map with thin lines for roads and circles for roundabouts, as shown in the top section example below.

Now select all the lines and circles and click on the map making tool. Select the required line thickness, or leave at the default of 6, and then click on "OK". Note that you can also set the line style for the map.

DrawWorks will convert the original into a map-like diagram where all roads and roundabouts neatly join up. If you don't want black lines for the map simply ungroup this new object. Double click on it to select the background layer and then change line colour.



The Shadow tool

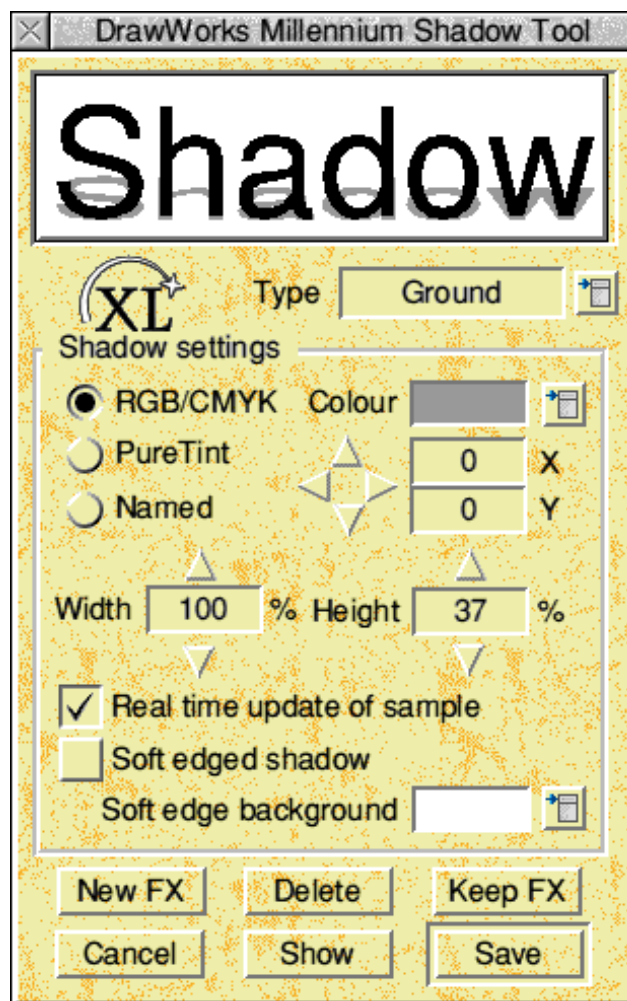
This can produce drop shadows for any vector object easily and quickly. It comes with a number of built in effects. The example shows Ground effect selected.

Clicking on the menu button next to the Colour sample opens the relevant colour picker where you can select the colour of the shadow.

The position of the shadow can be changed using the four arrow buttons. In addition you can enter the shadow position in the two writable icons.

The width and height of the shadow can also be adjusted using the Width and Height settings.

The button marked "Real time update of sample" can be turned off on slower machines to speed up the use of the arrow buttons.



Making a new Shadow effect

You can make new effects very easily with the Shadow Tool. Just produce the effect you want using the arrow buttons and the colour picker. Then type in the name of the effect in the writable icon next to the word "Type" at the top of the window. Now click on "New FX". Your new shadow effect will be added to the menu of available effects.

Shadow Shadow Shadow

Editing existing effects

You can edit existing effect and keep any changes made by clicking on the "Keep FX" button after the effect has been altered. If you want to delete the current effect then click on the "Delete"

button.

You may find that the built in effects need to be modified (usually the position of the shadow) depending on the object you are applying the shadow to. This is because of the different sizes and width/height ratios of vector objects.

Soft edged shadows

DrawWorks can produce shadows with a soft edge. To enable this feature select the correct button. You will also need to set the colour of the background the object will be placed on. The shadow will then fade at the edges rather than being sharp.

Exporting shadow objects

Once you have produced the shadow object click on "Save object". The main Shadow Tool window will close and a Save box will appear. Drag the draw file icon from this to an open Draw window to save the object.

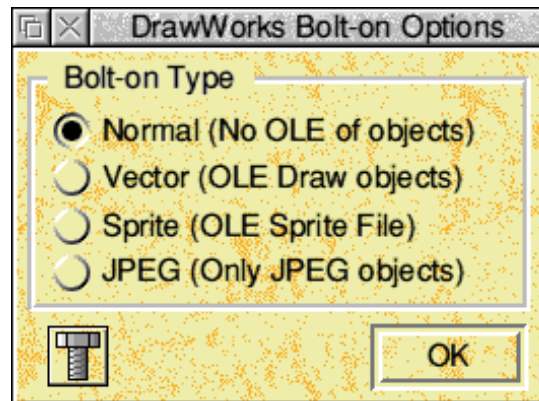
The bolt-on toolbar

This toolbar lets you add further features to DrawWorks. You can bolt-on other applications and use them in a similar way to other DWM tools.

Adding bolt-on applications

To bolt an application onto DrawWorks drag the application from a filer window and drop it onto an empty button on the bolt-on toolbar. The window shown will open

You can now choose which type of bolt-on you want to use. Normal will just run the application and then open its main window.



Vector will launch the bolt-on application and OLE the currently selected objects to it (note these objects must be vectors ONLY).

Sprite will OLE any currently selected sprite to the bolt-on application. JPEG will OLE any currently selected JPEG objects.

Bolt-on applications will behave as though they are a part of DrawWorks. In use they will work in a similar way to the Shadow tool. Note however, that the application being bolted-on must be able to load the the type of file you select. Most bitmap packaged will not load drawfiles.

Removing a bolt-on

To remove a bolt-on application simply click ADJUST over the relevant button. DrawWorks will confirm that you are sure before removing the bolt- on from the list.

Freehand drawing mode

DrawWorks extends Draw's normal drawing modes by adding a freehand drawing tool.

To use this tool just select the normal curved line tool and then hold down ALT and F on the keyboard. As soon as the computer beeps freehand drawing is activated. If you now move the mouse pointer you will see the computer keeps drawing as you move. To end freehand drawing release the ALT and F keys.



Select the curved line tool, then hold down ALT and F to activate freehand drawing mode.

DrawWorks Preferences

As well as the preferences for Draw you can also set preferences for DrawWorks. To open the DrawWorks preferences window click MENU on the DrawWorks icon on the icon bar and then select "Prefs."

Use Anti-aliasing

If this is ticked the main Draw/Drawworks window will be anti-aliased. This improves image quality on screen.

Background Blending

This makes DrawWorks render text with greater background colour accuracy. It will only work if the font manager in your computer supports background blending.

Show Top Tip

When DrawWorks is started a top tip presented by one of the DrawWorks development consortium appears on screen.

Toolbars

The DrawWorks toolbars can be positioned either at the top of Draw's window, above the window, or at the bottom of the window.

You can also choose whether the toolbars have horizontal scrollbars. If this is Off the toolbars will auto scroll when you move to either end, rather like the RISC OS icon bar. If it is On toolbars will have scrollbars.

Automatically convert text to path

Some DrawWorks tools cannot work with text, only with vector objects. Normally you would need to manually convert any text to path before using these tools. If this option is selected then DrawWorks will automatically convert text to path for you and then convert it back again.

Auto load Draw with DrawWorks

As has already been explained Draw should be loaded after DrawWorks. If this is ticked then DrawWorks will automatically load Draw itself.

Play sound with Banner

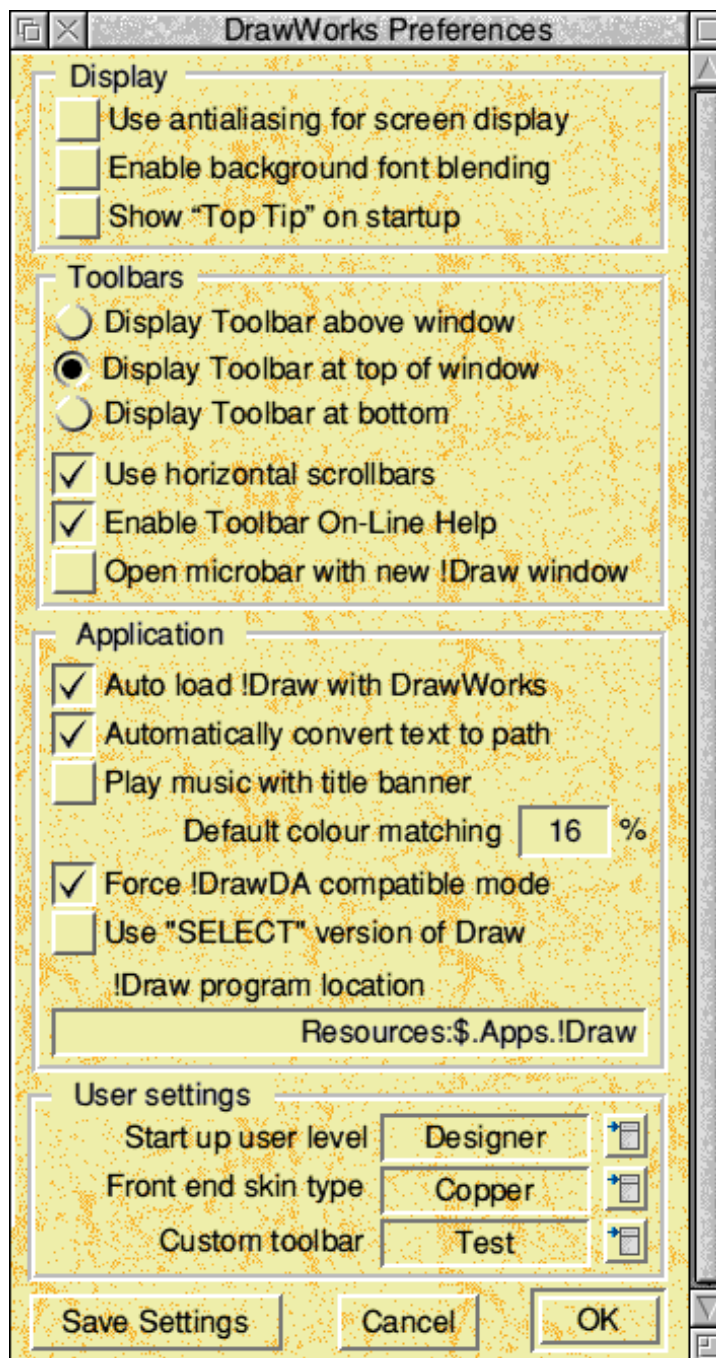
Enables the DrawWorks loading sound effects.

Colour Matching

This lets you set the default colour matching percentage for the PureTint and Named colour pickers. By default this is set to 16%. If, for example, you wanted the PureTint and Named colour query windows to report exact colour matches you can set this to 0%.

Force !DrawDA compatible mode

This should normally be left on. If this button is off then DrawWorks will only work on RISC OS 3.6,



3.7, 4.0 or 5. With this button selected DrawWorks will work with OS 3.1 or later, Select and also !DrawDA.

Use Select version of Draw

This should only be set if you are using RISC OS Select and the version of !Draw supplied with it. In this case it will automatically be selected. Note that if you are using DrawDA instead of Select Draw you should un-tick it.

Draw program location

With the ROM versions of !Draw the actual !Draw program is located in Resources::\$Apps, that is, you find it in the Apps folder on the icon bar. If you are using Select or RISC OS 3.5 and have placed !Draw in in the Apps directory on your hard disc it will also appear here. If you are using DrawDA or another non-ROM version of Draw or if you have not placed it in the default location then you will have to drag the !Draw application to this icon. It's path name will then appear and then you should Save the settings so that when DrawWorks starts up it knows where to find !Draw.

User Level

DrawWorks has a large number of buttons so initially these may be a little confusing. You can therefore arrange for DrawWorks to start up in one of three levels. Student level provides standard buttons such as fill colour, text colour, etc. The Standard level adds more features to DrawWorks, including some of the DrawWorks features such as path moulding and curving. The Designer level allows access to all DrawWorks' features.

Skin type

DrawWorks can have a variety of 'Skins'. The Normal setting is similar to other RISC OS applications. A variety of others can be selected from the menu. Changes will only take effect the next time DrawWorks is started.

Custom Toolbar

This lets you define the default Custom toolbar that is selected when DrawWorks is started. You can use the menu to choose from all the custom toolbars currently available.

Setting and Saving preferences

Click on "Save settings" to keep any changes you have made. Click on "Cancel" to undo any changes. Click on "OK" to make a temporary change. Note that DrawWorks will have to be quit and re-loaded after changing many options for the changes to apply.

The DrawWorks Library



The DrawWorks Library is a place where you can store small items and components that you frequently use when working. It is not intended for storing larger files or clip art, this is better stored using Mr Clippy.

The Library is separate from DrawWorks itself and can, in fact, be used with other programs that can load DrawFiles. It can be run by double-clicking on the !DWLibrary icon or by clicking on the button on the DrawWorks File toolbar. For this method to work the DrawWorks Library application must have previously been "seen" by the filer.

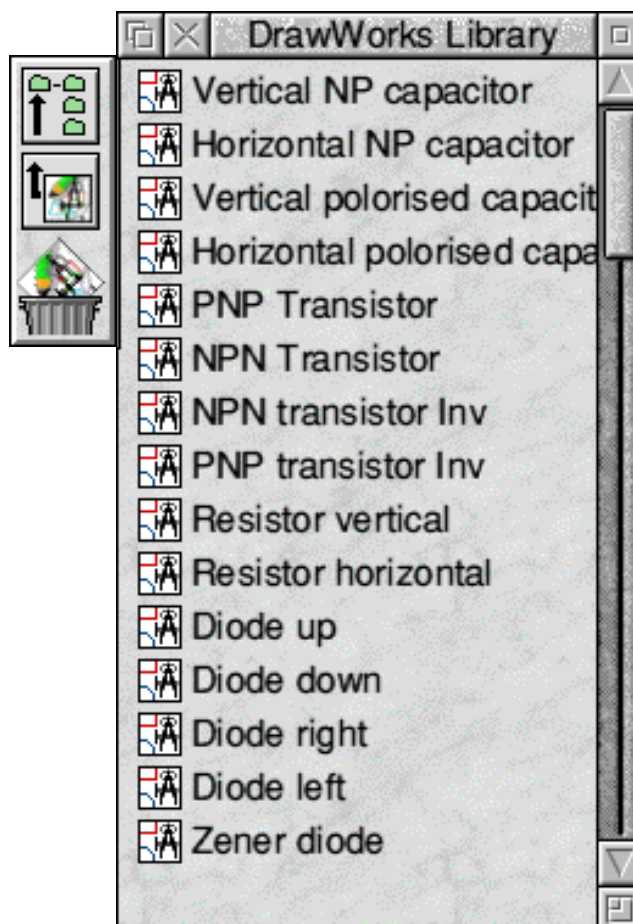
The Library tool has a single narrow window with a small toolbar on the left. In the main window is a list of up to 75 files and/or folder icons. Each item can have a description up to 30 characters long. In order to keep the application compact there is no provision for viewing files but for the purpose for which this tool is intended this is not really necessary.

The DrawWorks Library does not install on the iconbar to avoid clutter. To quit the program either just close the main window or click MENU over the main window and select 'Quit' from the menu that will appear.

Files are stored internally in DWLibrary in a hierarchical structure, so you can organise your data into folders, any of which can contain a mixture of folders and files.

Using the Library

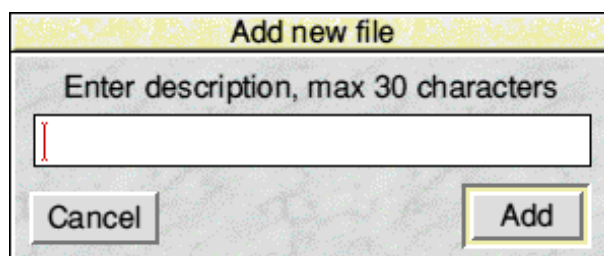
To load a file into Draw just drag the icon to an open Draw window. To extract a file you can drag it to a filer window. You can drag an entire folder to a filer window, but in this case the files will not have their true names, just the numbers that DWLibrary uses for internal reference.



To move to a new folder just double-click SELECT on it. To move up to the parent folder click on the middle button on the toolbar. To move to the top level folder click on the top button on the toolbar.

Adding new files

To add a new drawfile just drag it to the DWLibrary main window. A window will open in which you can enter a description of up to 30 characters. Enter the text and click on 'Add' to add the file to the current folder.



Creating a new folder

To create a new folder double click ADJUST on the blank area below the files. A window will open for you to enter the name of the new folder.

Altering and deleting files

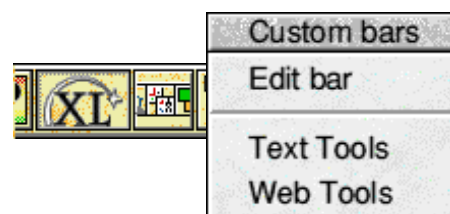
To change the description of any folder or file double-click ADJUST on it and enter the new name in the window that will open. To change the order of files and/or folders just drag them up and down in the window.

To delete a file or a folder and all the files it contains drag it to the bin icon on the toolbar. This does not actually delete them, it just moves them to a 'Bin' folder within DWLibrary. You can open this by double-clicking on the bin icon. Files stay in the bin indefinitely, so if you have deleted a number of files you will need to open the bin periodically and empty it.

The Custom Toolbar

Each DrawWorks toolbar contains a certain type of tool, and sometimes this can mean switching between them to perform a series of tasks. Also most people make most common use of a small number of tools, often spread over several toolbars. The DrawWorks Custom Toolbar system lets you define several toolbars which can contain the tools required for the tasks you most frequently carry out so you don't need to switch toolbars but just open the one containing the necessary tools for the job in hand.

Clicking SELECT on the Custom Toolbar icon opens the currently selected Custom Toolbar. Clicking MENU on the Custom Toolbar icon displays a menu listing all the currently defined bars. When you first run DrawWorks there won't be anything on this menu except the first item, 'Edit bar'. Once you have created some custom toolbars they will appear on the menu and selecting one will open it.



Creating and Editing Custom Toolbars

To edit an existing Custom toolbar or create a new one select Edit bar from the menu.



The Custom Toolbar Tool has two windows, the main window and a representation of the toolbar you are editing or creating. To edit an existing bar click on the menu icon at the top right of the window and select it from the menu.

The top item on this menu is Delete bar. If you select this the bar you are currently editing, that is, the one whose name is shown in the while icon, will be deleted.

The second row of buttons in the main window equates to DrawWorks' normal toolbars. As you click on them the lower part of the window will change to show copies of all the icons normally found on these bars.

To create your own bar just drag the buttons you want from this window to the chosen position on the 'dummy' toolbar. If you decide you want to move it once you've placed it just drag it to a new position. If there's already a button there they will swap places. To remove a button just drag it back to the main window.

Enter a suitable title for the bar in the icon at the left hand end. This is different from the name that will appear on the menu, but it can be the same or similar if you wish.

When the bar is constructed to your satisfaction enter the name you want to appear on the menu in the writable icon at the top right and click on 'Save'. The new bar will immediately appear on the menu in DrawWorks. You can continue to edit this or other bars if you wish. When you have finished just click on 'Quit'.



OLE links (Impression/Ovation)

These new DrawWorks features are incorporated so that they appear to be part of Draw. For this to work a small invisible OLE object is placed in the bottom right corner of the Draw file.

This can sometimes cause a drawfile to not "Fit to Frame" correctly in Impression, Ovation and some other packages. If this happens simply resize the drawfile in Impression by hand or load the file back into Draw and delete any objects situated in the bottom left corner of the file.

DrawWorks will try to remove these link objects if they are no longer required, but occasionally it may not be possible to remove the OLE objects completely.

Mr Clippy

As previously mentioned there is a special tool on the file toolbar which can be used to load Mr Clippy. You need to ensure that Mr Clippy is either "seen" by the filer before running DrawWorks or that Mr Clippy is filer_booted by the SuperBoot tool.

The copy of Mr Clippy supplied with DrawWorks XL is fully 32 bit and lyonix compatible. It is also a full version and not restricted in any way. This means that you can add extra clips to it. However, to do this Mr Clippy needs to be installed to your hard disk drive. Also note that to access the clip art on the CD using Mr Clippy the DrawWorks CD must be in your CD-Rom drive.

Here are just a few of the other products you will be able to
download from RISCOS.com free of charge
(You can make a donation to help support future product releases but this is entirely voluntary)



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Some of the products shown above might not be available immediately.
Not all products will run on all versions of RISC OS, check the product information page for details.

Other Products list last updated 29/2/26