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About DrawMe 1.0

Introduction to DrawMe 1.0

Welcome to DrawMe version 1.0. This drawing program is freeware (yes really!) and is designed to provide a simple means for creating diagrams and illustrations to scale.

As well as all the usual drawing tools (including Bezier curves), DrawMe provides a range of tools for editing objects. For example objects can be stretched, rotated, sheared, flipped, inverted, grouped or aligned with one another. DrawMe will act as an OLE server and as an OLE client (to OLE version 1), this makes it easy to embed or link bitmaps and other objects within a DrawMe drawing, and the resultant drawing can in turn be embedded into your word processor or DTP software. DrawMe also provides context sensitive mouse menus - click on the right mouse button to access these.

I hope you find DrawMe a useful addition to your hard disk, most of the features of the program should be self explanatory and not require reference to the on-line help, none the less its there if you need it - after all most programs have their quirks (or is it their authors that have the quirks?) - and DrawMe is no exception.

This program is under continuing development, if there is something you would like to see in it, or if you find a bug (feature?) that doesn't work as it should please let me know. [See About DrawMe 1.0.](#)

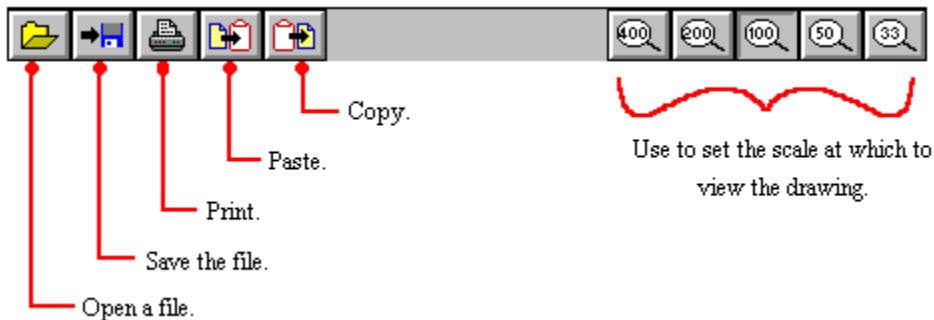
Button Bars

There are three button bars / tool bars in the DrawMe interface, these can be aligned along the top of the screen, down the left hand side or, free floating.

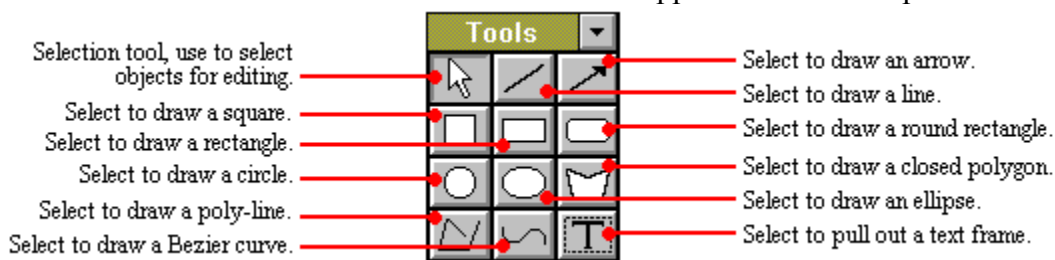
Changing the setup: To temporarily change the screen setup, click on the toolbar background with the right mouse button, a popup menu will appear, select either arrange top, arrange left or free floating depending upon where you would like the tool bars to appear. To change the default screen appearance, select 'Preferences' from the file menu and change the 'Toolbar Position' radio box selection to that required. [See Preferences Dialog.](#)

Each of the three button bars has a slightly different function:

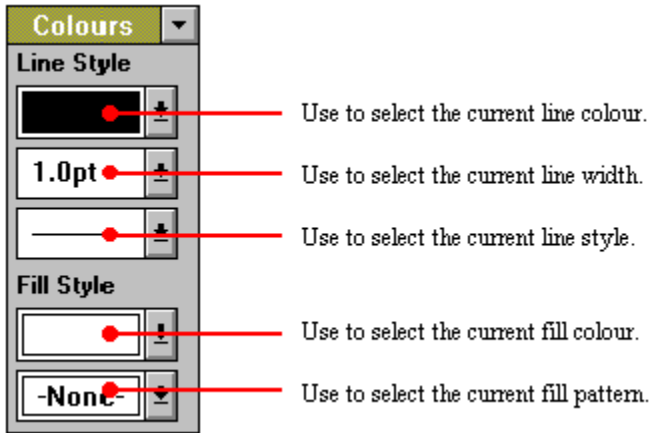
- 1 The main button bar contains frequently used menu items.



- 2 The toolbar contains the drawing tools, the appearance of the bitmaps change depending upon whether the closed objects will be filled or transparent when created. The illustration below shows how the toolbar will appear when the shapes will be filled.



- 3 The colour and styles bar contains drop-down combo boxes from which the line and fill colours and styles are selected. If '-none-' is selected in the fill style combo box then any solid shapes drawn will be transparent, otherwise they will be filled with the current colour/pattern combination. The colours used in these combo boxes will change to reflect the current paper colour and the selections made in the line and fill combo boxes, this allows you to preview how the current selections will appear on the page before starting drawing.



About DrawMe 1.0

DrawMe version 1.0 is FreeWare, you may use it for an unlimited period without charge and may distribute this version of DrawMe to your friends etc. The only limitations to this are as follows:

- 1 Bulletin Boards and commercial ShareWare Distributors: please let me know that you are distributing DrawMe so that I can let you have more up to date versions as they become available.
- 2 DrawMe may not be distributed on a magazine cover disk, or as part of a book or commercial software product without the prior explicit consent of the author.

Techi-stuff

DrawMe was written using Borland's Turbo C++.

Bugs and Technical Support

Since DrawMe is free, you can't expect a professional Technical Support hot-line, however if you have an intractable problem which you can't solve by reference to the help file then feel free to drop me a line and I will try to get back to you as soon as I can. Please include as much detail about the nature of the problem and your Windows setup as you can as this should help me to track down the problem.

If you discover a bug in DrawMe please let me know, after all if you don't nothing will ever get fixed!

If you require a bug fix for your version of DrawMe, or would like an update to the latest version of this project, then please let me have a blank formatted 1.44MB floppy and an SAE and I will rush you the next release as soon as its available.

Happy Drawing!

Contact Address:

Dr J. Maddock,
59 WestMoor Park,
Tavistock,
Devon, England
PL19 9AB.

Draw a Line or Arrow

Lines and arrows are drawn in a similar manner and so are dealt with together here.

- 1 Select either the line tool or the arrow tool from the tool bar. When over the drawing area the cursor will change to a cross-hair.
- 2 Select the desired Line Colour and Line Style and Width from the options available in the combo boxes on the colour and style bar, if you want to draw an arrow with a solid head, then make sure that the Fill style is set to '-Solid-', otherwise set the fill style to '-None-' for an open arrowhead.
- 3 Position the cursor where you want the line or arrow to start, use the coordinates displayed on the status bar to aid cursor positioning if necessary.
- 4 Click down with the left mouse button and drag with the mouse until the other end of the line is where you require it to be, then release the mouse button.

Note: When drawing an arrow, the arrow head appears on the end of the arrow drawn last, or the end which was last selected for editing.

Draw a Square, Rectangle or Round Rectangle

Squares, rectangles and round rectangles are drawn in a similar manner and so are dealt with together here.

- 1 Select either the square, rectangle or round rectangle tool from the tool bar. When over the drawing area the cursor will change to a cross-hair.
- 2 Select the desired Line Colour and Line Style and Width from the options available in the combo boxes on the colour and style bar. If you want to create a transparent object then set the fill style to '-None-', to create an object that is filled with the selected Fill Colour set the fill style '-Solid-', otherwise choose one of the predefined fill patterns, note how the fill pattern will be a combination of the selected Line and Fill Colours.
- 3 Position the cursor where you want the object to start, use the coordinates displayed on the status bar to aid cursor positioning if necessary.
- 4 Click down with the left mouse button and drag with the mouse until the other end of the square or rectangle is where you require it to be, then release the mouse button.

Note: These three objects are treated as the same thing by DrawMe; the Square, Rectangle and Round Rectangle Tools simply constrain the way in which drawing is carried out in order to produce the desired shape.

Draw a Circle or Ellipse

Circles and Ellipses are drawn in a similar manner and so are dealt with together here.

- 1 Select either the circle or ellipse tool from the tool bar. When over the drawing area the cursor will change to a cross-hair.
- 2 Select the desired Line Colour and Line Style and Width from the options available in the combo boxes on the colour and style bar. If you want to create a transparent object then set the fill style to '-None-', to create an object that is filled with the selected Fill Colour set the fill style to '-Solid-', otherwise choose one of the predefined fill patterns, note how the fill pattern will be a combination of the selected Line and Fill Colours.
- 3 Position the cursor where you want the object to start, use the coordinates displayed on the status bar to aid cursor positioning if necessary.
- 4 Click down with the left mouse button and drag with the mouse until the other end of the circle or ellipse is where you require it to be, then release the mouse button.

Note: These two objects are treated as the same thing by DrawMe; the Circle and Ellipse Tools simply constrain the way in which drawing is carried out in order to produce the desired shape.

Draw a Polygon or Polyline

Polygons and Polylines are drawn in a similar manner and so are dealt with together here.

- 1 Select either the Polygon or Polyline tool from the tool bar. When over the drawing area the cursor will change to a cross-hair.
- 2 Select the desired Line Colour and Line Style and Width from the options available in the combo boxes on the colour and style bar. If you want to create a transparent polygon then set the fill style to '-None-', to create a polygon that is filled with the selected Fill Colour set the fill style to '-Solid-', otherwise choose one of the predefined fill patterns, note how the fill pattern will be a combination of the selected Line and Fill Colours.
- 3 Position the cursor where you want the object to start, use the coordinates displayed on the status bar to aid cursor positioning if necessary.
- 4 Click down and release with the left mouse button. Move the cursor to where you want the next point in the polygon or polyline to appear and click the left mouse button again, continue in this fashion until the cursor is positioned where you want the final point in the polygon or polyline to appear and then double click with the left mouse button to add the final point and finish drawing.

Draw a Bezier curve

Bezier curves are drawn in a similar manner to polygons and polylines.

- 1 Select the Bezier curve tool from the tool bar. When over the drawing area the cursor will change to a cross-hair.
- 2 Select the desired Line Colour and Line Style and Width from the options available in the combo boxes on the colour and style bar.
- 3 Position the cursor where you want the curve to start, use the coordinates displayed on the status bar to aid cursor positioning if necessary.
- 4 Click down and release with the left mouse button. Move the cursor to where you want the next control point in the Bezier curve to appear and click the left mouse button again, continue in this fashion until the cursor is positioned where you want the final point in the curve to appear and then double click with the left mouse button to add the final point and finish drawing.

Create a text frame

- 1 Select the text tool from the tool bar. When over the drawing area the cursor will change to a cross-hair.
- 2 Select the desired Line Colour from the options available in the combo box on the colour and style bar, this will determine the text colour.
- 3 Position the cursor where you want the text frame to start, use the coordinates displayed on the status bar to aid cursor positioning if necessary.
- 4 Click down with the left mouse button, drag with the mouse to draw out a new text frame and then release the left mouse button. An 'Edit Text' dialog box will now appear, fill in the text that you desire and select the font and text alignment. Choose OK to close the dialog and return to the drawing.

Create an Embedded or Linked Object

DrawMe will act as an OLE client to OLE server applications, items such as bitmaps can therefore be included in DrawMe drawings even though DrawMe does not itself know how to handle these types of files. Embedded or linked objects can be created in one of three ways:

- 1 Choose 'Insert Object' from the Objects Menu. A list of the available servers on your system will appear, select the server that you require from this list to create an embedded object of that type. Of course you will have to use the server to draw the object that you require before returning to DrawMe.
- 2 Choose 'Insert File' from the Objects Menu. A standard file open dialog box will appear from which you can choose the file you wish to embed or create a link to. The next dialog to appear will present you with a list of server applications to choose from, and options for either embedding the file or creating a link to it. You will normally accept the default server application presented in this dialog, however you can override the default if you wish: for example bitmaps can be handled by a variety of applications, and although the default file association may be fine you may wish to override it and choose Paintbrush Pro or Photoshop as the server rather than Windows PaintBrush. Note that if you choose to insert a native DrawMe file then the contents are inserted directly into the current drawing and an OLE object is not created.
- 3 Pick a file from the file manager and drag and drop it onto the DrawMe Window. This is equivalent to choosing a file from the file open dialog, after choosing 'Insert File' from the objects menu, and the same comments apply.

Select Objects for Editing

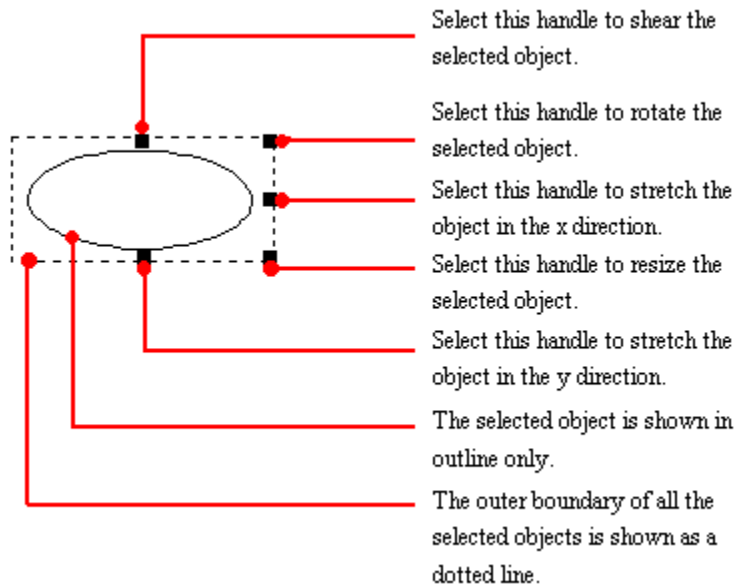
Use the selection tool to select existing objects. This tool can be used in a number of ways:

- 1 Place the cursor over the object you want to select and double click with the left mouse button. If more than one object is at that position on the page, then the object selected will be the 'topmost' one, this is the object most recently drawn or selected at that position.
- 2 Place the cursor over the object you want to select and double click with the left mouse button while holding down the control key. If more than one object is at that position on the page, then the object selected will be the 'bottommost' one, this is the object first drawn at that position.
- 3 To select more than one object, double click on each one in turn while holding down the shift key.
- 4 To select all the objects in a given region, click with the left mouse button and drag with the mouse to draw out a rectangular area. All the objects within the area will be selected.
- 5 To select all the objects on the page choose 'Select All' from the edit menu.

Note: Once selected, an object moves to the 'topmost' position on the page, when editing is complete click outside the selected object to deselect it, or choose 'Push to Back' from the edit menu to deselect the object and push it to the 'bottommost' position on the page.

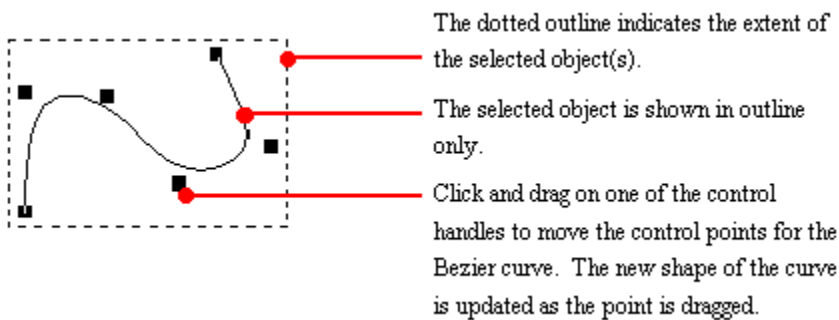
How to Edit a Selected Object With the Mouse

Once one or more objects have been selected they can be edited with the mouse or changed by the various menu options. When the cursor is moved over a selected object the cursor will change to a hand indicating that it can be moved. To move the object click down with the left mouse button when you see the hand cursor and drag the object with the mouse to a new position. In addition to moving the object a number of editing handles will appear when an object is selected, note how the cursor changes to reflect the handles purpose when it is moved over it. A typical appearance of a selected object and the purpose of the editing handles is shown below:



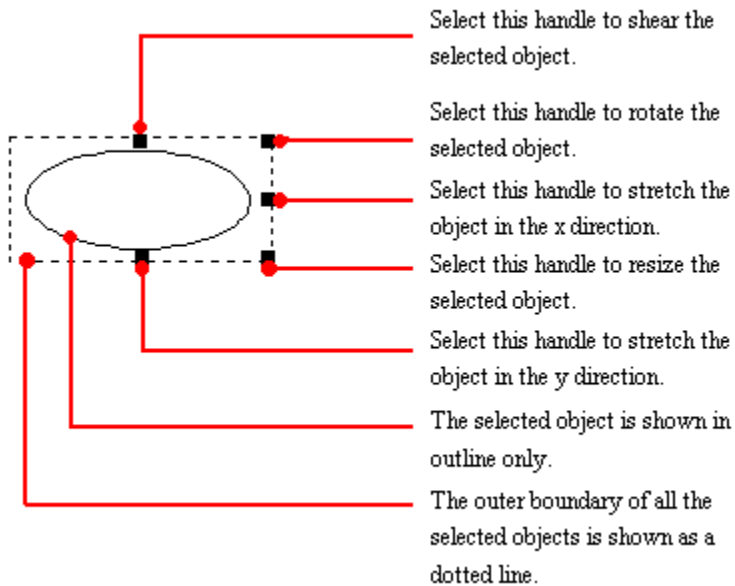
To use one of these handles simply left click on the handle and drag it to a new position while watching the object change before your eyes! Note that objects that can not in themselves be rotated or sheared (text objects and embedded objects) do not display handles for these purposes.

Lines, Arrows, Polylines, Polygons and Bezier Curves appear slightly differently when selected. Instead of displaying handles for stretching and rotating etc., these objects display handles for moving the individual points that make up the object, simply click and drag one of the points to a new position to change the object. These objects can still be stretched, rotated or sheared by using the appropriate menu options. For example a Bezier curve will appear as follows when selected:



Stretch, Resize, Rotate or Shear Objects

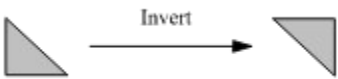
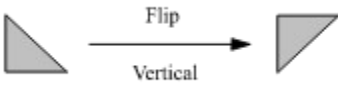
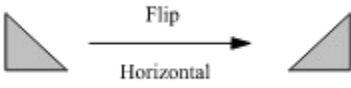
These four transformations are available both from the tools menu and from appropriate 'handles' on the selected object. To perform these transformations with the mouse simply select the object or objects that you require and then click and drag on the appropriate handle:



To stretch or resize the object, choose 'stretch' from the tools menu and then enter the amount to stretch by (100% = no change) and the direction of the stretch (horizontally, vertically, or both). To rotate an object, choose 'rotate' from the tools menu and enter the amount of rotation (in degrees) and whether to rotate clockwise or anticlockwise. To shear an object, choose 'shear' from the tools menu and enter the amount of shear (between -90 and +90 degrees). Positive values shear the top of the object to the right.

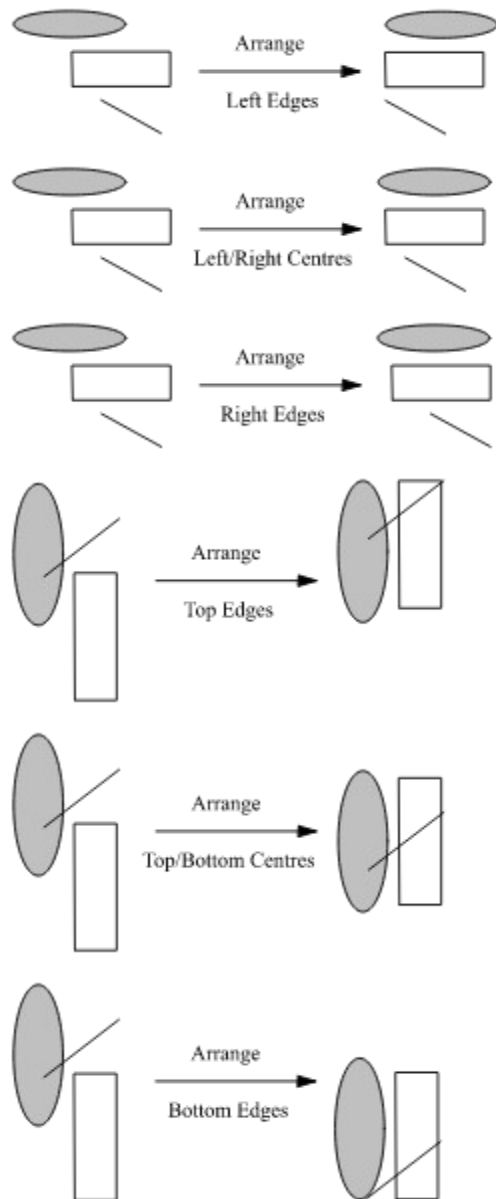
Flip or Invert Objects

The flip and invert options are available from the tools menu, these options transform the currently selected objects. For example:



Align Objects

The alignment options are available from the tools menu, use these to align several objects together, the effects of the various options are shown below:



Group Objects

Grouped objects behave as a single object, and are selected and edited 'as one'.

To create a group: Select the objects to be grouped together and choose 'Group' from the tools menu.

To Ungroup a group Select the grouped object to be ungrouped and choose 'Ungroup' from the tools menu. Each object in the original group can now be edited individually as before.

How to Export DrawMe Drawings to Other Applications

DrawMe drawings can be exported to other applications in one of two ways; as a Windows Metafile or via the Clipboard.

To export as a Metafile:

Choose 'Save As' from the file menu, from the file type combo-box choose 'Windows Metafile', enter the desired file name and choose OK.

To export via the clipboard:

This is the most versatile method for including DrawMe Drawings in other applications because DrawMe will act as an OLE server for an OLE client application.

- 1 Select the part of the drawing to be copied.
- 2 Choose 'Copy' from the Edit menu.
- 3 In the destination application choose Paste or Paste Link.

Note: Links to DrawMe drawings are links to a specific area of the drawing and not to specific objects in the drawing. Applications that allow the user to edit the name of a linked object may change the name used and hence the area of the drawing that the link copies. The syntax for link object names is "R *x1:y1:x2:y2*", where *x1:y1* is the coordinate of the upper left hand corner of the bounding rectangle and *x2:y2* the coordinate of the lower right hand corner. All coordinates are in tenths of a millimetre relative to the top left hand corner of the page, for example R 0:0:2100:2960 would link to the whole of an A4 page.

Set The Page Setup

This topic describes miscellaneous options that affect the page setup and appearance.

- 1 **File./Preferences:** Choose 'Preferences' from the file menu to change the default page size and colour, and to select the default toolbar position. Options changed here alter the appearance of DrawMe when first started up, as well as the current document and any new documents created. This option can also be used to set the default measurement unit (millimetres or inches) and whether or not a background grid is to be displayed on the page.
- 2 **Tools./Measurements:** Options under this sub-menu make temporary changes to the appearance of the document. For example you can set the current measurement unit to either millimetres or inches, and set the current offset from which all positions are measured. You can also turn on or off a background grid to aid the visual positioning of objects.

Tools Menu

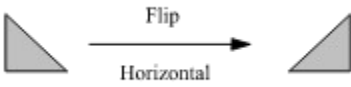
The following items are available from the Tools Menu:

Menu Item	Short cut Key
<u>Flip Horizontal</u>	
<u>Flip Vertical</u>	
<u>Invert</u>	
<u>Rotate...</u>	Control + R
<u>Shear...</u>	
<u>Stretch...</u>	
Arrange -	
<u>Left Edges</u>	Control + Left Cursor Key
<u>Right Edges</u>	Control + right Cursor Key
<u>Left/Right Centres</u>	
<u>Top Edges</u>	Control + Up Cursor Key
<u>Bottom Edges</u>	Control + Down Cursor Key
<u>Top/Bottom Centres</u>	
Measurements -	
<u>Inches</u>	
<u>Millimetres</u>	
<u>Show Grid</u>	
<u>Set Offset</u>	
<u>Reset Offset</u>	
<u>Group</u>	Control + G
<u>Ungroup</u>	

Tools./Flip Horizontal

Selecting this option flips the selected objects about the x-axis.

For example:

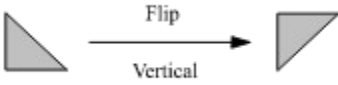


See also [Flip Vertical](#), [Invert](#).

Tools./Flip Vertical

Selecting this option flips the selecting objects about the y-axis.

For example:

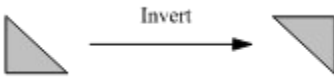


See also Flip Horizontal, Invert.

Tools./.Invert

Selecting this option inverts the object about its centre.

For example:

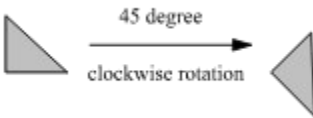


See also [Flip Horizontal](#), [Flip Vertical](#).

Tools./Rotate

Selecting this option brings up the rotate dialog, enter a the number of degrees to rotate the object by and check either the "rotate clockwise" or the "rotate anticlockwise" options to determine the direction of rotation (if you enter a negative number then the direction of rotation is reversed).

For example:



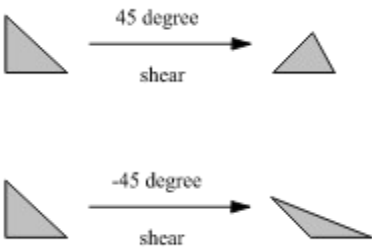
Objects are rotated about their top left hand corner.

Objects can also be rotated using the mouse, select the rotation handle in the top right hand corner of the editing rectangle and drag with the mouse, see [editing with the mouse](#).

Tools./Shear

Selecting this option brings up the Shear dialog. Enter the number of degrees to shear the object by, and choose OK. Valid entries are between +90 and -90 degrees. A positive number shears the top of the object to the right, and a negative number shears the top of the object to the left.

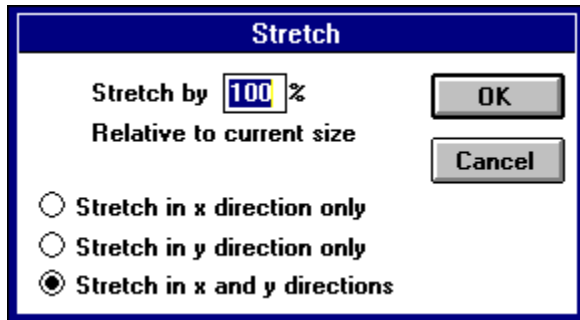
For example:



Tools./Stretch

Selecting this option brings up the Stretch dialog box, enter a scaling value (100% = no change in size) and select the stretch options before choosing OK.

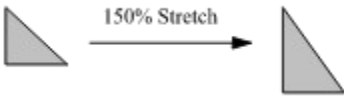
Click on the dialog to see the examples of the options in action:



The effect of a 150% Horizontal stretch is the following conversion:



The effect of a 150% Vertical stretch is the following conversion:



The effect of a 150% resize is the following conversion:



Enter the amount by which to stretch or compress the object here. Values of less than 100% will shrink the object, and values greater than 100% will enlarge the object.

Tools./Arrange./Left Edges

Selecting this option arranges the selected objects so that their left hand edges are all aligned. The leftmost item remains stationary, and the other objects are translated to the left to align the edges.

For example:



See also: [Arrange Right Edges](#), [Arrange Left/Right Centres](#).

Tools./Arrange./Right Edges

Selecting this option arranges the selected objects so that their right hand edges are all aligned. The rightmost item remains stationary, and the other objects are translated to the right to align the edges.

For example:



See also: [Arrange Left Edges](#), [Arrange Left/Right Centres](#).

Tools./Arrange./Left/Right Centres

Selecting this option arranges the selected objects so that they are centred horizontally. The objects are moved horizontally so that they are centred about their collective mid-point.

For example:



See also: [Arrange Left Edges](#), [Arrange Right Edges](#).

Tools./Arrange./Top Edges

Selecting this option arranges the selected objects so that their top edges are all aligned. The topmost item remains stationary, and the other objects are translated up the page to align the edges.

For example:

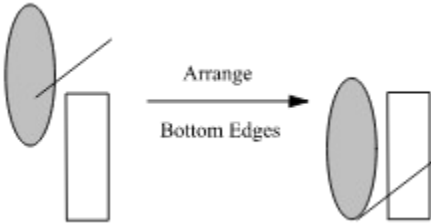


See also: [Arrange Bottom Edges](#), [Arrange Top/Bottom Centres](#).

Tools./Arrange./Bottom Edges

Selecting this option arranges the selected objects so that their bottom edges are all aligned. The lowermost item remains stationary, and the other objects are translated down the page to align the edges.

For example:



See also: [Arrange Top Edges](#), [Arrange Top/Bottom Centres](#).

Tools./.Arrange./.Top/Bottom Centres

Selecting this option arranges the selected objects so that they are centred vertically. The objects are moved up or down the page so that they are centred about their collective mid-point.

For example



See also: [Arrange Top Edges](#), [Arrange Bottom Edges](#).

Tools./Measurements./Inches

Selecting this option sets the current measurement mode to inches, a check mark will appear next to the menu item if this is already the case. Selecting this option does not change the default measurement unit - only that used for the current document - to change the default, choose Preferences from the file menu.

The measurement unit is used to display the mouse position on the status bar, and to indicate coordinates in "Properties" dialog boxes. Inches are given to 3 decimal places (100th of one Inch).

Tools./Measurements./Millimetres

Selecting this option sets the current measurement mode to millimetres, a check mark will appear next to the menu item if this is already the case. Selecting this option does not change the default measurement unit - only that used for the current document - to change the default, choose Preferences from the file menu.

The measurement unit is used to display the mouse position on the status bar, and to indicate coordinates in "Properties" dialog boxes. Millimetres are given to 1 decimal place (0.1 millimetres).

Tools./Measurements./Show Grid

Selecting this option causes DrawMe to display a background grid on the drawing area, this can be a useful aid to aligning objects on the page.

The size of the grid is 10mm square or 0.5" square depending upon the current measurement unit.

The grid itself is displayed either as a pale red or pale blue dotted line, the colour used is adjusted so that it is visible on the page's background colour.

Tools./Measurements./Set Offset

Selecting this option allows the user to set the position on the page from which all coordinates are measured. The coordinates displayed for the mouse are always relative to the offset position, which is displayed on the right hand side of the status bar. Properties dialogs can display either absolute or relative coordinates at any time.

To set the offset:

Choose Set Offset from the menu. The cursor will change to a 'crosshair and target'.

Move the mouse to the position at which you want the new offset to be placed, scrolling the window if necessary. Click with the left mouse button, the offset will now be set, and the cursor will return to its original shape.

The position of the offset on the page is marked by a pale red or pale blue cross, the colour used is adjusted so that the cross is visible on the background colour.

See Also: Reset Offset.

Tools./Measurements./Reset Offset

Selecting this option resets the offset to the top left hand corner of the page.

See Also: [Set Offset](#).

Tools./Group

Selecting this option groups the selected objects together, a group of objects behave as though they were a single object, and can be selected and edited 'as one'.

The short cut for this menu option is Control + G.

Use Ungroup to undo a group command so that the objects can be edited individually once again.

Tools./.Ungroup

Selecting this command converts a group object back into its original objects so that they can be edited individually. This command is only available when a group object is the only object selected.

Selecting this option closes the dialog box and accepts all the values entered in the dialog.

Selecting this button closes the dialog without accepting any changes.

Choose this button to obtain help on the dialog.

Click on this drop down dialog to display a list of line styles, the line style can be either solid or one of a range of dashes and dots. Note that for any line style other than solid, the line width will be one pixel, rather than the value selected in the line width combo box.

Click on this drop down dialog to display the range of possible line widths, the values are in half point sizes from 0.5pt to 4.5pt. Note that this combo box has no effect unless the selected line style is `solid'.

Click on this drop down combo box to display a list of possible line colours. The user will need to scroll down the list to view all the possible colours.

Click on this drop down combo box to display a list of possible fill colours. The user will need to scroll down the list to view all the possible colours. Note that this combo box has no effect if the fill style is set to "-None-".

Click on this drop down combo box to display a list of possible fill styles. The user will need to scroll down the list to view all the possible fill patterns. Selecting "-None-" will mean that the object will not be filled and any objects beneath it will show through. Selecting "-Plain-" will fill the object with a plain colour. Fill patterns are made up of a combination of the current Line Colour and Fill Colour.

This check box determines whether the coordinates displayed in the open dialog box are absolute (relative to the top left hand corner of the page), or relative to the current offset position. The default is to display absolute coordinates.

Enter the desired degree of rotation of the object here. The value must be entered in degrees, positive values indicate a clockwise rotation and negative values indicate an anticlockwise value.

Enter a value here to shear the selected object. The value entered must be in degrees, valid entries are between +90 and -90 degrees. A positive value will shear the top of the object to the right, and a negative value will shear the top of the object to the left.

Check this option to fill the selected object with a solid colour. Use the 'Fill Colour' drop down combo box to select which colour is used to fill the object. If this option is not selected then the object is unfilled, and objects beneath it will show through.

