Module 5

1. Global Options
2. Rotate and Move
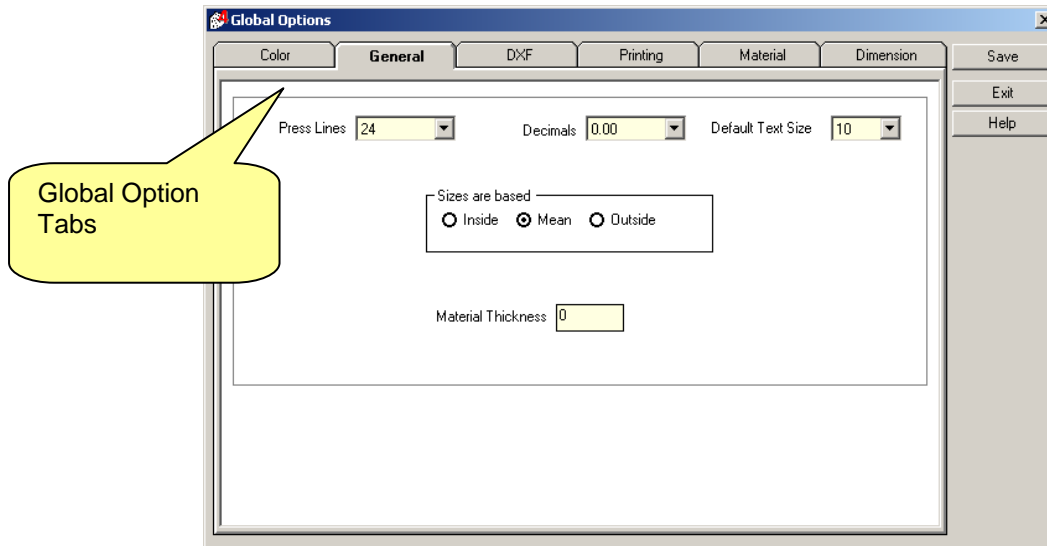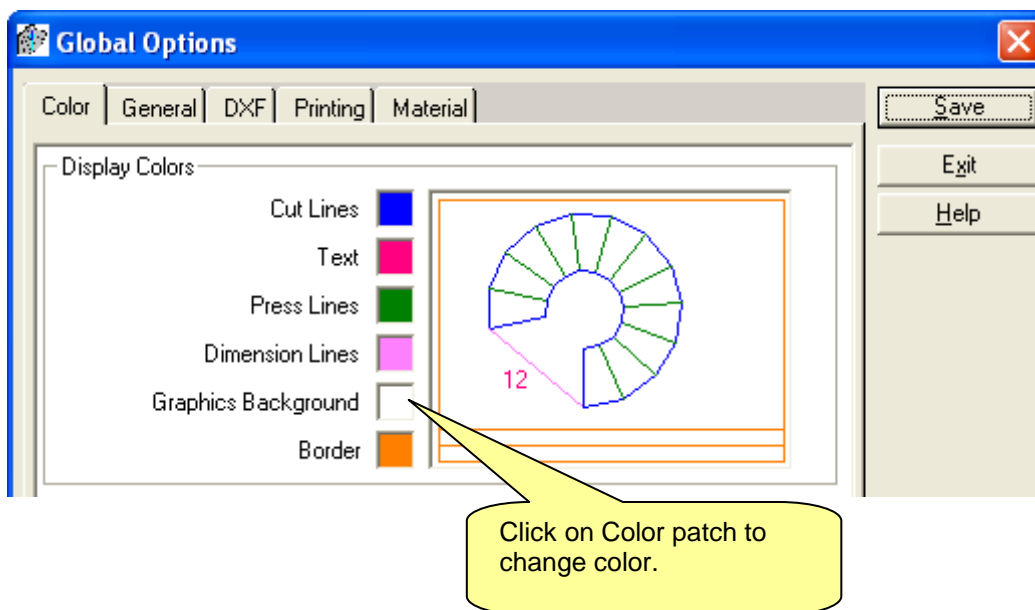
Table of Contents

Global Options

Global Options are settings for default properties, printing, display colors and others. The *Global Options* dialog is displayed by either selecting from the "*Tools*" pull-down menu or from the Right-Click pop-up menu (click the right mouse button while it is over the drawing).
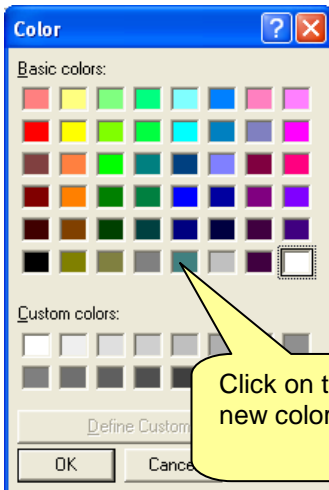

The options are saved as a file on the hard disk and "read" each time the program is started. There are six groups of settings as shown on the tabs of the dialog box and their function is described below.

The Color and Display Options Tab

Controls the color of screen objects such as lines and text. For example, some CAD users prefer to work with a black background and select line colors that contrast to black. To change the background color:
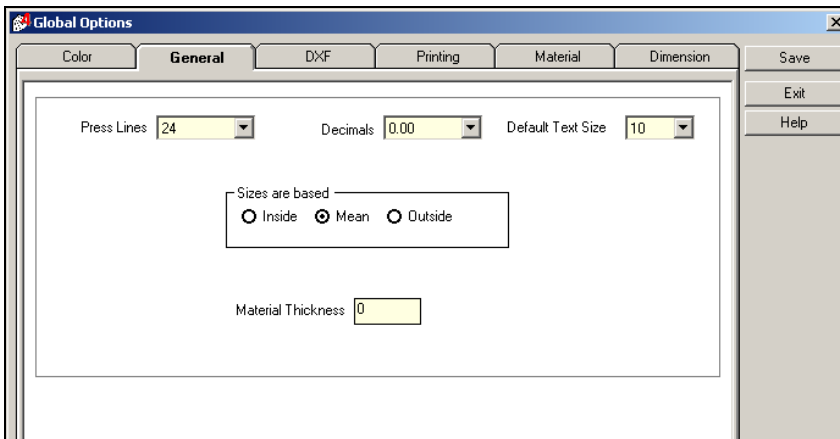
For example, to change the color of the Press Lines, click on the adjacent color patch to show the Color Selection dialog. Select the new color and click the "**OK**" button to apply the new color.

Click on the new color.

Repeat this process to change the object color of other objects as required.

The *General* Options Tab

The General Tab allows a default number of Press Lines to be set. If you find that you always set the number of press lines to 48, for example, set that as a Global Option and it will be the default number for each new shape.
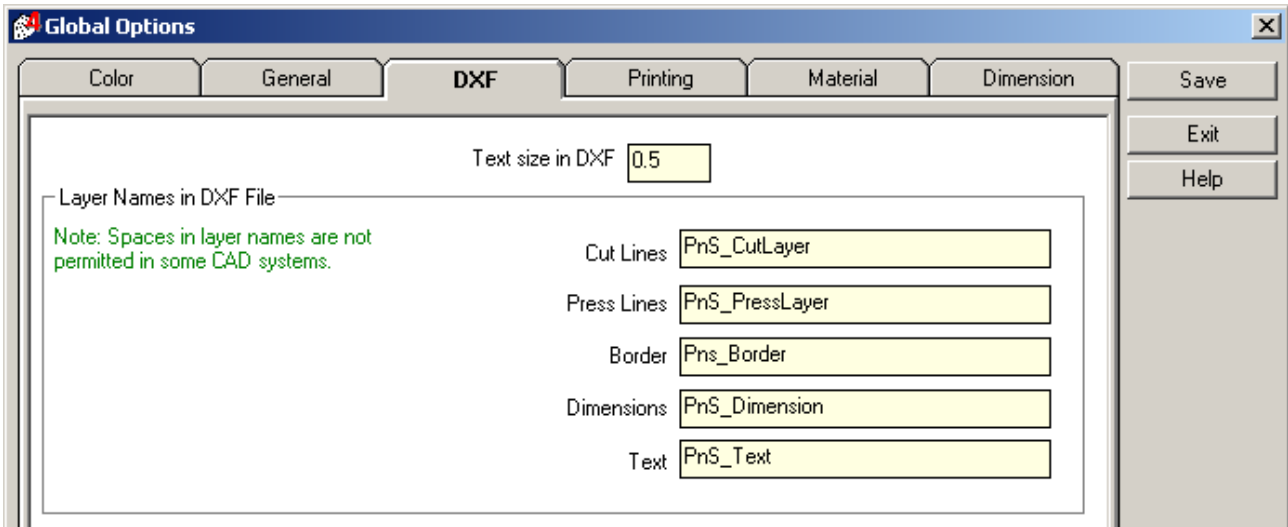
Similarly, you may also set the default text size and the number of decimal places for dimensions and other measurements.

Set the default value for the "**Inside/Outside/ Mean**" option and "**Material Thickness**" for each shape.

For example, if you usually use 5 mm thick material and sizes based on "*Inside*", you may set these values as the defaults instead of 0.0 and "*Mean*". You can, of course, always change it as you enter the shape parameters if there is an exception.

The *DXF* Options Tab

The DXF Tab sets options for exporting DXF files. It also controls how shapes are imported into to AutoCAD.
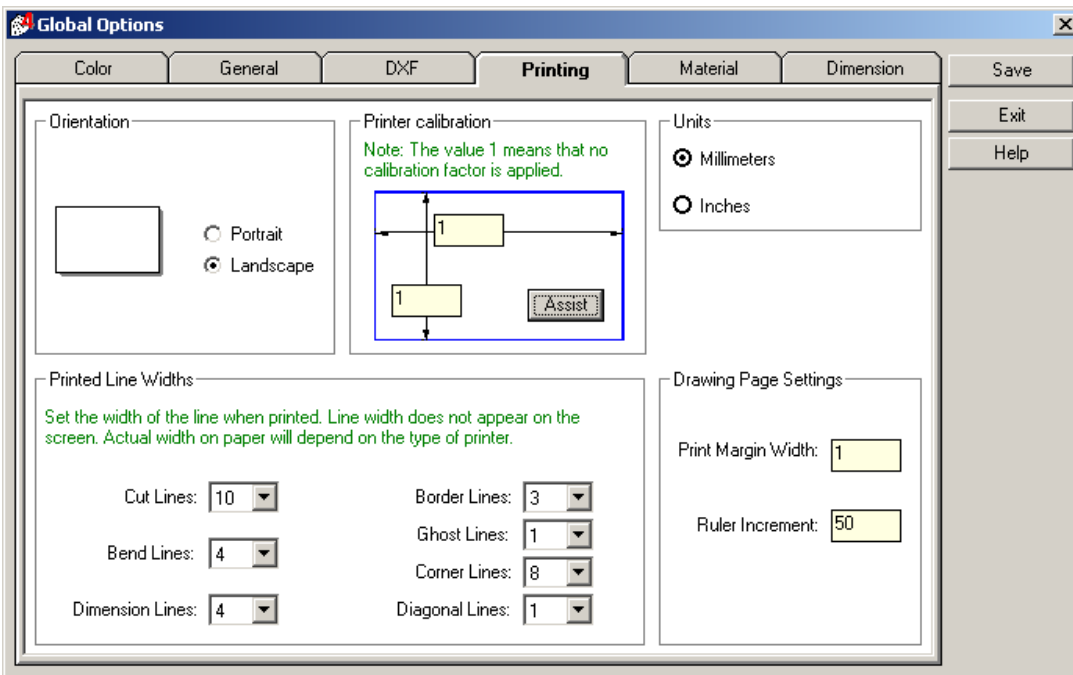
The text size in the AutoCAD DXF is measured in units of measurement (mm or inches), rather than font size. Set the "***Text Size in DXF***" value in the same units that you are using to enter the parameters of the shape.

The layer names will be used in the DXF file. You may enter your layer names here if you have a different layer naming convention or require specific layer names to suit a profile cutter.
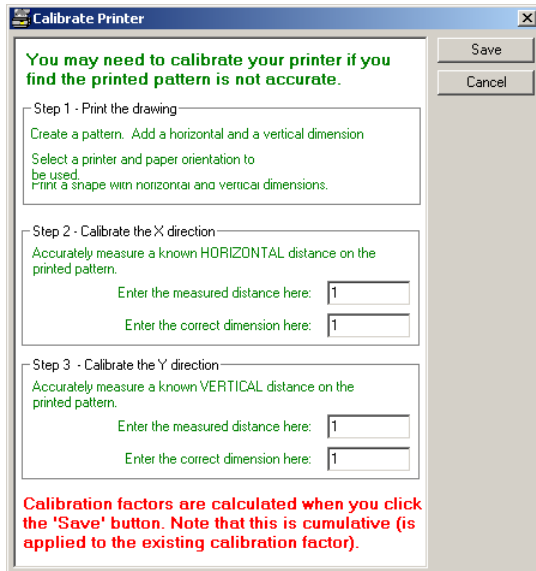
The <u>Printing</u> Options Tab

The Printing tab controls the default settings and appearance of the printed page. Frequently used settings such as page orientation, line width, units of measurement may be set as the "Default" value here.
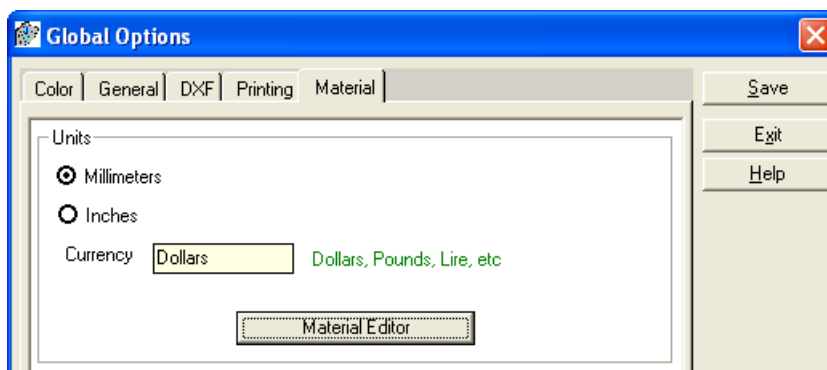
Printer Calibration

You may find that your printer consistently prints with a scale error in one or both directions. For example, your printer may print accurately in the direction that the printer head moves across the paper but has a small error in the direction that the paper feeds.

Printer calibration compensates for such errors. If the printer is accurate the calibration parameters will be set to 1. If the printed pattern is consistently undersize in one or both directions, enter a value slightly greater than 1.
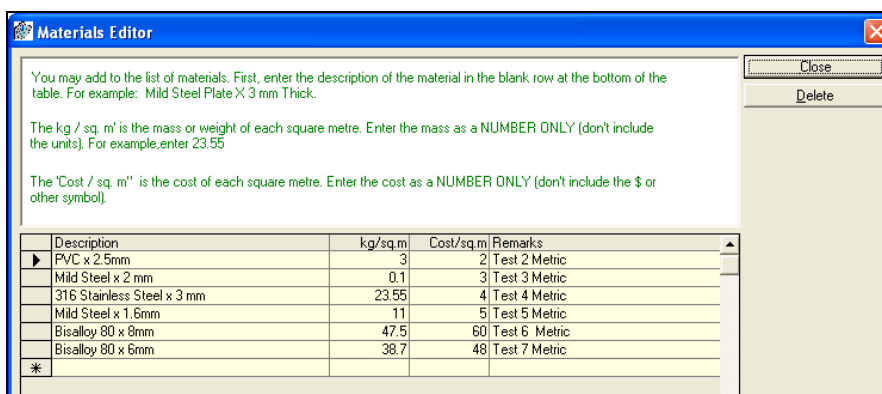
Click the "*Assist*" button for help in determining this value. Note that it may take several attempts to arrive at the correct calibration. Typical values will be quite small variations, such as 1.08 or 0.993. Large values generally suggest an error in the calibration value or a problem with the printer. Note that the calibration factor applied in this way are cumulative.
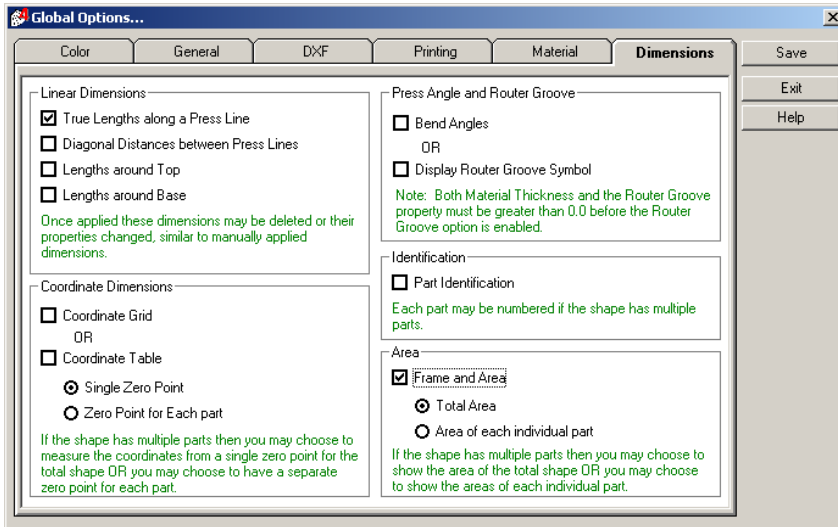
Material Options

If you are carrying out calculations using area, mass and cost of different materials, these values must be set to get accurate results. Click on the "Material Editor" button.

Material Editor

Enter the properties of the materials being used. The materials shown below are examples only. Note that the materials table will be different if you are using "*Units*" set to millimeters rather than inches.

Description	kg/sq.m	Cost/sq.m	Remarks
PVC x 2.5mm	3	2	Test 2 Metric
Mild Steel x 2 mm	0.1	3	Test 3 Metric
316 Stainless Steel x 3 mm	23.55	4	Test 4 Metric
Mild Steel x 1.6mm	11	5	Test 5 Metric
Bisalloy 80 x 8mm	47.5	60	Test 6 Metric
Bisalloy 80 x 6mm	38.7	48	Test 7 Metric

Dimension Options

Select Auto Dimensioning defaults. If you usually use the Frame and Area through Auto Dimensioning, you may apply these as default settings so that they are applied each time a pattern is developed.

Move and Rotate Pattern

You may wish to rotate or move a pattern so that it fits better on the available material. When patterns consist of multiple parts (for example, an Elbow) one part may be moved or rotated relative to the remaining parts. ***Move and rotate may only be carried out in pattern view.***

The process for both moving and copying consists of three basic steps:
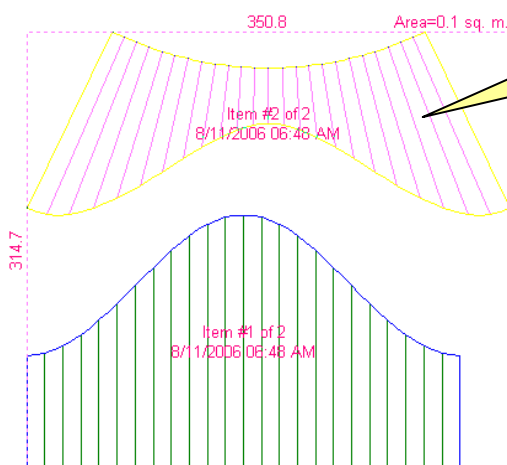
Select the pattern to be moved or copied

Click on a reference point on the object

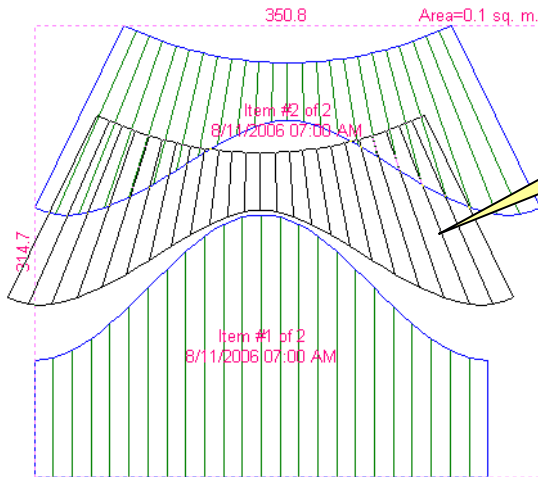Watch an image move or rotate on the screen and pick a second point at the required position or rotation.

Move Pattern

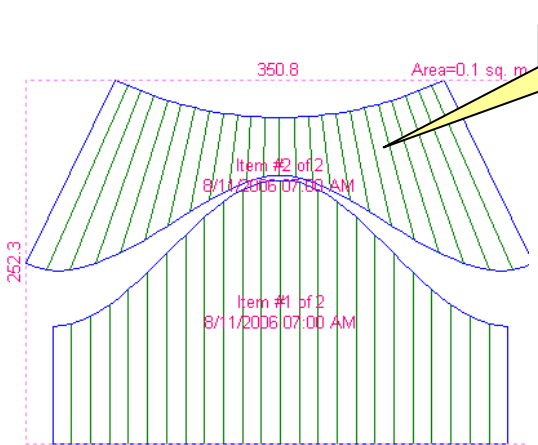First select the "***Move***" button on the tool bar.

Pattern is highlighted

Move the cursor over the pattern. Each part will be highlighted (change color) as the cursor moves over it. Select the shape required to move by left clicking the mouse.

Drag to new location

The cursor will change to a "hand", click down with the left mouse button and drag the pattern to the new position.
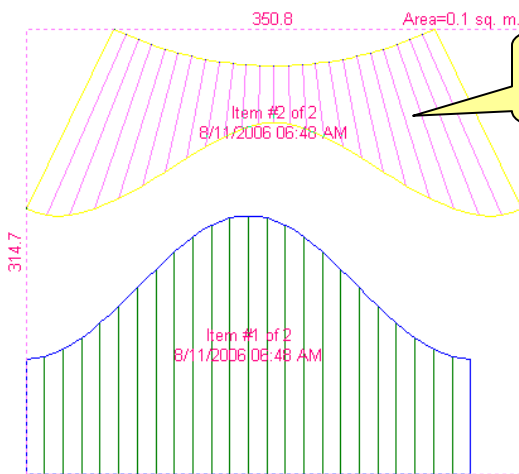
"Drop" in new position

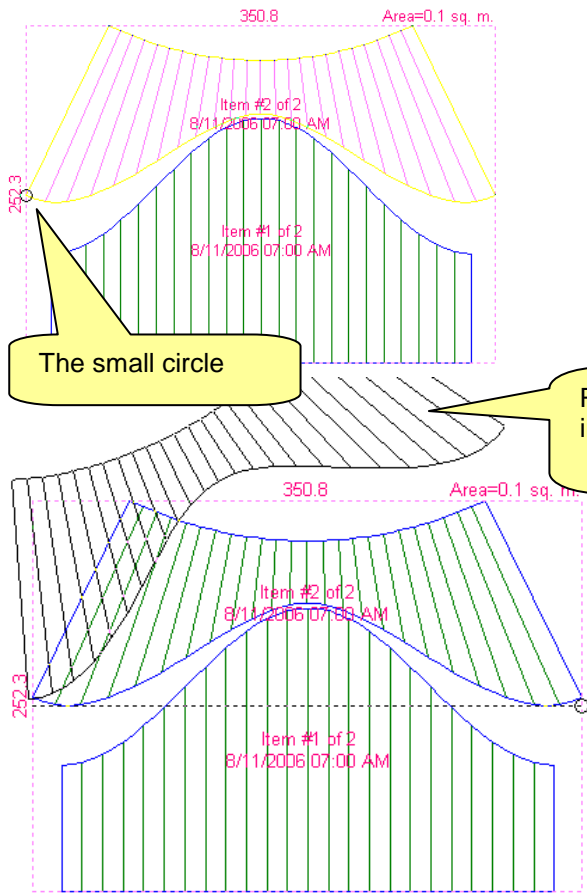Release the mouse button when it is correctly placed.

Rotate Pattern

Rotate a pattern around a point.

Pattern highlighted

Move the cursor over the pattern. Each part will be highlighted (change color) as the cursor moves over it. Select the shape required to move by left clicking the mouse.

A small circle appears on the pattern. Move it until it is at the required *axis point* and press down with the left mouse button. Hold it down while you select a second point (*rotation point*).

The small circle

Rotate and "Drop" into new position

Moving the mouse will cause the shape to rotate around the *axis point*.

Release the mouse button when the shape is at the required angle.

Note: The first and second points of rotation will automatically align themselves to 0 degrees and increments of 5 degrees measured from 0 (the X-Axis). Therefore, if you want points on the pattern to be horizontally or vertically aligned, *pick those points as the axis and rotation points*. The pattern will automatically snap those points to the closest 1-degree increment.