



DrainDraw Instructions

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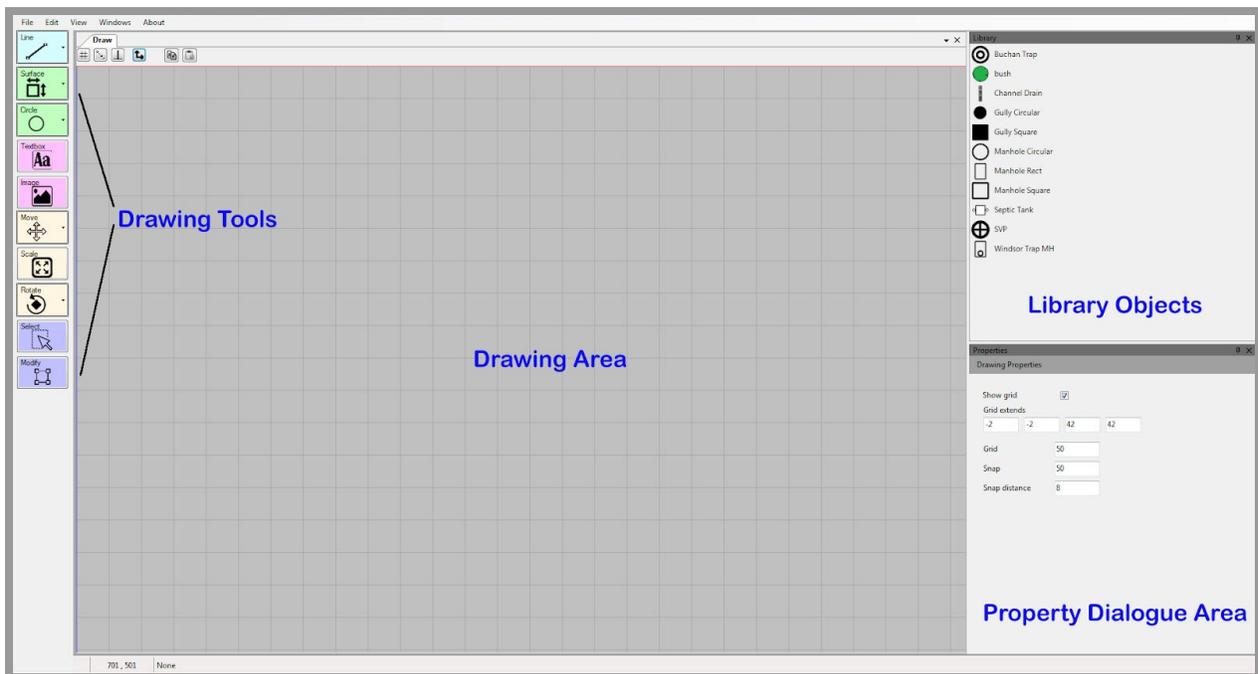
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Introduction

DrainDraw is designed to help drainage contractors to create professional drawings using a few, fairly simple drawing tools. It is not AutoCad and thus not designed to create complicated, scaled drawings. However, it will enable the user to produce a tidy drain plan. The standard user interface is detailed below.



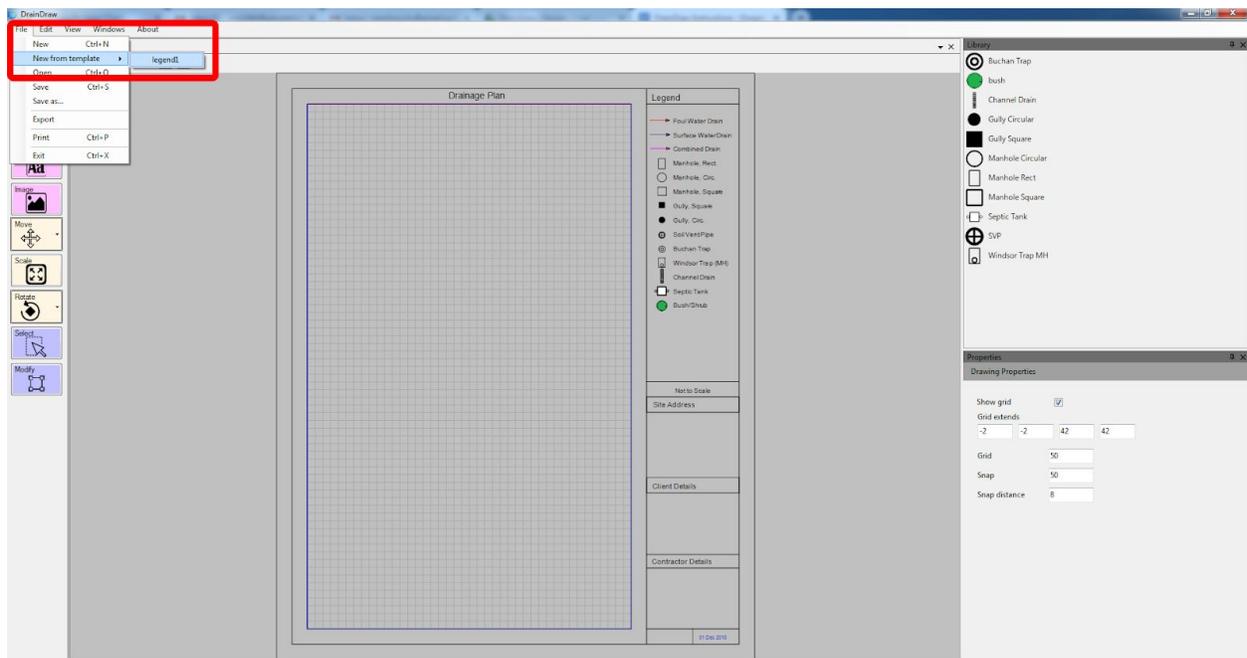


Drawing Template.

We have supplied a default drawing template with a drainage furniture legend and areas for Client, Site and Contractor details.

To use the default template select File/New from Template/legend1

The default plan size is A4.



Pan and Zoom

The drawing area must first be selected to pan or zoom. Select the drawing area by clicking on it. Zoom in or out by using the scroll wheel. Pan by pressing the right click button on your mouse and moving the mouse in any direction.



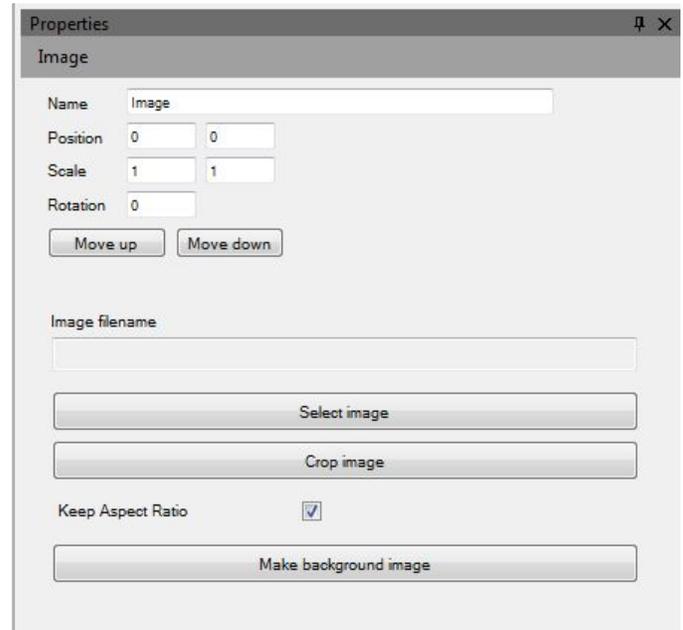
Image Tool



This allows you to add a raster image as a background to your drawing. This includes JPG, BMP and PNG files. (Other image files would have to be converted to a raster image).

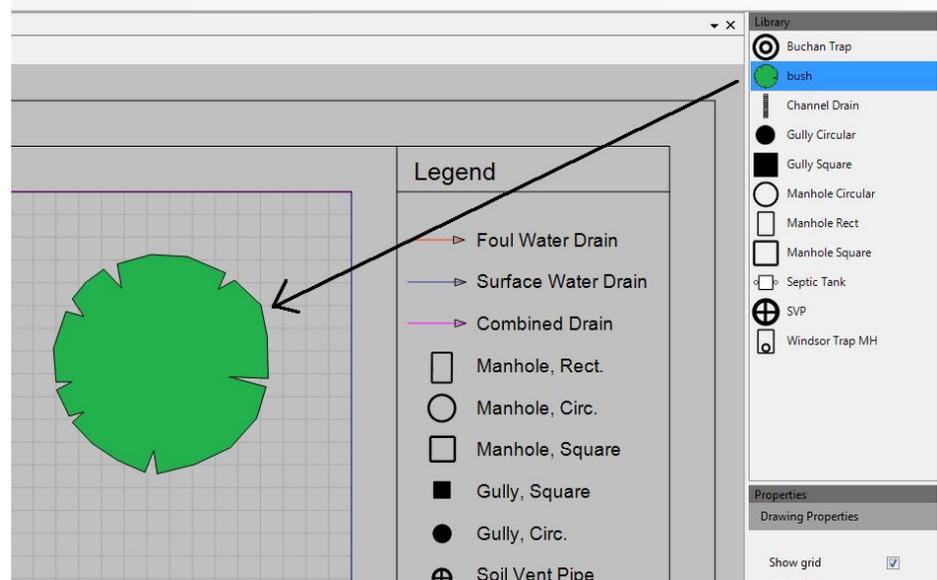
Click on the Image tool. Go to Properties area (bottom right) and Select image. Navigate to the image you want and click Open. You should now see the image within the drawing area.

Click Crop Image and select a rectangular area to fit your drawing and then click Make Background Image. This will fill the drawing area of your template with the area you selected. This is useful if you only require a small area of a large drawing. If a landscape image is opened and 'Make Background Image' is selected the image might be distorted so it is better to crop first.



Drag and Drop Library Objects

A small library of drainage objects (manholes, gullies etc.) has been provided. These can be dragged and dropped onto the drawing area where required. Left click and hold on the object that you want to place on the drawing, move the cursor to the area where you want to drop the object and release the left click.



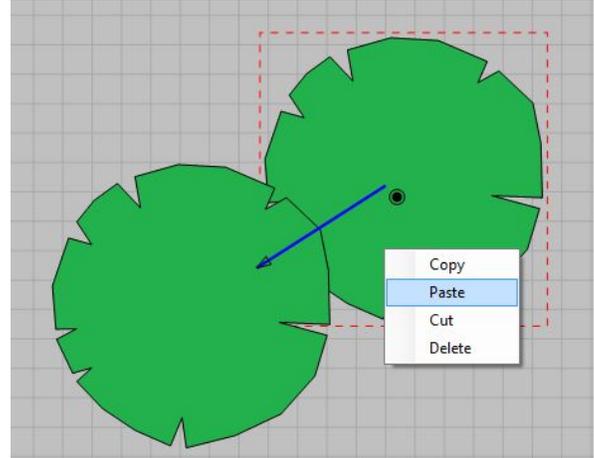


Copy, Paste, Cut, Delete

Right click on any object and a context menu with all of these standard features will be available. Copy and paste icons are also available on the top menu and the Edit menu.

Undo/Redo

It is possible to undo actions by clicking on the Edit menu and clicking Undo.



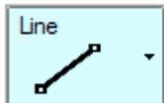
Save

To save your drawing as an image, click on File/Export, give the file a name and save as a PNG. To save your drawing as a DrainDraw file select File/Save or File Save As.

To save your file as a PDF select Print and in the print dialogue box ensure you have PDF printer or print to PDF selected.

Line Tool

Adding a Line



Click the Line Icon. Left Click on the drawing area where you want the line to begin. Place the cursor where you want the line to finish (you'll see the line follows the cursor around) and Left Click again. You can continue this process to create more lines. To end the process press the Escape key.

When you select the Line tool (in fact any tool) you will see the Properties Dialogue Box bottom right. Here you can change Line Thickness, Line Colour and Line Type (amongst other options). The Foul, Surface and Combined line types contain directional arrows.

(There are also options to Position, Scale and Rotate manually as well as being able to move the object layer up and down within the drawing. However, we have provided icons on the left to make these tasks easier. There are also property dialogue areas like this for Surface, Circle and Text).

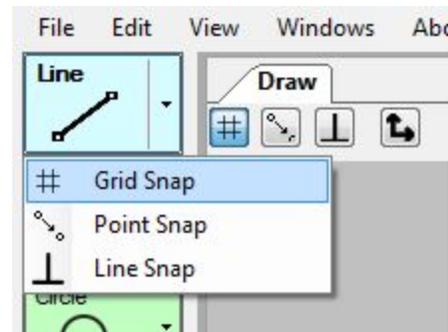


Right Angle Lines

Creating lines that are always at 90 degrees to each other can be accomplished by holding down the 'Shift' key when Line is selected. This locks the line to only move horizontally or vertically at 90 degrees. This is useful for drawing squares and rectangles or anything that requires lines to run perpendicular to each other. To end the process press the Escape key.

Line to Grid Snap

From the Line icon click the dropdown arrow and select Grid Snap. The line will now snap to any grid intersection. Selecting the Line Tool and holding down the 'X' key will do the same thing.



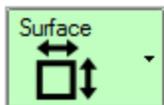
Line to Point Snap.

From the Line icon click the dropdown arrow and select Point Snap. This will snap the line to any point. This could be the end of another line, an angle of a library object, an angle on a surface and the circumference of a circle. Selecting the Line Tool and holding down the 'C' key will do the same thing.

Line to Line Snap.

From the Line icon click the dropdown arrow and select Line Snap. This will snap the end of the line to another line anywhere along its length. This includes any shape or library object.

Surface Tool



Clicking this icon will allow you to make a shape with many sides. This can be used to create a property boundary. Shapes are created similar to lines.

Select the Surface Tool then left click within the drawing area, move the cursor to another area and click (which will produce a line) then click on another area to create a triangle. So, three clicks, three points and we have a triangle. Click on another area to create a four sided shape and so on. When you are happy with your shape then press the Escape key.

Holding down the 'Shift' key will allow only perpendicular movement.

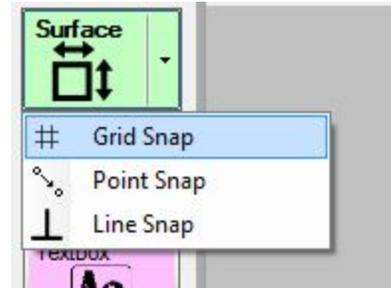
(The Surface Tool can work in an unexpected manner, you will learn how to work around this).



The Property Dialogue area can be used to adjust the 'Area Type', Colour and Thickness of any border (wall).

Surface to Grid Snap.

From the Surface icon click the dropdown arrow and select Grid Snap. The surface points will now snap to any grid intersection. Selecting the Line Tool and holding down the 'X' key will do the same thing.



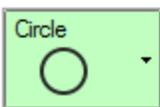
Surface to Point Snap.

From the Surface icon click the dropdown arrow and select Point Snap. This will snap the surface line to any point the cursor is close to (you can still place a point anywhere else on the drawing area). Points could be the end of another line, an angle of a library object, an angle on a surface and the circumference of a circle. Selecting the Line Tool and holding down the 'C' key will do the same thing.

Surface to Line Snap.

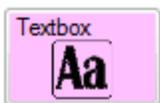
From the Surface icon click the dropdown arrow and select Line Snap. This will snap the line to another line anywhere along its length (you can still click elsewhere in the drawing area). This includes any shape or library object.

Circle.



Click on the Circle icon, left click and hold on the drawing surface. Moving the cursor right and away from and closer to the initial click point enlarges and reduces the circle diameter. The Property Dialogue area enables changes to the Colour and Thickness of the line.

Text.



Click on Text icon, left click and hold while moving the cursor on the drawing space to make a rectangle. This is the area to be filled with text. You will see the Text property area, which has a space for you to type into. There are also options to change Text type, Font, Size and Colour.



Move



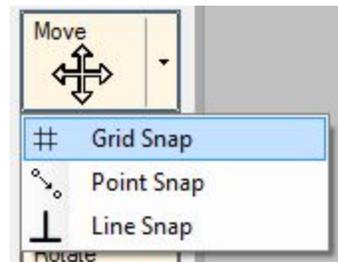
Select an object by clicking on it then click on the Move icon and then left click and hold on any Object, Line, Text area to grab and move.

Move by Grid Snap.

From the Move icon click the dropdown arrow and select Grid Snap. The object will now snap to any grid intersection. Selecting the Move Tool and holding down the 'X' key will do the same thing.

Move by Point Snap.

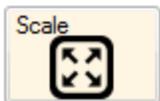
From the Move icon click the dropdown arrow and select Point Snap. This will snap the object to any point the cursor is close to (you can still place the object anywhere else on the drawing area). Points could be the end of another line, an angle of a library object, an angle on a surface and the circumference of a circle. Selecting the Move Tool and holding down the 'C' key will do the same thing.



Move by Line Snap.

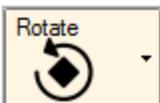
From the Move icon click the dropdown arrow and select Line Snap. This will snap the object to another line anywhere along its length (you can still click elsewhere in the drawing area). This includes any shape or library object.

Scale



To increase or decrease the size of an object select object and then select the Scale Tool. Click, hold and drag right on the drawing area to enlarge or drag left to reduce.

Rotate



Click on the Rotate icon and then left click to select an Object, Line or Text. Then left click and hold outside of the selected Object. Dragging the cursor to the right will rotate the object clockwise, dragging the cursor to the left will rotate the object in the opposite direction. Rotate can also be accomplished by



selecting an object, holding the Shift key and left click outside of the object while dragging the cursor right or left.

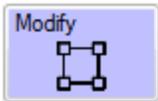
Using the drop down arrow to select 15 Degree Snap enables rotating the object in increments of 15 degrees.

Select Tool



One object can be selected by left clicking on the object after clicking the Select tool. To select more than one object left click and draw a rectangle around the objects.

Modify Tool



Selecting an object and then selecting the Modify Tool will highlight the objects grab points. You can now left click on these points and adjust the object or line. (This will not work on Library objects).

Project Settings

To add Site Address, Client Details, Contractor Details, Author and Date select Project Settings from the Edit menu. In the Properties dialogue area you will see these fields, which you can type into and the template will be populated with your text.

The screenshot shows a software interface with a project settings form on the left and a properties panel on the right. The form is populated with text for Site Address, Client Details, Contractor Details, Author, and Date. The properties panel shows the same text in a structured format.

| Section | Text |
|--------------------|-----------------------------------------------------------------------------|
| Not to Scale | |
| Site Address | 24 Salisbury Road Plymouth Devon PL4 8QT |
| Client Details | WPS Ltd Unit A Dolphin Ind Est |
| Contractor Details | Clearleader Drainage Services Unit 1B Eagle Way Ind Est Sam's Town |
| Date | 01 Dec 2018 |

The Properties panel shows the following fields:

- Legend: legend1
- Site Address: 24 Salisbury Road, Plymouth, Devon, PL4 8QT
- Client Details: WPS Ltd, Unit A, Dolphin Ind Est
- Contractor Details: Clearleader Drainage Services, Unit 1B, Eagle Way Ind Est, Sam's Town
- Author: [Empty field]
- Date: [Empty field]



Drawing settings

By selecting Drawing settings from the Edit menu Properties dialogue area allows adjustment to the Grid size, the Grid Snap distance and the Snap distance to objects (how close to an object the cursor needs to be to snap to it). There is also an option to hide the grid and adjust the total grid extent.

| | | | | |
|--------------------|-------------------------------------|--------------------------------|---------------------------------|---------------------------------|
| Properties | | | | |
| Drawing Properties | | | | |
| Show grid | <input checked="" type="checkbox"/> | | | |
| Grid extends | <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="text" value="21"/> | <input type="text" value="34"/> |
| Grid | <input type="text" value="50"/> | | | |
| Snap | <input type="text" value="50"/> | | | |
| Snap distance | <input type="text" value="8"/> | | | |