

## Overview

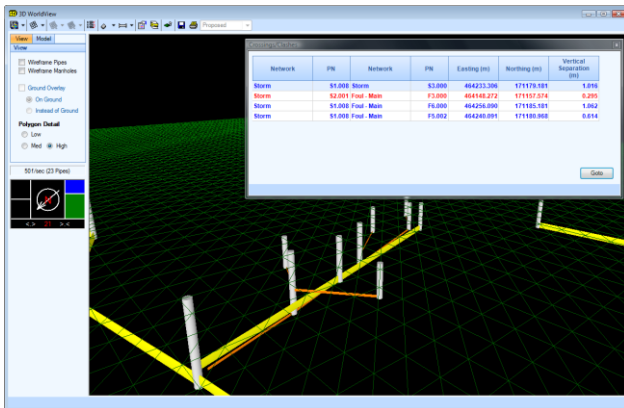
DrawNet takes the basic functionality of the System1 module and advances it into a live, fully interactive graphical interface that allows multiple networks to be defined.

It allows Storm and Foul networks to be designed on a single plan. Design and subsequent modifications are made easy, saving substantial amounts of time and money on any project. When the design is complete there are a range of flexible printing and plotting options, enabling flexible and customised outputs.

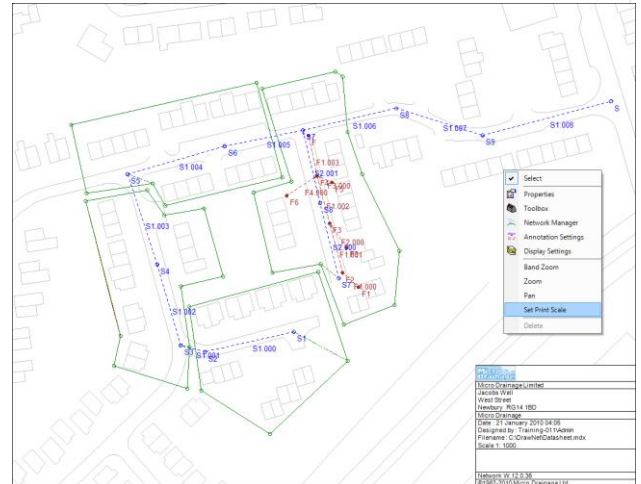
## Description

### Site Design

- ⊕ DrawNet allows WinDes to become fully integrated into your current design procedure. Drawings can be imported directly into DrawNet allowing pipe networks to be drawn directly on them. DXF snap controls ensure the precise positioning of pipes.
- ⊕ Tools are available for both gully and surface water channel design.
- ⊕ Multiple networks can be specified on one drawing allowing a complete site to be specified in one integrated design. DrawNet can then check for crossings and conflicts.



- ⊕ SUE (Subsurface Utility Engineering) allow the importing of existing and/or proposed utilities in a CAD format to assess the crossings and conflicts in accordance with ASCE Standard 38-02.

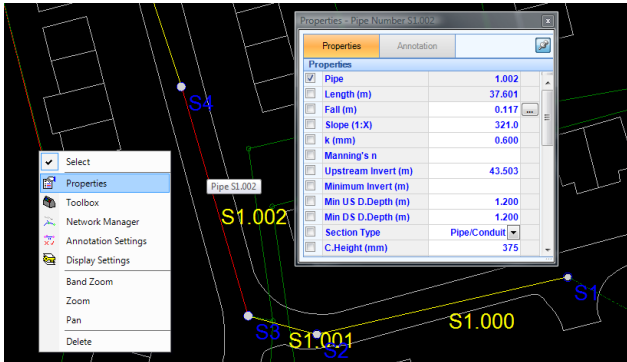


### Network Design

- ⊕ DrawNet utilises the core features of System1 to design pipes instantly as they are drawn.
- ⊕ Manholes or pipes can be inserted, edited or deleted simply by pointing and clicking. The software's background engine automatically renumbers, auto-designs and re-optimises any edits. For example, if the engineer draws a branch line into a design the software will automatically:
  - ◆ Record manhole coordinates.
  - ◆ Set inverts, falls and slopes to meet self cleansing velocities.
  - ◆ Size pipes to take the specified impermeable area and allocate manholes suitable for the pipe diameter and depth.
  - ◆ With APT and a digital terrain model cover levels will be automatically set.
- ⊕ DrawNet allows the definition of PIMP (Percentage Impervious) Zones and Classifications. The engineer can zone a drawing with pre-determined PIMP values (e.g. road areas with PIMP of 0.9 and grassed areas with PIMP of 0.3). Classifications can be assigned to pimp zones or areas.
- ⊕ Graphically define curved pipes, as well as a wide range of sections, including swales, ditches, and culverts.
- ⊕ All drawing elements can be queried or edited through pop up properties.
- ⊕ Annotations, longsections, and manhole schedules can be added to the drawing.

## Output

- ⊖ All designs can be inspected line by line on a spreadsheet, as a longsection, or through the 3D Worldview.



- ⊖ The design can be plotted or exported to AutoCAD®, including full Sewers for Adoption line style and colours.
- ⊖ DrawNet will produce pipeline and manhole schedules and allow the printing of design and results in pre-defined or custom reports.
- ⊖ Longsections are fully customisable and can be output to printers, plotters and AutoCAD®.
- ⊖ Digital Terrain Models can be output to a wide range of different formats (.xml, .pwf, .asc).

## With other modules

DrawNet requires System1 and acts as a graphical interface. It can also be used in combination with QuOST and Simulation.

The following extensions are also available if the relevant modules are licensed:

### APT

- ⊖ Position aerial photo, or other imagery, on plan view.
- ⊖ Model existing networks.
- ⊖ Import river models from Channel.
- ⊖ Define terrain information to include spot levels and breaklines.
- ⊖ Produce fully triangulated surface model. Automatic adoption of cover levels at manhole position.

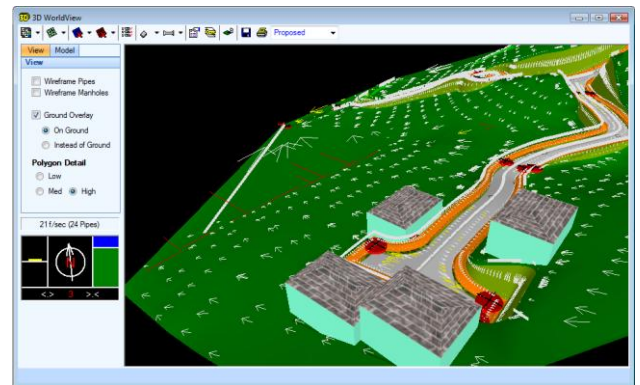
- ⊖ Define landscape features such as trees, houses and other buildings which can be viewed in Plan and 3D Worldview.
- ⊖ Specify Design Flow where flow restrictions apply. Downstream pipes can then be downsized to accommodate only the reduced flow.

### QuOST

- ⊖ Compare cost implications of design decisions as they are made.

### FloodFlow

- ⊖ Full 2D flow analysis of fixed rainfall depths across a terrain model.
- ⊖ Geometric analysis of terrain models to identify flow direction, ridge lines and sink points.



## Support Material

WinDes is supplied with a manual which includes worked examples. All the modules benefit from extensive online help including 'How Do I' tutorials for frequently asked questions. All Micro Drainage software is backed up by a comprehensive support and maintenance program.

Training Course C covers Graphical & Advanced Design.

## Contact Details

For further information about WinDes, training and workshops, visit [www.microdrainage.co.uk](http://www.microdrainage.co.uk), email [info@microdrainage.co.uk](mailto:info@microdrainage.co.uk) or call +44 (0)1635 582555. Blog: <http://pipedup.wordpress.com>