IRRICAD Pro Version 12

IRRICAD is the smart choice in Irrigation design software. The leading edge technology and innovation employed in the latest versions of IRRICAD provide improved efficiencies for even better results for new and existing users:-

The ability to streamline the input and design of larger scale irrigation systems with automatic tools:-

IRRICAD has Automatic tools to…

Create Tape and Spray irrigation blocks that retain product, spacing and orientation information that can be individually or globally changed. Submains, valve positions and flushing manifolds may be user-defined or automatically created. These irrigation entities can also be automatically subdivided and labelled with specific information. A great time-saver especially when the client asks for changes these can be quickly and automatically achieved.

Automatic Flushing Manifolds

Flushing manifolds can be created automatically for *Block Entities*. These manifolds may be used for fittings selection and generating Bills of Materials. IRRICAD will automatically create flushing manifolds to your specifications simply by filling in a few fields.

Convert Drawing Items to Hydraulic Items with Ease

Convert drawing items (both those drawn in IRRICAD or imported via DXF/DWG file) to hydraulic items by simply selecting the required items and then applying the appropriate hydraulic tool. Great for quickly drawing in your design.
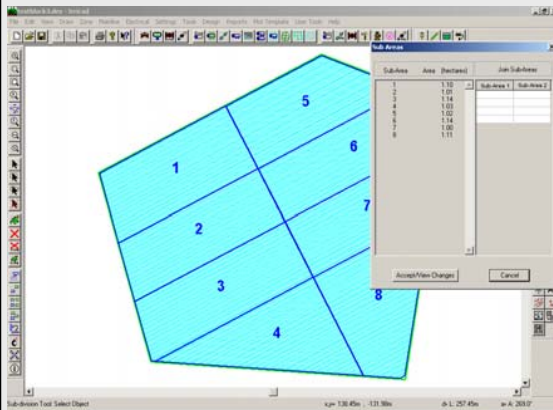
Valve & Outlet Connector Tools

Valve: A tool that will automatically connect valves to the nearest mainline pipe. Saves time instead of drawing in all those short connections.

Outlet: A tool that will automatically connect outlets to the nearest pipe. A quick fix for unconnected outlets.

Valve Specification Summary

This is a quick and easy method to view all Control Valves, including their flow and operating range, used in a design. Out of range valves are easily identified and may be changed by selecting from a list of alternatives suitable for the specific zone flow.

A range of data formats that can be imported and exported with enhanced file handling and AutoCAD Compatibility:-

Merge Designs
IRRICAD designs can be merged together. This function merges all drawing and hydraulic objects, as well as fittings selection, Management and Design information. This allows for a complete property layout to be given to your client as well as saves time designing multiple systems.

Image Handling
Images can be individually rotated, hidden or embedded in the design. The image border can also be hidden, which is great for tiling or overlapping images. Images can be saved in your plot templates and symbols.

Importation of AutoCAD Files
Irricad can import AutoCAD and DXF files up to and including 2012 format. It handles layouts and Xrefs making it quicker and easier to import those files with layouts or paper spaces.

Importation of GPS/GIS/CSV data
Drawing and elevation data from CSV and ESRI SHP files can be directly imported into IRRICAD.

Elevations Color Coding
The new *Highlight Elevations* tool colours contours and spot heights based on their elevation making any anomalies much easier to locate and correct.

View Elevations as a 3D Representation
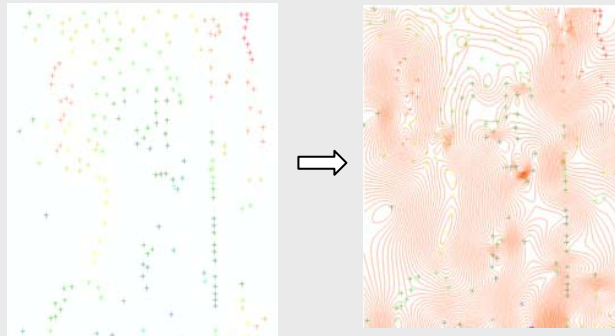With a 3D DEM view you get a 3 dimensional view of the property and its topography.
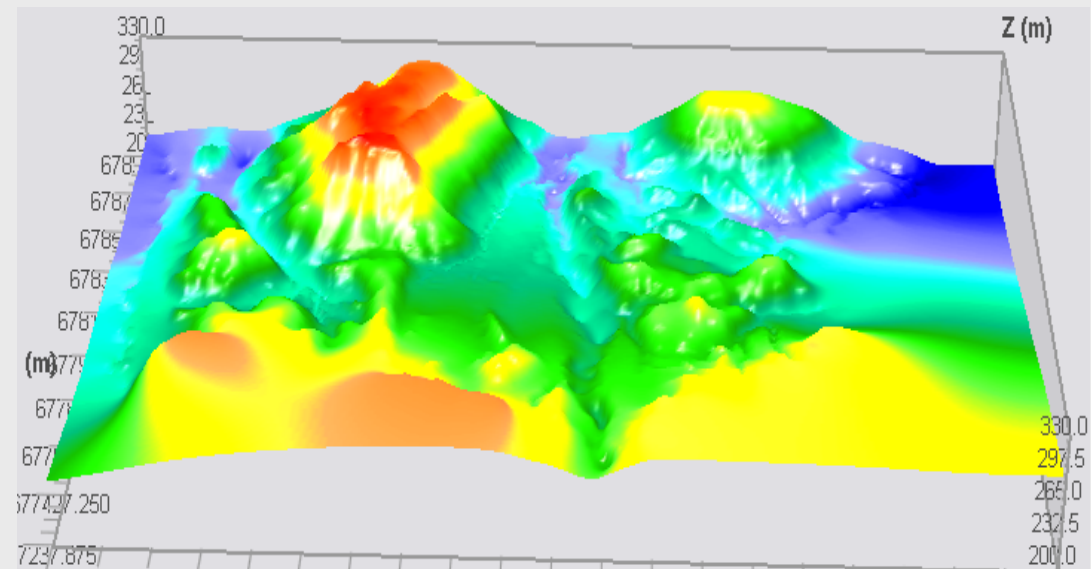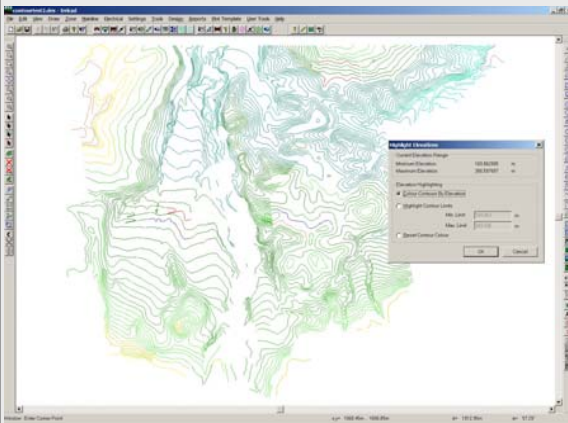
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Tools for communicating design information to both customers and designers:-

Creating Contours from Spot Heights
IRRICAD can create contours from spot heights helping you to visualize the topography of a property and add value to material presented to clients.

Pipe Reduction Symbols
Automatically place pipe reduction symbols on the plan to clearly show installers the location, and direction, of pipe size changes. Faster and more accurate installations will result.

Hydraulic Automatic Labelling
Extensive hydraulic labels allowing automatic labelling for pressures, flows, areas, spacing, lateral length, roll length etc to communicate necessary information on the design for the client. Label Settings are design based meaning it is possible for each design to have a unique set of label settings.

Graphical Management Option
Arranging the system operation for designs that have a large number of zones can be difficult and time consuming. A graphically based management tool using colour coding makes this process much easier. When graphical management is performed, a symbol representing the shift pattern is automatically created. This symbol can then be included in the design and is a visual view of shift management for your clients.

32/9 40.71m

```
Zone No.  27

Area      : 0.827 Ha
No Lats   : 80
Spacing  : 1.000 m
Flow      : 12.809 m³/h
Vlv Pr    : 12.000 m
Shift      : 1
Length   :486.042 m
```

Shift Arrangement
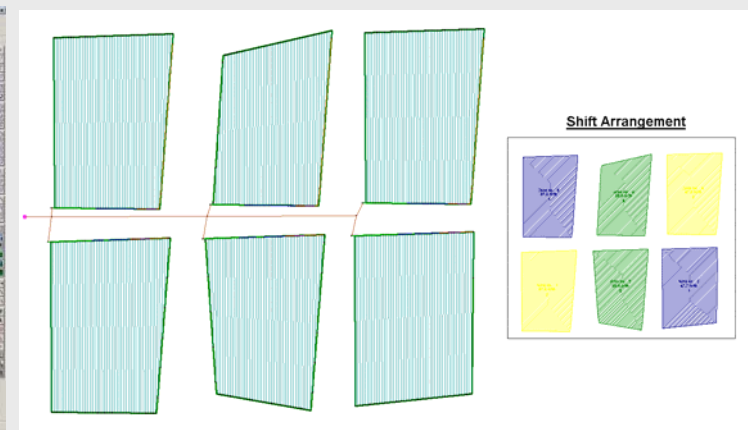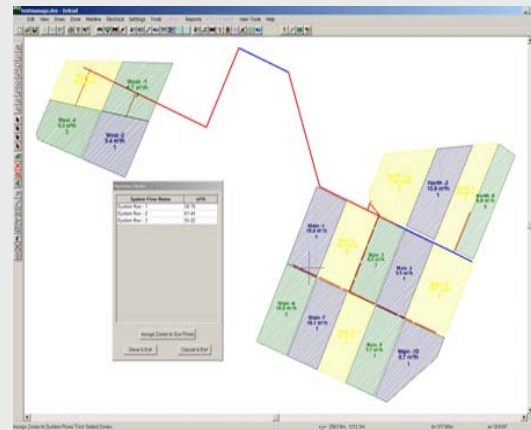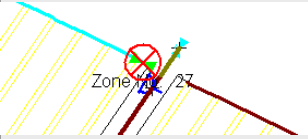
Visual Connectivity Check
The connectivity check has been improved to visually display hydraulic items that are not connected, enabling the designer to quickly identity unconnected items.

Zone Minimum and Maximum Pressure Labels
Display the location and value of the minimum and maximum emitter pressures for each zone making it easier to pinpoint potential problem areas.

Graphical Pressure and Flow Display
Graphically view which outlets/emitters are outside the specified pressure or flow range for a zone. This will help you to quickly identify potential problems and reduce the time required to troubleshoot design warnings.
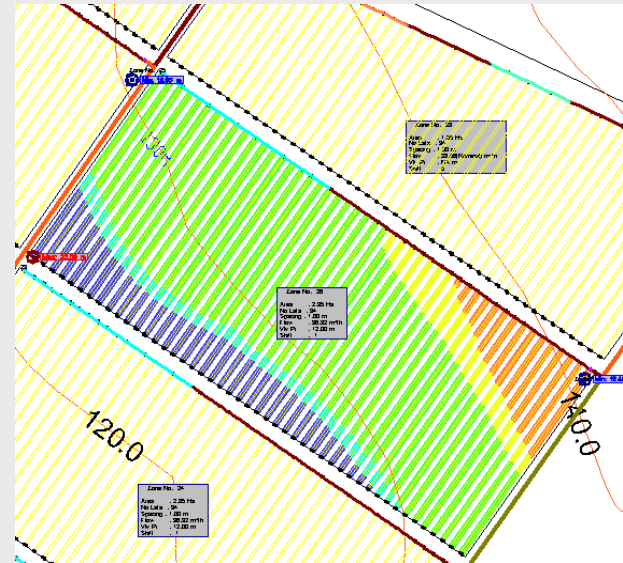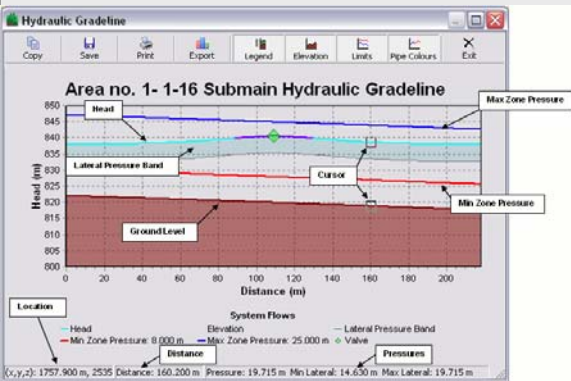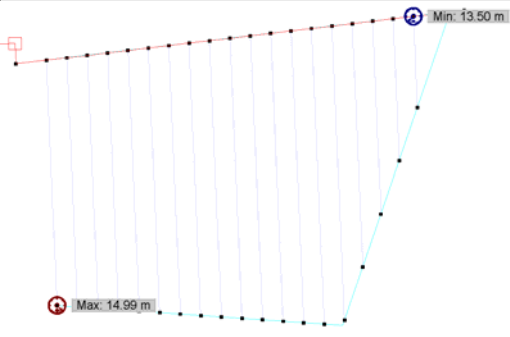
Hydraulic Gradeline
The *Hydraulic Gradeline* tool can be used for laterals, Zone Pipes and Mainline pipes. The ground elevation, pipe pressure, maximum allowable pipe pressure can be shown for any or all system flows.

Report Templates
Reports can be customised via a template editor allowing personalised or specialised reports to be created.

Insert OLE data
Embed documents, spreadsheets and objects from other applications in your Irricad design thereby improving the plan presentation as well as communicating information to your client.
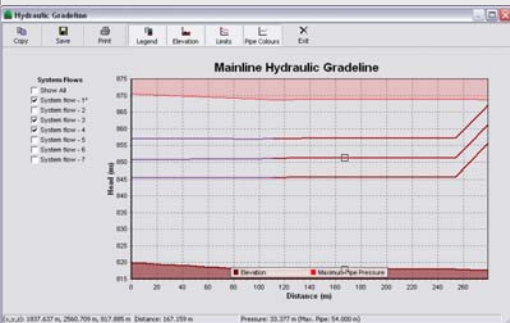
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Ease and speed of use through flexible and intuitive data entry and navigation tools:-

Snaps and Running Snaps
Single or persistent ("Running Snaps") snaps are available for all hydraulic entry tools, making design drawing quicker and easier.

Symbol / Hatch Previews
A preview is available in the Hatch dialog. Also included is an *Auto Scale* option which automatically provides an appropriate scale for the current zoom state. A time-saving symbol preview has been added to aid symbol selection and sizing.

Info Panel – Z Coord
The Info Panel is a useful tool showing the number of selected items, the combined length, flow or area of the selected items. The Z-Coord option in the Info Panel will display the elevation as the cursor moves over the design.

Filter Panel
The selection filter is a very useful tool but everyone who uses it will have at some time forgotten that it was on and wondered why they were unable to select anything. The new *Selection Filter Panel* helps to alleviate this problem by showing the status of the selection filter - a red panel indicates that the filter is active. The filter settings can also be accessed, and filter state toggled, from the panel.

Layer Manager with Layer Groups and Views
A floating layer manager allows easy access to the layers to adjust visibility, determine which layers contain items and specify if a layer is printable. Layer Groups are used to save combinations of layer visibility that can then be retrieved in a single action. Views operate in a similar way and save a zoom state for later easy retrieval.

Show Allowable Submain Position
A Submain placement guide takes the work out of deciding on the placement of submains in hilly terrain. This tool may also be helpful when deciding how to subdivide larger blocks.

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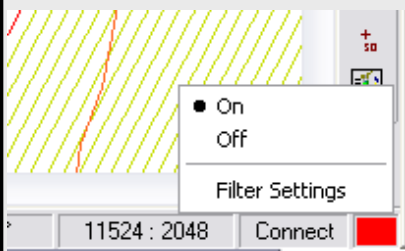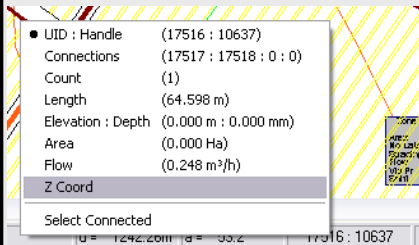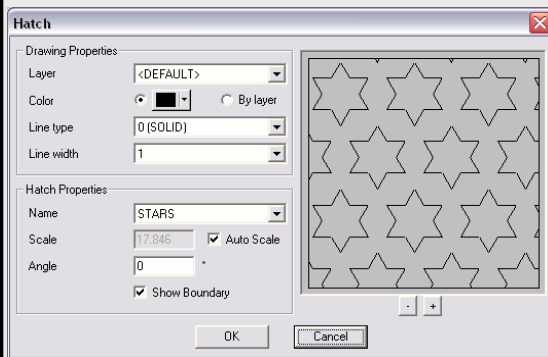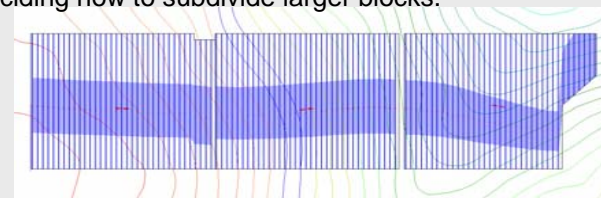
Underlying computational methods for precision of hydraulic analysis and design:-

LP Design Option
A state-of-art computational pipe sizing method which takes into account the pressures required at the outlets, trading running costs against capital costs, to select the most cost effective pipe size.

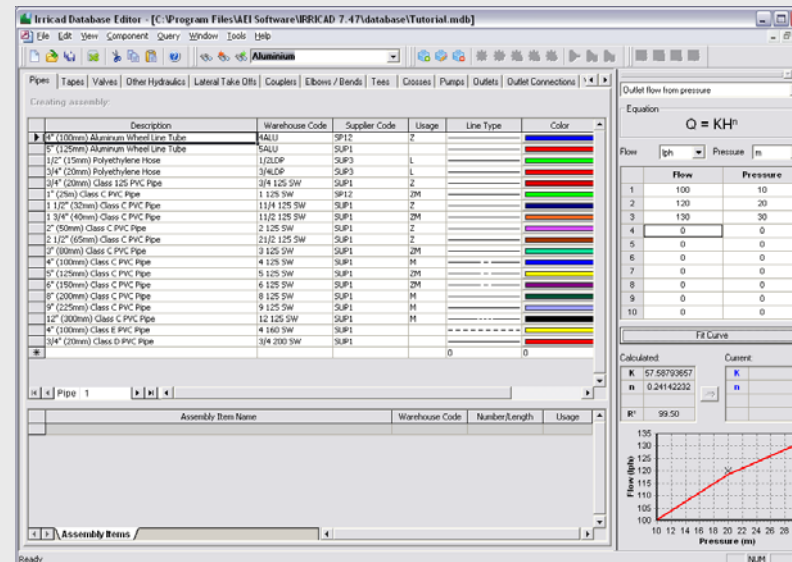### Multiple Water Supplies Systems
Designs with multiple, but separate, water supplies can be fully analyzed (and *LP Design* used where appropriate) directly. This allows for a complete property layout to be given to your client as well as saves time designing multiple systems.

Hydraulic Tape Calculation Options
There is a choice of hydraulic calculation formula that can be used for analyzing drip-tapes. The Diskin method may be selected instead of the default Darcy-Weisbach method. In addition Kinematic Viscosity may be specified to account for a range of water temperatures and qualities.

Database Editor
A database, containing the hydraulic properties of the products used in a design, is supplied with IRRICAD. The database is fully editable. Other manufacturer databases can be downloaded from our website and merged together.