

# IRRICAD Pro



## 20+ Years in the field

Developed by irrigation engineers for irrigation engineers, IRRICAD design software has a proven track record in the field spanning over 20 years. The commitment to the continued development of the program is as strong as ever. IRRICAD Pro offers multiple enhancements making irrigation design easier and better than ever.

# THE PREMIER

## IRRIGATION DESIGN SOFTWARE



IRRICAD Pro is an irrigation design software program that is used to design pressurized irrigation and water distribution systems.

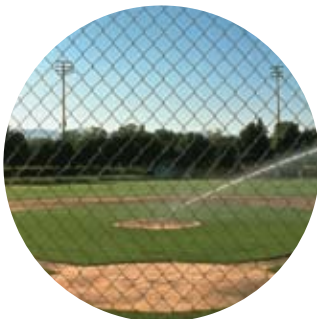


### SYSTEM TYPES INCLUDE:

- Sprinkler
- Micro-sprinkler
- Drip
- Drip Tape
- Nursery
- Dust suppression
- Mainline networks
- Stock water systems
- Residential and commercial turf
- Sportsfield
- Golf course
- Systems pressurized by gravity

### IRRICAD PRO PROVIDES:

- Enhanced productivity through significant time savings.
- Removes the tedium of design and material lists, which allows more time to analyze options.
- Increased accuracy and reduction of errors in designs and quotations.
- Faster response to clients
- Ability to design systems that would otherwise be almost impossible to analyze.
- Enhanced competitiveness.
- Common office platform allowing colleagues to help or review designs easily.



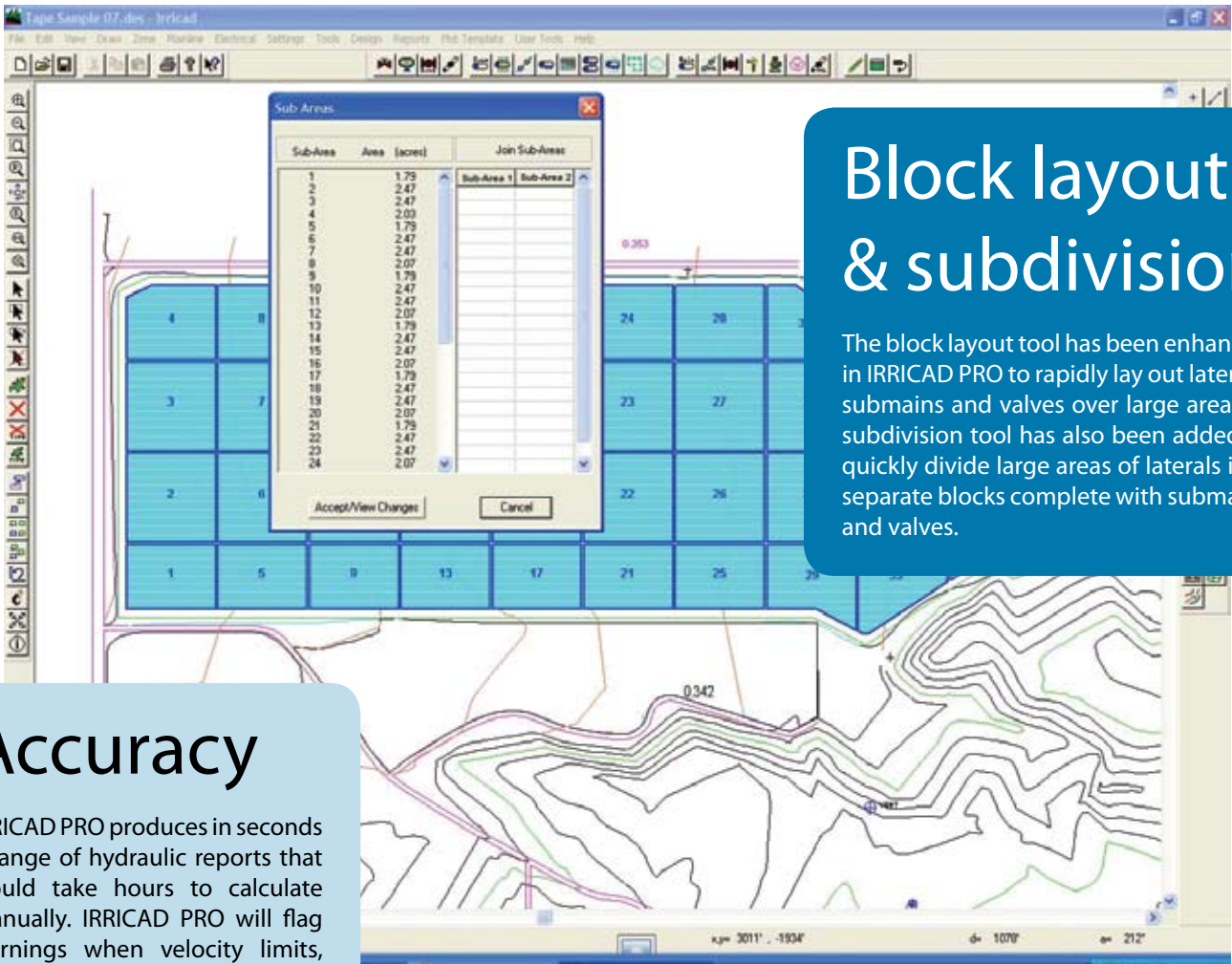
### IRRICAD PRO FEATURES INCLUDE:

- Purpose-built interface for easy entry of site information and system components.
- Automatic pipe sizing and analysis for looped and branching zone and mainline systems.
- Automatic fitting selection and generation of Bill Of Materials.
- Comprehensive and customizable reporting of design and BOM information.
- Customizable plan templates and flexible printing to plotters, printers or PDF files.
- Importation and exportation of image and AutoCAD files, including elevations.
- Graphical representation of the system operation.
- Easy input and subdivision of large blocks of irrigated areas.
- Conversion of drawing items to hydraulic items with ease.
- Advanced method for the calculation and use of elevation data in hydraulic calculations.
- Visual representation of errors in imported data.
- Quick labeling feature and automatic legend generation.
- Inclusion of valves, pumps and headwork components.
- Any combination of Metric or US units.



# SAVE TIME, ADD VALUE

## DESIGN COMPLEX SYSTEM EASILY



## Block layout & subdivision

The block layout tool has been enhanced in IRRICAD PRO to rapidly lay out laterals, submains and valves over large areas. A subdivision tool has also been added to quickly divide large areas of laterals into separate blocks complete with submains and valves.

## Accuracy

IRRICAD PRO produces in seconds a range of hydraulic reports that would take hours to calculate manually. IRRICAD PRO will flag warnings when velocity limits, allowable pressure ranges, or pipe pressure ratings are exceeded.

## Automatic labeling

IRRICAD PRO can automatically label pipes, sprinklers, valves, contour lines — in fact almost any hydraulic object in the design. The labels are highly customizable.

Flow1	Flow2	Max Vel (ft/s)	Length (ft)	Headloss (psi)
14.0	7.0	4.0	3.2	0.13
7.0	5.4	2.0	26.7	0.23
5.4	3.6	1.5	25.4	0.13
3.6	1.8	1.0	26.6	0.07
1.8	1.0	0.5	12.2	0.01
1.0	0.3	0.1	9.1	
0.3	0.7	0.2	17.3	
0.7	5.2	1.5	5.3	
5.2	3.2	0.9	21.1	
3.2	3.2	0.9		

## Design

Hydraulic calculation is a powerhouse feature of IRRICAD PRO. Analyze existing systems or ask IRRICAD to size pipes in branched or looped pipe networks with one or multiple water supplies. IRRICAD PRO takes into account velocity limits, elevation data, pipe costs, and energy cost to give the designer a solution within the required pressure variation limits. The designer may also specify some sizes and ask IRRICAD to size the remaining pipes. Pipe routing or size changes are easily made, and a quick rerun of Analysis gives the modified results.

## WHAT OUR USERS ARE SAYING ...

"Since we began using IRRICAD in 1996 it has enhanced our business by having the ability to produce functional and accurate designs in less time. The finished product is also appealing to the customer. IRRICAD reduced our design time by at least 80 % with most jobs and as much as 90% on others, with many additional benefits. IRRICAD increases accuracy by being able to import data from our survey software, eliminating entry errors, and doing calculations almost instantly. There are many useful tools that make what was complicated very easy. I use almost every tool function somewhere on each design. IRRICAD has all the capabilities you would expect from a professional design program for irrigation."

*Larry Crowe, Southern Ag & Turf, Tifton, GA, USA*

"I started using IRRICAD 4 years ago after 25 years of designing irrigation systems manually. There are many facets to the program, but the number one thing I like about IRRICAD is the fact that it does all the math for you. No longer do I have to spend hours and hours calculating pipe sizes on slopes. Once the system is drawn on the screen and all the parameters are set, IRRICAD will calculate the pipe sizes. In a matter of a few seconds I have the design I want. Then with a little checking and maybe a few manual changes, its done."

*David Thompson United Pipe & Supply, Wenatchee, WA, USA*

"As most of our projects are designed before the trees are planted, the ability to import aerial images or GPS generated survey maps into IRRICAD allows us to easily produce very accurate preliminary designs with minimal revisions needed before installation can begin. The time savings and accuracy in engineering & materials takeoffs has always been a big benefit for us, as well as the very professional appearance of the plan drawings."

*John Kiesel, Durham Pump, Inc. CA, USA, IRRICAD user since 1993*

"We have used IRRICAD to design different types of pressurized irrigation systems for more than 2500 Ha of banana and pineapple during the last 4 years. Unquestionably, this is a very powerful program which has been of tremendous help to us in completing irrigation designs in a rapid manner to satisfy the demands of our company. In addition to the benefit in time saving, IRRICAD has other useful tools that amaze us such as the ability to make changes to the design easily and quickly, create a complete bill of materials, and very informative hydraulic reports. I like to point out the prompt and excellent technical support that we have always received from Nelson to better understand the program. Without a doubt, this is one of the best programs of its kind on the market today."

*Onésimo A. Medina, Ph.D. Research Department,  
DOLE - Standard Fruit Co. Honduras*

"We've been using Irricad for 10 years now, tried the others too (which we have bought) and now operate 5 Irricad stations. Unless the others have vastly improved since we bought them, there is nothing in the same league as Irricad if you're a contractor doing agriculture and turf type irrigation."

*Clive Croxford, Total Eden, Busselton.*

"I have been using Irricad solid for 6 years plus now and find it very capable and powerful, even with very complex and arduous tasks such as multiple loop systems (e.g. flushing submain design & analysis etc for drip systems) and multiple pump systems. Wouldn't use anything else. Haven't found anything that can match it in versatility and capability."

*Gary Hope, G H Irrigation Ltd, Eidsvold*

## FAQ

**Can I analyze existing systems or only design new systems in IRRICAD Pro?**

**YES.** You can analyze any existing systems, design extensions to existing systems, and design totally new systems in IRRICAD Pro.

**Can IRRICAD Pro select pipe sizes for the design?**

**YES.** You can size pipes based on the pressure required at sprinklers and valves, or you can size pipes based on a maximum velocity in the pipes. IRRICAD Pro always trades running costs against capital cost when selecting pipe sizes. You can change the economic criteria to affect pipe selection. You can select some pipe sizes manually and ask IRRICAD Pro to select the rest for you.

**Can I use pumps in IRRICAD Pro?**

**YES.** You can design systems with or without pumps. You can enter new pumps easily and use them in any design. Up to five pumps can be used in any one design.

**Can I design gravity fed systems using IRRICAD Pro?**

**YES.** If you set a small pressure at the water supply, IRRICAD Pro will know not to calculate the head required, and will use this value as the starting pressure.

**Can I design systems with loops?**

**YES.** IRRICAD Pro can design systems with loops and multiple water supplies.

**Can I import GPS survey data?**

**YES.** IRRICAD Pro can import survey data, CAD files and images like aerial photographs. It is also possible to export to other CAD formats and PDF files.

**Will IRRICAD Pro automatically label pipes?**

**YES.** IRRICAD Pro can automatically label pipes with customizable labels that can include diameter, description, length, units etc. IRRICAD Pro can also automatically label valves, sprinklers, tapes and contour lines.



**INTERESTED IN AN  
IN-DEPTH ON-LINE DEMO?**

**For more information contact  
us at +1 (509) 525-7660  
or e-mail  
support@nelsonirrigation.com**