Section 1: Unique Advantages of the leading hydraulic analysis software fire protection engineers prefer to use:

- **PIPENET’s schematic design is unique.**
- **PIPENET interface is flexible and easy to use.**
- **The creation of the large and complex networks is fast and efficient.** Please refer to Section 2 for examples.

**PIPENET Spray/Sprinkler** combines simplicity with powerful capability

**PIPENET Spray/Sprinkler** delivers accurate results

**PIPENET Spray/Sprinkler** complies with the NFPA and other rules

**PIPENET Spray/Sprinkler** has a number of applications such as deluge, ringmain, sprinkler or foam concentrate systems

**PIPENET Spray/Sprinkler** can model pipes, pumps, fans, nozzles, orifice plates, elastomeric valves, check valves, leaks, breaks/blocks and other items
**PIPENET Vision Spray/Sprinkler Module - The Features**

1. **Copy/paste function:** Copy, cut, and paste functions are available for whole sub-networks including schematic and data. Copy and paste between different networks or within the same network. With this facility, it is easy to build a large network quickly and easily. The hot keys available for copy, cut and paste functions increase speed and efficiency even further.

2. **Clear results display:** The results are summarized in the output report, shown in the property window of each component, listed in the data window as tables, and also can be displayed in the schematics. All these make the results can be read clearly, easily and conveniently. Please refer to the first schematic of Section 3 for example.

3. **Multiple components creation tools:** “Add multiple pipes” tool and “add multiple nozzles” tool are especially useful in creating multiple pipes and multiple nozzles at the touch of a button.

4. **“Area” tool and “polygon” tool:** With those two tools, simply choose an area in the schematic using the mouse, then copy, cut, paste, delete, mirror, invert and rotate all the components in this area in one step. This really saves time!

5. **Interface with WORD:** PIPENET can export the schematic to clipboard, and then paste in other programs such as WORD.

6. **Interface with EXCEL:** PIPENET is compatible with the spreadsheet programs, such as EXCEL. Data and tables can be imported to EXCEL, or exported from EXCEL, giving the engineer total flexibility.

7. **Component graphical manipulation:** The components can be flipped or rotated by dragging the ends of the components to suit a user’s preference. Mirror, invert and rotate functions are also available to flip or rotate components. In addition, Undo/ redo, zoom/pan, schematic overview, combination of subnets, and an easy to use data window also make the component graphical manipulation a simple task.

8. **Global edit function:** Using this function, the attributes for all the components can be edited in one step.

9. **Data table:** PIPENET presents all the data in table format. The table is clear, easy to read and can be easily modified.
10. **Sorting function:** Sort the data as you prefer in the data window. For example the pipes can be sorted according to the velocity and the nozzles can be sorted according to the deviation.

11. **Colouration:** All the nodes, pipes and nozzles can be coloured according to a certain attribute.

12. **Interface with the plotter:** PIPENET can export the schematic as HP-GL/2 format.

13. **Interface with AutoCAD:** PIPENET can export DXF file.

14. **Autosave:** The engineer can specify the frequency at which the autosave operations should be preformed.

15. **Automatic layout capability:** PIPENET Autolayout capability enables the engineer to produce huge deluge systems with little input, in seconds. Spray/Sprinkler autolayout automates the design of sprinkler systems for protecting storage/process vessels, areas or other objects/locations from the effects of fire, according to NFPA rules. Autolayout saves hours of repeated inputting!
**PIPENET is renowned for outstanding comprehensive, fast, accurate and reliable modelling.**

16. **Comprehensive modelling tools:** PIPENET provides totally comprehensive modelling tools for fire water system, including pipe, pump, filter, nozzle, non-return valve, deluge valve, overboard dump valve, orifice plate and equipment items.

17. **International fire protection standard:** PIPENET Spray/Sprinkler is compliant with NFPA standards, an FOC standard, and the Chinese GB standard. It is the leading international fire protection software.

18. **Useful calculation specifications:** PIPENET features a remote nozzle option, a mass balance option and a user-defined option.

19. **Powerful network solving ability:** No matter how complex a network, and how many loops are included, the network can be solved precisely and quickly!

20. **Pipe status:** PIPENET recognises pipes as blocked or broken, enabling fast repair, crucial for fire protection systems.

21. **Pipe sizing:** PIPENET has a huge range in its pipe sizing function, enabling engineers to plan as easily for massive pipes as for small pipes.

22. **Libraries:** Extensive libraries are available for pipe schedules, pumps, nozzles, linings and deluge valves. User can add often-used components to a library, and so avoid re-inputting components.

23. **Fittings:** All the fittings defined in NFPA rules, FOC standard and Chinese GB standard are built in PIPENET Spray/Sprinkler Module.

24. **Pump curves:** PIPENET has three different types of pump curve: quadratic, cubic and spline smooth. Pumps can be defined flexibly, precisely and easily with these options.

25. **NFPA report:** PIPENET reports as recommended by the NFPA reporting standard.

26. **Checking facilities:** PIPENET provides helpful checking facilities, for example PIPENET can identify an elevation error easily.
27. **Units:** PIPENET has convenient unit options, including SI, Metric, British, US, and user defined. The user defined unit option allows users to define their own preferred unit combination and save it as a default.

28. **Default values:** Set up default values for the common attributes, and there will be no need to re-input values in the table.
User friendly interface and powerful function are not the only guarantee. PIPENET’s customers benefit from many additional advantages!

29. **Acceptability:** Wherever you go, PIPENET is accepted, approved and frequently required.

30. **Comprehensive help information:** PIPENET provides comprehensive help information through the Sunrise website: [www.sunrise-sys.com](http://www.sunrise-sys.com), help manuals, user manuals, training manuals and PIPENET News. Sunrise Systems Limited also organizes seminars and training courses to help users to enjoy the many features of PIPENET.

31. **Customer support:** Sunrise Systems Limited provides prompt, friendly and professional customer support. Customer service to support our outstanding product is our first concern!

32. **High quality standard:** Sunrise Systems Limited is qualified with ISO9001.
Section 2 - PIPENET Spray/Sprinkler Selected Applications

Offshore Firewater System Complex
Refinery Firewater Ringmain System
Airport Hangar Firewater System
Offshore Firewater System
EKOB scenario: Cellardeck/Wellhead and Slop Oil
Pump capacity 4x50%
Pump capacity for each pump: 12.93 barg @ 2610.9 USGPM
Set-point PSV's: 11.2 barg
Offshore Deluge System
FPSO Firewater Ringmain System
Deluge Systems On Oil Storage Terminal
Nodes with Pressure > 12 Barg And < 13 Barg Shown In Green (Colouration based on complex Rules)
Maintenance Area Sprinkler System
A Complex Offshore Firewater System