FIRE FEATURES

- Performs Hydraulic Calculations Following NFPA 13
- Handles Sprinkler Systems with Up to 1,000 Sprinklers
- Calculates from Drawings Created by AutoCAD MEP
- Analyzes Stand Pipe Systems
- Automatically Sizes Pipe
- Creates Supply/Demand Graph
- Allows for All Types of Pipe Materials
- Provides for Fire Pumps and Pump Curve Data
- Automatically Calculates Fitting Equivalent Lengths
- Works on Trees, Grids, and Hybrid Sprinkler Systems
- Handles both English and Metric Units
- Tree and Grid Pipe Network Builder Included
- Computes Flow Rates, Velocities, & Pressure Drops
- Provides Comprehensive NFPA 13 Style Reports
- No Copy Protection Hassles!

CALCULATION METHOD

The FIRE Program uses the Newton-Raphson method for performing the hydraulic calculations. Calculations can be made for a given water supply pressure or they can be performed such that FIRE determines the lowest water supply pressure that can adequately drive the sprinkler system. Calculations are very fast and accurate. The user manual lists all pertinent equations to allow full manual verification.

PROGRAM INPUT

The FIRE program uses full screen editing features that provide a simple "fill in the blank" input procedure. All input data is checked at the time of entry so that no improper data can be entered. If you have a question about what the program is requesting, the built-in help offers additional explanations about the data being requested. If using AutoCAD MEP, FIRE can take data directly from a CAD drawing file. This CAD integration option is a great time saver in that all the detailed pipe network data is obtained directly from the drawing. Upon completion of the input process, whether entered manually or imported from a CAD drawing, all data is saved and can be reviewed and edited whenever desired. Two types of data are required: general project data and pipe segment data. The general project data includes the project name and location, the client name, sprinkler specifications, hazard description, density requirements, hose stream allowances, hydrant test data, and other such data. The pipe data requires that each pipe section be defined as having a stream allowances, hydrant test data, and other such data. The pipe data requires that each pipe section be defined as having a beginning and ending node number. If sprinkler heads are located at the pipe nodes, then the sprinkler K-factor must be given. In addition, the pipe length, nominal size, material type, and fitting quantities and types must be entered for each pipe section. FIRE contains a built-in library of pipe materials that includes cast iron, copper, steel, PVC, and many others. The pipe library allows up to 50 user defined pipe materials. Fitting equivalent lengths are automatically looked up depending upon fitting type, size, and pipe material.

SYSTEM REQUIREMENTS

FIRE is a Windows program and will run on any computer with Windows 2000 or higher, including Windows 7.
PROGRAM OUTPUT

The FIRE Program provides numerous reports including: general project data, pipe and node input data, node grouping flows, detailed pipe and sprinkler output, supply/demand graph, and a network summary. The user can specify exactly what reports are to be printed, and all reports can be previewed or printed as desired. Shown below are just some of the available reports.

Sample Reports

**General Data**

<table>
<thead>
<tr>
<th>Project Title</th>
<th>PSAMRIP PROJECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Designed By</td>
<td>YOUR NAME</td>
</tr>
<tr>
<td>Code Reference</td>
<td>HIP-15</td>
</tr>
<tr>
<td>Project File Name</td>
<td>Sample File</td>
</tr>
<tr>
<td>Date</td>
<td>November 20, 2000</td>
</tr>
<tr>
<td>Approving Agency</td>
<td>LOCAL JURISDICTION</td>
</tr>
<tr>
<td>Job number</td>
<td>47684</td>
</tr>
<tr>
<td>City</td>
<td>College Station</td>
</tr>
<tr>
<td>Zip Code</td>
<td>77845</td>
</tr>
<tr>
<td>State</td>
<td>Texas</td>
</tr>
<tr>
<td>Phone</td>
<td>(800) 648-9523</td>
</tr>
<tr>
<td>Building Name</td>
<td>Test Building</td>
</tr>
<tr>
<td>Building Owner</td>
<td>AmatecSoft Inc.</td>
</tr>
<tr>
<td>Contact Name</td>
<td>Jim Jones</td>
</tr>
<tr>
<td>Phone</td>
<td>(800) 648-9523</td>
</tr>
<tr>
<td>Fax Number</td>
<td>555-592-876</td>
</tr>
</tbody>
</table>

**Project Data**

- Description Of Project: Ordinary Group I
- Sprinkler System Type: Yes
- Design Area Of Water Application: 1,500 ft.
- Minimum Area Per Sprinkler: 1,500 ft.
- In-Slab Sprinkler Size: 6.5 gpm
- Design Flood Discharge: 6.5 gpm
- In-Slab Flow Divergence: 4.0 gpm
- Roll Flow Flow Rate: 4.0 gpm
- Maximum Flow Rate: 4.0 gpm
- Available Inflow: 4.0 gpm
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