Ohio Automation

MineVent Engineering
Software since 1985

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Engineer

Save time and money with Integrated Computer Aided Mine Planning Software (*ICAMPS)* our high performance Coal Mine Planning, Ventilation and Water Simulation Software.

***ICAMPS* is a comprehensive, easy to learn and use, yet very complete coal mining software package. It runs inside AutoCAD and covers the entire process**

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McArthur, Ohio 45651

MineVent Features

- Full AutoCAD Program
- Windows Dialog Box Interface
- Move Node
- Find Node
- List Nodes
- List Unused Nodes
- Read Node File
- Write Node File
- Creating Fan Files
- 3 to 10 Point Fan Curves
- List Fans
- Multiple Seam Support
- Define and Modify Branches
- Move/Stretch Branches
- Copy Branches
- Check for Duplicate Branches
- List Branches
- Calculate Resistances 12 Formulas
- Global Resistance Change
- Global K Factor Change
- Global C Value Change
- Draw Quantity/Pressure Output
- Draw Gas Output on Schematic
- List Pressure Output
- List Quantity Output
- List Pressure Drops
- Display Mesh -> Highlight Problem
- Review Output Diagnostics
- Reverse Negative Branches
- Edit Schematic & Change Sizes
- Check Surveyed Data
- Resistance Profiles
- Spreadsheet Reports
- Color Schematic by Output
- List Compare Qs From Last 2 Runs
- Second Engine for Calculation
- Fan Cost
- And More……….

# MineVent

ICAMPS MineVent

Mine Ventilation System

Analysis Software

The user connects the nodes with polylines which represent the actual branch airway path. The branch must have a start node and end node but you can have dummy nodes in between so that the actual branch path is used and the branch length can be calculated for use in the resistance formulas (see figure below).
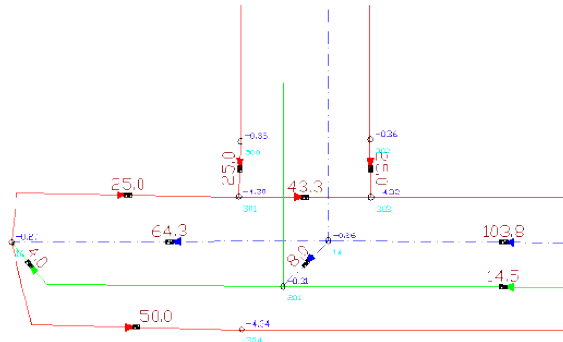
The branch length can also be typed in manually when calculating resistances. Each branch polyline has an associated attribute block that contains airway properties such as size, perimeter and surface roughness factor. Since the ventilation schematic is drawn to scale, the system can automatically compute the branch length and use the airway characteristics to calculate the branch resistance.

The system has many features to simplify editing schematics and enhancing the ventilation diagram. All changes to a schematic drawing are stored permanently. Output consists of color coded schematics diagrams with branch quantities and node pressures displayed as shown below.

The schematic can be plotted separately or superimposed on mine maps. The output also includes information for setting regulators. If the network analysis program yields unsatisfactory results or fails to converge, the system has numerous diagnostic features to help the user correct the schematic. The system has features that let the engineer highlight problem areas of the ventilation schematic based on the output.