



Ventsim™

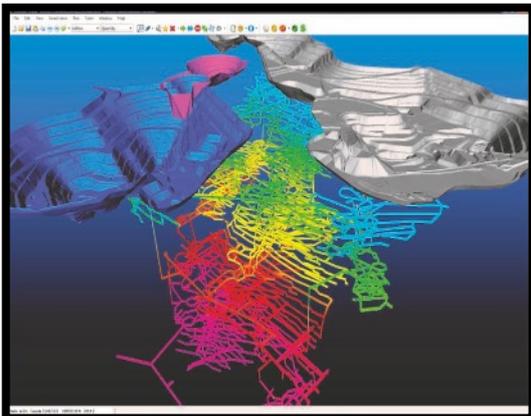
Ventsim Visual™ 3D Software

Improve your ventilation - reduce your costs!

Ventsim™ was originally introduced to mining operations in 1993 to help visually design, improve and optimise underground ventilation systems. It is now licensed to over 1000 mine sites, consultants, universities, governments and research agencies around the world.

The new Ventsim Visual™ ventilation software was released in 2009 and offers a graphically rich and dynamic ventilation environment with many more features than the original Ventsim Classic. Ventsim Visual™ is available in three versions. **Standard, Advanced and Premium**

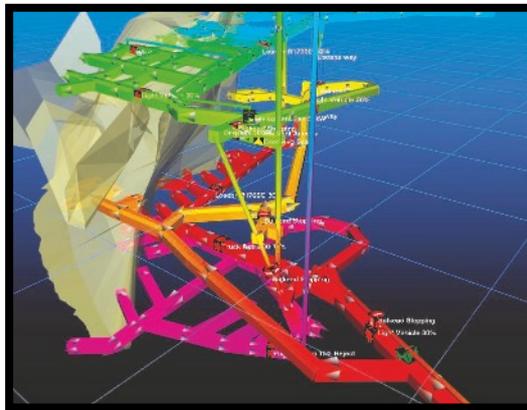
Ventsim Visual Standard™ is a lower cost version based on incompressible flow simulation routines and includes dynamic animated 3D graphics showing real airway dimensions and shapes together with animated air flows. Colours show over 30 different data types including airflow, velocities, various pressures and costs. In addition, the Standard version comes with contaminant spread routines to help predict steady state flow of gases, dust, fumes and smoke .



Ventsim Visual with surface open pits joining to u/g.

Ventsim Visual Advanced™ uses advanced compressible flow modelling, including automatic density and fan curve adjustment,

automatic natural ventilation simulation and prediction of temperatures and humidity due to rock strata, auto compression, diesel equipment and electric motors.



Ventsim Visual airways with orebody solids

The Advanced version has additional functions to predict Diesel Particulate (DPM) levels throughout a mine, an economic airway size estimator that helps quickly choose the most efficient airway size based on power cost, mining costs and mine life, and a recirculation predictor to show areas of a mine subject to recirculation of air.

Ventsim Visual Premium™ includes three (3) additional modules - Ventfire™, an underground fire and scenario simulator, Ventlog™, a ventilation survey data manager, and the LiveView™ module for connecting, displaying and simulating live real time or historical data.

All packages have functions to quickly import data from other mine planning CAD packages. Ventsim can also import 3D graphics shapes such as surface terrain, underground stopes and voids, and survey development outlines and shapes to help build and visualise ventilation systems.

Ventsim - Simplifying Mine Ventilation

Ventsim Visual Versions

Ventsim Visual Standard™

- Full 3D modelling, with smooth rotation, zoom and pan.
- Real-time animation of airflow and fans
- Airflow simulation and fan modelling
- Basic Contaminant spread, sourcing and emergency simulation.

Ventsim Visual Advanced™

- All the Standard features
- Thermodynamic heat and moisture modelling
 - Strata heat and moisture
 - Refrigeration
 - Diesel heat and DPM emissions
 - Electrical heat sources
- Compressible air flows and self adjusting fan curves
- Blasting fumes dispersion and clearance times
- Financial analysis wizards
- Recirculation predictor

Ventsim Visual PREMIUM™

- All above features
- VENTLOG™ ventilation survey record software
- LIVEVIEW™ remote data connection and display module
- VENTFIRE™ fire heat, gas and airflow direction simulation

Ventsim Visual Software can be purchased as a permanent license or limited time rental.