



Software for mine ventilation, cooling & environmental control

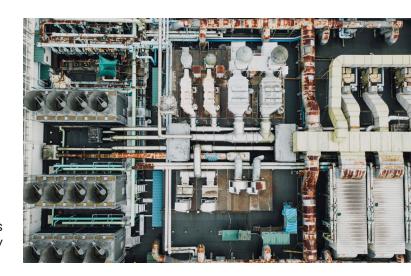


## Why choose VUMA?

VUMA has developed ground-breaking software that offers an interactive simulation of environmental conditions found in underground mines.

This suite of products have made simulating, controlling and monitoring mine ventilation, cooling and environmental conditions – across a variety of mining methods and commodities.

Vuma empowers mining and ventilation engineers to do their jobs more capably and more effectively than previously, thought possible.



#### VUMA is becoming the 'mineventilation software package of choice' throughout the industry due to our commitment, professionalism and knowledge. In addition to our continuous development, exceptional service of our

clients and their specific

needs and ensuring accuracy

and reliability time and again.

 VUMA has multiple tools to assist with network construction and management.

# **Benefits of using VUMA**

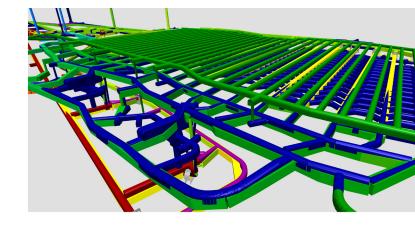
- Easy and efficient importing directly from various mineplan formats and utilising our software tools to "clean up" the network faster than ever.
- VUMA software is an easyto-use and versatile system that can be adapted to any company or product.
- Solution algorithm utilises compressible air for enhanced accuracy.
- Solution engines of the package contain effective and specialised modelling algorithms for all types of mining activities in hard rock or coal mines.
- VUMA's algorithms have been developed through mountains of analysed and verified data from some of the deepest and hottest mines in the world.
- Result of BBE's 30+ years of experience in implementing ventilation & cooling solutions

### **VUMA** mission

Creating superior mine ventilation software through continuous development, supporting our clients' specific needs, wherever they are, and ensuring that they value our product's accuracy.

### **VUMA** vision

To be the leading and trusted mine ventilation software package when making large scale mining investment decisions.



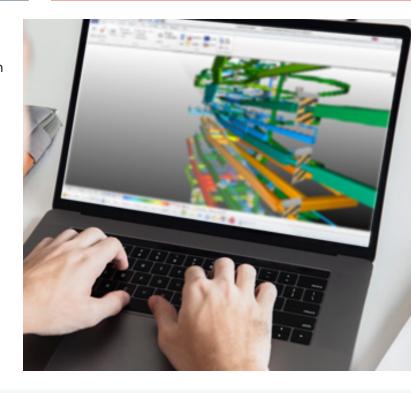


#### **VUMA-network Software**

VUMA-network is an interactive network simulation programme developed to assist mine-ventilation engineers and practitioners to plan, design, operate the ventilation and cooling systems of underground mines.

### **VUMA-network allows you to**

- Planning and design
- Energy optimisation
- Fault finding and troubleshooting
- What-if scenario analyses
- Dust and/or gas tracing
- Refrigeration cooling system design
- Verifying environmental performance



#### **VUMA-live Software**

Safety and productivity in any underground operation is highly dependent on the environmental conditions in which employees work. VUMA-live provides for real-time risk analysis, risk management and rapid responses to any alarms.

#### **Benefits of VUMA-live**

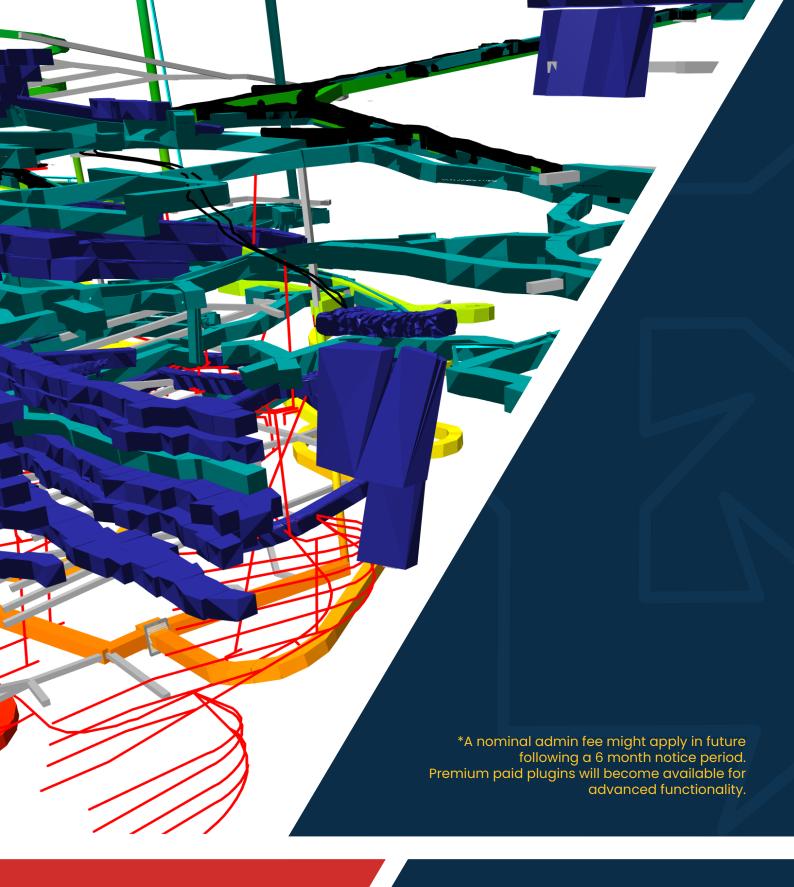
- Improves energy management
- Visualises the ventilation system
- Optimises networks
- Provides a proactive approach
- Assists line management in better executing their duties

#### **VUMA-LEV Software**

Local Exhaust Ventilation (LEV) is an engineering control system that captures dusts, vapours, and fumes at their source of generation and transports them away from the workers' breathing zone. This prevents workers from inhaling these substances and reduces contamination levels of the general, workplace air.

## **VUMA-LEV** allows you to

- Evaluate existing LEV systems' performance
- Model and/or design new LEV system designs
- Predict the impact of system alterations on LEV systems' performance



# **Contact us today**

To find out more about VUMA or register your interest for a training session

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