

Andrew Vidale Consulting Services

Mining Industry Experts AVCS rapidly develops Gurobi-based application for client with no prior optimization modeling experience

Easy Learning Curve: From idea to full concept model in a few days

AVCS staff accessed the Gurobi website and it wasn't long before the latest version of Gurobi was fully installed, trial licensed and it was loaded into VB.Net to commence modeling. Gurobi's online help and sample models are a god-send for people who have no prior optimisation model building experience. With the ability to break down the problem into a series of logical components, AVCS staff immediately commenced developing its first MILP optimisation model.

In the space of a couple of days, the model progressed from just an idea into a full blown concept program that would function on a small dataset running the trial license to demonstrate a properly optimised solution. The model building process was very straight forward using the .NET interface and having the ability to define the optimisation problem using easily understandable logical expressions rather than requiring a PhD in applied mathematics was fantastic.

The Results: Adoption by both consulting firm and client

This modelling endeavour ended positively for everyone involved; AVCS and the client both ended up purchasing Gurobi licenses, the client has a fantastic product which allows them to complete an almost impossible task quickly and easily, and AVCS was given the opportunity the develop internal optimisation model building capabilities.

Subsequent to this initial work, AVCS has already developed an internally used software product for another common and complex mine engineering task and we are looking forward towards our next development opportunity with Gurobi.

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We are now great proponents of Gurobi. If it wasn't for the easy access to try Gurobi, the fantastic documentation, and of the course the always helpful personal support, we would probably not have progressed down the optimisation path. Congratulations to the team for providing such a usable product and a flexible and easily accessible licensing model for its customers.

Andrew Vidale, Managing Director



Andrew Vidale Consulting Services ("AVCS") is an Adelaide based company that provides specialist engineering services to the exploration and mining industries.

Since establishment in 1993, the company has consulted on a range of Australian and International projects, ranging from open cut coal to underground copper and large civil works.

AVCS focuses on the use and development of leading edge technical computing solutions to enhance and integrate all aspects of mine design, planning, scheduling and costing.

CORE SERVICES

AVCS combines more than 20 years of mining engineering experience, with industry leading 3D computer modelling expertise.

Through this combination of skills and experience AVCS can provide assistance in the following areas:

- open cut mine design and scheduling
- reserve estimation and reviewing
- deposit optimization
- stratigraphic and block modelling
- survey and reserve reconciliations
- 3D visualisation of geological and design data
- spatial data management and manipulation
- custom procedures for design, reserving and scheduling
- application development