

Fast optimization modeling with AIMMS

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1 Introduction

AIMMS is an advanced modeling system for building optimization-based decision support applications.

Many universities use AIMMS to teach OR to students. We will demonstrate how it enables you to formulate an optimization model fast, without having to learn a complicated programming language. We will also show how the integrated GUI capabilities allow you to visualize data easily, thus facilitating further model refinement.

Researchers can benefit from AIMMS' advanced algorithmic capabilities, such as column generation, outer approximation for MINLP, multi-start for NLP, stochastic programming, and Benders decomposition. As a result of our ongoing development, a robust-optimization module will become available soon.

Industrial companies use AIMMS to develop models for complex business problems. We will show with real-life cases how AIMMS models can be turned into fully-operational optimization applications, enabling business users to experience the power of OR. These applications can be integrated with existing software applications and deployed to end-users on a large scale.