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## **AIMMS Tutorial for Beginners - Introduction**

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# Chapter 1

## Introduction

There are several ways in which you can learn the AIMMS language and get a basic understanding of its underlying development environment. The following opportunities are immediately available, and are part of the AIMMS installation.

*Ways to learn  
AIMMS ...*

- There are two *tutorials* on AIMMS to provide you with some initial working knowledge of the system and its language. One tutorial is intended for beginners, while the other is aimed at professional users of AIMMS.
- There is a *model library* with a variety of examples to illustrate simple and advanced applications together with particular aspects of both the language and the graphical user interface.
- There are three *reference books* on AIMMS, which are available in PDF format and in hard copy form. They are *The User's Guide* to introduce you to AIMMS and its development environment, *The Language Reference* to describe the modeling language in detail, and *Optimization Modeling* to enable you to become familiar with building models.

As a beginner into optimization modeling languages, you may not have much time for learning yet another tool in order to finish some project or homework requirements. In this case, concentrate your efforts on this tutorial. After completing this tutorial, you should be able to use the system to build your own simple models, and to enter your own small data sets for subsequent viewing. The book on *Optimization Modeling* may teach you some useful tricks, and will show you different (mostly non-trivial) examples of optimization models. Besides English, the tutorial for beginners is also available in Spanish, Hungarian, German and French, which can be found on our web site: <http://www.aimms.com/downloads/tutorials/tutorial-for-beginners>.

*... for beginners*

As a professional in the field of optimization modeling you are looking for a tool that simplifies your work and minimizes the time needed for model construction and model maintenance. In this situation, you cannot get around the fact that you will need to initially make a substantial time investment to get to know several of the advanced features that will subsequently support you in your role as a professional application builder. Depending on your skills, experience, and learning habits you should determine your own individual learning path. Along this path you are advised to work through the extensive tutorial

*... for  
professionals*

especially designed for professionals. This tutorial for professionals provides a good start, and should create excitement about the possibilities of AIMMS. Individual examples in the library, plus selected portions of the three books, will subsequently offer you additional ideas on how to use AIMMS effectively while building your own advanced applications.

The one-hour tutorial for beginners is designed as the bare minimum needed to build simple models using the AIMMS **Model Explorer**. Data values are entered by hand using data pages, and the student can build a page with objects to view and modify the data. The extensive tutorial for professionals is an elaborate tour of AIMMS covering a range of advanced language features plus an introduction to all the building tools. Especially of interest will be the modeling of time using the concepts of horizon and calendar, the use of quantities and units, the link to a database, the connection to an external DLL, and advanced reporting facilities. Even then, some topics such as efficiency considerations (execution efficiency, matrix manipulation routines) and the AIMMS API will remain untouched.

*Tutorials are  
different in  
scope*