Chapter 1. Overview, Installation, and Help

I have never had good relations with mechanical objects...I have a suntan lamp. As I sit under it, it rains on me.

Woody Allen

This chapter is designed for a quick entry into MODLER. The purpose of MODLER is to represent a model and generate instances of it. Some underlying questions are: What is a model? What roles do data play in understanding the modeling process? It will take many examples and discussions to answer these questions (among others).

One thing we can say is that MODLER is a software system, designed to accept representations of models and instances, defined by data realizations. It produces files for optimizers to solve instances and for other software systems, like ANALYZE, to provide computer-assisted analysis of results. In addition to file output, MODLER has extensive interactive query capability. One overview, that of information flow, is given in figure 1-1.

Data Matrix ----~ Optimize ----~ Solution

Analyze

MODLER

Syntax Other

Query

Figure 1-1. An Overview of MODLER

Installation instructions are given in the next section for a DOS environment. Instructions for installation in other environments are given in the subsequent section. Both installations are automated, but you may want to make further changes, such as the dimensions of the arrays. This is described in § 1.3.

Section 4 introduces some of the conventions in the interactive language of MODLER, such as abbreviations and some of the more popular environmental controls. Finally, the last section tells you how to obtain on-line help and further documentation.

1.1 What you have and how to begin.

You received one 3½" disk, created with DOS 3.3, with the MODLER files. Codes were compiled with Lahey(R) F77L-EM/32 5.0 and linked under DOS 3.3 (the executable uses the Phar Lap extender). Begin by copying the original disk for
a backup. To install MODLER on your IBM PS2 (or a clone) under DOS, you will need about 1mb on your hard disk.

To run MODLER you need 2mb available memory. You should also set files and buffers to at least 20 in your CONFIG.SYS. A co-processor is not required.

If you have the full version, and if you want to run MODLER in another computing environment, see §1.3. You must first prepare the source codes, which contain INCLUDE statements. This has been automated with the utility in AUTOEDIT.ARC. All of this can be done automatically under DOS. The source code and data files will use a little less than 1mb on your hard disk. At 4800 baud it takes about 2 hours to upload all source code, data and documentation files.

This User's Guide is designed to be read sequentially. A reference manual can be generated by MODLER by specifying EXEC DOCMODL at the MODLER prompt. This and other information about on-line help is given in §1.5 (see, also, Chapter 8).

1.2 Quick installation for DOS environment.

To install in a DOS environment, put the MODLER disk into drive a: and change directory to the path where you want to install MODLER. It is recommended this be an empty directory, perhaps called MODLER. Then, at the DOS prompt, enter:

> COPY A:INSTALLB[drive]

The default disk drive that you are using is a:, and you can change this by entering another drive. For example, enter INSTALL B to install from drive b (note no colon after B in the drive spec). The appropriate files will be extracted from the ARC files, and you will be ready to run MODLER.

Once the installation is complete, you may delete INSTALL.BAT from your hard disk. Your next step is to enter MODLER at the DOS prompt. After some sign-on information is displayed, you will be ready to test that you received everything and that all is well. After the MODLER prompt, enter EXEC ATEST. You will see a lot of messages flashing over your screen. These are from test commands being executed. After a few minutes, you should see a message that MODLER appears to be working, and you are left with the MODLER prompt. You may then continue with some experiments, such as those in this User's Guide. To leave MODLER, enter QUIT.