Chapter 1

Starting with MATLAB

This chapter begins by describing the characteristics and purpose of the different windows in MATLAB. Next, the Command Window is introduced in detail. The chapter shows how to use MATLAB for arithmetic operations with scalars in much to the way that a calculator is used. This includes the use of elementary math functions with scalars. The chapter then shows how to define scalar variables (the assignment operator) and how to use these variables in arithmetic calculations. The last section in the chapter introduces script files. It shows how to write, save, and execute simple MATLAB programs.

1.1 STARTING MATLAB, MATLAB WINDOWS

It is assumed that the software is installed on the computer, and that the user can start the program. Once the program starts, the MATLAB desktop window opens with the default layout, Figure 1-1. The layout has a Toolstrip at the top, the Current Folder Toolbar below it, and four windows underneath. At the top of the Toolstrip there are three tabs: HOME, PLOTS, and APPS. Clicking on the tabs changes the icons in the Toolstrip. Commonly, MATLAB is used with the HOME tab selected. The associated icons are used for executing various commands, as explained later in this chapter. The PLOTS tab can be used to create plots, as explained in Chapter 5 (Section 5.12), and the APPS tab can be used for opening additional applications and Toolboxes of MATLAB.

The default layout

The default layout (Figure 1-1) consists of the following four windows that are displayed under the Toolstrip: the Command Window (the larger window), the Current Folder Window (on the top left), the Details Window and the Workspace Window (on the bottom lest). A list of several MATLAB windows and their purposes is given in Table 1-1.

Four of the windows—the Command Window, the Figure Window, the Editor Window, and the Help Window—are used extensively throughout the book