9. The Calculator Example

This chapter is very much like the graph example two chapters back – a later section contains a code listing, and this one describes some of the new features\(^1\) of the system used in the code. This program is derived from a program originally written by Dan Weinreb, and rewritten for Genera 7.0 by Mike McMahon.

Once again, if your site has the tape for this book, you can load the code by using the CP command Load System Calculator. After the code has been loaded, start the program by typing Select +. The calculator frame will look something like figure 6.

9.1 The Program Frame

The calculator program simulates a hand-held calculator doing "reverse Polish notation" (RPN) calculations. Thus, you would

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\(^1\)See hacker's definition at end of chapter.
key in the two arguments of an operator first, separating them with Enter, as required, followed by the operator itself. In this program, the "keyboard" is a menu: you can click on various "buttons" in the display. Also, the regular console keyboard can be used to type in the same commands: each digit you type is as if you had "pressed" (i.e., clicked on) the equivalent button; the other commands are as you see them, except that Enter is typed with the Return key.

As in the previous example, the calculator program framework was written with "Frame-Up" (Select Q) and then transferred to the editor. Thus, most of it was written automatically.

The essential differences between this version and the last are:

- The command table includes keyboard accelerators. This is how the one-character commands work. If you type "3.14159" as input, it is exactly equivalent to clicking on those characters in the calculator's keyboard pane.