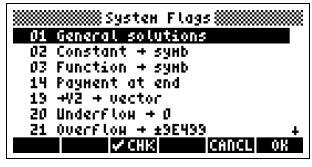
Chapter 2

System flags

System flags provide you with some control over how the HP 49G behaves and displays information. For example, by setting flag –60, you can lock the alpha keyboard by pressing (ALPHA) once rather than twice. Clearing flag –60 returns the mode to its default setting (where (ALPHA) must be pressed twice to lock the alpha keyboard).

Displaying system flags



1. Press (MODE) to display the Calculator Modes input form.
2. Press FLAGS.

   The System Flags list is displayed. A tick to the left of a flag number indicates that the flag is set. If the space to the left of a flag number is empty, the flag is clear. From this screen you can set or clear any flag in the list.

The System Flags list is not a list of *all* the system flags. As a general rule, flags that are likely to be changed often can be set or cleared on various input forms, where they are more readily accessible. Flags that will rarely be changed are listed in the System Flags list.

For example, flag –95 determines whether the calculator is in algebraic or RPN mode. As this is a flag that many users are likely to want to change from time to time, it is accessible from an input form: the Calculator Modes input form (described in chapter 2 of the *User's Guide*). Because it is accessible from an input form, flag –95 is not listed in the System Flags list. (There are some exceptions to this general rule, with some flags accessible both from an input form and from the System Flags list.)

All the system flags—not just those on the System Flags list—are listed and described in the *HP 49G Pocket Guide*.

Setting and clearing flags

Method 1

Use this method only if the flag you want to change is listed in the System Flags list.

1. With the System Flags list displayed, highlight the flag that you want to set or clear.

   You can do this by either:

   - pressing the ▼ or ▲ keys until the flag you want is highlighted or
   - typing the first digit of the number of the flag.

   See the previous section for instructions on displaying the flags.

2. Press CHK.

   If the flag was set before, it is cleared; if it was clear before, it is now set.

3. Press OK or ENTER to return to the Calculator Modes screen and OK or ENTER again to return to your default screen.

Method 2

If you know the number of the system flag you want to change, you can change the flag from the command line. The syntax you use depends on the operating mode you have chosen: algebraic or RPN.

In algebraic mode, the syntax is:

command(*flag*)

In RPN mode, enter the flag on the first level of the stack and then enter the appropriate command. The command for setting a flag is SF and the command for clearing a flag is CF. (The flag commands are described on page 2-4.)

For example, to set flag –40 in algebraic mode, you enter SF(–40) and press ENTER. In RPN mode, you enter –40 onto level 1 of the stack, enter SF onto the command line and press ENTER.

Similarly, to clear flag –40 in algebraic mode, you enter CF(–40) and press ENTER. In RPN mode, you enter –40 onto level 1 of the stack, enter CF onto the command line and press ENTER.

You can use this method to set and clear all flags, not just those listed on the System Flags list.

Setting or clearing several flags at once

In algebraic mode, the syntax is:

command({*list*})

In RPN mode, enter a list of the flags you want to set or clear on the first level of the stack and then enter the appropriate command.

For example, to set flags –19 and–40 in algebraic mode, you enter SF({–19,–40}) and press ENTER. In RPN mode, you enter {–19 –40} onto level 1 of the stack, enter SF onto the command line and press ENTER. (Note that in algebraic mode, you must enter a comma between the elements in a list. In RPN mode, you can enter a comma or a space.)

Similarly, to clear flags –19 and–40 in algebraic mode, you enter CF({–19,–40}) and press ENTER. In RPN mode, you enter {–19 –40} onto level 1 of the stack, enter CF onto the command line and press ENTER.

Method 3

The flags that you are likely to need to change can be changed from various input forms (as explained on page 2-1). To change one of these flags, display the appropriate input form, place the cursor in the flag field and press CHK. If the flag was set before, it is cleared; if it was clear before, it is now set. (A tick mark in the field indicates that the flag is set.)

Examples of flags that can be set from input forms include operating mode, number format, angle measure, coordinate system, beep, key click, keep last stack, textbook mode, and clock type. These, and numerous other flags, are accessible by pressing MODE.

Editing input forms is described in detail in chapter 2 of the *User's Guide*.

Flag commands

The flag commands are listed and explained in the table below. The flag commands enable you to set and clear flags as well as having a value returned that indicates the status of a specified flag: 1 if the flag is set, 0 if the flag is clear.

Command	Description
SF	Sets the specified flag.
CF	Clears the specified flag.
FS?	Returns true (1) if the specified flag is set and false (0) if the flag is clear.
FC?	Returns true (1) if the specified flag is clear and false (0) if the flag is set.
FS?C	Tests the specified flag, returns true (1) if it is set or false (0) if it is clear, and then clears it.
FC?C	Tests the specified flag, returns true (1) if it is clear or false (0) if it is set, and then clears it.

Table 2-1 Flag commands

User flags

You can also apply the commands listed in the table above to user flags. (User flags are mainly used in programming.)

User flags are positive numbers, while system flags are negative numbers. (In the System Flags list—discussed on page 2-1—the system flags are shown as positive numbers. However, when you are setting, clearing, and testing system flags, you must specify the flag as a negative number.)

You have access to 128 user flags. You can set, clear, and test them the same way as with system flags. For example, to clear flag 25 that your program has set, you issue the command CF(25).