

# Chapter 3

## Command line operations

The command line is where you enter and edit commands and objects. The HP 49G provides numerous tools to assist you when working on the command line. Some of these tools have their own key; others can be selected from the command line editor's Tool menu.

### Activating the command line

The way you activate the command line depends on whether you intend to create a new object or edit an existing object.

To create a new object, just start typing. The command line is activated as soon as you start. (While you can create most objects from the command line, many objects are best created using specific applications. For example, it will usually be easier to create an expression using Equation Writer, or a matrix using Matrix Writer.)

To edit an existing object on the command line, select the object from history or from the stack and:

- in algebraic mode, press **ENTER**
- in RPN mode, press **EDIT**.

Note that pressing **EDIT** in algebraic mode activates whatever application is best suited to editing the type of object you selected, not the command line editor. For example, if you selected an expression, pressing **EDIT** activates Equation Writer. To edit the object on the command line, you must press **ENTER**.

# Positioning the cursor

When editing the object on the command line, you will almost always need to reposition the cursor.

## Main methods: single-line command line

Press  or  to move the cursor left or right respectively.

To go directly to the last character on the command line, press   or  .

To go directly to the first character on the command line, press   or  .

## Main methods: multi-line command line

In multiline entries—for example, blocks of programming code—press  or  to move the cursor to the previous or next line respectively.

To go directly to the end of the last line, press  .

To go directly to position  $x$  in the last line, where  $x$  is the number of characters the cursor is from the start of the current line, press  .

To go directly to the start of the first line, press  .

To go directly to position  $x$  in the first line, where  $x$  is the number of characters the cursor is from the start of the current line, press  .

## Helpful commands and sub-menus

Like all other HP 49G applications, the command line editor has its own Tool menu. This menu is displayed by pressing **TOOL** while the command line is active (that is, while the cursor is blinking). You then select a command by pressing the corresponding function key.

The commands that provide ways of positioning the cursor are:

←SKIP	Moves the cursor to the beginning of the current word (that is, to the beginning of the word in which the cursor is currently placed). If pressed again, the cursor moves to the beginning of the previous word if there is one.
SKIP→	Moves the cursor to the beginning of the next word (or to the end of the word if there is no next word).
→BEG	Moves the cursor to the beginning of the selection or, if nothing is selected, to the beginning of the command line. (In multiline entries, the beginning of the command line is the beginning of the first line of the entry.)
→END	Moves the cursor to the end of the selection or, if nothing is selected, to the beginning of the command line.
GOTO	<p>The GOTO menu provides three useful commands:</p> <p><b>Go to line:</b> this command sends the cursor to the start of the line whose number you specify.</p> <p><b>Go to position:</b> this command sends the cursor to the position you specify (being the specified number of characters—including spaces—from the start of the command line).</p> <p>See “Command line information” on page 3-12 for instructions on how to find the position of a character on the command line.</p> <p><b>Labels:</b> this displays a list of labels in the object on the command line. If you highlight a label in the list and press OK or <b>ENTER</b>, the cursor is sent to the start of that label.</p> <p>A label is any string of characters that begins with an asterisk. Labels are particularly useful in programming code, where they can be used to name discrete blocks of code.</p>

## FIND

The Find command is on the Search sub-menu. You can use this command to send the cursor to the character or character string you specify. See “Find” on page 3-8 for more information.

# Selecting characters

The HP 49G provides a number of commands that work on *selected* text (such as copy and cut). To select characters, you mark the beginning of the selection and the end of the selection.

1. Position the cursor at the beginning of your selection.

See “Positioning the cursor” on page 3-2 for a description of various ways to position your cursor.

2. Press  $\text{[P}] \text{[BEGIN]}$ .

3. Position the cursor at the end of your selection.

4. Press  $\text{[P}] \text{[END]}$ .

Your selection is now highlighted.



Pressing  $\text{[P}] \text{[END]}$  without first pressing  $\text{[P}] \text{[BEGIN]}$  causes all characters to the left of the cursor to be selected. Therefore, if you want to select all characters to the left of the cursor, press  $\text{[P}] \text{[END]}$  at step 2 above and ignore the remaining steps

# Copy, cut, and paste

1. Select the characters that you want to copy or cut.

This is explained on page 3-4 (and in chapter 3 of the *User’s Guide* if you are selecting parts of an expression in the Equation Writer).

2. Do one of the following:

- to copy the characters, press  $\text{[P}] \text{[COPY]}$ , or
- to cut the characters, press  $\text{[P}] \text{[CUT]}$ .

3. Position your cursor where you want to paste the characters you have copied or cut.

See “Positioning the cursor” on page 3-2 for a description of ways to position your cursor.

4. Press  $\text{[P}] \text{[PASTE]}$ .

# Editing the command line

## Deleting characters

The simplest way to delete a character is to position the cursor to the immediate right of the character and press .

Other ways of deleting characters are provided by commands on the Tool menu for the command line editor. The menu is displayed by pressing  when the command line is active. These commands are:

- ←DEL Deletes the characters from the cursor to the beginning of the current word (that is, to the beginning of the word in which the cursor is currently placed). If pressed again, the entire previous word is deleted if there is one.
- ⌫←DEL Deletes all characters from the cursor to the start of the line.
- DEL→ Deletes the characters from the cursor to the beginning of the next word (or, if there is no next word, to the end of the current word).
- ⌫DEL→ Deletes all characters from the cursor to the end of the line.
- DEL L Deletes all characters on the current line.
- REPLACE There are various replace options on the Search menu. These options enable you to search for the characters you want to delete and replace them with nothing, thereby deleting those characters.  
The replace options are discussed on page 3-8.

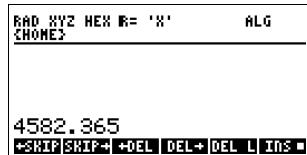
## Inserting characters

By default, any character you enter on the command line will be inserted between the characters on either side of the cursor. To replace characters rather than insert them, you de-activate insert mode. Each character you enter will then replace—that is, overwrite—the character directly below the cursor.

To de-activate (or activate) insert mode:

1. With the command line active, press **TOOL**.
2. If the INS command is not displayed, press **NXT** until it is.

A small square to the right of the command's label—as in the example on the right—indicates that insert mode is active.



The shape of the cursor also indicates whether you are in replace mode (cursor is a left-pointing arrow) or insert mode (cursor is a filled rectangle).

3. Press INS to switch insert mode on off or on.

## Editing complex objects

In many cases you will find the methods outlined in the previous two sections well-suited to editing command line objects. However, when you need to edit a complex object, you might find it easier to isolate just that part of the object you want to edit. To do this, make sure that the Tool menu for the command line editor is displayed. (Press **TOOL** if it is not.)

1. Select the part of the object that you want to edit.

See “Selecting characters” on page 3-4 for instructions.

2. If the EDIT command is not displayed, press **NXT** until it is.

3. Press EDIT.

Your selection now appears on the command line by itself. The rest of the object has *not* been deleted; it is just not visible while you edit your selection.

4. Edit the entry on the command line.

5. Press **ENTER**.

The object you started with is redisplayed, showing the changes you made at step 4 above.

## Evaluating components of the command line

If there is a component of your object that could be evaluated—such as a mathematical expression—you can select the component and evaluate it. The result of the evaluation replaces the component.

To evaluate a component, make sure that the Tool menu for the command line editor is displayed. (Press **TOOL** if it is not.)

1. Select the component of the object that you want to evaluate.

See “Selecting characters” on page 3-4 for instructions.

2. If the EXEC command is not displayed, press **NEXT** until it is.

3. Press EXEC.

The component is evaluated, if possible, and the result replaces the component.

## Suspending editing

You can suspend editing the command line and return to it later, performing other operations in the meantime. To do this, make sure that the Tool menu is displayed. (Press **TOOL** if it is not.)

1. If the HALT command is not displayed, press **NEXT** until it is.
2. Press HALT.

Your default screen is redisplayed. You can now use the calculator to perform other operations.

While you have an editing session suspended, the annunciator **HLT** appears in the status area of your default screen (providing that you have not hidden the status area).

3. Press **CONT** to return to the command line you earlier suspended. You will notice that the contents of the command line have not been affected by the operations you performed since suspending editing.



While you have one command line editing session suspended, you can suspend another. In fact, you can suspend any number of command line editing sessions.

When you have more than one editing session suspended, pressing **CONT** returns you to the most recently suspended session. Pressing **CONT** again returns you to the second most recently suspended session, and so on.

## Find and replace

The HP 49G provides a number of search and replace commands to help you edit multiline objects (such as arrays and programs). These are available from the Search menu (which is a sub-menu of the Tool menu).

1. With an object on the command line, press **TOOL**.
2. Press **NEXT** to display the second page of the Tool menu.
3. Press **SEARCH**.

A choose list appears listing the find and replace options.



### Find

This command searches through the object on the command line and highlights the first instance of a character or character string that matches your search string (that is, the character or character string you specify).



The Find command begins searching from the position of the cursor. Therefore, if your cursor is not at the start of the object, there is a risk that the Find command will not find your search string even though that string is in the object. It is important, then, that you position the cursor at the start of the object if you want to find all occurrences of your search string..

1. If necessary, position the cursor at the beginning of the object on the command line.
2. Display the Search menu, make sure that option 1—Find—is highlighted and press **OK** or **ENTER**.

The Find input form is displayed.

3. Enter the character or character string that you want to find.

The characters you type appear near the bottom of the input form.

4. Press **OK** or **ENTER** to place the characters you have typed into the Search For field.

The cursor is now positioned in the Case Sensitive field. By default, the Find command performs a case sensitive search; that is, an upper-case character is considered a different character to its lower-case companion.



5. If you do not want a case sensitive search, press **CHK**.

The tick in the Case Sensitive field is deleted. Your search will now look for both the upper-case and lower-case versions of the characters you entered into the Search For field.

6. Press **OK** or **ENTER** to begin the search.

If your search string is found, it will be highlighted on the command line; otherwise a message is displayed informing you that your search string cannot be found.

Note that the Find command will look for your search string as both a whole word and as part of a longer word. For example, a search for **A\*B** would be satisfied by the string **D/A\*B+2**. You cannot set the HP 49G to perform only whole-word searches.

## Find next

The object you are searching for might contain more than one instance of your search string. To find the next instance:

1. Display the Search menu.
2. Type **3** (or press **▼** until **FIND NEXT** is highlighted).
3. Press **OK** or **ENTER**.

If your search string is found, it is highlighted on the command line; otherwise a message is displayed informing you that no further instances of your search string can be found.

Note that the HP 49G does not continue searching from the beginning of the object once it has reached the end.

## Replace

The Replace command searches through the object on the command line and highlights the first instance of a character or character string that matches your search string (that is, the character or character string you specify). You can then replace that string with another string.

The Replace command begins searching from the position of the cursor. Therefore, if your cursor is not at the start of the object, there is a risk that the Replace command will not find your search string even though that string is in the object. It is important, then, that you position the cursor at the start of the object if you want to find all occurrences of your search string.

1. If necessary, position the cursor at the beginning of the object on the command line.
2. Display the Search menu.
3. Type 2 (or press **▼** until REPLACE.. is highlighted).
4. Press OK or **ENTER**.

The Find Replace input form is displayed.

5. Enter the character or character string that you want to replace.

The characters you type appear near the bottom of the input form.



6. Press OK or **ENTER** to place the characters you have typed into the Search For field.
7. Enter the character or character string that you want to substitute for the search string.

The characters you type appear near the bottom of the input form.

8. Press OK or **ENTER** to place the characters you have typed into the Replace By field.

The cursor is now positioned in the Case Sensitive field. By default, the Replace command performs a case sensitive search; that is, an upper-case character is considered a different character to its lower-case companion.

9. If you do not want a case sensitive search, press **CHK**.

The tick in the Case Sensitive field is deleted. Your search will now look for both the upper-case and lower-case versions of the characters you entered into the Search For field.

10. Press OK or **ENTER** to begin the search.

If your search string is found, it will be highlighted on the command line; otherwise a message is displayed informing you that your search string cannot be found.

11. If you don't want to replace the current selection but want to continue looking for your search string, select FIND NEXT from the Search menu and repeat this procedure from step 10.

If you want to replace the current selection with the specified substitute term, you have four options to choose from:

- replace the current selection (option 4 on the Search menu)
- replace the current selection and find the next instance of the search string (option 5 on the Search menu)
- replace the current selection and all other instances of the search string, moving the cursor from instance to instance in the process (option 6 on the Search menu)
- replace the current selection and all other instances of the search string without moving the cursor from instance to instance (option 7 on the Search menu). At the end of this replace operation, the cursor is positioned at the place of the last change.

Option 7—Fast replace—is significantly faster if the object you are searching for extends over many lines (as in the case of a large program).

12. Display the Search menu and choose the replace option you want.

13. Press OK or **ENTER** to begin the replace operation.

# Command line information

The command line editor Tool menu also provides general information about the object on the command line and the position of the cursor. To see this information, press INFO. A screen entitled “Command Line” appears.



The fields on this screen are:

# Lines	The number of lines over which the object extends.
X position	The number of characters from the start of the line to the position of the cursor.
Y position	The number of the line in which the cursor is placed.
Position	The number of the characters from the start of the object to the position of the cursor.
Line Size	The number of characters in the line on which the cursor is placed.
Text Size	The number of characters in the object.
Stk Size	The number of objects in history (or on the stack).
Mem (KB)	The amount of free memory.
Clip Size	The number of characters on the clipboard (that is, the number of characters you last copied or cut).
Sel. Size	The number of characters in the current selection.

## Styles

You can set the style of a command line entry to bold, italic, underlined, or inverted, or to any combination of these characteristics. You can also choose a different font for the entry. To do this, make sure that the command line is active and the Tool menu for the command line editor is displayed. (Press **F00** if it is not.)

1. If the STYLES command is not displayed, press **NXT** until it is.
2. Press the function key that corresponds to the style you want the command line to have:
  - **F1** for BOLD
  - **F2** for ITALIC
  - **F3** for UNDERLINED
  - **F4** for INVERTED
  - **F5** to display the fonts list from which you can choose a different font.
3. Press **F6** for EDIT to return to the Tool menu for the command line editor.

Note that styles are retained when the object appears on history or on the stack only if that object is a string (that is, enclosed within inverted commas).

