



The S60 emulator is the primary development and debugging tool for S60 Symbian OS application development. It provides PC keyboard combinations for accessing special testing and logging functionality and also for mimicking the hardware keys of an actual device. Most of these shortcuts are specifically for the debug emulator, but some of the hardware emulation ones will work with the release emulator also. Note, too, that some of the shortcuts defined are inherited from Symbian OS and are not really relevant for S60.

In addition to using the keys of the emulator's graphical user interface, you can also use the keyboard of your PC for entering data in text boxes when the emulator is in the edit mode (that is, a pen followed by the characters "abc" appears in the status pane). You can use all the alphanumeric keyboard keys (a-z, 0-9) and the following non-alphanumeric characters: ! " % & / ( ) = ? ` < > | , ; : \_ - ~ ^ " " ' [ ]. A long press of the key will display the corresponding number.

The available keyboard shortcuts are as listed below. You can sort the table by clicking on titles.

Shortcut Key	Description	Category
Ctrl + Alt + Shift + <b>R</b>	Redraws the whole screen, to test an application's redraw functionality.	Drawing
Ctrl + Alt + Shift + <b>F</b>	Enables Window Server auto-flush for all applications using the current control environment. This can be used to slow down drawing for finding flicker problems.	Drawing
Ctrl + Alt + Shift + <b>G</b>	Disables Window Server auto-flush for all applications using the current control environment. This is the default setting.	Drawing
Ctrl + Alt + Shift + <b>M</b>	Displays a Move Me dialog, which can be moved with the cursor keys. Can be used to test partial redraw. Note that multiple instances can be nested, but there is no benefit in this.	Drawing
Ctrl + Alt + Shift + <b>Enter</b>	Displays a "Move me!" dialog, as Ctrl + Alt + Shift + M.	Drawing
Ctrl + Alt + Shift + <b>E</b>	Enables logging of all Window Server messages (if logging is set up).	Window Server
Ctrl + Alt + Shift + <b>D</b>	Disables Window Server logging, if active.	Window Server
Ctrl + Alt + Shift + <b>W</b>	Dumps the full window tree from the Window Server to the log (if logging is set up). If disabled, logging will be temporarily enabled to achieve this.	Window Server
Ctrl + Alt + Shift + <b>K</b>	Kills the foreground application.	Window Server
Ctrl + Alt + Shift + <b>X</b>	Shuts down the Window Server.	Window Server
Ctrl + Alt + Shift + <b>H</b>	Dumps the list of cells allocated on the Window Server's heap to the log (if logging is set up).	Window Server
Ctrl + Alt + Shift + <b>U</b>	Cycles the display through its possible sizes. Note that a display of size 176 by 208 pixels is the only currently available option in <u>S60</u> . (This shortcut is inherited from <u>Symbian OS</u> .)	Window Server
Ctrl + Alt + Shift + <b>O</b>	Rotates the Emulator skin by 180 degrees. Note that for legibility it flips the emulator rather than the screen.	Window Server
Ctrl + Alt + Shift + <b>T</b>	Displays the task switcher? a list of currently running applications, which can be switched to. This is similar to a long	Window Server

## Emulator\_Shortcut\_Keys

	press of the Applications key, which should be used in preference, as it is guaranteed to produce up-to-date results. (This shortcut is inherited from <u>Symbian OS</u> .)	
Ctrl + Alt + Shift + <b>I</b>	Dumps the control tree to the IDE debug output window for the next window clicked on.	Window Server
Ctrl + Alt + Shift + <b>J</b>	Displays coloured borders around controls.	Window Server
Ctrl + Alt + Shift + <b>L</b>	Shuts all dialogs using AknDialogShutter.	Window Server
Ctrl + Alt + Shift + <b>A</b>	Displays the number of heap cells allocated by the current application. Note that this value cannot be clearly seen on an <u>S60</u> emulator screen! (This shortcut is inherited from <u>Symbian OS</u> .)	Resource Allocation
Ctrl + Alt + Shift + <b>B</b>	Displays the number of File Server resources in use by the current application. Note that this value cannot be clearly seen on an <u>S60</u> emulator screen! (This shortcut is inherited from <u>Symbian OS</u> .)	Resource Allocation
Ctrl + Alt + Shift + <b>C</b>	Displays the number of Window Server resources in use by the current application. Note that this value cannot be clearly seen on an <u>S60</u> emulator screen! (This shortcut is inherited from <u>Symbian OS</u> .)	Resource Allocation
Ctrl + Alt + Shift + <b>P</b>	Displays resource failure tool information. S60 5th ed: Heap failure type, Heap failure rate, WServ failure type, WServ failure rate, File failure type, File failure rate.	Resource Allocation
Ctrl + Alt + Shift + <b>Q</b>	Turns off heap failure mode. Note that the resource failure tool dialog will not be updated if it is open.	Resource Allocation
<b>§</b>	The key below Esc, such as or '. Corresponds to the Selection key, that is, OK on the navigation key.	Hardware Emulation
Alt + <b>1</b>	Corresponds to the left soft key.	Hardware Emulation
Alt + <b>2</b>	Corresponds to the right soft key.	Hardware Emulation
Cursor Keys	Corresponds to the navigation keys.	Hardware Emulation
<b>0-9,* and #</b>	Corresponds to the ITU-T numeric keypad.	Hardware Emulation
Alt + <b>0</b>	Equivalent to the power-off key. Note that in most emulators the power key has no effect.	Hardware Emulation
Alt + <b>3</b>	Equivalent to grip open, to emulate a device with a hideaway keypad opening.	Hardware Emulation
Alt + <b>4</b>	Equivalent to grip closed, to emulate a device with a hideaway keypad closing.	Hardware Emulation
Alt + <b>5</b>	Equivalent to the side key.	Hardware Emulation
Alt + <b>S</b>	Equivalent to the <b>Send</b> call key.	Hardware Emulation
Alt + <b>E</b>		

## Emulator\_Shortcut\_Keys

	Equivalent to the <b>End</b> call key. Note that this will switch to the phone application on target only.	Hardware Emulation
<b>Alt + F4</b>	Close the S60 emulator.	Hardware Emulation
<b>Home</b>	Corresponds to the <b>Applications</b> key.	Hardware Emulation
<b>Ctrl + H</b>	Equivalent to the <b>Clear</b> key.	Hardware Emulation
<b>Backspace</b>	Corresponds to the <b>Clear</b> key.	Hardware Emulation
<b>Shift</b>	Equivalent to the <b>Edit</b> key.	Hardware Emulation
<b>Ctrl + Alt + Shift + V</b>	Toggles verbose information messages. Text in calls to CEikonEnv::VerboseInfoMsg will be displayed.	Miscellaneous
<b>Ctrl + Alt + Shift + N</b>	Toggles the Active Scheduler shaker.	Miscellaneous
<b>Ctrl + Alt + Shift + Y</b>	Mounts a file system as the x: drive for testing removable media support. Will actually fail with a system error! (This shortcut is inherited from <u>Symbian OS</u> .)	Miscellaneous
<b>Ctrl + Alt + Shift + Z</b>	Sends the keys A though J in fast sequence to the application, to test its ability to handle fast repeated keys.	Miscellaneous
<b>+</b>	The "+" key on the numeric keypad. Toggles the Front End Processor ( <b>FEP</b> ) status display. This shows the status and current mode of the <b>FEP</b> .	Miscellaneous
<b>Alt + F</b>	Toggles the <b>FEP</b> state on or off.	Miscellaneous
<b>Esc</b>	Cancels currently displayed dialogs or menus.	Miscellaneous
<b>F1</b>	Shows the current options menu. (Note that this will occur even if no Options soft key is currently specified!)	Miscellaneous
<b>F5</b>	Simulates changing removable media cards?not used in <u>S60</u> . (This shortcut is inherited from <u>Symbian OS</u> .)	Miscellaneous
<b>F9</b>	Switches the emulator into standby mode. Re-press to restore the emulator.	Miscellaneous
<b>F10</b>	Simulates an emergency shutdown (in other words, what would occur if battery levels dropped below the minimum level). No user operations are allowed. F9 will power it back up.	Miscellaneous
<b>F11</b>	Simulates a device's case being opened or closed. Not used in <u>S60</u> ?see grip open/close events. (This shortcut is inherited from <u>Symbian OS</u> .)	Miscellaneous