COMMANDS

SPICE Analysis

.OP	find the DC operating point
.TRAN	perform nonlinear transient analysis
.AC	perform small signal AC analysis
.DC	perform DC source sweep analysis
.TF	find the DC small-signal transfer function
.NOISE	perform noise analysis

SPICE Directives

.BACKANNO	annotate subcircuit pin names on port currents
.END	end of netlist
.ENDS	end of subcircuit definition
.FOUR	compute fourier component
.FUNC	user defined functions
.FERRET	download a file from URL
.GLOBAL	declare global nodes
.IC	set initial conditions
.INCLUDE	include file
.LIB	include library
.LOADBIAS	load a previously solved DC solution
.MACHINE	arbitrary state machine
.MEASURE	evaluate user-defined electrical quantities
.MODEL	define a SPICE model
.NET	compute network parameters in .AC analysis
.NODESET	supply hints for initial DC solution
.OPTIONS	set simulator options
.PARAM	user-defined parameters
.SAVE	limit the quantity of saved data
.SAVEBIAS	save operating point to disk
.STEP	parameter sweeps
.SUBCKT	define a subcircuit
.TEMP	temperature sweeps
.TEXT	user-defined string
.WAVE	write selected nodes to a .WAV file

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SHORTCUTS

Schematic and Symbol Editing Modes

Windows	Choose Mode then select component Exit mode: Press Esc or right-click	Mac
F5 or Delete or Ctrl X	cut/delete	F5
F6 or Ctrl C	copy/duplicate*	F6
F7	move* *unselected wires remain*	F7
F8	drag* *connected wires adjust*	F8
Esc	exit current mode *or right-click*	Esc

Zoom and Grid

Windows	Zoom in and out with scroll wheel or track pad pinch	Mac
Ctrl Z	**Schematic** zoom area (drag over area) zoom in (click on scheme) **Waveform** zoom area is default mode F9 for previous zoom **Symbol** zoom in	
Ctrl B	zoom out	
Space	zoom to fit (schematic viewer)	Space
Ctrl E	zoom extents (waveform viewer)	
Ctrl G	toggle grid	

TRICKS

Waveforms

Windows	when clicking waveform label	Mac
click	add cursor and see measure	click
Alt click	highlight corresponding net in schematic	⌘ click
Ctrl click	integrate waveform	Ctrl click

Schematics

Windows		Mac
Alt click	**component:** plot instantaneous power **wire:** plot current	⌘ click
hold Ctrl	draw wires at an angle	hold Shift
Ctrl Alt Shift H	show hidden component values/text, e.g. parallel or series resistance and capacitance	

any text preceded by an underscore, e.g. "_FAULT" is displayed with an overbar, active low, signal

Place Component Modes*

Windows	Press Esc or right-click to exit place component mode	Mac
R	resistor	R
C	capacitor	C
L	inductor	L
D	diode	D
G	ground	G
V	voltage	V
S	spice directive *right-click text field to open "Help me Edit" dialog*	S
T	text/comment	T
F2	component	F2
F3	draw wire	F3
F4	label net	F4
	bus tap	B

*Rotate and Mirror

Windows	*enabled in place modes	Mac
Ctrl R	rotate	⌘ R
Ctrl E	mirror	⌘ E

Undo/Redo

Windows	### Levels of Undo	Mac
F9	undo	F9 or ⌘ Z
⇧ F9 or Ctrl ⇧ Z	redo	⇧ F9 or ⌘ ⇧ Z

NUMBERS

Prefixes (Case Insensitive)

LTspice	Means	Value
T or t	tera	10^{12}
G or g	giga	10^{9}
meg	mega	10^{6}
K or k	kilo	10^{3}
M or m	milli	10^{-3}
U or u	micro	10^{-6}
N or n	nano	10^{-9}
P or p	pico	10^{-12}
F or f	femto	10^{-15}

Constants

LTspice	Means
e	Euler's number
pi	π
k	Boltzmann constant
q	charge constant
true	1
false	0
mil	25.4×10^{-6}m