

FlightGear Short Reference

FlightGear is a free flight simulator developed collectively over the Internet under the GPL. For more information see <http://www.flightgear.org/>

Program Start: Linux/UNIX via the fgfs under FlightGear/
Mac OS X via FlightGear.app under /Applications/

Windows via the *FlightGear* wizard fgrun.exe under \Program Files\FlightGear\bin\Win32\

Engine Start: Put ignition switch to BOTH (“}” three times). Set mixture to 100%. Set throttle to about 25%. Operate starter using the “s” key. Once the engine has started, set throttle back to idle. Release parking brake, if applied.

Keyboard controls:

Tab. 1: Main keyboard controls on the numeric keypad with activated NumLock.

Key	Action
9/3	Throttle
4/6	Aileron
8/2	Elevator
0/Enter	Rudder
5	Center aileron/elevator/rudder
7/1	Elevator trim

Tab. 2: View directions accessible after de-activating NumLock on the numeric keypad.

Numeric Key	View direction
Shift-8	Forward
Shift-7	Left/forward
Shift-4	Left
Shift-1	Left/back
Shift-2	Back
Shift-3	Right/back
Shift-6	Right
Shift-9	Right/forward

Tab. 3: Display options.

Key	Action
P	Toggle instrument panel on/off
c	Toggle 3D/2D cockpit (if both are available)
S	Cycle panel style full/mini
Shift-F5/F6	Shift the panel in y direction
Shift-F7/F8	Shift the panel in x direction
Shift-F3	Read a panel from a property list
Ctrl-c	Toggle panel/cockpit hotspot visibility
i/I	Minimize/maximize HUD
h/H	Change color of HUD/toggle HUD off forward/backward
x/X	Zoom in/out
v/V	Cycle view modes forth and back
Ctrl-v	Reset view modes to pilot view
z/Z	Increase/Decrease visibility (fog)
F10	Toggle menu on/off

Tab. 4: Autopilot and related controls.

Key	Action
Ctrl + A	Toggle altitude lock
Ctrl + G	Toggle glide slope lock (NAV 1)
Ctrl + H	Toggle heading hold
Ctrl + N	Toggle NAV 1 lock
Ctrl + S	Toggle autothrottle
Ctrl + T	Toggle terrain follow (AGL) lock
Ctrl + U	Add 1000 ft. to your altitude (emergency)
F6	Toggle autopilot heading mode
F11	Autopilot altitude dialog

Tab. 5: Special action of keys, if autopilot is enabled.

Key	Action
8 / 2	Altitude adjust
4 / 6	Heading adjust
9 / 3	Autothrottle adjust

Tab. 6: Engine control keys

Key	Action
!	Select 1st engine
@	Select 2nd engine
#	Select 3rd engine
\$	Select 4th engine
{	Decrease magneto on selected engine
}	Increase magneto on selected engine
~	Select all engines
s	Fire starter on selected engine(s)
M/m	Lean/Enrich selected engine mixture
N/n	Decrease/Increase selected propeller RPM

Tab. 7: Miscellaneous keyboard controls.

Key	Action
B	Toggle parking brake
b	Apply all brakes
g/G	Raise/lower landing gear
,	Apply left brake (useful for differential braking)
.	Apply right brake (useful for differential braking)
l	Toggle tail-wheel lock
] / [Extend/Retract flaps
p	Pause Sim
a/A	Simulation speed up/slow down
t/T	Clock speed up/slow down
Shift-F2	Save current flight to fgfs.sav
Shift-F1	Restore flight from fgfs.sav
F3	Save screen shot
ESC	Exit program

Mouse controlled functions: There are three mouse modes, which can be swapped between by clicking the right mouse button.

1. In **normal** mode (pointer cursor), the panel and cockpit controls can be operated using the mouse. To change a control, click with the left/middle mouse button on the corresponding knob/lever. Generally, the left side of the control decreases the setting, while the right side increases the setting. The left mouse button makes small changes while the middle button makes larger ones. The scrollwheel may be used on some controls. Press Ctrl-c to view panel/cockpit hotspots.
2. In **control** mode (cross hair cursor), the mouse is used to directly control the aircraft in the absence of a joystick. Moving the mouse controls the aileron (left/right) and elevator (forwards/backwards). Holding the left mouse button down allows control of the rudder (left/right), while holding the middle mouse button controls throttle (forwards/backwards). The scrollwheel controls elevator trim. Using auto-coordination (`--enable-auto-coordination`) is recommended.
3. In **view** mode (arrow cursor), you can control the view direction using the mouse. Clicking the left mouse button resets the view direction. Holding the middle button down while moving the mouse shifts the viewpoint. The scrollwheel may be used to control the field of view.