



# Oolite

Version 1.77

## Installation

### Mac OS X

Drag the 'Oolite' folder (containing Oolite, this ReadMe, the License and the 'AddOns' folder) to any convenient place on your hard drive. If you are upgrading from a previous version of Oolite then drag the Oolite application from this disk's Oolite folder to your own Oolite folder.

To run the game, double-click on the file 'Oolite.app' (the Oolite icon) in the 'Oolite' folder.

Oolite requires Mac OS X 10.5 or later.

### Windows

A folder called 'Oolite' has been created in Start -> Program Files. This folder has icons for running the game, the reference sheet, the link to the official Oolite website, the Advice for New Commanders guide, this ReadMe and an uninstall program.

To run the game, choose the Oolite icon in the 'Oolite' folder.

## Basic Instructions

### Mac OS X

Oolite is mostly controlled from the keyboard and joystick, although the mouse can also be used in full-screen mode.

### Windows and Linux

Oolite can be controlled from the keyboard, joystick or mouse

### In Dock Commands:

- 1 or f1      • **Launch.** Propels your spacecraft from docked station.
- 2 or f2      • **Quick-Save / Save / Load / Begin New Game**  
                   Use **up** and **down** cursor keys to select, **return** to choose.
- **Game Options...**
  - **Autosave**  
     Use **left** and **right** to enable/disable the autosave feature.  
     When enabled, Autosave will create a saved game every time you launch from a planetary station.
  - **Docking Clearance Protocol**  
     When enabled, the main Galcop station (and some OXP stations) will use the docking clearance protocol, and docking without clearance will result in a fine.
  - **Sound Volume**  
     Use **left** or **right** to adjust the volume for effects and spoken messages.
  - **Spoken Messages**  
     Use **left** or **right** or **return** to toggle speech on/off.  
     Spoken messages uses the default voice chosen in System Preferences.
  - **Music**  
     Use **left** and **right** to toggle music on/off.  
     (Mac only): Also used to toggle the iTunes integration on/off.  
     See below for more details about iTunes integration.
  - **Full Screen Mode**  
     Use **left** or **right** to select screen size and refresh rate.  
     Changes will only apply the next time you switch into full-screen mode.
  - **Play in Full Screen / Play in Window (Windows / Linux only)**  
     Press **Enter** to toggle between Window and Full Screen game view.  
     (Mac: Press **⌘F** during flight to toggle between the two.)
  - **Reduced Detail**  
     Use **left** and **right** to turn reduced detail on/off.  
     Removing some graphic complexity increases the frame rate on slower Computers.
  - **Wireframe Graphics**  
     Use **left** and **right** to select/deselect retro-look wireframe graphics mode.
  - **Detailed Planets**  
     Use **left** or **right** to select/deselect procedurally generated planet rendering.
  - **Shader Effects**  
     Use **left** or **right** to adjust the desired level of shaders utilisation between None, Simple and Full.  
     (Not available if your graphics hardware has no shaders support.)
  - **Joystick Configuration**  
     Press **Enter** to go to the joystick calibration and configuration screen.
- **Back**  
                   Brings you back to the previous screen.
- **Reset to strict gameplay / Reset to unrestricted play**  
                   Press **return** to reset the game.  
                   Strict play disables any expansion packs and places gameplay into 'classic' mode.
- **Exit (Windows / Linux only)**  
                   Press **Return** to quit the game.

- 3 or f3**      **Ship Outfitting / Ship Purchase** (toggles between the two)  
Use **up** and **down** cursor keys to select, **return** to purchase.  
Use **left** and **right** cursor keys to move between pages.
- 4 or f4**      **Ship and Station Interfaces**  
Use up and down cursor keys to select, return to open the selected interface.  
Use left and right cursor keys to move between pages
- 5 or f5**      **Status / Ship's Manifest** (toggles between the two)  
Use left and right cursor keys to move between pages
- 6 or f6**      **Short Range Chart / Galactic Chart** (toggles between the two)  
Use **cursor keys** or the **mouse button** to select a hyperdrive target system.  
Use **Home** key to select the current system.  
On the Galactic Chart only, you may type a star name to locate it.  
Also on the Galactic Chart:  
    '^' plots the route from your current system to your target system (requires advanced navigational array).  
    '? ' takes you directly to the Carrier Market.  
On the Short Range Chart:  
    'i' shows information for each system (economy, government and tech level).
- 7 or f7**      **Planetary Database** (shows data on the selected system)
- 8 or f8**      **Commodity Market**  
Use **up** and **down** cursor keys to select,  
**right** to purchase commodity, **left** to sell commodity.  
**Return** buys or sells as much of the selected commodity as possible.

## Flight Key Commands:

### Attitude Controls:

- Left & Right**      Roll  
**Up & Down**      Pitch  
**, & .**      Yaw  
Holding **Ctrl** will turn more slowly.

### Drive controls:

- w**      Increase Speed  
**s**      Decrease Speed

### Hyperspeed:

- j**      Toggle the in-system hyperspeed drive ("Torus Jump Drive") on and off. The drive is disabled by nearby mass/gravity effects.

### Hyperdrive:

- h**      Activate the hyperdrive, also known as the witchspace jump drive. This drive must have a target destination selected in one of the charts.  
**g**      Activate the Galactic Hyperdrive (if installed).

### Fuel Injection:

- i**      Activate the afterburner Witchdrive Fuel Injectors (if installed).

### Other controls:

- p**      Pause / un-pause the game (only during flight).  
While paused you can access some elements of the Options menu by pressing **2** or **f2**.  
Also while paused you can press **o** to Hide/Show the HUD. Useful for taking screenshots.

### Weaponry:

- a**      Fire main weapon for the facing chosen  
**Underscore** Toggle weapons lockdown on/off

### Missiles, mines and pylon mounted equipment:

- r**      Activate target identification system (deactivating the missile/mine system).  
**t**      Enable targeting for the current missile, or arm the current mine.  
If the target identification system is active and locked on, then this also locks a missile onto the selected target.  
**y**      Switch to the next missile or mine available (requires Multi-Targeting System).  
**Shift + t**      Immediately target nearest incoming missile.  
**u**      If target identification is active, deactivate it and reactivate the missile/mine system. If missiles are active, clear any targets (places them in safety mode).  
**m**      Launch the current missile or mine (it must be locked on target, or armed first), and switch to the next missile available.

### Selectable Equipment:

- Shift-n**      Next selectable equipment  
**Shift-Ctrl-n**      Previous selectable equipment  
**n**      Activate selectable equipment  
**b**      Secondary activation key for selectable equipment (not used by all equipment)

### Target System Memory Expansion:

- +**      Lock on to next target in memory (if installed).  
**-**      Lock on to previous target in memory (if installed).

### Anti-Missile ECM:

- e**      Activate anti-missile Electronic Counter-Measures (if installed).

### Scanner:

- z**      Adjust scanner zoom ratio (only during flight).  
This allows you to 'zoom in' to navigate around small, close-to objects.  
A small indicator next to the compass indicates the current scanner ratio (from 1:1 to 5:1).  
**Z (shift-z)**      Zoom out to 1:1 scanner ratio.

### Advanced Space Compass:

- \**      Change compass mode (if the Advanced Space Compass is installed). This toggles your compass between showing the location of the planet, main station (if close enough), sun, your current target, the station beacon, witchpoint buoy, and various additional beacons.  
**Shift-\**      Change compass mode (reverse cycling)

### Communications:

- `**      View communications log.  
Allows you to see recent ship-to-ship communications.  
**L (shift-l)**      Request / Cancel / Renew docking clearance.

#### View screens:

**1 or f1** View forward  
**2 or f2** View aft  
**3 or f3** View port  
**4 or f4** View starboard  
**v** Toggle between external views

**5 or f5** Status / Ship's Manifest (see above)

**6 or f6** Short range Chart / Galactic Chart (see above)

**7 or f7** Planetary Database (see above)

**8 or f8** Commodity Market (see above)

#### Automated Docking:

**c** Begin/Abandon automated docking sequence with the main station, or current target.  
If only one station is in range, no targeting necessary (requires Docking Computer).  
**s** Toggle docking music on/off (requires Docking Computer).  
**C (shift-c)** Fast docking (without docking sequence), advances the game clock by 20 minutes.  
(requires Docking Computer).

#### Ejecting cargo items:

**d** Eject one cargo pod.  
**R (shift-r)** Rotate cargo to determine what will be ejected.

#### Escape Pod:

**Esc-Esc** Launch Escape Pod (if installed). Requires fast double tap of the Escape key.

#### Specialist Equipment:

**0 (zero)** Activate/deactivate specialist equipment (if installed).

#### Energy Bomb:

**Tab** Activate energy bomb (if installed).

#### Other Commands:

**\* (asterisk)** Take screenshot (writes a '.png' file to the oolite-saves folder under oolite.app)  
**⌘Q** (Mac only): Quit  
**shift-esc / shift-Q** (Windows / Linux only): Quit  
**Ctrl-⌘f** (Mac only): Switch between full-screen and windowed mode.  
(Windows: Choose 'Play in Full Screen / Play in Window' in the Game Options.)  
**F (shift-F)** Toggle FPS display.  
**M (shift-M)** (In full-screen only) Toggle mouse control on and off. X-axis is mapped to roll. To map the x-axis to yaw, use **Ctrl+Shift+M**.  
**Mouse left-right** controls roll.  
**Mouse forward-back** controls pitch.  
**Left mouse button** fires weapons.  
**Right mouse button** cancels roll and pitch, centering the controls.  
**⌘?** (Mac only): Display control keys and license in a Help window (in windowed mode).

#### iTunes Integration in Mac OS X:

iTunes integration allows you to choose the music to be played in the background as you are running Oolite. With iTunes integration switched on, Oolite looks for music in iTunes playlists with the following names:

	<b>Oolite-Inflight</b>	should contain music tracks to be played during flight,
	<b>Oolite-Docked</b>	should contain music tracks to be played while in dock,
and	<b>Oolite-Docking</b>	should contain music tracks to be played during the docking sequence.

You should set up these playlists yourself, choosing whatever music you like to listen to while playing Oolite. iTunes integration relies on Applescript and the ability to run iTunes and Oolite simultaneously and therefore may not be a good choice on a slower machine. If your Mac is fast enough to allow you to do this normally then there should be no problem.

## Changing user preferences in Windows:

### The user preferences defaults file .GNUstepDefaults

The file <installation dir>/oolite.app/GNUstep/Defaults/.GNUstepDefaults contains the current settings for fullscreen mode and display resolutions, together with the user preference settings for sound volume, reduced detail (Yes/No), wireframe graphics display (Yes/No), and the shader effects level (Off, Simple, Full), in case your system supports shaders. All these can be changed by either the Game Options... menu, or by directly editing the .GNUstepDefaults file. The recommended way to change settings is to use the in-game menu. See below for examples of directly editing the preferences file. Note that .GNUstepDefaults will not be present immediately after the game's installation. You will need to run Oolite at least once to have it created.

### Switching between full screen and windowed mode, or changing resolution

To change the fullscreen mode resolution, you can use the Game Options... menu or alternatively edit the .GNUstepDefaults file by changing the display\_width and display\_height values, and ensuring the fullscreen property has a value of <"BY">.

### .GNUstepDefaults editing examples

These settings will give a fullscreen display of 800x600, about one third sound volume, reduced detail set to 'No', wireframe graphics set to 'Yes', and shader effects set to 'Simple':

```
{
    NSGlobalDomain =
    {
    };
    oolite.exe =
    {
        display_width = <"I800">;
        display_height = <"I600">;
        fullscreen = <"BY">;
        "reduced-detail-graphics" = <"BN">;
        "shader-effects-level" = <"I2">;
        volume_control = <"R0.26">;
        "wireframe-graphics" = <"BY">;
    };
}
```

And these settings will give a fullscreen display of 1400x1050, full sound volume, reduced detail set to 'No', wireframe graphics set to 'No', and shader effects set to 'Full':

```
{
    NSGlobalDomain = {
    };
    oolite.exe = {
        display_width = <"I1400">;
        display_height = <"I1050">;
        fullscreen = <"BY">;
        "reduced-detail-graphics" = <"BN">;
        "shader-effects-level" = <"I3">;
        volume_control = <"R1">;
        "wireframe-graphics" = <"BN">;
    };
}
```

There are quite a few other settings that can be used inside .GNUstepDefaults, some are:

```
"use-texture-lod-bias" = NO;
"splash-screen" = NO;
"mouse-control-in-windowed-mode" = YES;
```

For more information please refer to [http://wiki.alioth.net/index.php/Hidden\\_Settings\\_in\\_Oolite](http://wiki.alioth.net/index.php/Hidden_Settings_in_Oolite).

### Test Builds

Starting with Oolite 1.77 there will be two different versions of the game. A normal version without debugging tools and a slightly slower version with debugging options that can be used with the console. This test build version will be useful for oxp developers. The test builds have the following extra features:

You can use a console with test builds to directly type in Java Script commands.

While paused you can access the following debugging options:

<b>0</b>	Dump a list of all entities in the log-file.
<b>b</b>	Enables collision test debugging.
<b>c</b>	Enables octree debugging.
<b>d</b>	Enables all debug flags.
<b>s</b>	Enables shader debug messages.
<b>x</b>	Enables drawing of bounding boxes around all entities.
<b>n</b>	Disables all debug flags and displays HUD again.
<b>Left/Right</b>	Halve/Double Time Acceleration Factor

When pressing shift-F, the FPS display will show additional info, including a TAF indicator.

## Helpful Information

For more information on playing Oolite visit <http://www.oolite.org> .

Oolite Development Project Page at <https://developer.berlios.de/projects/oolite-linux> (for all platforms, including Macs and Windows)

Browse the Oolite Wiki at [http://wiki.alioth.net/index.php/Oolite\\_Main\\_Page](http://wiki.alioth.net/index.php/Oolite_Main_Page) .

Frequently Asked Questions at [http://wiki.alioth.net/index.php/Oolite\\_FAQ](http://wiki.alioth.net/index.php/Oolite_FAQ) .

Most Oolite xExpansion Packs (OXPs) are available at <http://wiki.alioth.net/index.php/EXP> .

For answers to questions about playing Oolite, customising Oolite and anything else Oolite related, post to the Oolite Bulletin Boards at <http://www.aegidian.org/bb> .

We are immensely grateful to all the people who have been testing Oolite and slowly bringing it towards perfection.

Thanks to all of you!

**Note: my email address for feedback is [AHRUMAN@OOLITE.ORG](mailto:AHRUMAN@OOLITE.ORG)**

**You can also report bugs and give feedback at <http://www.aegidian.org/bb>**

In the event this application crashes, please send an email to [oolite.bug.reports@gmail.com](mailto:oolite.bug.reports@gmail.com), and attach the crash log (found at `~/Library/Logs/CrashReporter/Oolite.crash.log` for the Mac version, `<Oolite installation folder>/oolite.app/Logs/Latest.log` for the Windows version and `~/Oolite/Logs/Latest.log` for the Linux version).

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Oolite is making use of various external open source libraries, some of them modified to fit certain requirements of the game. For more information about where to find the source code of those libraries, as well as information about the modifications required to make them build for Oolite, please refer to the file *ExternalLibrariesSourceCodeChanges.txt*, found inside the Doc folder of the game's source code distribution. Visit <https://developer.berlios.de/projects/oolite-linux> for details and Oolite's source code download.

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