



**Novel Games**

**Mars Lander Flash Game  
Customization Guide**

Version 1.0



## Novel Games

Web Site: <http://www.novelgames.com>

Support Email: [support@novelgames.com](mailto:support@novelgames.com)

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### Modification History

<i>Version</i>	<i>Date</i>	<i>Description</i>
1.0	2007-5-27	First Draft



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## Introduction

This document describes the source codes of Mars Lander game and the ways to customize the game.

In order to use the source code your computer should have Flash Professional 8 or above installed. You should also have basic knowledge of the Flash authoring environment, such as the steps to change a picture and the steps to change the value of a variable, etc.



## Directory Structure

The source codes are arranged in the following directory structure:

```
+
+-- lander.pdf (this file)
+-- common
|   +-- com
|       +-- novelgames
|           +-- flashgames
|               +-- common
|                   +-- MainDevelopment.as
+-- lander
    +-- lander.fla
    +-- lander.swf
    +-- lander.htm
    +-- com
        +-- novelgames
            +-- flashgames
                +-- lander
                    +-- Config.as
                    +-- other ActionScript .as files
```

To build the game, you should open lander\lander.fla in Flash 8 and then publish it. The file lander.swf in the same directory is the compiled swf file for your reference.

The file lander.htm contains sample HTML codes for you to use in your web site.

All the ActionScripts are arranged in class files put in the lander\com\novelgames\flashgames\lander folder.

Depending on what you'd like to customize, you will need to modify different files:



- 1) If you want to change the graphics and the sounds, then you should edit the fla file.
- 2) If you want to tune some parameters of the game, then you should edit the Config.as file.
- 3) If you want to add the support of high scores, the credits page, or the volume control buttons, then you should edit the MainDevelopment.as file.
- 4) If you want to change the behaviour of the game and such changes cannot be achieved by tuning the game parameters as in 2) above, then you should edit the ActionScript .as files.

We will discuss 2) and 3) in the next two sections.



## The Configuraton File (Config.as)

In this section we'll explain the parameters in Config.as and how they affect the behaviour of the game.

Parameter	Description
NOOFLEVELS	The number of levels
LANDER_GRAVITYACCELERATION	The acceleration of the lander due to gravity, in pixels per second squared
LANDER_ENGINEDOWNACCELERATION	The acceleration of the lander due to the down engine, in pixels per second squared
LANDER_ENGINELEFTRIGHTACCELERATION	The acceleration of the lander due to the left and right engines, in pixels per second squared
LANDER_MAXLANDSPEED	The maximum speed of the lander for the landing to succeed, in pixels per second squared
LANDER_FUEL	The total fuel of the lander
COLLIDE_CHECKSIZE	The step size (in pixels) of the lander for collision checking, the smaller this number, the more accurate the checking but the more time it takes
FUEL_DECREASERATE	The decrease in fuel for each millisecond the engines are used
FUEL_WINDECREASERATE	The decrease rate (in fuel units per second) the fuel will decrease at after the lander has landed successfully
MESSAGE_LEVELTIME	The number of milliseconds the level text will be shown for
MESSAGE_CLEARTIME	The number of milliseconds the clear text will be shown for
MESSAGE_WINTIME	The number of milliseconds the win text will be shown for
MESSAGE_GAMEOVERTIME	The number of milliseconds the game over text will be shown for
SCORE_FUEL	The score awarded for each unit of



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## Optional Functions (MainDevelopment.as)

If you want to support high scores then you'll need to modify the following 2 functions in this file:

```
public function showHighScores():Void {  
    trace("showHighScores()");  
}  
  
public function showEnterHighScore(score:Number):Void {  
    trace("showEnterHighScore(" + score + ")");  
}
```

The `showHighScores` function will be called if the high scores button is clicked.

The `showEnterHighScores` function will be called when the game has finished and the score of the user has been calculated.