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Redline User Manual

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This document is meant to provide a small user manual for Redline. If you're new to the game, just give it a try - it should be mostly self-explanatory. If you want to make most of the game, this document may teach you an interesting fact or two about playing Redline.

Contents

1   System Requirements

- Mac OS X 10.2.8 or newer. (10.3 recommended)

- 300 MB of free Hard Disk Space.

- at least 16MB of Video RAM on your graphics card (32MB or more recommended).

- at least 512 MB of system memory.

- runs native on Intel or PowerPC based Macs.

- 800 MHz CPU or faster recommended.

2   Game Types

Simulation vs. Arcade Modes

The game has three different playing modes in the Quick Race, Time Trial and Multiplayer game types: Simulation, Arcade and Turbo Arcade. These are very different from each other, and are essentially different games!

Simulation Mode

Simulation mode tries to simulate every aspect of a car's handling as realistically as possible. Different cars in the game will behave quite differently in different situations according to many factors, including, but not limited to, drivetrain setup, suspension and mass distribution. This mode is where Redline's physics engine really shines, but it is not the most forgiving way to play, so if you're not a gearhead, the other game modes may be more fun for you. To learn more about car physics, see the chapter called "Basic Introduction to Car Physics".

Arcade Mode

Arcade mode focuses on fun game play, but doesn't always pay close attention to the laws of physics. In arcade mode all cars handle the same and differ only in their acceleration and top speeds.

Turbo Arcade Mode

Turbo Arcade Mode is the same as arcade mode, only faster! So long as we're breaking the laws of physics in arcade mode, why not spice it up a little?

Quick Race

Allows you to select a car and a track, and race it against computer opponents of your choice. Initially you can only race with the Mini, but as you beat the challenges you'll unlock the other cars.

Time Trial

Race against the clock trying to beat your own track records (racing against a ghost car repeating your best lap), and make it onto the Internet-driven world list! The game will display the world record lap for that track in your HUD while playing. To see other records go to the Redline website and browse the record list sorted by track, car and game mode.

Multiplayer

Open Multiplayer mode and you'll be presented with the Multiplayer lobby. There you can chat with other players, join games, or start your own games for others to join. Find and challenge other Redline players, or show your friends who's the real champion of the track!

Challenges

In Challenge mode you get to try some driving exercises to learn the handling characteristics of different cars in simulation mode. As you obtain medals, you unlock new cars.

3   Setup Options

Select "Options" from the main menu, to set Redline to your personal preferences.

Gameplay

Use this option to affect the look and feel of the game. For a description of an option, move the cursor over that option.

Controls

Use this option to set your key and or joystick controls to your liking.

Analogue Controls

Use this option to set up an analogue input device such as a steering wheel or analogue gamepad. Select the axis to control steering and acceleration/brakes. If your device always steers in only one direction, try selecting "Calibrate Axis" to fix it. If your device supports force feedback, you can also adjust that here.

Multiplayer Taunts

Want to send a quick message to other players in Multiplayer mode, but don't have time to type while racing? Use this option to set up five quick taunts which can be sent to your opponents with a single keystroke.

Video

Use this option to change the display of the game. Use this to make the game run as smoothly as possible on your machine, while still having the best possible graphics. For a description of an option, move the cursor over that option. Redline will also adjust some settings dynamically during game play to guarantee the best balance between performance and eye-candy. To switch between full screen and windowed modes without accessing this option, use the command-f key combo during the game. *Note: Windowed mode is currently unavailable on Mac OS X 10.2.8.*

Audio

Use this option to change the game's audio volume and set up keys to control iTunes music playback while playing.

4   Advanced Topics

Racing with more than six players

Redline supports twelve cars in a race, but this is disabled by default. To enable this option, go the Gameplay Options screen, and select the "Allow big races" option.

It requires a great deal of graphics power to run smoothly with all twelve cars on screen, and a very fast network for all players to run multiplayer with more than six cars (ideally a local area network connected by Ethernet) in a race. Especially the host needs quite a lot of bandwitdh, more than is typically found in today's home DSL uplinks. This is why it's disabled by default - we don't want to frustrate new players with a bad gaming experience.

Plug-ins

Redline can be extended with new cars or maps using plug-ins. To install a plug-in, just drop it into the Plug-Ins folder inside the Redline folder before launching the game. For a plug-in to be used in a multiplayer game, it must be installed on each player's machine. If you'd like to make plug-ins of your own, keep an eye on the Redline website and Ambrosia forums for information and tools to create plug-ins.

Network games and NAT

If you're playing multiplayer games on the Internet, you might experience connection problems related to NAT (*Network Address Translation*). NAT'ing usually means that a computer is not directly connected to the Internet, but shares a connection with several other computers on the same network. Typically some kind of *router* is responsible for sharing the connection. Depending on how the router is set up, you may or may not be able to play online games of Redline.

Redline should inform you about these kinds of problems by displaying a message about your router set up when you try to host or join a game.

If your computer is behind a NAT, and you have access to your router setup, you may be able to change it in order to get better performance for Redline in online games. Try forwarding port 33333 to the machine you want to use for playing Redline. See your router's manual for info on how to do this.

Saving Replays

If you want to save a replay for re-watching it later or for sharing it with other people, you can by hitting *Command-Option-S* during the replay. You should hear a beep. This will create a file on your hard disk named like this: `Thu Nov 24 18-22-48.redlog`. To play back this file, place it into your plug-ins folder before launching Redline. In the main menu screen, hit *R* to get a list of replay files to play back.

5 Version History

- **1.0** (September 2006):
  initial release.

6 Basic Introduction to Car Physics

Most things written in this section, especially the parts about over- and understeering, only apply to Simulation mode. This also oversimplifies things a great deal. If you are interested in more

detailed reading and aren't afraid of some advanced math, try the *Physics of Racing* series by Brian Beckman (`http://phors.locost7.info/contents.htm`).

The Racing Line

The racing line is the ideal (read: fastest) way to get around a track. Let's take a look at a simple 90-degree corner:
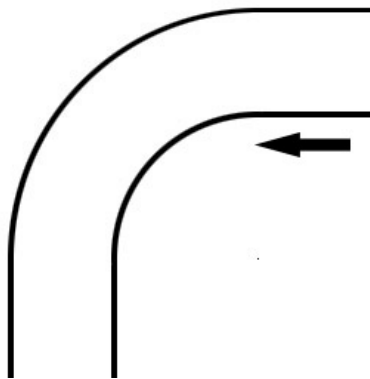
What is the fastest way to get around this corner? The fastest way around any corner is the turn with the biggest radius. In the case of this corner, that is *outside-inside-outside*:
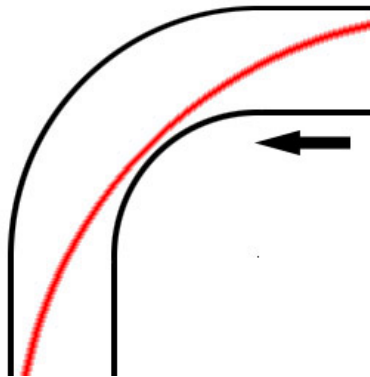
However, in order to get the best lap times for a whole track, you need to take a look at what comes after the corner. In many cases the fastest way around a particular corner is not the ideal racing line for the track. If a corner is followed by a long straight, it may be more important to exit the corner at a high speed. This line (*slow-in, fast-out*) gives you more space for accelerating out of the corner, and while taking a bit longer to get around the corner, it will yield a higher final

speed when exiting, which might gain you the extra tenth of a second needed to win the race.
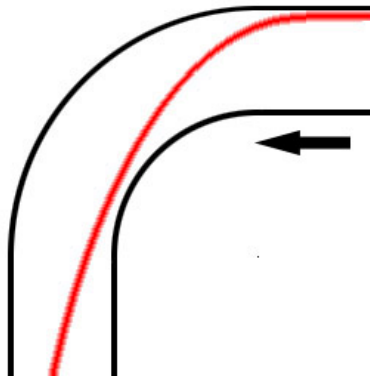
Oversteering and Understeering

When you move around a corner too fast, a car tends to lose traction and starts to slide away. If the rear end of the car breaks out, sending the car into a spin, this is called *oversteering*. If the front wheels break out, pushing the car straight ahead out of the corner, this is called *understeering*. Different cars tend to have a bias towards either under- or oversteering.

A very important factor is whether the car is rear or front wheel driven (*RWD* or *FWD*). Since a powered wheel needs to transfer the accelerating additional to the cornering force, it will loose traction more easily then a non-powered wheel (which only transfers the cornering force) when you push the throttle. Because of this RWD cars tend to oversteer, whereas FWD cars tend to understeer when accelerated. Generally speaking, FWD cars feel a bit easier to drive, since they don't tend to spin out as easily. RWD cars may perform better at corners, and are capable of more acceleration due to better traction on the powered wheels.

Another factor can be the car's mass distribution. A car with more weight on the front axle (such as typical passenger cars, which have the engine in front) will tend to understeer, whereas a car with more weight on the rear axle (such as sports cars with the engine in the rear) will tend to oversteer.

If you find your car understeering too much, you can try to force the rear to break out by pulling the handbrake (which applies to the rear wheels only). If you drive a powerful RWD car, you can also slide the rear end around corners with the throttle, in a technique known as *power-sliding*. When you play Redline using the keyboard, you will have to use the "Full Throttle" key to achieve this as the normal throttle key has a built in traction control to make the game more playable.

7   Links

Some useful links for Redline players. Yes, they are clickable.

- **Ambrosia Software**
  `http://www.AmbrosiaSW.com`
  The company behind Redline. Check out Ambrosia's other software as well.

- **Redline Player's Guide**
  `http://www.macgamer.net/games/redline/`
  Independent site with tips and strategies on playing Redline, made by Taylor Shields.

- **jonas echterhoff's homepage**
  `http://www.jonasechterhoff.com/`
  The author's web site with some more mac shareware games.

8   Registration and Contact Info

Why should I register my copy of Redline?

Ambrosia offers software on a "try before you buy basis". Supporting us by registering our products – assuming you like them – is the only way you can ensure that we will continue to produce more high quality software.

The unregistered version of Redline is limited to four cars, two tracks, and three challenges. In multiplayer games, your name will be prefixed by a "DEMO" icon. To unlock all features in Redline and remove the DEMO icon, you have to register your copy of Redline.

Beyond that, you will receive a License Code that removes the shareware notices and personalizes Redline with your name, giving you a legal copy of Redline on your Macintosh.

How much does Redline cost?

Redline costs $25 US Dollars.

How do I register my copy of Redline?

Registering is a two step process. First you need to purchase a License Code, and then you need to enter the License Code into the software.

How do I purchase a License Code?

Launch Redline, click on the "Register" button, and then follow the directions given.

Once I have purchased my License Code, how do I enter it into the software?

To enter your License Code, simply double-click on Redline to launch it, and click on the same "Register" button you used to purchase the License Code.

Instead of selecting Register, click on the second option - Enter License Code.

You can also access the Register application from within the Redline folder. Open the Redline folder, double click on the Register Redline application, click the right arrow, and then select the second option - Enter License Code.

Enter the License information exactly as it was sent to you, and you are all set!

I have lost my License Code, how can I get it replaced?

We have tried to make it as easy as possible to retrieve your License Code.

You can go to the lostcodes section of our Support page `http://www.ambrosiasw.com/lostcodes/`. Enter your email address, and every License Code in our database associated with that address will be sent to that address within seconds.

If you no longer have access to that email address, you can contact `lostcodes@AmbrosiaSW.com` for help. Please include your License information (Licensee Name, and number of copies), the product(s) in question, the email address used with the order, if you remember it, and the postal address used at the time of the order and we will return an updated License Code.

If you have any further questions regarding Redline, please consult the online FAQs at `http://www.ambrosiasw.com/support/faqs/`

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Ambrosia Software, Inc. is a small company dedicated to bringing you quality software, excellent support, and innovative ideas... all at a reasonable cost. We give you commercial-quality software at a fraction of the price, with the added convenience of being able to try the software out before you buy it.

Ambrosia distributes software on numerous electronic information services, as well as via user groups and approved public domain distributors. Of course, you can always obtain our products directly from us as well. Ambrosia creates personal productivity tools that make using your computer a more enjoyable experience, as well as anti-productivity tools (games), which make your computer just plain fun.

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