

Running a Test Session

Getting out on the track and taking a test drive is the best and most immediate way for you to discover how the tweaks you make in the garage affect your car's performance on the racetrack.

The most important thing to remember when you're running test sessions and trying out different car setups is to make one or two adjustments at a time and then head out onto the track for a test drive. If you make too many changes before each test lap, it can be difficult to sort out cause and effect.

Be sure to take advantage of the Race Engineer, a special feature in the garage that helps you isolate specific car handling characteristics and identify adjustments to improve car (and driver!) performance.

Important: When you find a car setup you like, don't forget to save it; otherwise, you will lose the custom tweaks and settings you worked so hard to develop!

To test your car setup

- 1 To load the car setup that you want to use as a starting point, on the **Garage** screen, in the **Current Settings** list, click the car setup you want.
 - **Tip:** Use the <u>status area</u> in the upper right corner of the screen to see the name of the track associated with the currently listed settings.
- 2 Make any necessary tweaks and adjustments to the current car setup. **Tip:** Try to limit the number of tweaks you make between each test lap. Otherwise, you may have difficulty determining which adjustment is affecting a particular behavior.
- 3 When you are ready to hit the track, click Test Drive.
- When you are ready to return to the garage, press ESC. CART Precision Racing displays the Pause screen.
- 5 To return to the garage and continue tweaking, click **Garage**.
- To get professional advice about your car's performance during your most recent test drive around the track, click Race Engineer.
 - **More Information:** Click the audio icons throughout the garage to hear the Race Engineer comment on specific garage items. If you can't hear the audio, see <u>If You Don't Hear Any Sound</u>. Also, to find out more about an option, place the mouse pointer over the option and click the right-mouse button.
- 7 When you're ready to test your most recent settings, click **Test Drive**.
 The test session is over when you press **ESC**, click **End Race** on the **Pause** screen, or select a different <u>session</u> to drive.



Types of Car Setups

The garage includes recommended default settings for each of the track types featured in the PPG CART World Series, including short ovals, superspeedways, <u>road courses</u>, and temporary street circuits. Whichever track you choose, you can count on a good default car setup that can make you a contender on the track or serve as a starting point for an innovative custom car setup of your own design.

Whenever you choose a specific track to drive on the **Tracks** or **Races** screen, the default setup for that track type is automatically loaded in the garage.

- Short Ovals Default settings for this track type include aerodynamic settings that offer a "middle of the road" approach to downforce, high wing angle settings, higher tire pressures, and negative camber settings for the outside tires (this improves cornering performance on left-hand turns). The settings also include a locked differential, which is only used on short ovals and superspeedways. Stagger is also used on the rear tires to make the right rear tire larger in diameter than the left rear, which makes it easier to turn through corners. The short oval tracks are Miami, Nazareth, Rio de Janeiro, St. Louis, and Milwaukee.
- **Superspeedways** For this fast track type, your car is automatically equipped with special small front and rear superspeedway wings. Low wing angle settings are used in conjunction with these small wings to reduce drag, which is always a major goal on faster tracks. The superspeedway tracks are Michigan and Fontana.
- Road Courses Default settings for this type of track include high 3rd spring rates, which allow you to set a lower static ride height for the car without having to worry about bottoming out on the straights. A stiffer 3rd spring rate means that you won't be making sparks or bouncing up and down as much when you tackle the corners and elevation changes common to road courses. Keep in mind that the bumpiness of the track plays an important part in deciding whether to run stiff springs and anti-roll bars. For road courses and street circuits, a limited-slip differential is used to automatically transfer some of the power from a wheel that is losing traction to the wheel on the other side of the car. The road courses are Portland, Mid-Ohio, Elkhart Lake, and Laguna Seca.
- Temporary Street Circuits Default settings for temporary street circuits don't include any front or rear anti-roll
 bars. Slower tracks, like the street circuits, call for softer spring rate settings, and, because stability at high
 speeds is not an issue (unlike road courses), no anti-roll bars. The street circuits are Australia, Long Beach,
 Detroit, Cleveland, Toronto, and Vancouver.



Finding a Car Setup That Works

Finding the perfect combination of aerodynamics, suspension, tires, engine, and driver is the challenge faced by every CART racing team. CART Precision Racing offers the same racing expertise and technical resources that real-world racing teams rely on to give them the winning edge.

- The Race Engineer Penske designer, Nigel Bennett, brings a wealth of knowledge and over 15 years of Indy car race engineering experience to the Race Engineer feature of the garage. By posing a series of questions focused on isolating specific car-handling characteristics, the Race Engineer can recommend changes in your car setup to improve your on-track performance. If you like, the Race Engineer even makes the changes for you. On the Garage screen, click Test Drive to get onto the track quickly and test your latest tweak.
- **Pi Analysis** With the CART Precision Racing Pi Analysis feature, collect and analyze the same performance data the professionals study. Save the Pi data from your hot/lap on each track and use it to compare your performance from one session to the next. Review graphs that chart your throttle and brake inputs, mph, RPMs, and gears, as well as lateral and inline acceleration and steering angle. You'll see every move you made presented graphically on the screen, complete with a car location map and instant replay so that you can match the charted data with your exact location on the track.
- Racing School Racing School provides instruction on racing fundamentals and includes a brief introduction to
 the physics of racing. Find out why, when it comes to racing, "slow down to go faster" is not the oxymoron you
 may think it is. Learn about the advantages of the late apex approach, and get valuable advice about cornering,
 braking, and passing techniques. Racing School features 16 multimedia movies narrated by three-time CART
 World Champion and Indy 500 winner, Bobby Rahal. The movies communicate key racing concepts through
 animations and real-world video footage. You'll find Racing School on the Help menu and on the game's Start
 screen.



Creating and Saving a Custom Car Setup

Once you've tweaked and tuned your car in the garage to create the perfect car setup for a specific track or racing situation, you can save those settings so that you feel confident and consistent every time you race under those conditions. You can also use a custom car setup for one track as a handy starting point for creating a winning setup for a similarly configured track.

Note: Unless you specifically save the custom car setups you create, those settings are not saved when you leave the garage or switch among tracks.

To create and save a custom car setup

- To load the default or custom car setup you want to use as a starting point, on the **Garage** screen, in the **Current Settings** list, click the car setup you want.
 - **Tip:** Use the <u>status area</u> in the upper-right corner of the screen to see the name of the track associated with the currently listed settings.
- 2 Make any necessary tweaks and adjustments to the current car setup. **Tip:** Try to limit the number of tweaks you make between each test lap. Otherwise, you may have difficulty determining which adjustment is affecting a particular behavior.
- When you are satisfied with your settings, click **Save Settings**. The **Save As** dialog box appears.
- In the **File Name** box, type a name for this custom car setup.

 You do not need to type a file name extension. Custom car setup files automatically use the file name extension .gar.
 - **Tip:** If you are creating custom car setups for a specific track, it's a good idea to include the track name in the file name. For example, your setup for Cleveland might be named Cleveland.gar.
- 5 To save the file and return to the **Garage** screen, click **Save**.



Opening a Previously Saved Custom Car Setup

Once you've created and saved a custom car setup, you can use it on any of the 17 tracks in the PPG CART World Series.

To open a previously saved car setup

On the **Garage** screen, in the **Current Settings** list, click the setup that you want to use.



Deleting a Custom Car Setup

If you've created a custom car setup that you no longer use, you can delete the file and remove it from the list of available car setups.

Important: Think twice before you delete the file. Replicating a deleted custom car setup could take a lot of tweaking, testing, and track time!

To delete a custom car setup

- On the **Garage** screen, in the **Current Settings** list, click the setup that you want to delete. **Note:** You cannot delete the **<Default>** and **<Custom>** settings.
- 2 Click Delete Settings.
- 3 To confirm that you want to delete this file, click Yes.



Garage: Aerodynamics Options Explained

Front and Rear Gurney Flaps

Default Settings

Short ovals: 0.0" (front), Not allowed (rear)

Superspeedways: 0.0" (front), 0.0" (rear)

• Street & road courses: 0.0" (front), 0.0" (rear)

A gurney flap, also known as a "wicker bill," is an aluminum edge or flap that is attached to the trailing edge of a car's wing. When you increase the size of this flap, you increase the downforce acting on that wing. When you decrease its size, you decrease the downforce and, therefore, the drag acting on that wing. Decreasing the size of the gurney flap can make your car faster but may have a negative effect on your car's handling. It's important to take a test drive after making even the slightest adjustment to a gurney flap because it has the potential to severely affect your car's handling characteristics.

Front and Rear Wing Angles

Default Settings

Short ovals: 15 degrees (front), 12 degrees (rear)

Superspeedways: 0 degrees (front), 0 degrees (rear)

Street & road courses: 15 degrees (front), 12 degrees (rear)

The degree of angle of the wings at the rear of the car affects the amount of downforce working on your car. The front wing angle setting is used to create aerodynamic balance with the rear wing. The front wing has almost no effect on drag, which is generated almost solely by the rear wing. A low degree of rear wing angle gives you less downforce and therefore faster speeds on the straightaways, but you have less grip going through corners. A higher degree of rear wing angle greatly reduces fuel mileage but gives you good handling through slow corners.

The front wings used on the two superspeedway tracks, Michigan and Fontana, are smaller than the wings used for other track types. On superspeedways, you need minimal downforce and minimal drag because the car is traveling at sustained speeds of up to 200 mph or more. These small wings act as a trimming device since the majority of the downforce on superspeedways is generated by the design of the underside of the body of the car.

Front and Rear Static Ride Heights

Default Settings

Short ovals: 1.75" (front), 3.0" (rear)

Superspeedways: 1.75" (front), 3.0" (rear)

Street & road courses: 1.75" (front), 3.0" (rear)

Static ride height refers to the distance between the bottom of the car and the road. In general, the static ride height of the front of the car should be approximately 1 inch closer to the ground than the rear of the car because aerodynamics and drag play such a crucial role at the front of the car. For permanent road and temporary street courses, static ride heights are higher than those for short ovals and superspeedways due to uneven surfaces and variable surface heights.



Making Adjustments While You're Driving

Whenever you're out on the track, you can make tweaks and adjustments to your car setup as you're driving. The controls and settings you can adjust are listed below.

Brake bias (-)

Press 1 to move the brake bias toward the rear of the car while you are driving. If your front tires are locking up too much, moving the brake bias toward the rear of the car puts more pressure on the rear brakes, which should help prevent front tire lockup.

• Brake bias (+)

Press 2 to move the brake bias toward the front of the car as you're driving. If your rear tires are locking up too much, moving the brake bias toward the front of the car puts more pressure on the front brakes, which should help prevent rear tire lockup.

• Fuel Knob (-)

Press **3** to "lean" the fuel mixture as you're driving, which results in more efficient gas mileage but decreased acceleration power. If you are driving with **Fuel Consumption** (**Realism** option) turned on, running with a leaner fuel mixture will give you great gas mileage, but you may not have the get-up-and-go you need to overtake an opponent.

Fuel Knob (+)

Press 4 to richen the fuel mixture as you're driving, which results in increased power but less efficient gas mileage. If you are driving with **Fuel Consumption** (**Realism** option) turned off, you can crank the fuel knob to its maximum to drive with maximum power. If you are driving with **Fuel Consumption** turned on, you may have to pit earlier than expected due to less efficient gas mileage.

Weight Jack (left)

Press 7 to lessen the amount of vertical load working on the right front tire.

Weight Jack (right)

Press 8 to raise the spring platform to increase the amount of vertical load working on the right front tire. The weight jack is used by most drivers on ovals to correct oversteer due to track conditions or a poor car setup. By increasing the vertical load on the right front tire, you can induce understeer to counteract the oversteer.

Roll bar (front)

Press **9** to adjust the stiffness of the front anti-roll bar from within the car. This control cycles through four settings, with 0 being the softest and 4 being the most stiff. If your car is oversteering, you might try increasing the stiffness of the front anti-roll bar. If your car is understeering, you might try softening the front anti-roll bar.

• Roll bar (rear)

Press **0** to adjust the stiffness of the rear anti-roll bar from within the car. This control cycles through four settings, with 0 being the softest and 4 being the most stiff. If your car is oversteering, you might try softening the rear bar. If it feels like you've got good traction, you can also try stiffening the rear anti-roll bar.

Boost knob (-)

Press **5** to decrease boost pressure, which results in a decrease in available horsepower but more efficient gas mileage. If you are driving with **Fuel Consumption** (**Realism** option) turned on, running with a lower boost setting will give you great gas mileage, but you may not have the acceleration power you need to overtake an opponent.

Boost knob (+)

Press 6 to increase boost pressure, which results in an increase in available horsepower. When you increase boost pressure, you also increase fuel consumption. If you are driving with Fuel Consumption (Realism option) turned off, you can crank the boost knob to its maximum to drive with maximum power. If you are driving with Fuel Consumption turned on, you may have to pit earlier than expected due to less efficient gas mileage.

{button ,AL(`setup')} Related Topics



Multiplayer Racing Overview

You can race against other players over a Local Area Network (<u>LAN</u>) connection, via a modem connection, via a <u>serial connection</u>, or via an Internet connection.

When you connect via a one-to-one modem connection or via a serial connection, two people on two different computers can race head-to-head.

When you play over a LAN, you can compete with up to seven other players.

When you race players over the Internet (for most people, their Internet connection is via modem), you can compete with up to seven other players, depending on the type and speed of your connections. Internet play can be accomplished by using a matchmaker service or by players sharing their <u>IP addresses</u> to make direct connections via the Internet to each other's computers.

You can either host or join a race.

Several things to keep in mind about multiplayer racing:

- Once the race is started, there's no going back! You cannot pause the game or fire up Gameplay Help.
- You cannot race a <u>Quick Race</u> in multiplayer racing.
- Agree on who is hosting the race ahead of time and give the host enough lead time to set up the race.
- When hosting a race, make sure you set the following options: type of race, current session, and current track.
 As host, you can also set which Realism options are turned on for all players for all on-track sessions, although individual players can turn Head Panning (Realism option) on and off while they're racing by pressing the APOSTROPHE (') key.
- If a player quits while a race is in progress or otherwise disconnects his or her computer, or the modem connection drops out, CART Precision Racing displays a message indicating that the player has left the race. If the host quits while a race is in progress or otherwise disconnects his or her computer, the player who joined the game first (the first player to join, after the host) becomes the new host.
- Because only one car can qualify at a time, you won't see other cars on the track during Friday and Saturday qualifying sessions.

{button ,AL(`findingip;misctips;chatting;viewingmessages')} Related Topics



Hosting a Race Via a One-to-One Modem Connection

If you have a direct, one-to-one modem connection to another player, you can <u>host</u> a single race weekend or full race season race.

Note: When racing in multiplayer mode, you can't race a Quick Race.

CART Precision Racing requires, at a minimum, a 28.8 Kbps modem for all participants.

Important: When you host a race, the player joining you must dial up your computer and establish a modem connection before the race can begin. It is a good idea to plan ahead. Make sure your opponent knows you will be the host. Agree that you will get a few moments head start to begin setting up the game.

When you host a race, set the following options for the multiplayer session: type of race, current session, current track, and **Realism** options (except for **Head Panning**, which all players can control for themselves while driving). For yourself, set the following options: current player, driver and car, skill level, and driving aids.

To host one other player via a modem

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Host.
- 4 In the **Give Your New Session A Name** box, type a descriptive name for the multiplayer race session.
- In the **Select A Network Protocol** list, click **Modem Connection For DirectPlay**, and then click **OK**. Precision Racing displays the **Modem Connection** dialog box.
- 6 In the **Modem Connection** dialog box, click **Answer**.
 - **Note:** You may have to wait while your opponent establishes a modem connection.
 - When the modem connection is established, Precision Racing displays your opponent's name and player information under **Player Information** on the **Multiplayer** screen. Your name is displayed with the (Host) designation next to it.
- Set the following options for the multiplayer session: type of race, current session, current track, and **Realism** options (except for **Head Panning**). For yourself, set the following options: current player, driver and car, skill level, and driving aids.
 - **Note:** During a multiplayer game, you can exchange comments on the race, words of encouragement, or even discuss the current track conditions with your opponents. On the **Multiplayer** screen, type your message in the **Message** box, and then click **Send** to send your message. Use the **Send To** box to specify whether you want to send your message to a specific player or to all players in the game.
- 8 Click **Ready**. The race is on!

{button ,AL(`joiningmodem;chatting;viewingmessages;misctips')} Related Topics



Joining a Race Via a One-to-One Modem Connection

When you join a race via a one-to-one modem connection, the <u>host</u> selects the type of race, while you select a driver and car.

CART Precision Racing requires, at a minimum, a 28.8 Kbps modem for all participants.

Important: To join, you dial up the host computer. It is a good idea to plan ahead. Call one another and agree on who is hosting and give the host a little head start to set up the game.

When you join a race, set the following options: current player, driver and car, skill level, and driving aids. The host sets the **Realism** options for all players, but you can turn **Head Panning** on and off while you're driving by pressing the **APOSTROPHE** (') key.

To join a race via a one-to-one modem connection

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Join.
- In the **Select The Network Protocol** list, click **Modem Connection for DirectPlay**. Precision Racing displays the **Modem Connection** dialog box.
- 5 In the **Phone Number** box, type the telephone number of the computer that is hosting the race, and then click **Connect**.
 - Precision Racing displays the Modem Status dialog box.
 - When the modem connection is established, the host's game is displayed in the Select A Session To Join list.
- 6 In the Select A Session To Join list, click the host's game, and then click OK.
- 7 Set the following options: current player, driver and car, skill level, and driving aids.
 - **Note:** During a multiplayer game, you can exchange comments on the race, words of encouragement, or even discuss the current track conditions with your opponents. On the **Multiplayer** screen, type your message in the **Message** box, and then click **Send** to send your message. Use the **Send To** box to specify whether you want to send your message to a specific player or to all players in the game.
- 8 Click **Ready**; you're ready to race!
 - When you click **Ready**, Precision Racing displays your name and player information on the **Multiplayer** screen under **Player Information**. When the host clicks **Ready**, the race begins.
 - **Note:** If the host isn't ready to begin the race, Precision Racing displays the **Not Ready** button instead of the **Ready** button.
 - During the race, you can change your **Driving Aids** settings to suit race-day conditions as they unfold; to change your **Driving Aids** settings on the fly, press **F2**.

{button ,AL(`hostingmodem;chatting;viewingmessages;misctips')} Related Topics



Hosting a Race Via a Serial Connection

If you have a serial connection to another player, you can host a single race weekend or full race season race.

Note: When racing in multiplayer mode, you can't race a Quick Race.

CART Precision Racing requires, at a minimum, a 28.8 Kbps serial connection for both participants.

Important: When you host a race, you and the player joining you must have a serial cable connecting your computers. It is a good idea to plan ahead. Make sure your opponent knows you will be the host. Agree that you will get a few moments head start to begin setting up the game.

When you host a race, set the following options for the multiplayer session: type of race, current session, current track, and **Realism** options (except for **Head Panning**, which all players can control for themselves while driving). For yourself, set the following options: current player, driver and car, skill level, and driving aids.

To host a race via a serial connection

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Host.
- 4 In the **Give Your New Session A Name** box, type a descriptive name for the multiplayer race session.
- In the **Select A Network Protocol** list, click **Serial Connection For DirectPlay**, and then click **OK**. Precision Racing displays the **Serial Connection** dialog box.
- 6 Under Serial Port Settings, check to make sure the settings are correct for your serial connection, and then click OK.
 - On the **Multiplayer** screen under **Player Information**, Precision Racing displays your name with the (Host) designation next to it.
- Set the following options for the multiplayer session: type of race, current session, current track, and **Realism** options (except for **Head Panning**). For yourself, set the following options: current player, driver and car, skill level, and driving aids.
 - **Note:** During a multiplayer game, you can exchange comments on the race, words of encouragement, or even discuss the current track conditions with your opponents. On the **Multiplayer** screen, type your message in the **Message** box, and then click **Send** to send your message. Use the **Send To** box to specify whether you want to send your message to a specific player or to all players in the game.
- 8 When your opponent's name is displayed under Player Information, click Ready. The race is on!

{button ,AL(`joiningserial;chatting;viewingmessages;misctips')} Related Topics



Joining a Race Via a Serial Connection

If you have a serial connection to another player, you can join a single race weekend or full race season race.

CART Precision Racing requires, at a minimum, a 28.8 Kbps serial connection for both participants.

Important: When you join a race, you and the host must have a serial cable connecting your computers. To join, you make a serial connection to the host computer and wait for the host to set up the racing event. It is a good idea to plan ahead. Agree on who is hosting and give the host a little head start to set up the game.

When you join a race, set the following options: current player, driver and car, skill level, and driving aids. The host sets the **Realism** options for all players, but you can turn **Head Panning** on and off while you're driving by pressing the **APOSTROPHE** (') key.

To join a race via a serial connection

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Join.
- 4 In the Select The Network Protocol list, click Serial Connection For DirectPlay. Precision Racing displays the Serial Connection dialog box.
- 5 Under **Serial Port Settings**, check to make sure the settings are correct for your serial connection, and then click **OK**.
- 6 Under **Select A Session To Join**, click the host's race, and then click **OK**.
- 7 Set the following options: current player, driver and car, skill level, and driving aids.

 Note: During a multiplayer game, you can exchange comments on the race, words of encouragement, or even discuss the current track conditions with your opponents. On the Multiplayer screen, type your message in the Message box, and then click Send to send your message. Use the Send To box to specify whether you want to send your message to a specific player or to all players in the game.
- 8 Click Ready. It's race time!
 - When you click **Ready**, Precision Racing displays your name and player information on the **Multiplayer** screen under **Player Information**. When the host clicks **Ready**, the race begins.
 - **Note:** If the host isn't ready to begin the race, Precision Racing displays the **Not Ready** button instead of the **Ready** button.
 - During the race, you can change your **Driving Aids** settings to suit race-day conditions as they unfold; to change your **Driving Aids** settings on the fly, press **F2**.

{button ,AL(`hostingserial;chatting;viewingmessages;misctips')} Related Topics



Hosting a Race Via a LAN Connection

If you have a <u>LAN</u>, you can use either the <u>IPX</u> or the <u>TCP/IP</u> connection protocol to <u>host</u> a race. The connection protocol you should use depends on which protocols are installed on your machine.

Note: When racing in multiplayer mode, you can't race a Quick Race.

The race you host can be against one or up to a maximum of seven other players.

Important: When you host a race, the players joining you must establish connections before the race can begin. It is a good idea to plan ahead. Call one another, agree on the connection protocol type you'll use, and make sure your opponent(s) know(s) you will be the host and what you will call the game session. Agree that you will get a few moments head start to begin setting up the game.

When you host a race, set the following options for the multiplayer session: type of race, current session, current track, **Realism** options (except for **Head Panning**, which all players can control for themselves while driving). For yourself, set the following options: current player, driver and car, skill level, and driving aids.

To host a race via a LAN connection

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Host.
- 4 In the Give Your New Session A Name box, type a descriptive name for the multiplayer race.
- In the Select A Network Protocol list, click IPX Connection For DirectPlay, and then click OK.

 Note: If you have TCP/IP protocols loaded for use over your LAN, you can also connect via Internet TCP/IP Connection for DirectPlay.
 - On the **Multiplayer** screen, under **Player Information**, your name is displayed with the (Host) designation next to it
 - Note: You may have to wait while your opponent(s) establish connection(s).
- 6 Set the following options for the multiplayer session: type of race, current session, current track, and **Realism** options (except for **Head Panning**). For yourself, set the following options: current player, driver and car, skill level, and driving aids.
 - **Note:** During a multiplayer game, you can exchange comments on the race, words of encouragement, or even discuss the current track conditions with your opponents. On the **Multiplayer** screen, type your message in the **Message** box, and then click **Send** to send your message. Use the **Send To** box to specify whether you want to send your message to a specific player or to all players in the game.
- When the names of your opponents are displayed under **Player Information**, click **Ready** and let the race begin! When the host clicks **Ready**, the race begins.

Important: If you don't see the other players' cars on the track while racing, check the frame rate of your IPX connection. In **Control Panel**, click **Network**. In the **Network** dialog box, select your IPX setting, and then click **Properties**. Click the **Advanced** tab. Under **Property**, click **Frame Type**. Under **Value**, click **Ethernet 802.2**.

{button ,AL(`joiningLAN;chatting;viewingmessages;misctips')} Related Topics



Joining a Race Via a LAN Connection

If you have a <u>LAN</u>, you can either use the <u>IPX</u> or the <u>TCP/IP</u> connection protocol to join a race. The connection protocol you should use depends on which protocols are installed on your machine.

You can join one or up to seven other players in a race that takes place via a LAN connection.

Important: When joining a race via a LAN connection, it is a good idea to plan ahead. Call one another. Agree on who is <u>hosting</u>, what connection protocol to use, and what the name of the game session will be. It's also a good idea to give the host a little head start to set up the game.

When you join a race, set the following options: current player, driver and car, skill level, and driving aids. The host sets the **Realism** options for all players, but you can turn **Head Panning** on and off while you're driving by pressing the **APOSTROPHE** (') key.

To join a multiplayer race via a LAN connection

- 1 On the navigation bar, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Join.
- 4 In the Select The Network Protocol list, click IPX Connection For DirectPlay.
 Note: If you have TCP/IP protocols loaded for use over your LAN, you can also connect via Internet TCP/IP Connection for DirectPlay.
- 5 In the Select A Session To Join list, click the name of the game session you want to join, and then click OK.
- 6 Set the following options: current player, driver and car, skill level, and driving aids.

 Note: During a multiplayer game, you can exchange comments on the race, words of encouragement, or even discuss the current track conditions with your opponents. On the Multiplayer screen, type your message in the Message box, and then click Send to send your message. Use the Send To box to specify whether you want to send your message to a specific player or to all players in the game.
- 7 Click Ready. It's race time!
 - When you click **Ready**, Precision Racing displays your name and player information on the **Multiplayer** screen under **Player Information**. When the host clicks **Ready**, the race begins.
 - **Note:** If the host isn't ready to begin the race, Precision Racing displays the **Not Ready** button instead of the **Ready** button.
 - During the race, you can change your **Driving Aids** settings to suit race-day conditions as they unfold; to change your **Driving Aids** settings on the fly, press **F2**.

Important: If you don't see the other players' cars on the track while racing, check the frame rate of your IPX connection. In **Control Panel**, click **Network**. In the **Network** dialog box, select your IPX setting, and then click **Properties**. Click the **Advanced** tab. Under **Property**, click **Frame Type**. Under **Value**, click **Ethernet 802.2**.

{button ,AL(`hostingLAN;chatting;viewingmessages;misctips')} Related Topics



Hosting a Race Via an Internet Connection

To <u>host</u> a race in Internet play, you need an Internet account with an Internet Service Provider (ISP), such as MSN™, The Microsoft Network online service. You can host up to a maximum of seven other participants in Internet play.

Note: When setting up a race via an Internet connection, the game runs best if you limit the total number of participants to four or less. If you want to race with more players, all participants should connect via the same ISP, such as MSN, or have an ISDN or T1 connection to the Internet.

Important: If you connect to the Internet via a modem, the faster the modem, the better. CART Precision Racing requires, at a minimum, a 28.8 <u>Kbps</u> modem for all participants.

When you host a race, the player(s) joining you must establish a connection to your computer via the Internet and an IP address. (To find out your IP address, see <u>Finding Out Your IP Address</u>.) Make sure your opponent(s) know(s) you will be the host, and agree that you will get a few moments head start to begin setting up the game.

When you connect to an ISP, you are assigned an IP address for that session. Finding a way to tell your opponent(s) what your IP address is may require some ingenuity and resolve on your part. When you connect to an ISP via modem, your phone line is tied up. If you and your opponent(s) are each fortunate enough to have second phone lines, no problem! Call them up, and tell them your IP address. Otherwise, you need to find another way. Some possible solutions are to go to chat areas provided by your ISP, or to send e-mail. For more tips, you might try going to a multiplayer gaming chat group and asking for help there.

When you host a race, set the following options for the multiplayer session: type of race, current session, current track, and **Realism** options (except for **Head Panning**, which all players can control for themselves while driving). For yourself, set the following options: current player, driver and car, skill level, and driving aids.

Note: When racing in multiplayer mode, you can't race a Quick Race.

To host a race via an Internet connection

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Host.
- 4 In the **Give Your Session A Name** list, type a descriptive name for the racing session.
- In the **Select A Network Protocol** list, click **Internet TCP/IP Connection For DirectPlay**, and then click **OK**. Under **Player Information**, your name is displayed with the (Host) designation next to it. **Note:** You may have to wait while your opponent(s) establish connection(s). You can add up to seven players.
- Set the following options for the multiplayer session: type of race, current session, current track, and **Realism** options (except for **Head Panning**). For yourself, set the following options: current player, driver and car, skill level, and driving aids.
 - **Note:** During a multiplayer game, you can exchange comments on the race, words of encouragement, or even discuss the current track conditions with your opponents. On the **Multiplayer** screen, type your message in the **Message** box, and then click **Send** to send your message. Use the **Send To** box to specify whether you want to send your message to a specific player or to all players in the game.
- When your opponents' names are displayed under Player Information, click Ready and let the race begin!
 When the host clicks Ready, the race begins.

{button ,AL('joininginternet;chatting;viewingmessages;findingip;misctips')} Related Topics



Joining a Race Via an Internet Connection

To join a race in Internet play, you need an Internet account with an Internet Service Provider (ISP), such as MSN™, The Microsoft Network online service. You can join one or up to seven other players in Internet play.

Important: If you connect to the Internet via a modem, the faster the modem, the better. CART Precision Racing requires, at a minimum, a 28.8 <u>Kbps</u> modem for all participants.

When you join a race, you must establish a connection to your <u>host's</u> computer via the Internet and an <u>IP address</u>. Before beginning the following procedure, you and your host should work out in advance, how you will find out the host's IP address.

When your host connects to an ISP, the ISP assigns an IP address for that session. Finding your host's assigned IP address may require some ingenuity and resolve on your part. When you connect to an ISP via modem, your phone line is tied up. If you and your host are each fortunate enough to have second phone lines, no problem! Otherwise, you need to find another way. Some possible solutions are chat areas provided by your ISP and e-mail. For more tips, you might try going to a multiplayer gaming chat group and asking for help there.

You also have the option of not entering an IP address and having CART Precision Racing search for currently available Internet sessions.

When you join a race, set the following options: current player, driver and car, skill level, and driving aids. The host sets the **Realism** options for all players, but you can turn **Head Panning** on and off while you're driving by pressing the **APOSTROPHE** (') key.

To join a race via an Internet connection

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Join.
- 4 In the Select The Network Protocol list, click Internet TCP/IP Connection For DirectPlay.
- In the **Locate Session** dialog box, type your host's IP address or leave the box blank to search for currently available Internet sessions, and then click **OK**.
- 6 In the Select A Session To Join list, click the session you want to join, and then click OK.
- 7 Set the following options: current player, driver and car, skill level, and driving aids.
 Note: During a multiplayer game, you can exchange comments on the race, words of encouragement, or even discuss the current track conditions with your opponents. On the Multiplayer screen, type your message in the Message box, and then click Send to send your message. Use the Send To box to specify whether you want to send your message to a specific player or to all players in the game.
- 8 Click Ready. It's race time!
 - When you click **Ready**, Precision Racing displays your name and player information on the **Multiplayer** screen under **Player Information**. When the host clicks **Ready**, the race begins.
 - **Note:** If the host isn't ready to begin the race, Precision Racing displays the **Not Ready** button instead of the **Ready** button.
 - During the race, you can change your **Driving Aids** settings to suit race-day conditions as they unfold; to change your **Driving Aids** settings on the fly, press **F2**.

{button ,AL(`hostinginternet;findingip;chatting;viewingmessages;misctips')} Related Topics



Hosting a Race Via the Internet Gaming Zone

If you want to <u>host</u> a multiplayer session on the Internet Gaming Zone, CART Precision Racing must not be running when you connect to the Internet Gaming Zone.

Important: If you connect to the Internet via a modem, the faster the modem, the better. Precision Racing requires, at a minimum, a 28.8 <u>Kbps</u> modem for all participants.

When you host a race, set the following options for the multiplayer session: type of race, current session, current track, and **Realism** options (except for **Head Panning**, which all players can control for themselves while driving). For yourself, set the following options: current player, driver and car, skill level, and driving aids.

Note: When racing in multiplayer mode, you can't race a Quick Race.

To host a race via the Internet Gaming Zone

Important: Because you must quit Precision Racing to complete this procedure, print this topic before starting the procedure.

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Internet Gaming Zone.

A message explains that to participate in a multiplayer game on the Internet Gaming Zone, you must first quit Precision Racing.

- 4 Click OK to quit Precision Racing.
 - Your Internet browser starts, and connects to the Internet Gaming Zone (http://www.zone.com/).
- In the **Sign In** dialog box, type your Internet Gaming Zone member name and password, and then click **OK**. **Note:** If you don't already have an Internet Gaming Zone account, follow the instructions on the screen to set up your account and download the software you need to race on the Zone.

 The Precision Racing site on the Internet Gaming Zone is displayed.
- 6 Click the ZoneMatch gaming room that you want.
 - The gaming room is displayed. All the games are visible, and you can see a list of all players in the room on the right of the screen.

Note: You can send a message to any player in the ZoneMatch gaming room. Just use the chat window at the bottom of the screen. You may need to maximize the Internet Explorer window and/or scroll down to see the chat window. You can send messages challenging other racers to test their mettle and join your game.

- 7 Click the game you want, and click **Host**.
 - The Enter Game Name dialog box is displayed.
- 8 In the **Game Name** box, type the name of your race.
- 9 In the **Maximum Players (2-4)** box, type the number of players you want in your game.
- 10 When you're ready to hit the track, click PLAY!

Note: When you're hosting a game, your name is listed with the (Host) designation next to it. As other players join the game, their names are listed, as well. Once the race is started, the names are not longer visible; you can't join a race in progress. You can, however, send a chat message to a player in a game that's in progress; just click **Zone Message** on the left-hand side of the screen.

{button ,AL('joiningzone;vieiwngmessages;chatting;misctips;findingip')} Related Topics



Joining a Race Via the Internet Gaming Zone

If you want to join a multiplayer session on the Internet Gaming Zone, CART Precision Racing must not be running when you connect to the Internet Gaming Zone.

Important: If you connect to the Internet via a modem, the faster the modem, the better. Precision Racing requires, at a minimum, a 28.8 <u>Kbps</u> modem for all participants.

When you join a race, set the following options: current player, driver and car, skill level, and driving aids. The host sets the **Realism** options for all players, but you can turn **Head Panning** on and off while you're driving by pressing the **APOSTROPHE** (') key.

To join a race via the Internet Gaming Zone

Important: Because you must quit Precision Racing to complete this procedure, print this topic before starting the procedure.

- 1 On the <u>navigation bar</u>, click **Multiplayer**.
- 2 Click Connect.
- 3 Click Internet Gaming Zone.

A message explains that to participate in a multiplayer game on the Internet Gaming Zone, you must first quit Precision Racing.

- 4 Click OK to quit Precision Racing.
 Your Internet browser starts, and connects to the Internet Gaming Zone (http://www.zone.com/).
- In the **Sign In** dialog box, type your Internet Gaming Zone member name and password, and then click **OK**. **Note:** If you don't already have an Internet Gaming Zone account, follow the instructions on the screen to set up your account and download the software you need to race on the Zone.

 The Precision Racing site on the Internet Gaming Zone is displayed.
- 6 Click the ZoneMatch gaming room that you want.
 - The gaming room is displayed. All the games are visible, and you can see a list of all players in the room on the right of the screen. **Note:** You can send a message to any player in the ZoneMatch gaming room. Just use the chat window at the bottom of the screen. You may need to maximize the Internet Explorer window and/or scroll down to see the chat window. You can chat with other racers about the hottest races on the Zone, make plans to join the same race, or exchange racing tips and tricks.
- 7 Click the game you want, and click **Join**.

Note: The host's name is listed with the (Host) designation next to it. When you join the game, your name is listed, as well. Once the race begins, the names are not longer visible; you can't join a race in progress. You can, however, send a chat message to a player in a game that's in progress; just click **Zone Message** on the left-hand side of the screen.

{button ,AL(`hostingzone;chatting;viewingmessages;misctips;findingip')} Related Topics



Finding Out Your IP Address

The most important thing to remember when <u>hosting</u> a race via an Internet connection is that, before you start, you need to supply the people you want to race against with your <u>Internet Protocol (IP) address</u>, which they must use to connect to your computer. Before you host a race, communicate your IP address to your opponents. Call them on the telephone, send them some e-mail, or post a message in a chat forum.

It is also important to connect to your Internet Service Provider (ISP), such as MSN™, The Microsoft Network online service, before starting the following procedure. Otherwise, your IP address may not show up in the dialog box discussed below.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears that may obscure this topic. Refer to the printed topic to finish the procedure.

To determine your computer's IP address

- 1 Click 1 to display the IP Configuration dialog box.
 The IP address for your computer is listed in the IP Address box.
- 2 Make a note of the IP address.
- 3 Click **OK**.
- 4 Communicate your IP address to the people you want to race against.

When you connect to an ISP, you are assigned an IP address for that session. Finding a way to tell your opponent(s) what your IP address is may require some ingenuity and resolve on your part. When you connect to an ISP via modem, your phone line is tied up. If you and your opponent(s) are each fortunate enough to have second phone lines, no problem! Call them up, and tell them your IP address. Otherwise, you need to find another way. Some possible solutions are to visit chat areas provided by your ISP, or to send e-mail. For more tips, you might try going to a multiplayer gaming chat group and asking for help there.

{button ,AL(`multiplayer')} Related Topics



Chatting with Opponents

When you're racing head-to-head against other drivers during a multiplayer game, you can exchange snide remarks, words of encouragement, or even discuss the current track conditions.

You can send chat messages that can be read by all the drivers, or you can send private messages to one other driver.

Keep in mind, that even as you're typing in messages, you're still driving, and you still have to control your car. You have joystick control while sending a message, but you don't have access to some keyboard commands. No crashes caused by negligent chatting!

To send a message to all drivers

Note: You can start chatting with your opponents once the race has begun.

- 1 To display the **Chat Message** box, Press **T**.
- 2 Type your message in the Chat Message box.
 Tip: To delete text or make corrections, press BACKSPACE.
- 3 When you are ready to send your message, press **ENTER**.

To send a private message to a specific driver

- 1 If the Chat Message box is not already displayed, press T.
- 2 Press the **DOWN ARROW** key to scroll through the list of drivers until the name of the driver you want to send a message to is displayed in the **Chat Message** box.
- 3 Type your message. To delete text or make corrections, press **BACKSPACE**.
- 4 When you are ready to send your private message, press ENTER.

{button ,AL('viewingmessages')} Related Topics



Viewing Your Messages

When an opponent sends you a chat message, it is automatically displayed in the **Incoming Chat** window, which appears in the lower middle of the screen. The **Incoming Chat** window automatically disappears after 5 seconds. CART Precision Racing keeps the messages in a queue so that you can scroll through the messages you've received.

To scroll through incoming messages

To scroll through your incoming messages, press **PERIOD** (.) or **COMMA** (,) to scroll to the next and previous messages, respectively.

{button ,AL(`chatting')} Related Topics



Miscellaneous Tips for Making the Game Run Faster

- While you are driving, press LEFT BRACKET ([) to reduce the size of the simulation window and improve frame rate. Press RIGHT BRACKET (]) to enlarge the size of the simulation window.
- If you are using a graphics accelerator card when playing CART Precision Racing, visit the card manufacturer's
 Web site to download the latest updated drivers for your card. Updating your drivers may result in an improved
 frame rate.
- Quit all other open applications before starting CART Precision Racing.
- If you are in <u>cockpit</u> view with the rearview mirror displayed, hide the rear view mirror by pressing **BACKSLASH** (\) on the keyboard.
- For faster modem-to-modem or Internet gameplay via modem, upgrade your modem to one that is faster than the 28.8 <u>Kbps</u> that Precision Racing requires.
- When setting up a race via an Internet connection, limit the total number of participants to three. If you want to race with a total of eight players, all participants should connect via the same Internet Service Provider (ISP), such as MSN™, The Microsoft Network online service, or have an ISDN or T1 connection to the Internet.
- Turn off music. On the Options menu, click Sound, and then clear the Play CD Tracks and Play Pre-Race Music check boxes.
- Play music in mono rather than in stereo. On the Options menu, click Sound. In the Speaker list, click Mono.
- Turn off all sound effects, race commentary, and music: press CTRL+M.
- Reduce the graphics details. On the **Options** menu, click **Graphics**. Under **Graphics Details**, clear all of the check boxes. Experiment with different settings to find the balance you want between speed and graphic detail.
- Reduce the image quality. On the Options menu, click Graphics. In the Image Quality list, click Good (Faster).
- Set the graphics resolution to 320 X 400 or 320 X 200. On the **Options** menu, click **Graphics**. In the **Simulation Resolution** list, click one of the resolution options above.

{button ,AL(`multiplayer;monitor256;screenres;graphicdetail')} Related Topics



Pit Stop Rules and Tips

As any seasoned racing veteran will tell you, a well-timed pit stop can mean the difference between a place on the podium and a spot in the back of the pack. And, whether you're driving a practice, qualifying, warm-up <u>session</u>, or the Sunday Race, certain rules apply whenever you enter pit lane. In real-world racing, ignoring these rules can result in a stop-and-go penalty (also known as the black flag!). A few rules and a couple of helpful tips for visits to pit lane:

- Turning on pit stops All pit stop settings are turned off by default. To turn on pit stops, click Realism on the Options menu, and then click Pit Stops. With Pit Stops turned on, you also have the option of turning on realistic Fuel Consumption, Tire Wear, and Crash Damage. When these options are turned on, they are available on the pit stop menu whenever you drive into the pits. If the Pit Stops option is turned off, you can drive through pit lane at any speed without sending your pit crew over the wall.
- **Finding Pit Lane!** During practice sessions, find the entrance to pit lane. Each track has a unique configuration. Look for the entrance to pit lane on the track map that appears while the game is loading.
- Speed Limits When you have pit stops turned on, don't exceed the speed limit in pit lane—60 mph for Practice and Qualifying sessions, 80 mph for Sunday Warm-Up and the Sunday Race. Your pit rev-limiter will kick in and keep you from exceeding the speed limit, but it's also important that you stay alert and in control as you maneuver through this high-traffic area.
- **Exiting Pit Lane** Drive carefully as you exit pit lane and merge back into the flow of traffic. And remember: you can't make your move into the heat of battle until you've passed the <u>blend line</u>.
- Radio Messages from Your Crew Chief Pay close attention to the radio messages from your crew chief. He'll
 tell you when to come in, when to stay out, and in yellow flag situations, he'll let you know when the race is set to
 go green. If the audio doesn't play, check out If You Don't Hear Any Sound.

{button ,AL(`pits;flags')} Related Topics



Preplanning Pit Stops

Before you take your place on the grid for the Sunday Race, you can preplan your pit stops so that you and your pit crew know exactly when to expect an appearance in pit lane.

When tackling the complete race distance (on some tracks, up to 250 laps!) with **Fuel Consumption (Realism** option) selected, hitting your <u>pit window</u> accurately is crucial. If you ignore your crew chief's instructions to pit within the next few laps, you might run out of fuel.

Because your gas mileage can be affected by a number of factors, including whether you're running with a lean or rich fuel mixture or slipstreaming behind the car in front you, preplanned pit stops usually include a four- or five-lap pit window; in most cases, you'll need to pit within that window.

Your pit crew lets you know when you're about to enter your pit window. The crew chief calls you over the radio, and your pit crew displays a small pit board in the lower-right corner of the screen that tells you what lap to pit.

To preplan your pit stops for a Sunday Race

- 1 To turn on pit stops, click **Realism** on the **Options** menu, and then click **Pit Stops**. To enable realistic fuel consumption, tire wear, and crash damage, click the options you want, and then click **OK**.
- 2 On the **Tracks** screen, select the track that you want to race on, and then click **Garage**.
- On the Garage screen, click the Pit Strategy tab. Under Planned Stops, you'll see a list of recommended stops for the current track. These stops are calculated using the single lap distance for the track and your car's expected gas mileage (1.8 mpg) to determine how many laps a driver can get out of a full 35-gallon fuel tank. Also, regardless of the number of laps you're racing in a Sunday Race, pit stops are preplanned for the entire real-world race distance.
- 4 To delete a planned stop, click it, and then click **Remove Stop**.

-Or-

To add an additional stop, click Add Stop.

You can preplan up to a total of 10 stops for any track, and CART Precision Racing calculates the recommended pit window for each stop.

{button ,AL(`pits')} Related Topics



Choosing the Type of Pit Stop

Whether you're practicing, qualifying, or battling for position in the Sunday Race, you can always count on your pit crew to be ready and waiting. They can add fuel, change tires, and make many of the same repairs and adjustments real-world CART racers and crews can call for in the pits.

Whenever you enter pit lane, the pit stop menu appears. With the pit stop menu, you can tell your pit crew exactly what needs to be done during the current pit stop. Once you've entered your pit, your pit crew is timed with the pit timer in the lower right corner of your screen.

The pit stop menu includes the following options:

- Recommended Your pit crew changes your tires, tops-off your fuel tank, and completes any necessary repairs. The onboard telemetry systems ensure that your race engineer and pit crew have all the data they need to make the necessary fixes. For example, if you've dented your nose cone in a scuffle going into Turn 3, your crew will replace it. Check out the lower half of the pit stop menu, which lists the specific adjustments that will be made if you choose Recommended. Keep in mind that in a Sunday Race with 18 miles or less remaining, your crew will only top-off fuel when you choose this option.
- **Splash & Go** Top-off your fuel tank—your pit crew will complete no other repairs or replacements—and be ready to be back on the throttle in 7 seconds or less!
- Custom Choose this option to request specific adjustments to your car's wing angle, gurney flap, stagger, and tire pressure settings. If you're looking for more grip on the track surface, you may want to increase your car's degree of wing angle. To make even finer tweaks that affect the amount of downforce you're experiencing, you can also increase the gurney flap size. If you're experiencing <u>understeer</u> on ovals, you may need to increase stagger. If your ride quality is harsh or the car is unstable, you may want to experiment with different tire pressures. The Custom option lets you take care of these tweaks and then get back on the track quickly, where you can find out fast if your adjustments are making a difference.

To choose the type of pit stop

- 1 To turn on pit stops, click **Realism** on the **Options** menu, and then click **Pit Stops**. To enable realistic fuel consumption, tire wear, and crash damage, click the options you want, and then click **OK**.
- 2 Drive into pit lane.
 - The pit stop menu appears.
- 3 Use the **UP** and **DOWN ARROW** keys to select the type of pit stop you want.
- 4 To confirm your selection, press ENTER.
 - –Or−
 - If you chose the **Custom** option, use the **UP** and **DOWN ARROW** keys to select the item you want to adjust. Use the **LEFT** and **RIGHT ARROW** keys to make adjustments to your car's wing angle, gurney flap, stagger, and tire pressure settings.
- When you are finished making adjustments, choose **Done** on the pit stop menu, and then press **ENTER**. **NOTE:** When specifying a custom pit stop, press the **DOWN ARROW** key to scroll to the bottom of the list, where the **Done** option is located. Then, press **ENTER**.

{button ,AL(`pits')} Related Topics



Reading the Pit and Leader Boards

The pit board, displayed in the upper-left corner of the screen, provides up-to-the-minute information on your performance and position in the race. If you switch camera views to follow another driver, the pit board displays information related to that driver.

You can replace the pit board with the leader board, which lists the current running position of all the cars on the track. Your driver's name and position are highlighted in yellow. The leader board scrolls automatically so you can see the position of all the cars.

Pit board indicator	Feedback for current car	
Lap X of Y	Indicates the current lap number for the race leader and the total number of laps in this session (for example, Lap 6 of 25 indicates the race leader is on lap 6 out of a total of 25 laps).	
Place	Indicates your current race position and the total number of cars on the racetrack (for example, 5/6 indicates that you are in 5th-place and that 6 cars are participating in the session).	
Lap Info	Indicates your current lap number and the total number of laps in this session (for example, 8/25 indicates you are on lap 8 of 25 laps).	
Lap Time	Indicates the lap time for your most recently completed lap.	
Current	Displays the elapsed time for the current lap.	
Best	Indicates your fastest lap time so far in this session.	
Leader board indicators		
During Practice:		
Lap X of 25	Indicates your current lap number and the total number of laps in the current practice session.	
During Qualifying on ovals:		
Lap X of 4	Indicates your current lap number and the total number of laps to be completed during the current qualifying session. For qualifying on ovals, you use the first two laps as warm-up, and the final two as	

During Sunday Warm-Up:

15-minute timer Counts down the time remaining in the current warm-up session.

During Sunday Race:

Lap 1 of X Indicates your current lap number and the total number of laps in the Sunday Race.

Counts down the time remaining in the current qualifying session. Your qualifying

position is determined by your best single lap time during the timed period.

To display or hide the pit and leader boards

Timer

While you are driving, press **O**.

{button ,AL(`pits')} Related Topics



Selecting a Skill Level

CART Precision Racing automatically starts players at the rookie skill level. Rookies race the same drivers, tracks, and races as more skilled drivers, but have the added benefit of selecting any or all driving aids to help in the race. So, even if you're just starting on the CART circuit, you can race competitively against the champions.

If you're doing well, try advancing to the **Intermediate** or **Professional** level. The level you choose determines the driving aids that you can turn on. As you advance in skill level, you have fewer driving aids available to you. Also, the computer-driven cars on the track drive at your same skill level.

Select from these three skill levels:

- Rookie If you're new to CART racing, drive as a rookie. Choose as many driving aids as you like. With settings like <u>Auto-Brake</u> to help you slow your car through the turns and **Stay On Track** to keep you off the grass and barriers, you'll get all the assistance you need while you learn to drive the tracks.
- Intermediate When you choose intermediate, you're well on your way to professional racing, but just need a
 bit more practice to fine-tune your driving skills. Most driving aids are available, although Stay On Line, AutoBrake, and Auto-Throttle are available only to rookies.
- Professional When you're ready to race like the CART pros, drive as a professional. At this level, you're able
 to shift, steer, accelerate, brake, and maneuver with absolute confidence in your racing skills and strategy.
 Driving aids are not available for professional drivers, so you're on your own on the tracks.

To select a skill level

- 1 Press **F2**.
- 2 In the Skill Level list, click the skill level you want.
- If you clicked Rookie or Intermediate, select the driving aids that you want.
 Right-Click Tip: To find out more about an option, place the mouse pointer over the option, and click the right-mouse button.
- 4 Click OK.

{button ,AL(`drivingaids;realism options;preferences;changeplayersettings;deleteplayer;')} Related Topics



Using Driving Aids to Your Advantage

When you're new to racing, take advantage of driving aids, which help you drive while you learn the tracks. With driving aids turned on, even rookie drivers can race competitively. Driving guides, such as **Show Racing Line** and **Driving Cones**, help you locate the fastest path around the track. Assisted-driving options, such as **Auto-Brake** and **Auto-Shift**, make driving easier while you work on your racing skills. As you improve, you can turn off driving aids for a more realistic driving experience.

Rookie players can select as many driving aids as they like; a limited number of driving aids are also available for intermediate players. These driving aids are saved along with other player settings that are associated with the current player name; see <u>Working with Player Settings</u>. You can change your driving aids (as well as other player settings) at any time, even when you're out racing on the track.

To change your driving aids

- 1 Press **F2**.
- 2 Select the driving aids and skill level that you want, and then click **OK**.

Note: If some driving aids are unavailable, selecting an easier skill level gives you more driving aids to choose from.

Right-Click Tip: To find out more about an option, place the mouse pointer over the option, and click the right-mouse button.

{button ,AL(`skilllevel;playersettings;preferences;changeplayersettings;deleteplayer;realism options;')} Related Topics



Changing Your Realism Options

Realism options give you the opportunity to experience the real-world effects of PPG CART World Series racing. You can change your realism options at any time. The more options you use, the more realistic your race experience.

To change your realism options

- 1 Press **F3**.
- 2 Select the settings you want. In general, the more check boxes you select, the more realistic your driving experience will be. Rookie players may want to select basic options, such as turning on the Pace Lap and Head Panning. Intermediate players may consider more challenging options that test their driving skills, such as adding the effects of bad Weather and Crash Damage (available when you turn on Pit Stops). If you're a professional driver, it's time to test your race strategy by turning on real-world Tire Wear and Fuel Consumption (available when you turn on Pit Stops).

Turn on these suggested realism settings for your skill level:

Rookie	Intermediate	Professional
Pace Lap	Temperature Effects	Pit Stops/Tire Wear
Head Panning	Pit Stops/Crash Damage	Pit Stops/Fuel Consumption
Race Length (increase number of laps)	Weather (see <u>Changing</u> <u>Weather Conditions</u>)	Race Car Performance
Qualify Time (increase number of minutes)	Maximum Field Size (increase number of opponents)	

Right-Click Tip: To find out more about an option, place the mouse pointer over the option, and click the right-mouse button.

3 Click OK.

 $\label{lem:condition} $$\{$button ,AL(`skillevel;drivingaids;preferences;changeplayersettings;deleteplayer;')$\} Related Topics $$\{$button ,AL(`skillevel;drivingaids;preferences;changeplayersettings;deleteplayer;')$\} $$$



Working with Player Settings

The player settings feature gives you a way to save and reuse your favorite settings. When you establish a new player setting, you create a new **Current Player** name (**Drivers** screen). Then, you select the driving aids, realism options, driver, and skill level that you want to associate with the current player name. Whenever you select a name from the **Current Player** list, CART Precision Racing automatically loads the specific player settings—the driving aids, realism options, and so on—which are associated with that player. This is an efficient way to get onto the track quickly, especially if you prefer to have different settings for different tracks.

How can you use the player settings feature to your advantage? Suppose you are a racer who loves the straightaway speeds on ovals but struggles on temporary street courses. You can tailor a player setting for each type of course. The settings for ovals, which you've assigned a **Current Player** name of "Ovals," may use Greg Moore as the driver, have most driving aids turned off, and have many realism options turned on. The settings for street courses has a **Current Player** name of "Street Courses." Because you struggle on street courses, you have specified Bobby Rahal as the driver and have driving aids and realism options set to a level that is challenging but manageable.

Tip: To begin using the player settings feature, see <u>Using Player Settings to Quickly Load Your Preferences</u>. For more information about choosing the skill level, driving aids, or realism options associated with a player setting, see <u>Selecting a Skill Level</u>, <u>Using Driving Aids to Your Advantage</u>, and <u>Changing Your Realism Options</u>.

{button ,AL(`skilllevel;drivingaids;preferences;changeplayersettings;deleteplayer;realism options;')} Related Topics



Using Player Settings to Quickly Load Your Preferences

By creating a variety of player settings, you can quickly load your favorite setting for whichever track you choose. You can set up favorite settings for specific tracks or specific types of tracks (ovals, road courses, and street circuits). For each new player setting, you create a new **Current Player** name (**Drivers** screen). Then, you select your preferences for driving aids, realism options, driver, and skill level. When you select that player name in the **Current Player** list, CART Precision Racing automatically loads your preferences.

Tip: To learn more about the Player Settings feature, see Working with Player Settings.

To create a new player setting

- On the **Drivers** screen, type a new **Current Player** name. This name is associated with the driver, driving aids, realism options, and skill level that you select.
- 2 Select the driver that you want.
- 3 To specify the driving aids and skill level settings that you want to save with the player setting, click **Driving Aids**.
- 4 Select the driving aids and skill level settings that you want. If you like, edit the current player name in the **Edit Player Name** box, and then click **OK**.
 - **Note:** If some driving aids are unavailable, selecting an easier skill level gives you more driving aids to choose from
 - **Right-Click Tip:** To find out more about an option, place the mouse pointer over the option, and click the right-mouse button.
- To specify the realism options that you want to save with the player setting, press **F3**. Precision Racing displays the **Realism Options** dialog box.
- 6 Select the realism options you want, and then click **OK**.
- 7 Repeat this procedure for each new player setting that you want to create.

Tip: After you establish your player settings, you can change them at any time; see <u>Making Changes to Player Settings</u>.

{button ,AL(`skilllevel;playersettings;drivingaids;deleteplayer;realism options;')} Related Topics



Making Changes to Player Settings

After you've set up your favorite player settings, you can go back at any time and change your preferences for the driver, skill level, driving aids, and realism options that you specify for each player setting. For example, if you've been practicing your shifting and are confident about these skills, you may decide to turn off the driving aid for <u>Auto-Shift</u>. Or if you decide you want to drive the pace lap, you may go back and turn on this realism option. The changes you make are updated and saved with the selected player name (**Current Player**).

Tip: To learn more about the Player Settings feature, see Working with Player Settings.

To change player settings

- On the **Drivers** screen, in the **Current Player** list, select the name associated with the player setting you want to change.
- 2 If you like, select a different CART driver.
- 3 To change the driving aids for the player setting, click **Driving Aids**.
- 4 Change your driving aids and skill level settings, and then click **OK**.
 - **Note:** If some driving aids are unavailable, selecting an easier skill level gives you more driving aids to choose from.
 - **Right-Click Tip:** To find out more about an option, place the mouse pointer over the option, and click the right-mouse button.
- 5 To change the realism options for the player setting, press **F3**.
- 6 Change your realism settings, and then click **OK**.
- 7 Repeat this procedure for each player setting that you want to change.

{button ,AL(`skilllevel;playersettings;drivingaids;deleteplayer;realism options;')} Related Topics



Deleting Player Settings

As you create new favorite player settings, you may want to delete other players that you no longer use. When you delete a player, you remove the player's settings—their name, associated skill level, driving aids, and realism options.

To delete a player setting

- 1 On the **Drivers** screen, click the name in the **Current Player** list that you want to delete.
- 2 Click **Driving Aids**.
- In the **Driving Aids** dialog box, verify that the name listed in the **Edit Player Name** box is the one you want to delete, and then click **Delete Player**.
 - Note: If there is only one name in the Current Player list, you cannot delete it; Delete Player is unavailable.
- 4 When asked to verify that you want to delete the player, click Yes.

{button ,AL(`preferences;changeplayersettings;skilllevel;drivingaids;realism options;')} Related Topics



Selecting the Sessions You Want to Drive

Before starting a race weekend or season, select the practice, qualifying, and warm-up sessions that you'll drive to get ready for the Sunday Race. The real-world CART pros drive all <u>weekend sessions</u>, but you can select as many as you like. Choose carefully though—the sessions that you select determine the sequence of events for your race weekends. Make sure that you get plenty of time on the track to prepare for the Sunday Race. If you choose not to drive some sessions, see <u>Racing a Single Race Weekend</u> to read about possible consequences.

To select the sessions you want to drive

- 1 On the **Options** menu, click **Session Control**.
- 2 Click the session check boxes so that only the sessions you want to drive are selected.
- 3 Click OK. Now, when you drive a race weekend, Cart Precision Racing will skip the sessions that you indicated.

{button ,AL(`gridposition;part1;part2;part3;part4;part5;weekend;raceseason;SkipSession;endingsession;')} Related Topics



Determining Your Starting Grid Position

There are two ways to determine your starting grid position for a Sunday Race (does not apply to <u>Quick Races</u>). If you're confident about your racing skills, you can drive qualifying sessions to compete against the real-world drivers' times for your starting grid position. Otherwise, if you'd rather start at the front of the pack without qualifying, you can go straight to the Sunday Race using the CART Precision Racing starting grid position for 1997 races. Choose your driver carefully; only one driver takes the pole for each race.

Note: CART Precision Racing starting grid positions may vary somewhat from real-world starting grid positions for 1997 races. If a driver did not race or is not included in the game, the driver in the next starting grid position is moved up to fill the vacant spot, and all drivers in the following grid positions are moved up accordingly.

To qualify for your starting grid position

- 1 On the Races screen, select your race type—click either Single Race Weekend or Full Race Season.
- 2 In the Current Session list, click Friday Qualifying or Saturday Qualifying.
- 3 Click GO!

For ovals, you'll drive two warm-up laps and two timed laps; for road courses, you'll qualify for 15 minutes (**Realism**, **Options** menu). When you've completed the laps, view your **Session Results** to see how well you qualified. For more information about racing a qualifying session, see <u>Racing a Single Race Weekend</u>.

To look up your driver's CART Precision Racing starting grid position

- 1 On the **Tracks** screen, select the track you want to race, and then click **Track Info**.
- 2 Click Grid Positions.

The Grid Positions table lists the drivers' starting grid positions for the track. Look for a driver based on where you want to start the race, or if you prefer, pick your driver based on his starting grid positions over the entire race season.

Note: If the driver you pick wasn't in the real-world 1997 race (DNR means Did Not Race on the Grid Position table) and you skip qualifying, you'll start the Sunday Race at the back of the pack.

3 Click Exit Track Info.

Now you can go to the **Drivers** screen to designate your driver.

{button ,AL(`part1;part2;part3;part4;part5;results;weekend;raceseason;SkipSession;sessioncontrol;')} Related Topics



Changing the Number of Laps for a Specific Sunday Race

On some days you may not be in it for the long haul, or then again, maybe you can't get enough of a certain track. CART Precision Racing allows you to specify the exact length of a Sunday Race on any track that you choose. If you set the number of laps for a specific track, it doesn't affect Sunday Races or sessions on other tracks.

You can also set the default Sunday Race length for all of the tracks. See Changing the Length of All Sunday Races.

To change the number of laps for a specific race

- 1 On the **Tracks** screen, click the track that you want to race on.
- 2 Drag the **Sunday Race Laps** slider to set the number of laps you want to race.

Tip: To find out the total number of laps in a real-world race on this track, drag the slider all the way to the right.

{button ,AL(`Length of Race')} Related Topics



Changing the Length of All Sunday Races

Racing a full-length CART race takes several hours. The great thing about a simulation is that it's possible to get considerable track time during Sunday Races, but still have time left over to walk the dog. Initially, CART Precision Racing is preset to 10 percent of the laps in a full-length CART race. You can change this value to whatever percentage of the full-length Sunday Races that you want. The value that you choose becomes the default for all Sunday Races, unless you change it for a specific track on the **Tracks** screen, see <u>Changing the Number of Laps for a Specific Sunday Race</u>.

To change the length of all Sunday Races

- 1 Press **F3**.
- Under Race Length (Default), drag the slider to adjust the percentage of the race length.
 Tip: You can change settings in the Realism Options dialog box at any time, even when you're on the track, by pressing F3.
- 3 Click OK.

{button ,AL(`Length of Race')} Related Topics



Changing the Qualifying Time for Road Courses

When you go to earn your grid position on a <u>road course</u>, CART Precision Racing allows you to choose the duration of a qualifying session. If you're a rookie, you may want to increase your session time to get to know the track better. If you're a pro, and you're anxious to get to the Sunday race, you may want to shorten your session. The real-world duration of road course qualifying sessions is designated by each track. The Precision Racing preset value is 15 minutes; the maximum time you are able to set for the game is 30 minutes.

To change the qualifying time for road courses

- 1 Press **F3**.
- 2 Drag the Qualify Time (Road Courses) slider to adjust the time of the qualifying session.
 Tip: You can change settings in the Realism Options dialog box at any time, even when you're on the track, by pressing F3.
- 3 Click OK.

{button ,AL(`part2;part3')} Related Topics



Changing the Number of Opponents

CART Precision Racing allows you to alter the number of cars on the track for a Sunday Race or qualifying session. The preset number of opponents that you'll race against is 12 cars. New players may want to decrease the number of cars on the track in order to spend more time concentrating on their driving, and less time avoiding collisions. Moreadvanced players may want to increase the number of opponents to get closer to a real-world experience.

Changes to this setting do not apply to sessions in Multiplayer racing. For more information about Multiplayer racing, see <u>Multiplayer Racing Overview</u>.

Tip: If you are running this game on a computer with a slower processor, you may want to reduce the number of opponents to maximize game performance.

To change the number of opponents

- 1 Press **F3**.
- 2 Drag the Maximum Field Size (Single Player) slider to adjust the number of opponents in your race. Drag the slider all the way to the right to find out the maximum number of opponents available.
 Tip: You can change settings in the Realism Options dialog box at any time, even when you're on the track, by pressing F3.
- 3 Click OK.

{button ,AL(`multiplayer;misctips')} Related Topics



Customizing Your Pi Dashboard Display

While you're driving, one of the options available to you from <u>cockpit view</u> is the dashboard display. CART Precision Racing allows you to "do-it-like-the-pros-do" by utilizing this authentic Pi dashboard display. The <u>dashboard display</u> includes a tachometer and six other variable fields that can assist you in keeping track of all the mechanical nuances of your car. You can easily adjust the fields of the Pi dashboard display according to your preferences and the information you need.

The Pi dashboard display is designed to simulate the dashboard used by the real-world drivers. Each of the two dashboard display <u>pages</u> displays information that is valuable during the race.

- Page One (Race Setup) Preset to give you fundamental statistics that help you monitor your car's performance on the track.
- Page Two (Car Performance Setup) Preset to provide valuable mechanical data to assist you with pit stop
 planning.

Right-Click Tip: To find out the default settings for each field on the Pi dashboard display, place the mouse pointer over the option, and click the right-mouse button.

To change the settings on your dashboard display

- 1 On the Options menu, click Pi Display Setup.
- 2 Display the page you want to change by clicking the arrows at the bottom of the dialog box.
- 3 Select the setting you want for each field.
- 4 Click OK.

To display and cycle through your dashboard display pages

- 1 If you're not already in cockpit view, press **HOME**.
- 2 Press **D** as many times as necessary to display the dashboard.
- 3 To switch between dashboard pages, press **TAB**.



Changing Weather Conditions

If you want additional experience with some of the variables that affect driving, CART Precision Racing allows you to change the weather conditions on the track. Weather changes affect all sessions. The **Clear** and **Cloudy** options affect appearance, but won't alter car performance on the track. Select the **Rain (Except Ovals)** option, and it will affect both appearance and traction as you're racing (except on ovals). Changing the temperature here will only affect the game if you have the **Temperature Effects (Realism** option) turned on. Colder temperatures are better for your car. Your tires will wear slightly less, and you should get a little more air into your engine for more horsepower. Hotter temperatures may make your tires warm up a bit faster. The weather is preset to **Clear** and the temperature is preset to **75**.

Note: If you select the **Rain (Except Ovals)** option and are racing on an oval track, the weather will actually be **Cloudy**. This is because in real-world racing, CART races get postponed on oval tracks if it is raining. Whereas, if it rains on a road or street course, the race continues.

To change the weather conditions at the track

- 1 Press **F3**.
- Under Weather, select the weather and temperature that you want.
 Tip: You can change settings in the Realism Options dialog box at any time, even when you're on the track, by pressing F3.
- 3 Click OK.



Changing Your Driving Control Device

When you first install CART Precision Racing, you choose to drive using either keyboard controls or a different input device, such as a joystick or gamepad. You can switch driving controls any time you want.

To change your driving control device

- 1 On the **Options** menu, click **Controls**.
- 2 In the **Primary Driving Control** list, click the driving control you want (and the one for which you own the hardware!).
 - **Tip:** Click **Calibrate** to calibrate your device (other than keyboard), or click **Customize Controller** or **Customize Keyboard** to personalize your control settings.
- 3 Click OK.
 - The next time you start a race, you can control your car with the device you specified.

{button ,AL(`steeringsensitive;steeringless;twojoysticks;joybroke;keybroke')} Related Topics



If the Game Runs Too Slowly

- While you are driving, press **LEFT BRACKET** ([) to reduce the size of the simulation window and improve frame rate. Press **RIGHT BRACKET** (]) to increase the size of the simulation window.
- Reduce the number of computer cars you race against.
- Quit all other open applications before starting CART Precision Racing.
- For faster modem-to-modem or Internet gameplay via modem, upgrade your modem to one that is faster than the 28.8 Kbps that Precision Racing requires.
- If you are in <u>cockpit</u> view with the rearview mirrors reflecting the view behind you, turn off the reflection in the mirrors by pressing **BACKSLASH** (\mathbf{I}).
- When setting up a race via an Internet connection, limit the total number of participants to three or less.
 Multiplayer racing works best if all participants connect via the same Internet Service Provider (ISP), such as MSN™, The Microsoft Network online service, or have an ISDN or T1 connection to the Internet.
- Turn off music. On the Options menu, click Sound, and then clear the Play CD Tracks and Play Pre-Race Music check boxes.
- Lower the sound quality. Play music in mono rather than in stereo: on the **Options** menu, click **Sound**, and then in the **Speaker** list, click **Mono**.
- Turn off all sound effects and music: press CTRL+M.
- Reduce the graphics details. On the Options menu, click Graphics. Under Graphics Details, clear all of the
 check boxes. Under Tire Effects, click None. Under Mirrors, click Off. Experiment with different settings to find
 the balance you want between graphics speed and graphics detail.
- Set the image quality to low. On the Options menu, click Graphics. In the Image Quality list, click Good (Faster).
- Set the graphics resolution to 320 X 200 or 320 X 400. On the Options menu, click Graphics. In the Simulation Resolution list, select 320 X 200 (Pentium 60) or 320 X 400 (Pentium 100) resolution.

{button ,AL(`monitor256;screenres;graphicdetail;faq')} Related Topics



If Your Monitor Is Set to Display More Than 256 Colors

CART Precision Racing runs best when your monitor is set to display 256 colors. If you choose to leave your monitor set to higher color modes, Precision Racing may not run satisfactorily. However, if you use a 3-D hardware graphics accelerator, you may be able to get satisfactory performance in higher color modes.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears that may obscure this topic. Refer to the printed topic to finish the procedure.

To set your monitor to display 256 colors

- 1 Click to display the **Display Properties** dialog box.
- 2 In the Color Palette list, click 256 Color.
- 3 Click OK.

Important: Depending on how your system is configured, you may be prompted to close Precision Racing and restart Windows 95 in order for the display setting change to take effect.

Note: If you don't have the necessary 256-color driver, or if you aren't sure that your video card supports 256 colors, contact your video card manufacturer.

{button ,AL(`gameslow;screenres;faq')} Related Topics



If Your Screen Resolution is 640 X 400 and the Game Runs Slowly

CART Precision Racing runs best when your monitor is set to 640 X 480 screen resolution. If you choose to have your monitor set to 640 X 400, Precision Racing may not run satisfactorily.

Note: Your monitor and display adapter determine whether you can change your screen resolution.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears that may obscure this topic. Refer to the printed topic to finish the procedure.

To set your monitor to 640 X 480 screen resolution

- 1 Click to display the **Display Properties** dialog box.
- 2 Under **Desktop Area**, drag the slider to select the **640 By 480 Pixel Setting**.
- 3 Click **OK**, and follow the instructions on the screen to adjust your display settings and put the new setting into effect.

{button ,AL(`monitor256;gameslow;faq')} Related Topics



If Graphic Details Are Slowing Performance

Enhancing graphics detail comes at a cost: slower performance. The less detail you display, the faster the graphics will display.

- 1 On the **Options** menu, click **Graphics**.
- 2 Under Graphics Details, select as many graphics details as you would like to see in the game.
 Right-click Tip: To find out more about an option, place the mouse pointer over the option and click the right mouse button.
- 3 In the Image Quality list, click Good (Faster).
- 4 Under Graphics Detail, clear all the check boxes.
- 5 In the **Tire Effects** list, click **None**.
- 6 In the Mirrors list, click Off, and then click OK.

Note: The preceding procedure represents a scenario in which you want the fastest performance possible. You should experiment with different settings to find the balance you want between speed and graphic detail.

{button ,AL(`gameslow;monitor256;screenres;faq')} Related Topics



If Your Steering Control Is Too Sensitive

If you are having difficulty controlling your car because your steering response seems too sensitive, you can adjust its sensitivity.

To make steering response less sensitive

- 1 On the **Options** menu, click **Controls**.
- 2 In the **Control Options** dialog box, drag both the **Speed Sensitive Steering** and **Non-Linear Steering** sliders to the left to make the steering response less sensitive.
- 3 Click OK.
 - Test the new settings in a race. You may need to experiment to find the perfect steering response setting for your steering control and driving style.

{button ,AL(`steeringless;drivingcontrol;faq')} Related Topics



If Your Steering Control Is Not Sensitive Enough

If you are having difficulty controlling your car because your steering response is not sensitive enough, you can adjust its sensitivity.

To make steering response more sensitive

- 1 On the **Options** menu, click **Controls**.
- 2 In the **Control Options** dialog box, drag both the **Speed Sensitive Steering** and **Non-linear Steering** sliders to the right to make the steering response more sensitive.
- 3 Click OK.
 - Test the new settings in a race. You may need to experiment to find the perfect steering response setting for your steering control and your driving style.

{button ,AL(`steeringsensitive;drivingcontrol;faq')} Related Topics



If You Don't Hear Any Sound

- You may have all game sounds turned off. Click the Options menu. If the Mute Sound command is checked, click it to enable sounds.
- You may need to increase the volume. On the **Options** menu, click **Sound**. Drag the **Music** and **Effects** sliders to the right, and make sure that the **Mute** check box is cleared. Under **Options**, confirm that the sound options you want are selected.
- Make sure your speakers or headphones are connected properly.
- The volume may be turned down on your speakers or headphones.
- Make sure the correct sound device is selected. On the Options menu, click Sound. In the Sound Device list, make sure the correct sound device is selected.
- You may not have the latest sound driver available. Contact the manufacturer of your sound card to obtain the latest sound driver.

{button ,AL(`soundclipped;faq')} Related Topics



If the Sound Seems Clipped, or the Sound Effects Are Delayed

If the sound in CART Precision Racing seems clipped or the sound effects are out of sync, you can adjust your sound options to remedy the problem.

To adjust your sound options

- 1 On the **Options** menu, click **Sound**.
- 2 In the **Speaker** list, click **Mono**.
- 3 In the Quality list, click Normal (8-Bit).
- 4 In the Sampling Rate list, click Low (11 kHz).
- 5 Experiment with these options until the sound is smooth, and timed appropriately.
- 6 To apply the new settings, click **OK**.

{button ,AL(`nosound;faq')} Related Topics



If the Keyboard Does Not Work as Expected

- You may be using the keys on the main keyboard area when you should use the keys on the numeric keypad instead, or vice versa. Refer to the *Quick Reference Card* for a list of key controls.
- Use the arrow keys to control your car like you would use a joystick. Pressing the UP ARROW key is like pushing
 a joystick forward: It accelerates your car forward. Pressing the DOWN ARROW key is like pulling the joystick
 back: It applies the brakes, and after the car has stopped, you can press R+UP ARROW to reverse the car. You
 can easily customize these keyboard settings.
- The functions of the keys may have been assigned customized settings. You can return the keys to their default settings or assign different functions to the keys. To find out more about your key settings, on the Options menu, click Controls, and then click Customize Keyboard.

{button ,AL(`drivingcontrol;faq')} Related Topics



If You Have Two Joysticks Installed on Your Computer

If you're a true power gamer with more than one joystick installed on your computer, you need to specify which one you will use when playing CART Precision Racing.

Note: You must also designate your preferred joystick as the primary driving control. For more information, see <u>Changing Your Driving Control Device</u>.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears which may obscure this topic. Refer to the printed topic to finish the procedure.

To specify which joystick you want to drive with

- 1 Click to display the **Game Controllers** dialog box.
- 2 In the **Game Controllers** list, click the joystick you want to use for Precision Racing.
- 3 Click OK.

The joystick you selected remains the current joystick for all programs until you change it again.

{button ,AL('joybroke;faq')} Related Topics



If the Joystick Does Not Function Correctly

- You may need to calibrate the joystick. Click to display the Game Controllers dialog box. Click Properties.
 In the Game Controller Properties dialog box, click Calibrate, and then follow the instructions on the screen.
- The joystick buttons may have been assigned customized functions. You can return the buttons to their default settings, or assign different functions to the buttons. For more information, see Changing Your Driving Control Device.

{button ,AL(`twojoysticks;faq')} Related Topics



If You Want to Remove Precision Racing from Your Computer

If you ever need to remove CART Precision Racing from your computer, you can use the Add/Remove Programs wizard.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears that may obscure this topic. Refer to the printed topic to finish the procedure.

To remove Precision Racing from your computer

- 1 Close Gameplay Help, and quit Precision Racing.
- 2 Click the Start menu, point to Settings, and then click Control Panel.
- 3 Double-click **Add/Remove Programs**.
- 4 In the software list, click CART Precision Racing.
- Click Add/Remove.
 The CART Precision Racing Setup dialog box is displayed.
- 6 Click Yes to confirm that you want to remove CART Precision Racing.

{button ,AL(`endingsession;pausingandresuming;savingforlater')} Related Topics





Part 1: Friday Practice

This five-part tutorial, like the 1997 PPG CART World Series, begins at Miami with the Friday Practice. Use this session to become familiar with the track. Get a feel for how your car handles at progressively faster speeds. Learn how it responds to each turn and straightaway. Locate visual cues for braking and acceleration points.

Tip: Print this topic so that you can follow along with the tutorial as you race.

Note: This tutorial assumes that you're using the preset values for driving aids, game controls, and realism options. If you've changed these settings, your experience may differ somewhat from the tutorial.

To drive the Friday Practice session

- 1 Start the Season at Miami On the Races screen, click Full Race Season. Make sure Friday Practice is selected in the Current Session list and Miami is selected in the Current Track list. Then click GO! While the track is loading, study the track map on the screen.
- 2 Drive the Car You're in the cockpit. A countdown starts—3-2-1—and you're in control of the car! Use the UP, DOWN, LEFT, and RIGHT ARROW keys on the numeric keypad to accelerate, decelerate, and steer the car. Hint: Expect heavy braking at Turn 1 and Turn 3. Jump the throttle to accelerate out of Turn 2 and Turn 4, where you hit the straightaways.
- 3 **Review the Game Controls** Press **F1** to see a list of frequently used game controls. Autopilot controls your car while **Game Controls Help** is displayed. (You will have minimum left-and-right steering capabilities; autopilot controls the throttle and keeps you on the track.) To return to the track, press **ESC**.
- 4 **Use the Driving Cones** As you drive the turns, watch for the orange cones (**Driving Aids** setting) that mark the turn-in, apex, and exit points. These driving cones identify the preferred path for achieving the fastest speed through the turns. Use these cones as reference points—decreasing speed as you turn-in, and accelerating again as you pass the apex cone and then exit the turn.
- 5 **Monitor the Pit Board** The pit board's lap timer (upper-left corner of the screen) times each of your laps. Check the pit board to see your current lap time, best lap time, and the number of remaining laps. If you don't see the pit board, press **O** to activate it (press **O** twice if the leader board is displayed).
- 6 **Look at Your Results** At the end of the practice, CART Precision Racing displays the **Session Results** screen. You'll find your best lap time and current grid position, with your stats highlighted in blue. See <u>Reviewing Your Session or Season Results</u>.
- 7 Go to the Next Session It's time to qualify for Sunday's race. To go straight to Friday Qualifying, click Next Session.

If you're ready, proceed to Part 2: Friday Qualifying.

{button ,AL(`part2;part3;part4;part5;weekend;raceseason;SkipSession;pausingandresuming;crashes;results;savingfor later;playingpreviouslysaved;endingsession;sessioncontrol;')} Related Topics





Part 2: Friday Qualifying

The Friday Qualifying session is all about speed—a faster qualifying time means a better starting grid position for Sunday's race. As an added bonus, the fastest qualifier for the race earns an extra point toward the season championship.

Tip: Print this topic so that you can follow along with the tutorial as you race.

Note: This tutorial assumes that you're using the preset values for driving aids, game controls, and realism options. If you've changed these settings, your experience may differ somewhat from the tutorial.

To drive the Friday Qualifying session

- 1 **Qualifying at Miami** On ovals such as Miami's, each car qualifies separately. Qualifying is different for <u>road courses</u> and street circuits; see <u>Racing a Full Race Season</u>. Start with two warm-up laps to get your car up to speed and ready for qualifying. Watch for the green flag, which signals the start of two timed laps. A checkered flag signals the end of the qualifying <u>session</u>.
- Work on Your Technique Understanding and mastering speed through turns is important on the oval. Practice cutting the corner tight and exiting wide to maximize acceleration and minimize tire wear. As your cornering skills improve, try to brake later as you enter and accelerate sooner as you exit. See Racing School topics (Help menu): Cornering Concepts and The Cornering Sequence.
- 3 Make Cockpit Adjustments To improve car handling and performance, try these cockpit adjustments:
 - Increase the weight jacking on the right wheel to get more push through the turns and decrease oversteer.
 This adjustment is particularly helpful on ovals. To add weight to the right wheel, press 8 on the keyboard.
 - Change the fuel mixture depending on your race strategy. For a richer fuel mixture and increased power, press 4 on the keyboard; to conserve fuel, press 3 on the keyboard.
- 4 **Look at Your Qualifying Time** At the end of Friday Qualifying, the **Session Results** screen displays your session stats. The faster of your two qualifying laps is your qualifying time. (If you did not complete the timed laps, the results show NQA—No Qualify Attempt.)
- 5 **Go to the Next Session** To go straight to Saturday Practice, click **Next Session**. If you're ready, proceed to <u>Part 3: Saturday Practice and Qualifying</u>.

{button ,AL(`part1;part3;part4;part5;weekend;raceseason;SkipSession;pausingandresuming;crashes;results;savingfor later;playingpreviouslysaved;endingsession;sessioncontrol;')} Related Topics





Part 3: Saturday Practice and Qualifying

Saturday Practice and Qualifying work just like the Friday <u>sessions</u>. Take this opportunity to plan your race strategy. Watch another driver's technique on the turns. Find a car setup that will maximize both your flat-out speed and cornering ability. Most importantly, this is your last chance to improve your grid position and your last chance to earn qualifying points.

If you skip both Friday and Saturday Qualifying sessions, you'll start the Sunday Race using your driver's real-world starting grid position. If you skip these sessions and your driver was not in the real-world race, you'll start the Sunday Race at the back of the pack.

Tip: Print this topic so that you can follow along with the tutorial as you race.

Note: This tutorial assumes that you're using the preset values for driving aids, game controls, and realism options. If you've changed these settings, your experience may differ somewhat from the tutorial.

To drive the Saturday Practice and Qualifying sessions

- 1 **Plan Race Strategy** Review and practice your race strategy. You don't need to lead every lap to win the race (although you get an extra point if you lead the most laps).
- Watch a Computer Driver Take a Lap If you're driving poorly, press K to get into another driver's car and watch their driving technique. To switch to an external view, press V. When you're ready to jump back into your own cockpit, press the HOME key.
- 3 **Get Setup Advice from the Race Engineer** When you're ready to end the session, press **ESC**, and then on the **Pause** screen, click **Garage**. Click **Yes** to confirm that you want to end the session. In the garage, click the **Overview** tab. Then click **Race Engineer** and follow the instructions on the screen. You'll get advice—provided by Nigel Bennett, CART Precision Racing race engineer—on how to improve your car setup. If you wish to forgo using the **Race Engineer**, here are some general guidelines for ovals:
 - Adjust your car for left turns by increasing the spring rate on the left side, which stiffens the suspension (**Suspension (Corner)** tab).
 - Set your tire pressure for top speeds in the straightaways. Start with 30 psi on the left side and 40 psi on the right side (**Tires** tab).
 - Increase the wheel stagger setting to get more speed in the turns (**Tires** tab).

Always test drive your latest garage settings, and go back to the garage for additional adjustments, as necessary. For more information on car setups, see <u>Finding a Car Setup That Works</u>.

4 **Go to the Next Session** When you're finished in the **Garage**, click **Next Session**. If you're ready, proceed to Part 4: Sunday Warm-Up.

{button ,AL(`part1;part2;part4;part5;weekend;raceseason;SkipSession;pausingandresuming;crashes;results;savingfor later;playingpreviouslysaved;endingsession;sessioncontrol;')} Related Topics





Part 4: Sunday Warm-Up

Take 15 minutes to warm up your car. This is your last chance to drive the track and check your car setup before the Sunday Race. Also, this is your final opportunity to go to the garage and adjust your car setup. After the Sunday Race starts, you can't make any more changes, except minor in-cockpit adjustments, such as increasing or decreasing tire pressures, which your pit crew can perform. See <u>Pit Stop Rules and Tips</u>.

Tip: Print this topic so that you can follow along with the tutorial as you race.

Note: This tutorial assumes that you're using the preset values for driving aids, game controls, and realism options. If you've changed these settings, your experience may differ somewhat from the tutorial.

To drive the Sunday Warm-Up session

- 1 **Review the Course One Last Time** To help you see where you are on the course while you're racing, press **M**. The game displays a map overlay of the track (your car is the red ball).
- 2 **Check Your Setup** This is the last opportunity you have before the race begins, to change your car setup. When you're ready to end the session, go to the **Garage**. See <u>Finding a Car Setup That Works</u> and <u>Creating and Saving a Custom Car Setup</u>.
- 3 Look at Your Results After 15 minutes, Precision Racing displays the Session Results screen with your fastest warm-up lap time.
- 4 **Go to the Next Session** It's time for Sunday's race. On the **Session Results** screen, click **Next Session**. If you're ready, proceed to <u>Part 5: Sunday Race</u>.

{button ,AL(`part1;part2;part3;part5;weekend;raceseason;SkipSession;pausingandresuming;crashes;results;savingfor later;playingpreviouslysaved;endingsession;sessioncontrol;')} Related Topics





Part 5: Sunday Race

This is the big day! You want to be the winner (and earn 20 points!), so be alert. Be fast. Be smooth. There's plenty to learn, and lots of game features to try during this first season race. Find out if you can drive in traffic. Watch replays of your best moments.

Tip: Print this topic so that you can follow along with the tutorial as you race.

Note: This tutorial assumes that you're using the preset values for driving aids, game controls, and realism options. If you've changed these settings, your experience may differ somewhat from the tutorial.

To drive the Sunday Race session

- 1 **The Race Is On!** All CART races feature a rolling start with the cars positioned on the grid according to your qualifying position and the CART Precision Racing grid positions for the Miami race. The green flag waves when the lead car crosses the starting line. You've got 13 laps (10 percent of the actual race length) to get yourself in position to win, so remember your race strategy. See <u>About Flags</u>.
- 2 Driving in Traffic If you're new to driving in traffic, remember that there are other cars to watch for on the track. Congested traffic in the turns is a particular problem early in the race. Pass slower cars on the inside. To check out your closest competition, press I for picture-in-picture, or if you want to see the race from a different angle, press V to change views.
 - **Hint:** Beware of other cars exiting the pits, so stay to the outside of the track after Turn 1 where pit lane merges with the course.
- 3 **Save That Maneuver!** If another driver has good passing technique or you just cornered exceptionally well, press **ESC**, and then click **Instant Replay** to see the maneuver again. To return to the race from the **Instant Replay** screen, click **Continue**, and then on the **Pause** screen, click **Resume Session**.
- 4 **Crashes** If you crash during the race with **Pit Stops** (**Realism** option) turned on and **Crash Damage** selected, a yellow flag signals caution on the track. Because **Pit Stops** and **Crash Damage** are turned off initially, your car will not sustain any damage, and you won't see any yellow flags. If you turn on this option, only damage that a real-world pit crew can repair is fixed. If damage to your car is too severe, your car will be transported back to the pits and your session is finished. See <u>Dealing with Crashes and Car Damage</u>.
- The End of the Race When the first-place driver crosses the finish line, all cars are automatically on their final lap. When the last driver completes the final lap, the **Session Results** screen displays your race stats. Points are awarded for 1st-place through 12th-place.
- 6 Hall of Fame If you want to compare your race stats to the fastest times for the Miami track, click Hall of Fame on the Session Results screen.
- 7 Save This Season Race If you are happy with your race and want to quit now, click Save Race (Race menu) to save it. Otherwise, continue now with the next <u>session</u> in the season—Friday Practice at Surfers Paradise, Australia.

Note: You can restart the game later and resume racing a saved season that you haven't completed. See Resuming a Previously Saved Season or Session.

{button ,AL(`part1;part2;part3;part4;weekend;raceseason;SkipSession;pausingandresuming;crashes;results;savingfor later;playingpreviouslysaved;endingsession;sessioncontrol;')} Related Topics



Racing a Single Race Weekend

If you've got an event in mind, such as the Miami race, you can drive a **Single Race Weekend**, which includes one or all of the <u>weekend sessions</u>. When you drive a single race weekend, you'll practice, qualify, and race the event like the CART pros, but the points you earn don't count toward the season championship.

If you'd rather race to earn points toward the season championship, consider driving a **Full Race Season** instead. You race the 17 tracks in the 1997 PPG CART World Series, and accumulate points based on how well you qualify and how well you finish each race. For more information about season play, see <u>Racing a Full Race Season</u>, or to step through your first season race, start with <u>Part 1: Friday Practice</u>, which is the first of five parts in the *Season Play Tutorial*.

To race a single race weekend

- 1 On the Races screen, click Single Race Weekend.
- 2 In the **Current Track** list, click the name of the track that you want to race.
- 3 In the **Current Session** list, click the name of the session that you want to race.
- 4 Click GO!

{button ,AL(`part1;part2;part3;part4;part5;raceseason;pacelap;SkipSession;pausingandresuming;crashes;results;savingforlater;playingpreviouslysaved;endingsession;')} Related Topics



Racing a Full Race Season

If you're ready to race like the real-world drivers, pick **Full Race Season**, and race all 17 tracks in the 1997 PPG CART World Series circuit. You'll follow the same 1997 schedule as the pros, starting with the Miami race and ending the season at Fontana. The goal is to accumulate the most qualifying and race points and win the 1997 season championship.

For each of the 17 tracks, you have the opportunity to drive six <u>weekend sessions</u>. You may decide not to race all the sessions in a weekend, but remember that if you skip both qualifying sessions or the Sunday Race sessions, you miss the opportunity to earn points toward the season championship. See <u>Skipping a Session</u>.

During the season, you'll race on three different types of tracks—ovals, <u>road courses</u>, and street circuits. The most obvious difference among the three types, other than their shape, is the method used to qualify. When you qualify on ovals, such as Miami and Michigan, you drive solo on the track for two warm-up laps followed by two timed qualifying laps. For road and street courses, such as Laguna Seca and Long Beach, you qualify in a group for 15 minutes (qualifying time is set in the **Realism** dialog box, **Options** menu).

Important: If you haven't raced a full season race before, go to <u>Part 1: Friday Practice</u>, which is the first of five parts in the *Season Play Tutorial*. The topics included in this tutorial take you step-by-step through each of the sessions in your first season race. *Following along with this tutorial is highly recommended.*

To start a full race season

- 1 On the Races screen, click Full Race Season.
- 2 In the Current Track list, make sure that the first season track, Miami, is selected.
- 3 In the **Current Session** list, click the name of the session that you want to race.
- 4 Click GO! to start the season.

{button ,AL(`part1;part2;part3;part4;part5;weekend;pacelap;SkipSession;pausingandresuming;crashes;results;savingforlater;playingpreviouslysaved;endingsession;')} Related Topics



Pausing and Resuming a Race

At any time during a race, you can pause the action, and then resume the race whenever you're ready.

To pause and then resume a race

- Press ESC.
 Precision Racing displays the Pause screen.
- 2 To resume the race, click **Resume**.

Tip: You can also save the race in the exact state and location at which you paused. For more information, see <u>Saving a Season or Session for Later Play</u>.

{button ,AL(`savingforlater;endingsession')} Related Topics



Skipping a Session

During a race weekend, you may not want to drive all six <u>weekend sessions</u>. For example, you may qualify well on Friday and want to skip the Saturday sessions. Or you may want to skip both Friday and Saturday Qualifying sessions and start the Sunday Race using your driver's CART Precision Racing 1997 starting grid position.

There are consequences, though, to skipping a session:

- If you skip both Friday and Saturday Qualifying sessions and your driver was not in the real-world race, you'll
 start the Sunday Race at the back of the pack. Skipping qualifying sessions also means that you miss the
 opportunity to earn qualifying points.
- During a race weekend, you cannot go back and drive sessions that you have skipped. During a race season, you cannot go back and drive sessions that are part of race weekends you have skipped.
- If you're racing a full season, skipping a Sunday Race can be disastrous for your season point totals, because you lose the opportunity to earn points for that track.

To skip a session from the Races screen

- 1 In the **Current Track** list, click the name of the next track that you want to race.
- 2 In the **Current Session** list, click the name of the next session you want to race.
- 3 Click GO!

To skip a session from the Session Results screen

- 1 In the **Select Next Track** list, click the name of the next track that you want to race.
- 2 In the **Select Next Session** list, click the name of the next session you want to race.
- 3 Click Next Session.

{button ,AL(`part1;part2;part3;part4;part5;weekend;raceseason;pausingandresuming;savingforlater;playingpreviously saved;endingsession;sessioncontrol;')} Related Topics



Dealing with Crashes and Car Damage

Driving at such extreme speeds, CART drivers take the risk of abruptly ending the race day by crashing their cars and sustaining heavy collision damage. CART Precision Racing gives you the option of turning on the **Realism** setting for **Pit Stops** and then selecting **Crash Damage** so that you can race like the real-world drivers and potentially experience the effects of crashing your car.

The **Pit Stops/Crash Damage** option is turned off initially when you start CART Precision Racing—even if you get into a pile-up on the track or crash your car into a barrier, your car is invincible. You can drive away without sustaining any damage.

If you turn on this option, only damage that a real-world pit crew can repair is fixed during the Sunday Race (during practice, qualifying, and test sessions, all damage is repaired by your pit crew). For a <u>light collision</u>, you need to drive to the pits for repair. If the damage is not repairable, your car is removed from the track, and the race ends. <u>Session</u> results simulate the stats for the remaining cars.

Note: If an opponent's car crashes during the race, the subsequent yellow flag condition offers strategic possibilities for you. The yellow flag may provide the perfect opportunity for a pit stop.

To turn on Crash Damage

- 1 Press **F3**.
- 2 On the left side of the Realism Options dialog box, click Pit Stops, and then click Crash Damage. Right-Click Tip: To find out more about an option, place the mouse pointer over the option, and click the right-mouse button.
- 3 Click OK.

{button ,AL(`realism options;part1;part2;part3;part4;part5;weekend;raceseason;results;endingsession;')} Related Topics



Reviewing Your Session or Season Results

For the current race weekend, you can review your results for each <u>session</u> on the **Session Results** screen. Session results show your best lap time and current grid position, with your stats highlighted in blue. For qualifying, results also show the best lap time for the lead and next fastest cars so that you can compare their numbers against your qualifying time. (If you do not complete the qualifying laps, the results show NQA—No Qualify Attempt.)

If you're driving a full race season, you can review your current season point totals on the **Season Results** screen. Point totals are shown by driver and race. Race points are awarded for 1st-place through 12th-place (see points table below). The fastest qualifier for a race also earns an extra point toward the season championship.

20	
16	
14	
12	
10	
8	
6	
5	
4	
3	
2	
1	
	16 14 12 10 8 6 5 4 3 2

To review your session results

Sunday Race Lap Leader 1

Best Qualifying Time

- 1 On the Races screen, click Session Stats.
- In the View Results For list, select the session results that you want to review.
 Tip: If you want to compare your race stats to the fastest times for the current track, click Hall of Fame.

To review your season results

- 1 On the Races screen, click Season Stats.
- 2 If you want to save your season results, click Save.
- 3 If you want to load the results from a previously saved season, click **Load**.

{button ,AL(`part1;part2;part3;part4;part5;weekend;raceseason;SkipSession;savingforlater;playingpreviouslysaved;en dingsession;')} Related Topics



Saving a Season or Session for Later Play

If you want to quit CART Precision Racing before you're finished with a season or <u>session</u>, you can save it so that you can return to it later; in a day, a month, or even a year. You can also share saved races with other Precision Racing players.

To save a race for later play

- 1 On the **Race** menu, click **Save Race**. If the menu bar is not visible, press **F4**.
- 2 In the **File Name** box, type a name for the race.
- Click Save.
 Now, any time you're ready, you can click Open Race (File menu) to resume the season or session.

{button ,AL(`endingsession;multiplayer;pausingandresuming;playingpreviouslysaved')} Related Topics



Resuming a Previously Saved Season or Session

You can resume the excitement of a saved season or session whenever you want.

To restart a previously saved race

- On the Race menu, click Open Race.
 If the command is unavailable, you may have a race loaded. Click End Race on the Race menu, and then repeat step 1.
- 2 Click the race file that you want to open.
- 3 Click Open.
- 4 Click Resume.

{button ,AL(`multiplayer;savingforlater')} Related Topics



Ending a Season or Session

When you've had enough of the action, you can end a season or <u>session</u> before it's over. You can pretend that it was a bad dream or, if you prefer, you can save the season or session and face the challenge some other time.

To end a season or session before it's finished



If you want to specify a different session and/or track (or start a new season), press **ESC**, and then click **End Race** (or **End Season**).

-Or-



If you want to make changes to your car setup, change the driver, or configure a new race, on the **Race** menu, click **End Race** (or **End Season**, if you're racing a season race).

Note: If the menu is not visible, press F4.

If you want to make changes to your car setup, change the driver, or configure a new race, it's quickest to click **End Race** (or **End Season**) and make your changes from the **Races** screen. If you want to specify a different session and/or track, it's quickest to press **ESC** and make your changes from the **Pause** screen.

{button ,AL(`pausingandresuming;savingforlater')} Related Topics



Starting a Quick Race

If you want to begin racing now, a <u>Quick Race</u> is the fastest way to the track. In a Quick Race, the track, driver, and your starting position are randomly selected for you. All you need to do is climb into the <u>cockpit</u> and start racing.

To start a Quick Race

1 On the CART Precision Racing Start Screen, click Quick Race.

-Or-

From the Races screen, click Quick Race.

Precision Racing displays the Start Quick Race dialog box.

Note: If this is the first time you've hit the track, Precision Racing displays the **Before You Begin** dialog box in which you can change your primary driving control device. If you wish to change your control device, when you are finished, Precision Racing returns you to the **Start Quick Race** dialog box and you can continue with step 2 in this procedure.

2 To accept the Quick Race settings and begin racing, click OK.

-Or-

To select different Quick Race settings, click Configure Quick Race. See Configuring a Quick Race.

{button ,AL(`drivingcontrol;configuringquick;pausingandresuming;endingsession')} Related Topics



Configuring a Quick Race

<u>Quick Race</u> is the fastest route to the racing action. Be prepared for the unexpected; in a Quick Race the track, driver, and starting position are randomly selected. However, if you prefer a less random approach, you can choose your own settings. You can also change the race length and turn the pace lap on or off.

To specify settings for a Quick Race

- 1 On the CART Precision Racing Start Screen, click Quick Race.
 - -Or-
 - On the Races screen, click Quick Race.
 - Precision Racing displays the **Start Quick Race** dialog box.
- 2 Click Configure Quick Race.
- 3 To specify a specific track, driver, or starting position, clear the **Random** check box that is associated with the settings that you want to change; and then specify the track, driver or starting position you want.
- 4 To change the percentage of the race length that you want to drive, drag the Laps slider.
- 5 To drive the pace lap, select the **Pace Lap** check box.
 - -Or-
 - To skip the pace lap, clear the Pace Lap check box.
- 6 Click OK.
- 7 Review your Quick Race settings in the Start Quick Race dialog box, and then, when you're ready to race, click OK.

{button ,AL(`startingquick')} Related Topics



About Pi Analysis

The Pi Analysis system featured in CART Precision Racing is based on an advanced data acquisition and telemetry system used by many of the real-world CART racing teams. Designed by Pi Research LTD., the Pi Analysis system records information about a driver's control inputs and engine and chassis performance and transmits that information in real-time to the race engineers in the pits.

Every time you pull into the pits, your pit crew knows exactly what adjustments need to be made because they've been monitoring your car as you're driving. Your chances of finding a good car setup, and finding it fast, increase exponentially when Pi Analysis is a part of your pit crew.

After an outing on the track, the Pi Analysis system automatically generates a circuit map from the data recorded for each lap. When you combine this map with the control input and engine and chassis performance data, along with instant replay video, you can see exactly how you and your car performed out on the track.

The ability to pinpoint driver, engine, and chassis performance at any location on the track with this level of detail makes the Pi Analysis system a valuable learning tool, as well as a major race day advantage.



What Pi Analysis Tells You

The CART Precision Racing Pi Analysis system logs and graphs information about driver inputs and engine and chassis performance parameters. You can chart and compare these types of information (**Graph Type** options):

- Brake (%) Shows you how well you're working the brakes, both coming in and going out of corners. Compare laps to find the best braking point for corners: the later you can brake when entering a corner, the better, as long as you don't sacrifice too much speed at the exit.
- Throttle (%) Graphs how smoothly and consistently you're applying the throttle on each lap and where you're
 lifting off the throttle in the middle of a corner. Remember, there's no coasting in racing!
- **Speed (MPH)** Speed graphs are most useful when comparing two laps. Overlay two laps to see where you're gaining speed and where you're losing it from one lap to the next. Compare entry and exit speeds in a corner to determine the best approach to a particular corner. See <u>Comparing Two Laps Using Pi Analysis</u>.
- **Engine Speed (RPM)** Use the engine speed graph to track how much time you spend in a given RPM band, and to see how adjustments made to gear settings in the garage affect your RPMs throughout a lap.
- **Gear** Shows your gear changes—how efficiently you're working the gears—as you progress through a lap. To get a handle on shifting, drive one lap with <u>Auto-Shift</u> turned on (F7). Drive the next lap with <u>Auto-Shift</u> turned off (F7). Then, compare the two laps.
- Lateral Acceleration (G) Shows where weight transfer (and the accompanying lateral g forces) occur in a cornering sequence. By comparing where lateral g's begin to build up in a corner, you can see where you're transitioning from full acceleration on a straightaway to steering into a turn. Your goal should always be to spend as much time as possible under full acceleration, and as little time as possible taking turns.
- Inline Acceleration (G) Shows your series of throttle and brake inputs as you complete a lap. Once you've achieved a lap time you're happy with, your goal should be to achieve consistency in accelerating and braking. As your car setup and driving technique improve, however, you also want to focus on using more throttle through a corner, and on applying the throttle sooner as you're coming out of a corner.
- Steering Angle (deg) Tracks your steering inputs, or how much you crank the steering wheel. Upward spikes on the graph indicate a left-hand turn; downward spikes indicate a right-hand turn. The smoother you are, the smaller the spikes. Large spikes may indicate where you're being most affected by oversteer and <u>understeer</u> car handling characteristics.



Saving a Pi Analysis File

When you post a particularly spectacular lap time, you can save a file of the Pi Analysis data associated with that outing on the track. Later, you can compare your performance with another <u>session</u> on the same track. You can also share your Pi Analysis files with other CART Precision Racing players to see how you shape up against the competition.

In most cases, multiple laps from the same session are saved together when you save a Pi Analysis file, which means you can review your performance on multiple laps using a single file.

To save a Pi Analysis file

- 1 After completing the laps for which you want to save Pi Analysis data, press **ESC**. Precision Racing displays the **Pause** screen.
- 2 Click Pi Analysis.
- 3 Click the First Data Set tab.
- 4 Click Save.
 - The Save As dialog box is displayed.
- 5 In the **File Name** box, type a name for the file.
 - Pi Analysis files use the file name extension .anl.
 - **Tip:** It is a good idea to name the file after the specific track and session so that you don't try comparing data for different tracks or compare a Qualifying session with a Practice session, for example.
- 6 Click Save.



Opening a Previously Saved Pi Analysis File

If you've saved a Pi Analysis file associated with a specific track or <u>session</u>, you can open the file at any time, either to compare your performance on a different lap on the same track, or simply to relive the glory of a particularly well-driven ride around the circuit. You can also share Pi Analysis files with other CART Precision Racing players. See how your throttle inputs and gearing choices match up against those of your opponents!

To load a previously saved Pi Analysis file

- 1 On the View menu, click Pi Analysis.
 - -Or-
 - If you are driving, press **ESC**, and then click **Pi Analysis**.
- 2 Click Load.
- 3 Click the name of the Pi Analysis file that you want to open. Pi Analysis files use the file name extension .anl.
- 4 Click Open.



Comparing Two Laps Using Pi Analysis

You can use Pi Analysis to compare your performance for two specific laps during any on-track <u>session</u>. If you save your most noteworthy laps as Pi Analysis files, you can also compare your performances from several sessions. You can even compare Pi Analysis files against other CART Precision Racing players to see how your driving performance stacks up against the competition.

Keep in mind that comparing Pi Analysis files for two different tracks won't give you much useful information. You'll get the best results by comparing performances on the same track.

To compare two laps using Pi Analysis

- 1 On the View menu, click Pi Analysis.
 - -Or-
 - If you are driving, press ESC, and then click Pi Analysis.
- 2 Click the First Data Set tab.
- 3 To view data from one of the laps from the current on-track session, in the View Lap list, click the lap you want to see data for.
 - -Or-
 - To view data from a lap in another Pi Analysis file, click Load, click the file you want, and then click Open.
- 4 To specify a second lap to compare against the first, click the **Second Data Set** tab, and then repeat step 3. Data for this second lap is displayed in blue on the graph.
- 5 To graph other types of data for these laps, in the **Graph Type** list, click the graph type you want to display.



Customizing Your Pi Analysis Graph Display

Whenever you review car and driver performance information using Pi Analysis, you can customize the graph display to hone in on a specific segment of the track or to enlarge the graph window to display more continuous information about a specific lap.

- Zeroing in on a Specific Location on the Track To zoom in on the graph for a specific segment of the track, click the location you want to view on the car location map, and then click the arrows on the Zoom slider to increase or decrease the zoom level of the graph.
 - **Tip:** Clicking the right arrow on the **Zoom** slider "stretches" the graph to display more detailed (and often, more readable) information about a smaller portion of the track, while clicking the left arrow on the **Zoom** slider "compresses" the graph data to display information about a larger section of the track in the same amount of space.
- Full Graph vs. Replay And Graph To switch between displaying a full graph and displaying a graph accompanied by the instant replay window, in the Format list, click the format you want.
 - **Tip:** To see how well you're following the racing line through a specific corner, use the **Replay And Graph** option. On the car location map, click the turn you want to review, and then click the ½-speed video control button. Observe the graphs that plot your braking and acceleration points through the corner.
- Y-Axis vs. X-Axis The increments associated with the type of information being graphed (that is, gear numbers, speed in mph, and so on) appear along the longitudinal axis (up and down along the left side of the graph) while the increments associated with distance (measured in thousands of feet) are displayed along the latitudinal axis.



About Flags

Understanding and responding correctly to flags is one of your most important responsibilities as a racecar driver. Flags communicate crucial information to all the drivers, and they play a vital role in maintaining safety on the track.

Whenever a flag situation develops, the flag first appears in the center of your screen as you're driving. The flag waves a couple of times to catch your attention, and then moves to the lower-left corner of the screen so that you can check the current flag situation at a glance.

In real-world racing, failure to respond to a flag usually results in being shown another, less popular pennant, the black flag!

{button ,AL(`flags')} Related Topics



The Green Flag

When you see the green flag, you know that the racetrack is open and clear for racing speeds.

The most common green flag situation is when it signals the start of all on-track <u>sessions</u>, from practice and qualifying, to Sunday Warm-Up and the Sunday Race.

During qualifying sessions on ovals, the green flag appears after your two warm-up laps to signal the start of your first <a href="https://doi.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org/10.2016/journal.org

{button ,AL(`flags;part2;part3;part5')} Related Topics



The Yellow Flag

If you have **Pit Stops** (**Realism** option) turned on and **Crash Damage** selected, the yellow flag is displayed when you make contact with another car. Depending on the seriousness of the damage to your car, you may be able to continue driving. If the damage is too severe, however, your car will be transported back to the pits and your session is finished.

{button ,AL(`flags;part5')} Related Topics



The White Flag

The white flag flies from the starter's stand when the leader crosses the start/finish line to start his last lap, both during qualifying <u>sessions</u> and the Sunday Race.

{button ,AL(`flags;part2;part3;part5')} Related Topics



The Blue Flag with a Diagonal Stripe

When you receive this signal flag anywhere on the racetrack, it means that you are about to be overtaken by a faster car. Although not required, it is usually considered good form to move over and give consideration to the overtaking car, especially if it's the race leader.

{button ,AL(`flags')} Related Topics



The Checkered Flag

Perhaps the most beloved sight in all of racing, the checkered flag waves to signal the end of the race. If you're the first to see the checkered flag as you cross the start/finish line, it means you've won the race, and it's time to head to Victory Lane for a bottle of champagne.

The checkered flag also flies at the end of qualifying sessions.

{button ,AL(`flags;part5')} Related Topics

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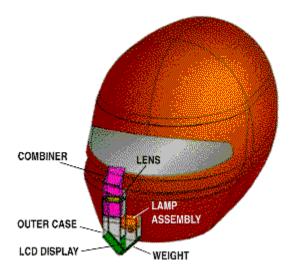
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Delco Electronics



In most situations, not much changes from one second to the next. But for professional race car drivers, a lot can happen. At 220 mph, for example, an Indy car travels the length of a football field in nine-tenths of a second—the same amount of time it takes a driver to glance down and read information on a traditional in-dash display. Racing EyeCue is a new technology developed at Delco Electronics Corporation that helps drivers keep their eyes on the track at all times.



Racing EyeCue features a single-eye optical head-up display system with a reconfigurable color graphic presentation of vital racing data projected on a semi-transparent combiner. Conventional systems currently use a monochromatic fixed segment display.

The system can be customized to display a variety of performance data, such as engine speed, fuel consumption, gear position and boost pressure. It also can be used to notify drivers about accidents and changing track conditions, as well as to transmit proprietary information between the pit crew and driver.

Engine information is relayed from the engine control module to a microprocessor on the car's chassis, which is attached to the driver's helmet by an electrical cable. Information is processed by a video encoder, then transmitted to a small, color liquid crystal display (LCD), projected 12 feet in front of the driver, just below the driver's line of sight.



NovAtel



Race tracks in CART Precision Racing are based on track maps created using Global Positioning System (GPS) technology by NovAtel. The GPS is comprised of 24 earth-orbiting satellites that transmit radio signals 24 hours a day-worldwide. NovAtel's GPS receivers calculate the distance from the satellites to the receiver and then a triangulation technique determines exact geographical locations.

NovAtel's Outrider (see photo) was used to survey the race track and to map everything on the track from pavement, curbs, fence lines, pits, waiting lights, paint lines and visible landmarks—all at accuracies of 10 to 500 centimeters. GPS technology, coupled with an inclinometer (an instrument that measures angles), was also used to determine the degree of track banking.



Racer Magazine



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RACER P.O. Box 18449 Anaheim, CA 92817-8449 Type your name here, or click the arrow, and then click a name from the list of previously registered players. If you select a name from the list, you also get the associated player settings; for example; driving aids, realism options, and driver.

Click this to go to the **Races** screen, where you pick the track, session, and type of race you want to run.

It doesn't count toward season point totals, but Quick Race is a way to get into the game quickly and without a fuss. With a Quick Race, the track, driver, and starting position are selected randomly for you. Or, if you wish, you can be specific about which track, driver, and grid position you use.

Click this for lessons, animations, and videos on key racing concepts and driving techniques.

Click this to start your Internet browser and visit the CART Precision Racing Web site, where you can find information about the product and technical support.

Click 2, and then click an item on the screen for information about using that item.

Click to shrink the Precision Racing window. To restore the window, click the *Precision Racing* taskbar button.

Click $\overline{\mathbf{X}}$ to exit the game.

The slider tracks the progress of the replay. Drag the slider control to move the replay ahead or backward.					

Vasserwin.rpl).		

Click this to load a previously saved instant replay file. Instant replay files have the file name extension .rpl (i.e.,

Click this to return to the beginning of the video.

Click this to play the video backward.

Click this to freeze the video.

Click this to play the video at regular speed.

Click this to play the video in slow motion.

Click this to save the instant replay as a file that you can share with other players or simply view yourself again and again!

Click this to switch to a full-screen view of the race action. To return to the Instant Replay screen, press ESC .	

Lists the camera views you can use to watch the instant replay. These are the same camera views you can access while you're racing. Click the arrow to display the list of camera views, and then click the camera view you want.

Lists the cars competing in the race you're reviewing. You can view instant replay footage for any car in the race. Click the arrow to display the list of participating cars, and then click the one you want.

Click this to zoom in using the current camera view.

Click this to zoom out using the current camera view.

Click this to rotate the camera angle down along a 180-degree vertical axis.

Click this to rotate the camera angle up along a 180-degree vertical axis.

Click this to rotate the camera angle to the left horizontally.

Click this to rotate the camera angle to the right horizontally.

Click to close this screen and return to the previous syour next race session.	screen. If this button says Ne x	kt Session, clicking it will launch

Hall of Fame lists the top 10 player records for the selected track. To select a track, click the arrow to display the of tracks, and then highlight the one for which you want to see the Hall of Fame results.	e list

Lists completed race sessions. want to see results.	Click the arrow to display	the list of sessions, and	then click the one for which	ch you

The driver who led the most laps for the session point.	. The lap leader	during a Sunday F	Race is awarded on	e championship

If you are racing a full race season or single race weekend, this lists the remaining sessions in your current race weekend. You can select any session in the list. However, if you skip over a session, you skip it for the rest of the season or weekend.

If you are racing a Quick Race, or taking a Test Drive, this names the current session that you are racing.

The name of the current track—or, if you're racing a season race, lists the remaining tracks in the season (in event order). If you are racing a full season, you can select any track in the list. However, if you skip over a track, you skip it for the rest of the season.

Click this to save your results as a file that you can share with other players, or simply view yourself later on.	

Click this to load any previously saved results file. Session and season results files have the file name extension . (i.e., Bigwin.rlt).	rlt

Click this to go to the garage where you can tune your car for the next race. If you need assistance, the garage has a race engineer to help you.

Click this to go to the Race Graph screen where you can compare, lap-by-lap, how you stack up against your competitors. This screen is available only after a race.					

Indicates the winner of pole position, which is awarded to the fastest qualifier. Pole position is worth one

championship point.

Click this to go to the Hall of Fame screen where you can view the top 10 record holders for each track.

Click this to go to the Instant Replay screen where you can review a video of your recent racing performance.

Click this to go to the Awards screen. categories.	The Awards screen sho	ws the current standings	in the various season award

Lists the current standings in the seasonal competition among the engine manufacturers. the title of Manufacturer's Champion for engines.	The season winner secures

Lists the current standings in the seasonal competition among the tire manufacturers. The season winner secures itle of Manufacturer's Champion for tires.	s the

ists the current standings in the seasonal competition among the chassis manufacturers. The season winner walks way with the Constructor's Cup.	

This graph is a visual representation of the session. The position for each lap is taken from whatever position you and the other drivers are in as you cross the start/finish line each lap.

Lists the drivers. To select a driver, click the down arrow and highlight the driver you want.

Lists the drivers. To select a driver, click the down arrow and highlight the driver you want.

Lists the teams. To select a team, click the down arrow and highlight the team that you want.

Click this for all the juicy details on the drivers in the game, including starting grid positions, stats, biographies, and career highlights for all the drivers.	

Click this to find out the chassis, engine, tires, car, and owner for the selected driver.

Click this to open the Driving Aids dialog box where you can select your skill level, edit a player name, and the driving aids you want.	specify

Click the track you want to race on. The tracks are listed in the order of the 1997 PPG Cup races.

If you are hosting a mulitplayer session and have not yet completed the Sunday race, this list includes only the current track. To select another track, click **End Race** (**Race** menu), and then click the track you want.

Click the track you want to race on. The tracks are listed in the order of the 1997 PPG Cup races.

If you are hosting a mulitplayer session and have not yet completed the Sunday race, this list includes only the current track. To select another track, click **End Race** (**Race** menu), and then click the track you want.

Displays the number of laps in the Sunday Race for the selected track. To change the number of laps, click the arrows or drag the slider. To find out the real-world total number of laps, drag the slider all the way to the right.

Displays the number of laps in the Sunday Race for the selected track. To change the number of laps, click the arrows or drag the slider. To find out the real-world total number of laps, drag the slider all the way to the right.

Click this to see detailed maps of all the tracks and find out the starting grid positions for each race. A few tracks feature in-cab videos of a lap around the real-world track.			

Lists available opponents. The first three columns—player name, skill level, and car number—provide information about your human opponents. The next column reflects a player's latency rate, or the speed at which information is sent from your computer to another player's computer and back. The final column lets you know a player's status, such as who is the host, who has left the game, or if a new player has joined the game. In general, keep in mind that the more cars racing, the slower the game runs.

Click this to host or join a multiplayer session, or to connect to the Internet Gaming Zone.

Click this to remove from your game the player whose	name is highlighted in the Pla	ayer Information list. This button
is available only when you are the host of a game.		

This area allows you to view messages sent from your opponents before you go to the track.

Select the player to whom you want to multiplayer session.	o send a message. O	r, click All Players to	send a message to e	everyone in the

Type your message here. Let your opponents know what you *really* think of their chances!

Click this to send the message you typed in the **Message** box.

Click this to race a single race weekend. Participate in as many of the weekend sessions as you like. This is a good choice if you have a specific event in mind that you want to try. To simulate the championship tour, choose **Full Race Season** and race the 1997 PPG CART World Series tracks.

Click this to start a new PPG Cup season. Race the 1997 events that are in the PPG CART World Series. Your ultimate goal is to race all the circuits and win the PPG Cup Championship. Before you quit a full race season, save the season if you want to resume it at a later time.

Click this to test drive your car. Get familiar with a track and check your setup before you race.

To race a different session on the current track, click the down arrow and click the session that you want.

Note: If you skip both qualifying sessions, you start from the same grid position that your driver had in the real-world race. If your real-world driver didn't qualify, you start at the back of the pack! You can look up grid positions: click **Track Info** on the **Tracks** screen.

Click this to view the results of your recent session in comparison to competing drivers.

Lists the tracks in the order of the PPG CART World Series. Be careful! If you are racing a full race season and skip a track in the season sequence, you cannot go back and race it during that season. Also, if you are racing a full race season, only the tracks that are left on the season schedule are in the list.

If you are hosting a mulitplayer session and have not yet completed the Sunday race, this list includes only the current track. To select another track, click **End Race** (**Race** menu), and then click the track you want.

Click this to check out the current standings in the current full race season.

Click this to go to the garage where you can tune your	car. The garage has a	Race Engineer feature to	assist you.

If you are racing a full race season or single race weekend, this lists the remaining sessions in your current race weekend. You can select any session in the list. However, if you skip over a session, you skip it for the rest of the season or weekend.

If you are racing a Quick Race, or taking a Test Drive, this names the current session you are racing.

Click this to start the session that is currently selected in the **Select Next Session** list.

Click this to go to the Pi Analysis screen where you can analyze charted Pi data relating to your racing performance

Click this to go to the **Instant Replay** screen where you can watch your recent racing performance.

Click this to end the current race or season.

Click this to return to the session you paused!

Click Full Graph to closely compare Pi Analysis files for two different laps. Click Replay And Graph to watch a replay or find specific locations on the map using the instant replay window.			

Lists the available types of information you can chart.

Drag the slider to control the zoom level for the currently displayed graph. Drag right to display more detailed information about a smaller portion of the track. Drag left to display information about a larger section of the track in the same amount of space.

Displays the Pi data for the currently selected graph type. The increments associated with the type of information being graphed (i.e., gear numbers, speed in mph, etc.) are displayed along the longitudinal axis. The increments associated with distance (measured in thousands of feet) are displayed along the latitudinal axis.

The position of the slider shows the position of your car as it progresses through one lap. Drag the slider to move quickly to a specific location, or click the left and right arrows to move the graph forward or backward a little at a time.	

Replays the currently selected lap in the same camera views available to you out on the track. A glance at the map during replay tells you the exact location of your car on the circuit. To switch camera views, on the **View** menu, click **Cameras**, and then click the view you want.

Click this to rewind the video to the beginning of the current lap.

Click this to play the video of the current lap backwards.

Click this to stop playing the video of the current lap.

Click this to play the video of the current lap.

Click this to play the video of the current lap in slow motion.

Displays a map of the circuit. To display the Pi data for a specific location on the track (and for the currently selected lap), click the point on the map for which you want to see data.

Click this to hide or display the graph data for the current session. Laps charted as the first data set appear in red. Those charted as the second data set appear in blue.				

Displays information about an open data set.

Displays the file name for an open Pi Analysis file.

Lists the laps from the current session or from a previ	ous session you have ope	ened. Click the lap you wa	nt to graph.

Click this to open a previously saved Pi Analysis file. Look for the file name extension u	ised by Pi analysis files, .anl.

Click this to save the Pi data for the current session. Pi analysis files use the file name extension .anl.

Click this to start the Race Engineer, where you answer a series of questions about how your car's handling with the current car setup. The Race Engineer offers advice on tweaks that can be made to improve your car setup in response to your feedback.

ists the available car setups for the currently active track type (oval, sup	erspeedway, street circuit, or road circuit).

Click this to save the custom car setup you just created. If you don't save the setup, you will lose any tweaks or adjustments you made to the car setup for the currently active type of track.				

Click this to delete the currently selected car setup. Remember, you will lose any custom tweaks you made if you delete this setup. Also, keep in mind that you cannot delete the default car setups for each of the track types (oval, superspeedway, street circuit, road circuit).

Click this to get out on the track to test your latest changes.

Displays the current setting for the right front tire compound. To change this setting, click the **Tires** tab.

Displays the current setting for the left front tire compound. To change this setting, click the **Tires** tab.

Displays the current setting for the right rear tire compound. To change this setting, click the **Tires** tab.

Displays the current setting for the left rear tire compound. To change this setting, click the **Tires** tab.

Displays the current setting for the right front tire compound. To change this setting, click the **Tires** tab.

Displays the current setting for the left front tire compound. To change this setting, click the **Tires** tab.

Displays the current setting for the right rear tire compound. To change this setting, click the **Tires** tab.

Displays the current setting for the left rear tire compound. To change this setting, click the **Tires** tab.

Displays the current tire pressure in the right front tire. To change this setting, click the **Tires** tab.

Displays the current tire pressure in the left front tire. To change this setting, click the **Tires** tab.

Displays the current tire pressure in the right rear tire. To change this setting, click the **Tires** tab.

Displays the current tire pressure in the left rear tire. To change this setting, click the **Tires** tab.

Displays the current tire pressure in the right front tire. To change this setting, click the **Tires** tab.

Displays the current tire pressure in the left front tire. To change this setting, click the **Tires** tab.

Displays the current tire pressure in the right rear tire. To change this setting, click the **Tires** tab.

Displays the current tire pressure in the left rear tire. To change this setting, click the **Tires** tab.

Displays the current spring rate setting for the right front tire tab.	To change this setting,	click the Suspension (Corner)

Displays the current spring rate setting for tab.	the left front tire. To change t	this setting, click the Suspension ((Corner)

Displays the current spring rate setting for the right rear tire. To change this setting, catab.	click the Suspension (Corner)

Displays the current spring rate setting for the left rear tire. To change this setting, click the Suspension (Corne tab.	∍r)

Displays the current spring rate setting for the right front tire tab.	To change this setting,	click the Suspension (Corner)

Displays the current spring rate setting for tab.	the left front tire. To change t	this setting, click the Suspension ((Corner)

Displays the current spring rate setting for the right rear tire. To change this setting, catab.	click the Suspension (Corner)

Displays the current spring rate setting for the left rear tire. To change this setting, click the Suspension (Corne tab.	∍r)

Displays the current camber setting for the right front tire. To change this setting, click the Suspension (Corner)	tab.

Displays the current camber setting for the left front tire.	. To change this setting, c	lick the Suspension (Corner) tab.

Displays the current camber setting for the right rear tire.	To change this setting, click the Suspension (Corner) tab.

Displays the current camber setting for the left rear tire. To change this setting, click the Suspension (C	orner) tab.

Displays the current camber setting for the right front tire. To change this setting, click the Suspension (Corner)	tab.

Displays the current camber setting for the left front tire.	. To change this setting, c	lick the Suspension (Corner) tab.

Displays the current camber setting for the right rear tire.	To change this setting, click the Suspension (Corner) tab.

Displays the current camber setting for the left rear tire. To change this setting, click the Suspension (C	orner) tab.

Displays the number of currently planned pit stops. To change this setting, click the **Pit Strategy** tab.

Displays the number of currently planned pit stops. To change this setting, click the **Pit Strategy** tab.

Displays the amount of fuel with which you will currently start a race. To change this setting, click the Misc. tab.	

Displays the amount of fuel with which you will currently start a race. To change this setting, click the Misc. tab.	

Displays the current ballast position. To change this setting, click the **Misc.** tab.

Displays the current ballast position. To change this setting, click the **Misc.** tab.

Displays the current stagger setting. To change this setting, click the **Tires** tab.

Displays the current stagger setting. To change this setting, click the **Tires** tab.

Displays the current gurney flap setting for the front wing. To change this setting, click the Aerodynamics tab.	

Displays the current gurney flap setting for the front wing. To change this setting, click the Aerodynamics tab.	

Displays the current gurney flap setting for the rear wing.	To change this setting, click the Aerodynamics tab.

Displays the current gurney flap setting for the rear wing.	To change this setting, click the Aerodynamics tab.

Displays the current gurney flap setting for the front wing. To change this setting, click the Aerodynamics tab.	

Displays the current gurney flap setting for the front wing. To change this setting, click the Aerodynamics tab.	

Displays the current front toe-out setting. To change this setting, click the **Suspension (Axle)** tab.

Displays the current front toe-out setting. To change this setting, click the **Suspension (Axle)** tab.

Displays the current rear toe-in setting. To change this setting, click the **Suspension (Axle)** tab.

Displays the current rear toe-in setting. To change this setting, click the **Suspension (Axle)** tab.

Displays the currently selected differential type. To change this setting, click the **Drive Line** tab.

Displays the currently selected differential type. To change this setting, click the **Drive Line** tab.

Displays the currently selected gear ratio settings. To change this setting, click the **Drive Line** tab.

Displays the currently selected gear ratio settings. To change this setting, click the **Drive Line** tab.

Displays the currently selected front anti-roll bar setting.	To change this setting,	click the Suspension (Axle)	tab.

Displays the currently selected front anti-roll bar setting.	To change this setting,	click the Suspension (Axle)	tab.

Displays the currently selected rear anti-roll bar setting. To	o change this setting, click the Suspension (Axle) tab.

Displays the currently selected rear anti-roll bar setting. To	o change this setting, click the Suspension (Axle) tab.

Displays the current steering ratio setting. To change this setting, click the **Suspension (Axle)** tab.

Displays the current steering ratio setting. To change this setting, click the **Suspension (Axle)** tab.

Displays the current front wing angle setting. To change this setting, click the **Aerodynamics** tab.

Displays the current front wing angle setting. To change this setting, click the **Aerodynamics** tab.

Displays the current rear wing angle setting. To change this setting, click the **Aerodynamics** tab.

Displays the current rear wing angle setting. To change this setting, click the **Aerodynamics** tab.

Displays the current front static ride height setting. To change this setting, click the **Aerodynamics** tab.

Displays the current front static ride height setting. To change this setting, click the **Aerodynamics** tab.

Displays the current rear static ride height setting. To change this setting, click the **Aerodynamics** tab.

Displays the current rear static ride height setting. To change this setting, click the **Aerodynamics** tab.

Lists the currently planned pit stops for the Sunday Race for the current track. You can plan up to a total of 10 stop for a race.

Lists the planned pit stops for the Sunday Race for the current track. You can plan up to 10 stops for a race.

Lists the planned pit stops for the Sunday Race for the current track. You can plan up to 10 stops for a race.

Click this to add a pit stop. You can plan up to a total of 10 stops for a race. The pit window for each stop is calculated by determining how far the car can travel on a full 35-gallon fuel tank. The calculation is based on the single lap distance and the estimated gas mileage (1.8 mpg) for all CART cars.

Click this to delete the pit stop that is currently highlighted in the **Planned Stops** list.

specify a different lap number for the first lap of the selected pit window.	

Lists the first lap of the pit window for the pit stop that is highlighted in the **Planned Stops** list. Click the arrows to

Lists the last lap of the pit window for the pit stop that is highlighted in the Planned Stops list. Click the arrows to specify a different lap number for the last lap of the selected pit window.

Adjusts the size of the front gurney flap. Drag the slider to the right to increase the size of the gurney flap, or to the left to decrease the size.

Adjusts the size of the front gurney flap. Drag the slider to the right to increase the size of the gurney flap, or to the left to decrease the size.

Adjusts the degree of wing angle for the front wings. Drag the slider to the right to increase the front wing angle, or to the left to decrease the angle. The front wing angle setting is used to create aerodynamic balance with the rear wing. The front wing has almost no effect on drag, which is generated almost solely by the rear wing.

Adjusts the degree of wing angle for the front wings. Drag the slider to the right to increase the front wing angle, or to the left to decrease the angle. The front wing angle setting is used to create aerodynamic balance with the rear wing. The front wing has almost no effect on drag, which is generated almost solely by the rear wing.

Adjusts the distance between the bottom of the front of the car and the road. Drag the slider to the right to increase the distance, or to the left to decrease the distance. In general, the static ride height for the front of the car should be approximately one inch closer to the ground than the rear of the car. However, due to their uneven surfaces and variable surface heights, permanent road and temporary street circuits use a higher static ride height. On ovals, where stability at high speeds is crucial, it's important to combine the static ride height setting with stiffer spring settings to create a stable ride.

Adjusts the distance between the bottom of the front of the car and the road. Drag the slider to the right to increase the distance, or to the left to decrease the distance. In general, the static ride height for the front of the car should be approximately one inch closer to the ground than the rear of the car. However, due to their uneven surfaces and variable surface heights, permanent road and temporary street circuits use a higher static ride height. On ovals, where stability at high speeds is crucial, it's important to combine the static ride height setting with stiffer spring settings to create a stable ride.

Adjusts the size of the rear gurney flap. Drag the slider to the right to increase the size of the gurney flap, or to the left to decrease the size.

Note: Rear gurney flaps are not allowed on short ovals. With no gurney flaps, it's important to use the maximum rear wing angle setting because downforce is at a premium on short ovals. On short ovals, such as Rio de Janeiro, drag becomes more important, so you may want to try reducing the size of the rear gurney flap to find the right compromise between drag and downforce. Also, the gurney flap size setting for superspeedways is minimal.

Adjusts the size of the rear gurney flap. Drag the slider to the right to increase the size of the gurney flap, or to the left to decrease the size.

Note: Rear gurney flaps are not allowed on short ovals. With no gurney flaps, it's important to use the maximum rear wing angle setting because downforce is at a premium on short ovals. On short ovals, such as Rio de Janeiro, drag becomes more important, so you may want to try reducing the size of the rear gurney flap to find the right compromise between drag and downforce. Also, the gurney flap size setting for superspeedways is minimal.

Adjusts the degree of wing angle for the rear wings. Drag the slider to the right to increase the rear wing angle, or to the left to decrease the angle. A lower wing angle gives you less downforce and therefore faster speeds on the straightaways, but you also have less grip going through corners. A higher wing angle produces drag, which greatly reduces fuel mileage but gives you good handling through slow corners. For short ovals, it's smart to use the maximum rear wing angle setting. For 1.5-mile short ovals, such as Rio de Janeiro, drag becomes more important, so you may want to try reducing the wing angle to find the right compromise between drag and downforce.

Adjusts the degree of wing angle for the rear wings. Drag the slider to the right to increase the rear wing angle, or to the left to decrease the angle. A lower wing angle gives you less downforce and therefore faster speeds on the straightaways, but you also have less grip going through corners. A higher wing angle produces drag, which greatly reduces fuel mileage but gives you good handling through slow corners. For short ovals, it's smart to use the maximum rear wing angle setting. For 1.5-mile short ovals, such as Rio de Janeiro, drag becomes more important, so you may want to try reducing the wing angle to find the right compromise between drag and downforce.

Adjusts the distance between the bottom of the rear of the car and the road. Move the slider to the right to increase the distance, or to the left to decrease the distance. In general, the static ride height for the rear of the car should be approximately one inch higher off the ground than the front of the car.

Adjusts the distance between the bottom of the rear of the car and the road. Move the slider to the right to increase the distance, or to the left to decrease the distance. In general, the static ride height for the rear of the car should be approximately one inch higher off the ground than the front of the car.

Adjusts the gear ratio setting for first gear. Drag the slider to the right to increase the gear ratio, or to the left to decrease it. A high ratio setting is used for first gear to create a short gear because CART cars spend a minimal amount of time in first gear. First gear is used for exiting the pits on most tracks and for very slow corners on some tracks. A good rule of thumb: If you find yourself traveling through a corner at speeds below 45 mph, use first gear. If your speed through all corners of a track exceeds 45 mph, then use second gear for your lowest gear on the track.

Adjusts the gear ratio setting for second gear. Drag the slider to the right to increase the gear ratio, or to the left to decrease it. The gear ratio for second gear should be evenly spaced between the gear ratios for first and third gear, unless a specific corner requires a lower second gear to keep the engine above 8000 RPMs on the corner exit. Note that, for street road circuits, the gear ratios for first and second gear are set closer than for short ovals and superspeedways. On ovals, the four lower gears are used for accelerating from the pits and from yellow flag situations.

Adjusts the gear ratio setting for third gear. Drag the slider to the right to increase the gear ratio, or to the left to decrease it. A shorter gear ratio translates into a longer gear, which means that you anticipate that the car spend more time in third gear than in first or second. Select a third gear setting that will keep engine revs above 9000 RPMs in the middle of medium speed corners for maximum acceleration on the following straights. On ovals, the four lower gears are used for accelerating from the pits and from yellow flag situations.

Adjusts the gear ratio setting for fourth gear. Drag the slider to the right to increase the gear ratio, or to the left to decrease it. Fourth gear is usually an intermediate acceleration gear that should be spaced evenly between third and fifth gear, unless there is a fast corner which requires some adjustment of the ratio to keep the engine at optimum rpm. On ovals, the four lower gears are used for accelerating from the pits and from yellow flag situations.

Adjusts the gear ratio setting for fifth gear. Drag the slider to the right to increase the gear ratio, or to the left to decrease it. Fifth gear is usually an intermediate acceleration gear that should be spaced evenly between fourth and sixth gear, unless there is a fast corner which requires some adjustment of the ratio to keep the engine at optimum RPMs.

Adjusts the gear ratio setting for sixth gear. Drag the slider to the right to increase the gear ratio, or to the left to decrease it. Your goal should be to find a sixth gear ratio that provides peak allowable RPMs at the end of the longest straight.

Adjusts the final drive ratio for all six gears. Drag the slider to the right to increase the final drive ratio, or to the left to decrease it. The faster the track, the lower the final drive ratio setting should be.

Click **Locked** when racing on an oval. A locked differential enables the car to use stagger, where the larger outer rear tire exerts turning pressure on the whole car. A locked differential does not allow any differential wheel speed between the two rear wheels. On slow, tight corners, it may also tend to prevent the car from turning.

To drive the slow, tight corners found on street and road circuits, click **Limited Slip**.

Click **Hard** for less effective grip but a longer life for your tires.

Click **Hard** for less effective grip but a longer life for your tires.

Click **Hard** for less effective grip but a longer life for your tires.

Click **Hard** for less effective grip but a longer life for your tires.

Click **Hard** for less effective grip but a longer life for your tires.

Click **Hard** for less effective grip but a longer life for your tires.

Click **Hard** for less effective grip but a longer life for your tires.

Click **Hard** for less effective grip but a longer life for your tires.

Adjusts the air pressure in the right front tire. Drag the slider to the right to increase the air pressure, or to the left to decrease it. For oval tracks, the pressure in the front right tire should be approximately 10 psi more than the left front. If you have **Tire Wear** or **Temperature Effects** turned on (**Realism** options), it's a good idea to start with a lower air pressure in the tires because they heat up as you drive, expanding the air in the tires and increasing the pressure.

Adjusts the air pressure in the right front tire. Drag the slider to the right to increase the air pressure, or to the left to decrease it. For oval tracks, the pressure in the front right tire should be approximately 10 psi more than the left front. If you have **Tire Wear** or **Temperature Effects** turned on (**Realism** options), it's a good idea to start with a lower air pressure in the tires because they heat up as you drive, expanding the air in the tires and increasing the pressure.

Adjusts the air pressure in the right front tire. Drag the slider to the right to increase the air pressure, or to the left to decrease it. For oval tracks, the pressure in the front right tire should be approximately 10 psi more than the left front. If you have **Tire Wear** or **Temperature Effects** turned on (**Realism** options), it's a good idea to start with a lower air pressure in the tires because they heat up as you drive, expanding the air in the tires and increasing the pressure.

Adjusts the air pressure in the left front tire. Drag the slider to the right to increase the air pressure, or to the left to decrease it. An over-inflated tire gives you a smaller footprint, and therefore, less grip, while an under-inflated tire is in danger of self-destruction and deflation.

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Adjusts the air pressure in the right rear tire. Drag the slider to the right to increase the air pressure, or to the left to decrease it. An over-inflated tire gives you a smaller footprint, and therefore less grip on the road, while an under-inflated tire offers plenty of grip but may deflate, distort, or break up early in the race.

Adjusts the air pressure in the right rear tire. Drag the slider to the right to increase the air pressure, or to the left to decrease it. An over-inflated tire gives you a smaller footprint, and therefore less grip on the road, while an under-inflated tire offers plenty of grip but may deflate, distort, or break up early in the race.

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Adjusts the stagger setting for the rear tires. Stagger refers to the difference in circumference between the right rear and left rear tires. With a right rear tire that is larger in circumference than your left rear tire, your car should turn into left-hand corners more easily, which is perfect for ovals, but problematic for street circuits and road circuits. One potential negative effect of stagger is that your car may tend to pull to the left, even on straightaways.

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A high 3rd spring rate setting is used for street and road circuits to stiffen vertical suspension travel, which is important on the bumpy and uneven road surfaces common to these types of tracks. A front 3rd spring is never used on ovals or superspeedway tracks, and a default setting of 4000 ppi is used for street and road circuits.

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The freeplay setting adjusts the point at which the 3rd spring rate comes into operation. Freeplay is never used on ovals or superspeedways, and a default front freeplay setting of 0.2" is used for street and road circuits.

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The front anti-roll bar setting affects the amount of grip you get in corners. A high, or stiff, anti-roll bar setting gives you excellent chassis control, but not a lot of grip. A low, or slack, setting gives you great tire grip but not a lot of chassis control. The default superspeedway setup uses a high default setting (5000 ppi), with ovals close behind (3000 ppi). For street and road circuits, the default front anti-roll bar setting is 300 ppi.

The front anti-roll bar setting affects the amount of grip you get in corners. A high, or stiff, anti-roll bar setting gives you excellent chassis control, but not a lot of grip. A low, or slack, setting gives you great tire grip but not a lot of chassis control. The default superspeedway setup uses a high default setting (5000 ppi), with ovals close behind (3000 ppi). For street and road circuits, the default front anti-roll bar setting is 300 ppi.

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Front toe-out settings affect the front/rear relationship of your tires, moving the rear of the tires in toward the middle of your car while moving the front of the tires out. With your tires toed-out correctly, your car should automatically want to turn in the same direction as the track. Too much toe-out gives a slow turn-in (which is a good thing) but not enough grip through the middle of the corner. Too little toe-out gives too quick and unstable a turn-in. Default setting for front toe-out for all track types is 0.08".

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A high 3rd spring rate setting is used for street and road circuits to stiffen vertical suspension travel, which is important on the bumpy and uneven road surfaces common to these types of tracks. A rear 3rd spring is never used on ovals or superspeedway tracks, and a default setting of 4000 ppi is used for street and road circuits.

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The freeplay setting adjusts the point at which the 3rd spring rate comes into operation. Freeplay is never used on
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The rear anti-roll bar setting affects the amount of grip you get in corners. A high, or stiff, anti-roll bar setting gives you excellent chassis control, but not a lot of grip. A low, or slack, setting gives you great tire grip but not a lot of chassis control. Because stability at high speeds is crucial, the default superspeedway setup uses a high default setting (2400 ppi), with ovals close behind (1000 ppi). For street and road circuits, the default rear anti-roll bar setting is 0 ppi.

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Toe-in settings affect the front/rear relationship of your tires, basically "pigeon-toeing" them, by moving the front of the tires in toward the middle of your car while moving the rear of the tires out. With your tires toed-in correctly, your car should automatically want to turn in the same direction as the track, and it should also be more stable on straightaways. Too much rear toe-in may give understeer, while too little can make the back end of the car unstable. On ovals, with only left-hand turns, you want both rear wheels nearly parallel to each other, but each pointing slightly to the left. The default setting for rear toe-in for all track types is 0.10".

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The steering ratio setting affects how sensitively the front tires respond to your steering input. A higher setting helps minimize the amount of steering input required to negotiate slow, tight corners, which are common on street and road circuits. The default setting for street and road circuits is 11.0, for ovals 9.0, and for superspeedways 8.0.

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Camber settings affect a wheel's relationship to the ground by slanting it so that the top of the wheel is positioned farther in toward the center of the car than the bottom of the wheel. A proper camber setting can help keep tire wear even across the tread. Negative settings move the top of the wheel closer to the car, while positive settings move the top of the wheel away from the car. The default right front camber setting for all track types is -4.0 degrees.

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Spring rate settings affect how smoothly your car rides over bumps. Higher, or stiffer, settings for the rear are used on ovals and superspeedways, where the tracks are relatively smooth and downforce is crucial. (With a higher front spring rate setting, you can set a lower static ride height, which increases downforce.) Rear spring rate settings aren't as stiff as front spring rate settings because tire grip and traction are more important at the rear of the car, and because aerodynamics and ride height dependencies are not as important at the rear of the car. Default rear spring rate settings are 1700 ppi for ovals and superspeedways, and 900 ppi for street and road circuits.

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Camber settings affect a wheel's relationship to the ground by slanting it so that the top of the wheel is positioned farther in toward the center of the car than the bottom of the wheel. A proper camber setting can help keep tire wear even across the tread. Negative settings move the top of the wheel closer to the car, while positive settings move the top of the wheel away from the car. The default right rear camber setting for all tracks is -2.0 degrees.

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Fast rebound settings are used to soften, or "dampen," the effects of sharp bumps on the road surfaces, such as curbs, rumble strips, and potholes. The default fast rebound setting for all track types is 3.

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Slow rebound settings are used to soften, or "dampen," the effects of less abrupt road undulations such as elevation changes and banking on ovals. The default slow rebound setting for all track types is 3.

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Brake proportioning settings affect whether the front or rear tires lock up first under heavy braking. In general, you want all four tires to lock simultaneously under braking. In wet weather, when your car brakes with less G force, there is less forward weight transfer, so many drivers proportion their brakes to the rear to avoid locking up the front tires.

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Adjusts the viewing angle of the left mirror. Use the Test Drive button to head out onto the track to see how your mirrors are working, and to see the effects of each setting adjustment.		

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Adjusts the viewing angle of the right mirror. Use the Test Drive button to head out onto the track to see how your mirrors are working, and to see the effects of each setting adjustment.		

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Adjusts the amount of methanol in your gas tank when you start the race. If you have **Fuel Consumption** (**Realism** option) turned on, it's important that you start the Sunday Race with a full tank (35 gallons). Otherwise, you may have to pit way ahead of your opponents. With a full tank, your car is heavier and will tend to react sluggishly in corners, but the symptoms disappear as the fuel load lightens. Also, keep in mind that, with a full tank, your car's center of gravity shifts forward, which affects accelerating and braking, and may induce understeer. If you don't have **Fuel Consumption** turned on, you may want to experiment with lighter fuel loads to see the effect on handling and speed.

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Adjusts the placement of weight at the front, middle, or rear of the car. Ballast position can affect your car's tendency for oversteer and understeer, and can have an effect on tire wear. Weight at the front of the car causes the front tires to work harder, and weight at the rear of the car produces the opposite effect.

When turned on, the track you race in a Quick Race is randomly chosen for you. To select a specific track, clear the Random Track check box and then click the track you want.		

When turned on, the driver you race as in a Quick Race is randomly chosen for you. To select a specific driver, clear the Random Driver check box and then click the driver you want.		

This box, which indicates your starting grid position for the next Quick Race, is not available when the **Random Position** check box is selected. To choose a specific starting position between 1 and 26, clear the **Random** check box and specify the position you want.

When turned on, your starting grid position in a Quick Race is randomly chosen for you. To select a specific starting position, clear the Random check box and then select the starting position you want.		

Turn this on to take a single pace lap at the start of a race. The during this pace lap.	ne autopilot feature helps you maintain your grid position
during this pace tap.	

Displays the number of laps in the Sunday Race for the selected track. To change the number of laps, click the arrows or drag the slider. To find out the real-world total number of laps, drag the slider all the way to the right.

Click this to exit the game without saving your current race or season.

Click this to close this dialog box and return to the current race or season.

Click this to save the current race or season as a file that you can open and resume later.

Click to apply and save any changes you've made and close this dialog box.

Click **Yes** to carry out the task; click **No** to cancel and return to the previous screen without completing the task.

Click **Yes** to terminate the network connection; click **No** to cancel and return to the multiplayer session.

Click to close this dialog box without saving any changes you've made, or without saving your current race. In multiplayer sessions, if your network connection has failed, click this to return to the **Multiplayer** screen.

Displays the current status of your Quick Race. The **Setting** column indicates the areas of Quick Race that can be modified. The **Value** column denotes the current state of those settings. To change any of these settings, click **Configure Quick Race**.

Click this to change random settings to specific Quick Race settings for track, driver, and starting position. You can also change the race length and choose to drive or skip the pace lap.					

Lists any keys that are assigned to the same function. Click OK to save key assignments as they currently are, or click Cancel to go back and change duplicate key assignments.					

Provides a list of answers that you can choose from to answer the Race Engineer's question. Click the arrow, and then select the reply that best answers the question.

Displays any changes suggested by the Race Engineer based on your response to the current question. This includes the state that the item is currently in on your car, as well as the new suggested value.

Click this arrow to cycle through the previous pages in this section. The left arrow cycles through them in descending order.

Click this arrow to cycle through the next available pages of this section. The right arrow cycles through them in ascending order.

Click this to open the Control Options dialog box. From there, you can select a primary driving control, and customize it.					

Lists the available skill levels: rookie, intermediate, professional. Rookies are able to choose from all the driving aids. Intermediate drivers can use all aids except **Stay On Line**, **Auto-Brake**, and **Auto-Throttle**. A professional, naturally, doesn't get any aids.

Click this to begin editing the current player's name.

Click this to delete the current player and all settings associated with that player. The settings include the selected driving aids, realism settings, and the driver.

Turn this on to help you stay on the racing line through several types of steering help.	, the fastest path	around the track.	Out on the track, p	oress F6 to cycle

Check this to have braking done for you. You must have this check box selected if you want to use Auto-Throttle.
Out on the track, press F9 to cycle through several types of brake and throttle help.

Turn this on to have the throttle applied for you. This driving aid is only available when you also have Auto-Brake turned on. Out on the track, press F9 to cycle through several types of brake and throttle help.				

Turn this on to drive with automatic transmission. Floor it without having to worry about shifting gears. However, automatic transmission diminishes your car's get-up-and-go; if your competition uses manual transmission, he or she has an acceleration advantage. Out on the track, press **F9** to cycle through several types of brake and throttle help.

Turn this on to help keep the car from driving off the track. Of steering help.	Out on the track, press F6 to cycle through sever	al types

Turn this on to have the car pointed in the correct direction down the track after a spinout. Out on the track, press F to turn on and off spin correction.	- 8

Turn this on to have orange driving cones on the track. identify the turn-in, apex, and turn-out points.	Driving cones are visual cues placed in turns and curves to

Turn this on to display the racing line, the fastest path around the track. Out on the track, press F5 to display or hide the racing line.	

Turn this on to get shifting cues when you drive using manual transmission. Out on the track, press F9 to cycle through several types of brake and throttle help.

Turn this on so that during hard braking, the brakes don't seize up.

Check this to eliminate tire spin when you accelerate quickly. Most players turn this on when driving in rain. The traction control helps your tires grip the road when the pavement is wet. Also, with **Traction Control** turned on, tire wear is slightly less; you won't be spinning tires as much.

vear and crash damage will not be in affect during the session.	

Turn this on so you can make pit stops during the session. If you clear this check box, then fuel consumption, tire

Turn this on for realistic tire wear. Wear check box is unavailable.	Your tires wear down	as you race. If th	he Pit Stops check box	is cleared, the Tire

Turn this on to take a single pace lap at the start of a race. The during this pace lap.	ne autopilot feature helps you maintain your grid position
during this pace tap.	

Turn this on and the head movement of a real-world driver is mimicked while you are in cockpit view. The view pans left and right to give you a realistic, driver's view of the track, particularly in turns. Out on the track, press ' (single quotation mark) to turn on and off the head panning feature.

Turn this on for realistic fuel consumption. Watch your dashboard fuel gage. When fuel gets low, you need to pit. If you turn off this option, you never run out of gas. If the **Pit Stops** check box is cleared, the **Fuel Consumption** check box is unavailable.

Turn this on to simulate the variable performance of real-world race engines built by different manufacturers. You can find out on the **Drivers** screen which engine your car uses. If you turn this option off, all engines behave the same, regardless of manufacturer.

Check this and realistic temperatures may affect your car's performance. Environmental temperature changes that you make on the slide bar under **Weather** affects your engine, aerodynamics, and tires.

Lower temperatures may cause your engine and tires to take longer to warm up, but it is better for your car in the long run, resulting in less tire wear and more air to the engine for increased horsepower. Higher temperatures cause your tires to soften faster.

Turn this on if you want realistic crash damage. With this option turned on, the pit crew repairs only minor damage, and then only if you can drive your car back to the pit. If your car suffers heavy damage, the race ends. Turn this option off, and all damage is instantly repaired. Out on the track, press **X** to turn on and off realistic crash damage. If the **Pit Stops** check box is cleared, the **Crash Damage** check box is unavailable.

Weather changes affect all sessions. The **Clear** and **Cloudy** options affect appearance, but won't alter car performance on the track. **Rain (Except Ovals)** option affects both appearance and traction; there is no rain on ovals.

Displays the current on-track temperature for the race. You must also turn on **Temperature Effects** (**Realism** option) for this option to affect car performance. Colder temperatures are better for your car. Your tires wear slightly less, and you should get a little more air into your engine for more horsepower. Hotter temperatures may make your tires warm up a bit faster.

You can race against up to 37 opponents. Reduce the number of computer opponents to get better game

performance.

This setting sets the length of all Sunday Races as a percentage of the total number of laps in the real-world races. For example, if you set the race length to 50 percent, each Sunday Race runs half as many laps (or 50 percent) as were run in the real-world race.

Note: If you wish, on the **Tracks** screen, you can increase or decrease the number of laps for a specific Sunday Race.

improve your grid position, which is based on lap times.	

Qualifying on a road course is a timed session. The more time you allow, the more laps you can take as you try to

Use Friday Practice sessions as a way to get familiar with the track and how your car handles.

Use Friday Qualifying sessions to try to get a good starting grid position for the Sunday Race. A faster qualifying time means a better starting position, and the fastest qualifier earns an extra point toward the season championship.

Note: If you skip the both qualifying sessions, you start using your driver's real-world starting grid position. Also, if you skip these sessions and your driver was not in the real-world race, you start the Sunday Race at the back of the pack! Find out your driver's grid position; click **Driver Info** on the **Drivers** screen.

Use Saturday Practice sessions to plan your race strategy, test your car setup, and find the racing line.

Use Saturday Qualifying sessions to try to improve your starting grid position and earn qualifying points. This is your last chance to do so before the Sunday Race.

Note: If you skip the both qualifying sessions, you start using your driver's real-world starting grid position. Also, if you skip these sessions and your driver was not in the real-world race, you start the Sunday Race at the back of the pack! Find out your driver's grid position; click **Driver Info** on the **Drivers** screen.

Use the Sunday Warm-Up to get the last little bit of practice in while you warm up your car. This is your last chance to drive the track, check your car setup, and go to the garage.

Lists the controls you can use.

Drag the slider to a point on the bar that reflects the degree of sensitivity and responsiveness you want from your selected driving control. Drag left for a more sensitive steering response; the leftmost setting allows your car to achieve maximum steering lock at all track speeds, which may translate into twitchy handling. Drag right for a less sensitive steering response; settings on the right side of the scale progressively limit the maximum steering lock that can be achieved in proportion to your speed. The faster your car, the less maximum steering lock is available.

Drag the slider to a point on the bar that reflects the degree of sensitivity and responsiveness you want from your selected driving control. Drag left for a more sensitive steering response; the leftmost setting allows your car to achieve maximum steering lock at all track speeds, which may translate into twitchy handling. Drag right for a less sensitive steering response; settings on the right side of the scale progressively limit the maximum steering lock that can be achieved in proportion to your speed. The faster your car, the less maximum steering lock is available.

Think of non-linear steering as the rotation of the steering wheel when you turn. If you drag the slider all the way left, the movement of the steering wheel is linear with the movement of the joystick, and the movements are spread evenly across the travel of the joystick. For example, if you move the stick 1/4 of the way left, the wheel will rotate 1/4 of the way to lock. As you move the slider to the right, the ratio of steering wheel movement to stick movement is slower at first and then faster as you move the joystick farther. This reduces the steering wheel's sensitivity to minor joystick movements, and makes the rightmost settings much more sensitive to your steering input.

Click this to calibrate your joystick or gamepad.

Click this to open the Customize Keyboard the keyboard or to revert to the keyboard's	d dialog box, where you original settings.	can assign new game-relat	ed functions to keys on

Click this to open the Customize Controller dialog box, where you can revert to your controller's original settings, or assign new game-related functions to the buttons and other controls on your joystick or gamepad.	

Click the resolution setting that matches your processor speed (indicated in parentheses). When Direct 3D (Most Hardware) is selected in the Renderer list box, , this option is unavailable and the resolution is set to the resolution your graphics accelerator card requires.

If your highest priority is a fast-running game, click Good (Faster) . For great image quality but a slower-game, click Best (Slower) .	-running

This check box is unavailable if an accelerator card is not detected. If the check box is dimmed and you have a graphics accelerator card, check with your card manufacturer to confirm that you have the latest driver installed.

Select this check box for smoother graphics, but a slower-running game.

Click this to automatically switch to full-screen when you start a new race.

Click this to see your tires smoke and burning wreckage. If you want the game to run faster, clear this check box.

Click this to display your car's dashboard when you're driving in cockpit view. You can display the dashboard with or without the steering wheel. If you clear this check box, the Steering Wheel check box is unavailable.

Click this to display the steering wheel, which gives you visual feedback on your steering when you are driving in cockpit view. If the Dashboard check box is cleared, the Steering Wheel check box is unavailable.

Click this to see clouds in the sky as you're driving.	. If you want the game to run faster, cle	ear this check box.

Click this to see the cars' shadows. If you want the game to run faster, clear this check box.

Click this to see hills in the distance. You can display terrain with or without the track-side objects. If you clear this check box, the Track-Side Objects check box is unavailable.

Click this to see grandstands, billboards, trees, and other track-side scenery. If the Draw Hills check box is cleared, the Track-Side Objects check box is unavailable.

If you want the game to run faster, click None. To see tire tracks, click Tracks Only. Tracks & Particles makes the
game run slower, but you see tire tracks and particles kicked up as you accelerate from the dirt.

If you want the game to run faster, click Off . To see only other cars in your mirrors, click Cars Only . To see all the cars and other objects in your mirrors, click Everything .	

In the game, press this key to turn left. To change this keyboard assignith this function.	gnment, press the key that you want to associate

In the game, press this key to turn right. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to shift up. To change this keyboard assignment, press the key that you want to associa with this function.	te

In the game, press this key to shift up. To change this keyboard assignment, press the key that you want to associa with this function.	te

associate wit	press this key to shift this function.	as io onango un	, 2001 a abolgi	 , a.a. you mane a

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associate with	ress this key to accelerathis function.	 cyboara assignme	one, productio key t	nat you want to

In the game, press this key to brake. To change this keyboard assignment, press with this function.	the key that you want to associate

In the game, press this key and the acceler press the key that you want to associate with	ate key at the same time to back u th this function.	p. To change this keyboard assignment,

In the game, press this key and the acceler press the key that you want to associate with	ate key at the same time to back u th this function.	p. To change this keyboard assignment,

In the game, press this key to show or hide objects in the mirrors. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to show or hide objects in the mirrors. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to toggle between the dashboard, head-up-display, assignment, press the key that you want to associate with this function.	and neither. To change this keyboard

In the game, press this key to turn on and off the overlay map. I that you want to associate with this function.	To change this keyboard assignment, press the key

In the game, press this key to cycle through the pit board displays. key that you want to associate with this function.	To change this keyboard assignment, press the

In the game, press this key to cycle from page 1 to page 2 of the dashboard display. To change this keyboard assignment, press the key that you want to associate with this function.		

In the game, press this key to cycle from page 1 to page 2 of the dashboard display. To change this keyboard assignment, press the key that you want to associate with this function.		

Each of these tabs represents a category of game controls. you want to customize.	Click the tab that represents the type of game control that

In the game, press this key to decrease brake bias. Decreasing moves the brake bias to the rear of the car. If your front tires are locking up too much, move the brake bias toward the rear of the car to put more pressure on the rear brakes. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to increase brake bias. Increasing moves the brake bias to the front of the car. If your rear tires are locking up too much, move the brake bias toward the front of the car to put more pressure on the front brakes. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to decrease fuel flow. Decreasing the fuel flow makes the fuel flow leaner, which results in more efficient gas mileage. If you are driving with the **Fuel Consumption** (**Realism** option) turned on, running with a leaner fuel mixture will give you great gas mileage, but you may not have the burst you need to overtake an opponent. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to increase fuel flow. Increasing richens the fuel mixture, which results in increased power but less efficient gas mileage. If you are driving with the **Fuel Consumption** (**Realism** option) turned off, you can crank the fuel knob to its maximum to drive with maximum power. If you are driving with **Fuel Consumption** turned on, you may have to pit earlier than expected due to less efficient gas mileage. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to decrease boost pressure. Decreasing boost pressure results in a decrease in available horsepower, but more efficient gas mileage. If you are driving with **Fuel Consumption** (**Realism** option) turned on, running with a lower boost setting will give you great gas mileage, but you may not have the acceleration power you need to overtake an opponent. The key is to run at the highest boost pressure possible, without activating the pop-off valve. You will hear a rapid banging sound coming from your engine when you force the pop-off valve. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to increase boost pressure. Increasing boost pressure results in an increase in available horsepower. When you increase boost pressure, you also increase fuel consumption. If you are driving with **Fuel Consumption** (**Realism** option) turned off, you can crank the boost knob to its maximum to drive with maximum power. If you are driving with **Fuel Consumption** turned on, you may have to pit earlier than expected due to less efficient gas mileage. The key is to run at the highest boost pressure possible, without activating the pop-off valve. You will hear a rapid banging sound coming from your engine when you force the pop-off valve. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to lessen the amount of vertical load working on the front right tire. The weight jack is used by most drivers on ovals to correct oversteer due to track conditions or a poor car setup. By decreasing the vertical load on the right front tire, you can induce oversteer to counteract the understeer. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to increase the amount of vertical load on the front right tire. The weight jack is used by most drivers on ovals to correct oversteer due to track conditions or a poor car setup. By increasing the vertical load on the right front tire, you can induce understeer to counteract the oversteer. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to adjust the stiffness of the front anti-roll bar from within the car. This control cycles through four settings, with 0 being the softest and 4 being the stiffest. If your car is oversteering, you might try increasing the stiffness of the front anti-roll bar. If your car is understeering, you might try softening the front anti-roll bar. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to adjust the rear anti-roll bar from within the car. This control cycles through four settings, with 0 being the softest and 4 being the stiffest. If your car is oversteering, you might try softening the rear anti-roll bar. If it feels like you've got good traction, you can also try stiffening the rear anti-roll bar. To change this keyboard assignment, press the key that you want to associate with this function.

associated with the option.		

When you move the pointer over a text box, this picture shows, wherever possible, the area of the game that is

Click this to revert to the original assignments for the game controls. **Caution:** When you click **Defaults**, changes you've made to control assignments are lost.

In the game, press this key to turn on and off the racing line. To change this keyboard assignment, press the key that you want to associate with this function.

Note: For information about this driving aid, open the **Driving Aids** dialog box (**Options** menu), and right-click **Racing Line**.

In the game, press this key to cycle through the different states of steering help: stay on line, stay on track, and none. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to cycle through the different states of shifting help: auto-shift off, cued shifting on; auto-shift off, cued shifting off; and auto-shift on. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to turn on and off **Spin Correction**. Spins can be disorienting. When this option is on, your car is pointed in the right direction after a spin. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to cycle through the different states of throttle and braking help: manual throttle and brake; manual throttle, auto-brake; and auto-throttle, auto-brake. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to switch between allowing your car to sustain damage (**Crash Damage** on) and having your car be invincible (**Crash Damage** off). To change this keyboard assignment, press the key that you want to associate with this function.

associate with	v, press this key to look this function.	Total To Sharigo and	to, board doorgriffic	in, proce are ney ar	at you want to

In cockpit view, press this key to look right. associate with this function.	To change this keyboard assignment, press the key that you want to	

In the game, press this key to move the camera closer to the car (zoom in). The view is not available in cockpit view. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to move the camera closer to the car (zoom in). The view is not available in cockpit view. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to move the camera to another car. To change this keyboard assignment, press the key that you want to associate with this function.							

In the game, press this key to move the camera that you want to associate with this function.	a to another car. To	o change this keybo	ard assignment, pre	ss the key

In the game, press this key to cycle through the key that you want to associate with this	gh the available camera views. is function.	To change this keyboard assignment, press

In the game, press this key to cycle through the key that you want to associate with this	gh the available camera views. is function.	To change this keyboard assignment, press

In the game, press this key to check out your clos that you want to associate with this function.	est competition.	To change this keyb	oard assignment, pre	ss the key

In the game, press this key to check out your clos that you want to associate with this function.	est competition.	To change this keyb	oard assignment, pre	ss the key

In the game, press this key to mimic the head movement of real-world drivers while you are in cockpit view. The view pans left and right to give you a realistic, driver's view of the track, particularly in turns. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to maximize the window display size. A larger window display size will run the game using your whole screen, but will slow your frame rate. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to maximize the window display size. A larger window display size will run the game using your whole screen, but will slow your frame rate. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to decrease the window display size. A smaller window display size will improve frame rate, while still running the game in high resolution. To change this keyboard assignment, press the key that you want to associate with this function.

In the game, press this key to decrease the window display size. A smaller window display size will improve frame rate, while still running the game in high resolution. To change this keyboard assignment, press the key that you want to associate with this function.

Press this key to cycle back through music tracks on the CD-ROM. To change this keyboard assignment, press the key that you want to associate with this function.

Press this key to cycle forward through music tracks on the CD-ROM. key that you want to associate with this function.	To change this keyboard assignment, press the

In a multiplayer game, press this key to begin typing a message. To change this keyboard assignment, press the key that you want to associate with this function.

a multiplayer game, press this key to cycle back through messages you've received. To change this keyboard signment, press the key that you want to associate with this function.	

In a multiplayer game, press this key to cycle forward through messages you've received. Tassignment, press the key that you want to associate with this function.	o change this keyboard

associated with the option.		

When you move the pointer over a text box, this picture shows, wherever possible, the area of the game that is

Names the function assigned to button 1 on your controller. To assign a different function to button 1, select another item in the list.

Names the function assigned to button 1 on your controller. To assign a different function to button 1, select another item in the list.

Names the function assigned to button 2 on your controller. To assign a different function to button 2, select another item in the list.

Names the function assigned to button 3 on your controller. To assign a different function to button 3, sele item in the list.	ect another

Names the function item in the list.	assigned to button 4	on your controller.	To assign a differer	nt function to button 4	, select another

Names the function item in the list.	assigned to button 4	on your controller.	To assign a differer	nt function to button 4	, select another

Names the function assigned to button 5 on your controller. To assign a different function to button 5, select another item in the list.

Names the function assigned to button 6 on your controller. To assign a different function to button 6, select another item in the list.

Names the function assigned to button 7 on your controller. To assign a different function to button 7, select another item in the list.

Names the function assigned to button 7 on your controller. To assign a different function to button 7, select another item in the list.

Names the function assigned to button 8 on your controller. To assign a different function to button 8, select another item in the list.

Turn on this option if you use a joystick with a throttle control and wish to assign the acceleration function to the joystick's throttle control.

If you're using a joystick with force feedback, and you turn this option on, you feel pressure when cornering, a jolt when running into walls, and, if you corner too fast, the joystick begins to shake!

Drag the slider to the left or right to adjust the gradations of the force feedback response.

If you are using a Race Car Controller, click this button to switch the functions associated with each pedal. The defaults settings have the right pedal assigned to throttle acceleration and the left pedal assigned to braking.

Select the type of information you want to appear on the dashboard display (the red line points to the location). The
initial settings for pages 1 and 2 of the dashboard display are Boost Pressure (HG) and Fuel Pressure (PSI).

Select the type of information you want to appear on the dashboard display (the red line points to the location). The initial settings for pages 1 and 2 of the dashboard display are Speed (MPH) and Fuel Remaining (GAL) .

Select the type of information you want to appear on the dashboard display (the red line points to the location). The initial setting for both pages of the dashboard display is Lap .	

Select the type of information you want to appear on the dashboard display (the red line points to the location). The initial settings for pages 1 and 2 of the dashboard display are Lap Time (SEC) and Coolant Temp (F) .

Select the type of information you want to appear on the dashboard display (the red line points to the location). The initial settings for pages 1 and 2 of the dashboard display are Gear Number and Speed (MPH) .

Select the type of information you want to appear on the dashboard display (the red line points to the location). The initial settings for pages 1 and 2 of the dashboard display are **Field 5 Label** and **Gear Number**. (Select the option, **Field 5 Label**, when you want to display a text label for the current option selected for field 5 of the dashboard display. For example, using the initial settings, the word "GEAR" appears in field 6 of the dashboard display because **Gear Number** is selected for field 5.)

Select the type of information you want to appear on the dashboard display (the red line points to the location). The initial settings for pages 1 and 2 of the dashboard display are **Field 5 Label** and **Gear Number**. (Select the option, **Field 5 Label**, when you want to display a text label for the current option selected for field 5 of the dashboard display. For example, using the initial settings, the word "GEAR" appears in field 6 of the dashboard display because **Gear Number** is selected for field 5.)

This dashboard gauge displays your engine's RPMs (revolutions per minute). It is optimal to shift up when the engine surpasses 14,000 RPMs, and shift down when the engine dips below 10,000 RPMs.

Click the sound device driver that you want. The Primary Sound Driver option represents the sound card that is currently selected in Control Panel as the main sound device.

Click the playback format that you want. Mono uses only one of your speakers, uses both speakers, but may make the game run slower.	but the game may run faster.	Stereo

Click the playback format that you want. Mono uses only one of your speakers, uses both speakers, but may make the game run slower.	but the game may run faster.	Stereo

lick the format that you want. Normal (8-bit) gives you normal sound performance and makes the game run faster can High (16-bit) . For CD-quality sound, click High (16-bit) . Selecting this option may make the game run slower.	٢

Click the sampling rate that you want. Higher sampling rates may make the game run slower.

Drag the slider to the right to increase the volume of music, drag it left to decrease the volume.

Drag the slider to the right to increase the volume of music, drag it left to decrease the volume.

Drag the slider to change the volume of sound effects, such as crashes, tire squeals, and road surface noises.

Drag the slider to change the volume of sound effects, such as crashes, tire squeals, and road surface noises.

Clear this check box to mute music, sound effects, and commentary. You can also mute sound at any time by

pressing CTRL+M.

Turn this on to play music from the CART Precision Racing CD-ROM or from a music CD that you've inserted in your CD-ROM drive.

Turn this on to hear music before you go out onto the track.

Turn this on to hear sound effects, including the roar of your engine, crashes, and brake screeches. Clear this check box if you want the game to run faster. Sound effects are not the same as commentary.

Turn this on to hear Bob Varsha's race day commentary. Among other things, Bob tells you a little bit about each track, and lets you know how many laps to go until the checkered flag goes down!

Turn this on to play the introductory movie when you start CART Precision Racing.

Turn this on to see post-race video clips of real-world drivers. You never know when your performance might earn a visual treat. Drivers may congratulate you on a job well done, comment on your keen driving skills, or perhaps even critique your latest crash.

If you turn this on and stop racing for a while, a movie plays. The movie takes you out onto one of the tracks and
shows the various cars and views. It does its best to tempt you back to the computer, and back on track!

Turn this on to start the game at the screen that was displayed when you last exited the game.

The **Replay Buffer** determines how much of your race the game stores in its memory for use in instant replays. With a full complement of cars on the track, 512 KB will amount to about 30 seconds of replay time. With only 1 car on the track, 512 KB is closer to 10 minutes of replay time. In general, the larger the buffer setting, the less memory is left over for the game.

Click this to host the game session. As host, you pick who participates, the type of session, and the track.

Click this to join an existing game session. When you join, you establish a connection via LAN (Local Area Network), modem, serial cable connection, or the Internet, and then wait for a host to start the game.			

Click this to launch your Internet browser and connect to the Internet Gaming Zone where you can race against opponents from anywhere in the world.			

Type a brief description here that entices potential opponents to join your game session. Potential of and select this name from a list of available game sessions.	pponents can see

Select the appropriate connection type, one for which you have the appropriate LAN (Local Area Network), Internet, serial cable connection, or modem connection.

- For play over a LAN, click IPX Connection For DirectPlay or Internet TCP/IP Connection For DirectPlay.
- For one-to-one play via a modem connection, click **Modem Connection For DirectPlay**.
- For play via an Internet connection, click Internet TCP/IP Connection For DirectPlay.
- For play between two machines connected with a serial cable, click Serial Connection For DirectPlay.

Select the appropriate connection type, one for which you have the appropriate LAN (Local Area Network), Internet, serial cable connection, or modem connection.

- For play over a LAN, click IPX Connection For DirectPlay.
- For one-to-one play via a modem connection, click **Modem Connection For DirectPlay**.
- For play via an Internet connection, click Internet TCP/IP Connection For DirectPlay.
- For play between two machines connected with a serial cable, click Serial Connection For DirectPlay.

Lists the available game sessions that you can join. Once you select a session, the host receives a message that you have joined the session. If the other players are currently in the middle of a session, you need to wait until that session ends and the next one begins before you start racing.

No Help topic associated with this item.

1997 PPG CART World Series

This is the official title of the 1997 Championship Auto Racing Teams (CART) series. The series is also known as the PPG Cup.

Auto-Brake

This driving aid does the braking for you so that you can gun it more aggressively and not worry about braking technique. This driving aid, available only to drivers using the **Rookie** skill level, works best in conjunction with another driving aid, **Auto-Shift** (automatic transmission).

Auto-Shift

This driving aid lets you floor it without having to worry about shifting gears. Keep in mind, though, that driving with an automatic transmission will diminish your car's get-up-and-go.

Auto-Throttle

A driving aid that accelerates your car to its optimal speed for any situation you may encounter during a race. This aid is available only to drivers using the **Rookie** skill level and only when **Auto-Brake** is also turned on. **Auto-Throttle** works best in conjunction with another driving aid, **Auto-Shift** (automatic transmission).

blend line

This is the line on the track at the end of the pit lane exit that delineates where drivers exiting the pits can merge or "blend" with race traffic. Merging into traffic before you've passed the blend line could cause an accident. Watch for cars already out on the track that are coming up fast.

cockpit

The cab of your car. When you're in cockpit view, your view is from the driver's seat.

dashboard display

The dashboard provides a visual reference for keeping track of data having to do with various functions of your car. The **dashboard display** is available while in cockpit view. If you don't see the dashboard while racing, press **D** until it appears.

host

In multiplayer racing, the host controls who participates and what kind of race everyone competes in.

hot lap

The faster of your two qualifying laps on an oval. The time of your hot lap determines your starting grid position for the Sunday Race.

Internet Protocol (IP) address

A series of numbers assigned to each individual computer connected to the Internet to distinguish it from other computers on the Internet.

interval

The total amount of time or distance that separates you from the drivers in front of and/or behind you. In a race, the interval between you and the driver in front of or behind you appears on the pit board in the upper-left corner of the screen.

Kbps (Kilobits Per Second)

Kilobits per second. A measurement of modem speed. A 14.4 modem can send data at a rate of 14,400 Kbps, while a 28.8 modem can send data at a rate of 28,800 Kbps.

LAN (Local Area Network)

A data communications network, which is geographically limited (typically to less than a 1-mile radius), allowing easy interconnection of computers within adjacent buildings. (From the *Free On-Line Dictionary of Computing*)

light collision

A crash with a minimal amount of body damage, and one that does not disable your car (for example, you take a turn wide and bump the wall, crumpling the front wing). When you sustain damage in a light collision, drive to pit lane. If your car can be repaired, your pit crew repairs your car immediately.

minimize

An action that shrinks the game window and adds it to the Windows taskbar. To minimize the game, click {bmc minimize.bmp} in the upper-right corner of the screen.

mpg

Miles per gallon.

navigation bar

The navigation bar appears at the bottom of the screen. Click a button to quickly display one of these screens: **Drivers**, **Tracks**, **Garage**, **Multiplayer**, and **Races**, or click **GO!** to begin a race.

page

You can set up two versions (pages) of your dashboard display. Each page can be set up to help you keep track of different information while in cockpit view. In a race, press **TAB** to switch between the two dashboard display pages.

pit window

A range of laps during which you need to pit or risk running out of fuel.

psi

Pounds per square inch.

Quick Race

A Quick Race is the fastest way to the track. The track, driver, and your starting position are randomly selected for you unless you indicate specific settings for track, driver, and starting position. You can start a Quick Race from either the **Start Screen** or the **Races** screen.

race session

Any race that is part of a race weekend, including qualifying, practice, and warm-up races. A race weekend includes six race sessions: Friday Practice, Friday Qualifying, Saturday Practice, Saturday Qualifying, Sunday Warm-Up, and Sunday Race.

road course

A road course is a permanent racetrack that is not an oval. The exception is the Cleveland road course, which is a temporary road course and a permanent airport!

serial connection

Connects two	computers v	via a serial	cable i	pluaged	into the	serial	port of e	ach computer.

short gear

A gear which encompasses a minimal range of RPMs (revolutions per minute).

shift indicator light

The small yellow light perched on the tachometer in cockpit view. When you drive using manual transmission, the shift indicator lights up when the engine revs to 6500 RPMs, signaling you to shift up.

status area

A box in the upper-right corner of the **Drivers**, **Tracks**, **Garage**, **Multiplayer**, and **Races** screens that displays your current selections for player, driver, car, session, and track.

tachometer

A dashboard gauge that displays the number of RPMs (revolutions per minute) your car's engine is producing.

taskbar

The bar on your desktop that has the Windows **Start** button on it. When a program is running, a button representing that program appears on the taskbar. If the taskbar is not visible, press **CTRL+ESC**.

understeer

A term used to describe the behavior of a car while cornering. A car with understeer has the unfortunate tendency to want to go straight in a corner. Understeer can also be caused by giving the car too much gas as you approach a turn. The challenge of understeer is finding the perfect balance between high speed and controlled cornering.

weekend sessions

A race weekend includes these six sessions: Friday Practice, Friday Qualifying, Saturday Practice, Saturday Qualifying, Sunday Warm-Up, and Sunday Race.

URL (Universal Resource Locator)

The address to an object, document, or page on the Internet.

IPX

IPX (Internetwork Packet Exchange) is Novell's routing protocol. It is one of the most common routing methods used to transmit traffic on a LAN (Local Area Network) and the Internet. (From *The Free On-line Dictionary of Computing*)

TCP/IP

The TCP (Transmission Control Protocol) is a common and reliable protocol on LANs (Local Area Network) and the Internet. TCP is built on top of Internet Protocol (IP) and is nearly always seen as TCP/IP. (From *The Free On-line Dictionary of Computing*)

mph

miles per hour



Configuring Your Controller Overview

When you install CART Precision Racing, your primary driving control is set by default to be the keyboard. If you choose to designate a race car controller (wheel and/or pedals) as your driving control, it is important to make sure that your hardware is configured correctly. This way you're sure to be ready to go when you hit the track.

To designate a driving control in Precision Racing, see Changing Your Driving Control Device.



Configuring a ThrustMaster NASCAR Pro® Racing Wheel

(Outside the U.S., ThrustMaster Formula One Racing Wheel)

If you are using a ThrustMaster NASCAR Pro® Racing Wheel as your driving control device, follow the steps below to ensure that it is installed and configured properly for use with CART Precision Racing. Make sure CART Precision Racing is not running when you start this procedure.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears that may obscure this topic. Refer to the printed topic to finish the procedure.

To configure a ThrustMaster NASCAR Pro® Racing Wheel controller

- 1 Click to display the **Game Controllers** dialog box.
- Click Add.
- In the **Controllers** list, click [Custom...].
- 4 Under Axes, click 2 axes.
- 5 In the **Buttons** list, click **4**.
- 6 Click Special Characteristics, and then click Is A Race Car Controller.
- 7 Under **Name**, type a name for the racing wheel.
- 8 Click **OK**.
- 9 To calibrate your NASCAR Pro® Racing Wheel, click **Properties**.

IMPORTANT: DO NOT select the Rudder/Pedals checkbox.

- 10 Click **Calibrate**, and then follow the directions on your screen.
- 11 Start CART Precision Racing
- 12 On the **Options** menu, click **Controls**.
- 13 In the **Primary Driving Control** list, click Race Car Controller.
- 14 To customize your NASCAR Pro® Racing Wheel, click Customize Controller.
- 15 When you are finished making changes, click **OK**.



Configuring a ThrustMaster Formula T1/T2

If you are using a ThrustMaster Formula T1/T2 wheel and pedals/race car controller unit, follow the steps below to ensure that it is installed and configured properly for use with CART Precision Racing. Make sure CART Precision Racing is not running when you start this procedure.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears that may obscure this topic. Refer to the printed topic to finish the procedure.

To configure a ThrustMaster Formula T1/T2 controller

- 1 Click to display the **Game Controllers** dialog box.
- Click Add.
- In the **Controllers** list, click ThrustMaster Formula T1/T2.
- 4 Click OK.
- 5 To calibrate your T1/T2, click Properties.

IMPORTANT: DO NOT select the Rudder/Pedals checkbox.

- 6 Click Calibrate, and then follow the directions on your screen.
- When you're finished calibrating, click **OK**.
- 8 Start CART Precision Racing
- 9 On the **Options** menu, click **Controls**.
- 10 In the Primary Driving Control list, click Race Car Controller.
- 11 To customize your T1/T2 settings, click **Customize Controller**.
- 12 When you are finished making changes, click **OK**.



Configuring A ThrustMaster Grand Prix 1

If you are using a ThrustMaster Grand Prix 1 wheel and pedals/race car controller unit, please note the following: this controller requires a custom setup that is explained in the documentation provided by the manufacturer. Also, older versions of this controller require an adapter: make sure you are using an adapter if the version of the controller you are using requires it.



Configuring a CH Products Pro Throttle

If you are using a CH Products Pro Throttle pedals/controller with CART Precision Racing, acceleration and braking are assigned to the same pedal unless you calibrate the controller by following the steps below.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears that may obscure this topic. Refer to the printed topic to finish the procedure.

To configure a CH Products Pro Throttle controller

- 1 Set the switch on the controller to "plane." The switch can be found on the top of the controller between the two pedals.
- 2 Click to display the Game Controllers dialog box.
- 3 Click Add.
- In the **Controllers** list, click ThrustMaster Formula T1/T2 without adapter.
- 5 Click **OK**.
- 6 Start CART Precision Racing
- 7 On the **Options** menu, click **Controls**.
- 8 In the Primary Driving Control list, click Race Car Controller.
- 9 To customize your T1 or T2 settings, click **Customize Controller**.
- 10 Click the Swap Pedals check box.
- 11 When you are finished making changes, click **OK**.



Adjusting the Amount of Force You Can Feel with Your Force Feedback Controller

If you are using a Microsoft SideWinder Force Feedback Pro joystick or other force feedback-enabled gaming device, you can adjust the amount of force you feel in your force feedback controller when you are playing CART Precision Racing.

To adjust the amount of force you can feel with your force feedback controller

- On the Options menu, click Controls, confirm that the appropriate controller is selected in the Primary Driving Control list, and then click Customize Controller.
- 2 Confirm that the Force Feedback check box is selected, and then drag the Crash Force and Center Spring slider controls to adjust the amount of force you feel.
 - NOTE: If you set either control to 100 percent, you will feel every slight bump and dip in the road as you race. Also, you may have experiment to find the perfect settings for your force feedback style.
- 3 When you are finished, click OK to exit the dialog box.

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Configuring Your Controller Troubleshooting

If your car handling feels a little twitchy

Adjusting the Null Zone setting for your joystick or steering wheel may help your driving experience a little less twitchy. To increase the Null Zone setting and reduce the twitchiness, click Controls on the Options menu, confirm that the controller you want to adjust is selected under Primary Driving Control, and then click Customize Controller. Drag the Null Zone slider control to the right to increase the setting. You may have to experiment to find the perfect settings for your force feedback style.

If you're working with multiple game devices

When connecting and installing multiple game devices (i.e., a gamepad and a joystick) while playing CART Precision Racing, you may need to exit and restart the game in order to make the control you specified the active one.

If you're getting error messages

You may see the following message when configuring your controllers: "The selected control type could not be found. The primary controller has been set to keyboard."

This message is displayed when there is no controller assigned to controller ID 1. To fix this problem, follow the steps below, and be sure that CART Precision Racing is not running when you start the procedure.

Important: Print this topic before starting the procedure. As you follow the steps below, a dialog box appears that may obscure this topic. Refer to the printed topic to finish the procedure.

- 1 Click to display the **Game Controllers** dialog box.
- 2 Remove all installed game controllers.
- 3 Add the controller you want to use with CART Precision Racing.
- 4 Click **OK**.
- 5 Click **OK** again to exit the **Game Controllers** dialog box.
- 6 Start CART Precision Racing
- 7 On the **Options** menu, click **Controls**.
- 8 In the Primary Driving Control list, click the control that you just assigned Controller ID 1 to in Control Panel.
- 9 Click OK.

{button ,AL(`drivingcontrol;steeringsensitive;joybroke;keybroke')} Related Topics



Frequently Asked Questions about CART Precision Racing

FAQ.txt, a file located in the folder where you installed CART Precision Racing, includes the answers to questions frequently asked about playing and optimizing the performance of CART Precision Racing. To ensure that FAQ.txt includes the latest and most up-to-date information, it is included as a simple text file.

For best results, print FAQ.txt, or open it in Notepad, and use the Find command (Search menu) to locate the information you need.

README.txt, another file located in the folder where you installed CART Precision Racing, also includes late-breaking information about optimizing and troubleshooting the performance of CART Precision Racing.

For best results, print README.txt, or open it in Notepad, and use the Find command (Search menu) to locate the information you need.