
Westhold Corporation

**Westhold
Race Manager
User Manual**

Version 1.39.1.53

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User Manual

1. Introduction

1.1 General Information

The Westhold Race Manager Software is used to control the **Westhold Race Management System** electronic race timing system.

1.2 Requirements

In order to install and use Westhold Race Manager, you must have the following:

IBM PC or compatible with 256M Bytes of free memory or more and at least 50M Bytes of free hard drive space on your computer.

Microsoft Windows 95/98/ME/XP, Windows NT 4.0, Windows 2000, Windows XP Pro, Windows XP Home, Windows Vista, Windows 7, Windows 8/8.1 and Windows 10 It is recommended that you have the latest service pack for each operating system.

1.3 Installation

Run the RaceMgr_139153 setup program. This will start the installation program. Follow the instructions for installation. A Windows Desktop icon will be created. The default installation folder is C:\RaceManager.

1.4 Quick Start

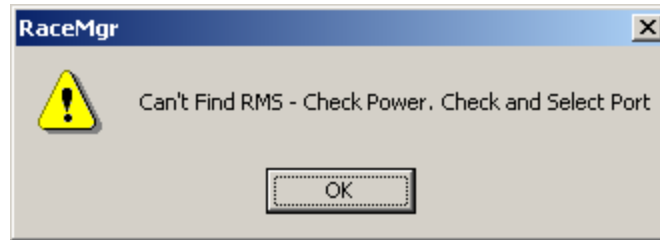
Before starting the software, verify the hardware has been configured properly. Be sure all the cables are connected and secure. Make sure the PC is connected to the IDU or the IDEC decoder via an RS232 serial cable or CAT5 network cable.

Power on the IDU or IDEC. A green power indicator on the front of the unit will light up.

Start the Race Manager program by double-clicking on the Desktop icon or selecting the program from the <START>/<PROGRAMS>/RaceManager location.

When the software is started for the first time some warning messages may appear regarding the setup of com ports and the RMS. This is normal. Click on the 'OK' buttons for the warning messages.





2. Overall Description

The program is segmented into several logical sections. These are indicated by tabs at the bottom of the program window. The three sections are **Setup, Assign and Timing**. The tabs are set up from left to right to indicate the typical flow of operation by the user.

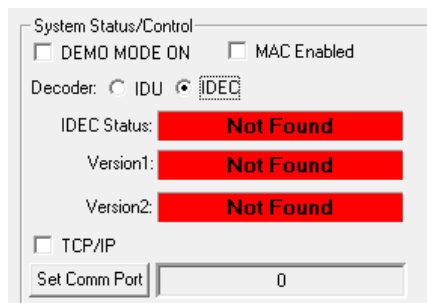
2.1 Setup Tab

The setup page includes several parameters used to set up the software to communicate with the RMS and scoreboard.

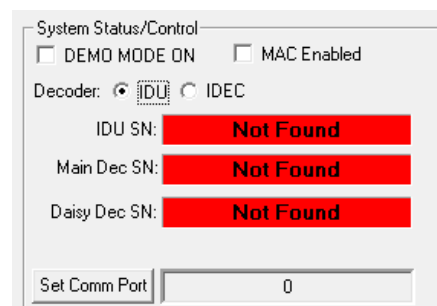
2.1.1 System Status/Control

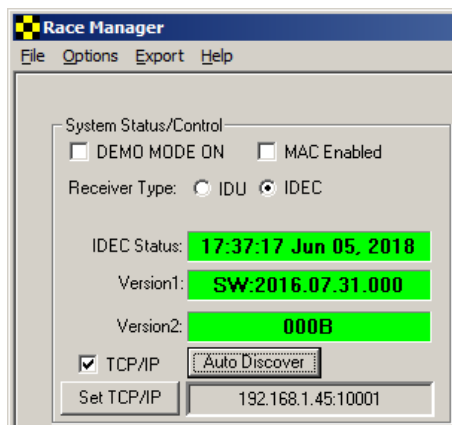
The System Status/Control box is in the upper left corner. It allows you to select the type of system you are using and indicates the status of the system. The Status box will initialize with the words 'Not Found' and the background will be red. If the RMS components are found the box will display the appropriate data and the background color will be green. Typically, the first time the system is started the software will not discover the components. Some setup must first occur. Follow the procedure below to initialize the system.

1. Select the Decoder type – IDU or IDEC

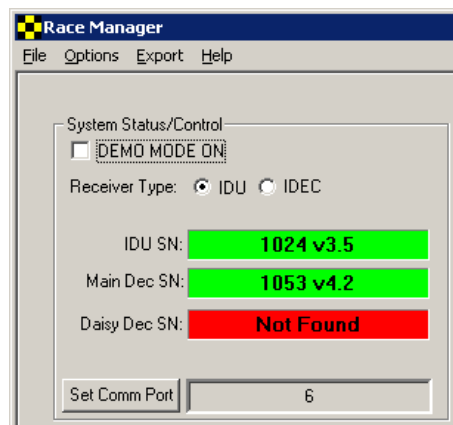


OR





IDEC



IDU

2. If you are using an IDEC select whether you want to use TCP/IP (network) or not. If you are not using IDEC skip to step 3. Depending on whether the TCP/IP checkbox is checked you will see the button below change to either **Set Comm Port** or **Set TCP/IP**.

Note: Do not select MAC Enabled unless your IDEC supports this method. MAC enabled units are used for multi-IDEC setups.

3. Click on **Set Comm Port** in the System Status/Control box. A list box will appear with the operational com ports. Or in TCP/IP mode click the **Auto Discover** button to attempt to auto discover the IDEC. Or you may manually enter the IP address by clicking the **Set TCP/IP** button and a window will pop up to allow the entry of the IP address and port number. The port number for the IDEC is **10001**. The default IDEC address is 192.168.1.49.

NOTE: If your router assigns addresses to your computer, you will not be able to connect to the IDEC unless the first 3 numbers of your computer address matches the first 3 numbers of the IDEC address (e.g. 192.168.1.xxx). **Auto Discover** will not work. You must either change the router such that it assigns address in the same domain 192.168.1.XXX or you must change the IDEC address to match the first 3 addresses your router assigns.

NOTE: It is also possible to connect your computer directly to the IDEC. However, you will have to assign your PC an address in the same domain (e.g. 192.168.1.5) as the IDEC. Normally this will have to be done by giving your computer a static IPV4 address.

4. Click the 'OK' button. Race Manager will attempt to discover and communicate to the RMS components. When it successfully locates the components, the indicators will light green and display the appropriate data. For IDU systems the windows will display the IDU serial number as well as the decoder serial numbers. In IDEC mode the current time and day will appear. The other 2 boxes will show firmware version numbers.

2.1.1.1 Demo Mode On

When this checkbox is checked the software is placed in a demonstration mode. This is useful for learning about the system without having all the hardware equipment connected. In this mode it is also possible to output scoreboard data and test the scoreboard feed.

In Demo mode the software will output transponder numbers from 1001 to 1010 in random order when the race view is active. The race information will continue until the **Finish** button is pressed. If the qualify view is active the numbers 1001-1005 will be shown with each of the transponders' numbers making 4 crossings. Note that the lap times are not realistic numbers. They are simply used to demonstrate some of the software features and exercise the scoreboard output.

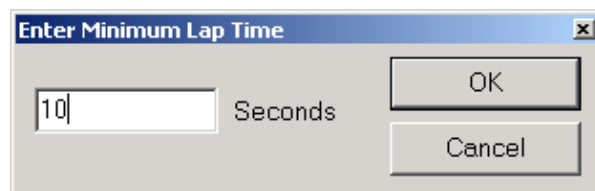
Note: System Status/Control com ports will turn yellow with DEMO MODE inside of them. It is recommended that the **Min Lap Time** is set to 0 sec, **Min Hits** is set to 0 hits and **Min Power** is set to 0 dB in demo mode.

2.1.2 Set Min Lap Time

This is used to set the minimum acceptable lap time. It is used to prevent unwanted detections such as when a car spins out over the antenna and crosses it multiple times or when a transponder is accidentally brought near the antenna or some other point where it can be detected by the Decoder.

To set the minimum lap time click on the **Set Min Lap Time** button and enter the number of seconds in the window that pops up. Click **OK** when finished or **Cancel** to abort the operation.

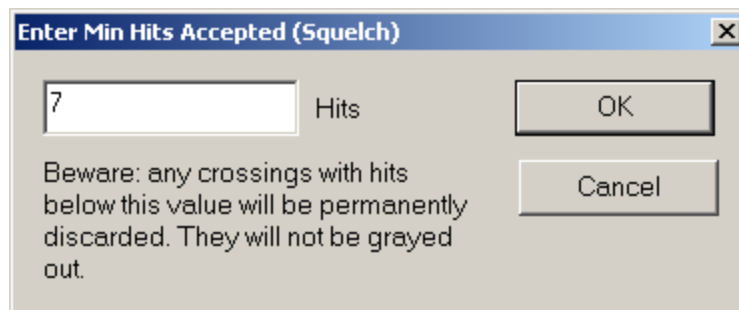
Note: The crossing on the crossing screen will be Gray in color.

A dialog box titled "Enter Minimum Lap Time" with a close button (X) in the top right corner. It contains a text input field with the number "10" and the label "Seconds" to its right. Below the input field are two buttons: "OK" and "Cancel".

2.1.3 Set Min Hits (Squelch)

This is used to set the minimum acceptable hits. It is used to prevent unwanted detections from stray transponders such as when someone walks near the antenna loop. A hit is a transmission from a transponder with the transponder's identification code. Each transponder transmits a certain number of times per second. When the transponder goes by the detection loop the timing system will receive transmissions. The faster the transponder goes by, the fewer the hits.

Typically, when a transponder passes near the loop, but not directly over the loop, the number of hits received is very low. If the min hits setting is set to some minimum threshold, transponders detections that do not meet this minimum are discarded and not shown on the Timing screen. The default number is zero (0). In this case, the minimum hit threshold is ignored.

A dialog box titled "Enter Min Hits Accepted (Squelch)" with a close button (X) in the top right corner. It contains a text input field with the number "7" and the label "Hits" to its right. Below the input field is a warning message: "Beware: any crossings with hits below this value will be permanently discarded. They will not be grayed out." To the right of the warning message are two buttons: "OK" and "Cancel".

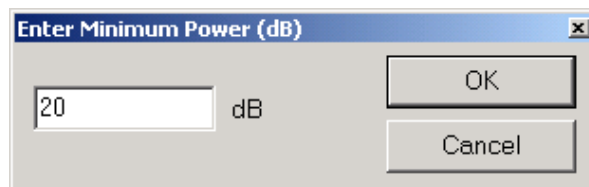
Note: The crossings which do not meet this minimum will be discarded and not show up on the screen. Be very careful when using this.

2.1.4 Set Min Power

This is used to set the minimum acceptable detection power level. It is used to prevent unwanted detections from stray transponders on the edge of the Decoder detection range.

To set the minimum power click on the **Set Min Power** button and enter the number of dB in the window that pops up. Click **OK** when finished or **Cancel** to abort the operation. A typical threshold number is about 19-20 dB. Some experimentation may be necessary to pick an appropriate value.

Note: Leave the setting at 0 or blank if you do not want to use the filter.

A small dialog box titled "Enter Minimum Power (dB)" with a close button (X) in the top right corner. It contains a text input field with the number "20" and the label "dB" to its right. Below the input field are two buttons: "OK" and "Cancel".

2.1.5 Set Backup Transponder Interval

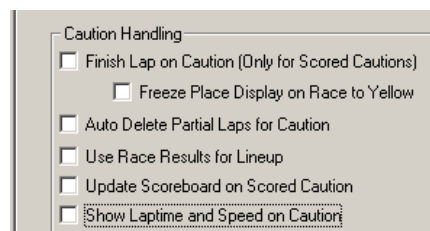
This is only used if you are using two transponders per racer. To use this feature a backup transponder number must be assigned on the **Assign** page (Section 2.2). This setting is the interval in which both transponders must be detected to be considered a single crossing.

A small dialog box titled "Enter Backup Transponder Time Interval" with a close button (X) in the top right corner. It contains a text input field with the number "0" and the label "Seconds" to its right. Below the input field are two buttons: "OK" and "Cancel".

For instance, transponder number 1001 is the primary and 1002 is the backup used for one racer. Say the interval is set to 1 second. If 1001 is detected first and 1002 is detected within 1 second of 1001, 1002 will be determined to be a backup transponder. This is also true if 1002 is detected first and 1001 is detected within 1 second. What will appear on the screen is the primary transponder number assigned. In this case 1001 will always appear whether or not 1002 was detected first.

2.1.6 Caution Handling

This group of controls is used to set parameters for how caution conditions will be handled.

A panel titled "Caution Handling" containing several checkboxes. The first checkbox is "Finish Lap on Caution (Only for Scored Cautions)", which is unchecked. Below it is a sub-checkbox "Freeze Place Display on Race to Yellow", also unchecked. The next three checkboxes are "Auto Delete Partial Laps for Caution", "Use Race Results for Lineup", and "Update Scoreboard on Scored Caution", all of which are unchecked. The final checkbox is "Show Laptime and Speed on Caution", which is checked.

2.1.6.1 Finish Lap on Caution (Only for Scored Caution)

This feature is used to handle split scoring situations. If the box is checked, the competitors will be scored only once when they cross the start/finish after the **Caution-Score** button on the timing screen is pressed. If not checked, all scored caution laps will be counted when computing the position of the competitors.

This is also used in situations when competitors race to the yellow.

Note: Read tutorial section for information on split scoring.

2.1.6.2 Freeze Place Display on Race to Yellow

If this box is checked in when the **Finish Lap on Caution box (Only for Scored Cautions)** is checked the Place screen on the Timing page will freeze the running order in place. Otherwise, it will update the screen as racers pass the start/finish line.

2.1.6.3 Auto Delete Partial Laps on Caution

If this box is checked partial laps will be marked as caution when the non-scoring **Caution** button on the timing screen is pressed. For instance, if there are 10 competitors on the track and two vehicles cross the start/finish line before the caution flag is thrown, the crossings by the first two vehicles will be automatically marked as caution.

2.1.6.4 Use Race Results for Lineup

If this box is checked the caution lineup will arrange competitors based on their last race position. If the box is unchecked, the lineup is created based on the order the cars crossed the start/finish. Typically this box is left unchecked.

Note: Use this if you want to put lapped vehicles behind vehicles on the lead lap.

2.1.6.5 Update Scoreboard on Scored Caution

If this box is checked the scoreboard will continue to receive updates during a scored caution.

2.1.6.6 Show Laptime and Speed on Caution

If this box is checked the laptimes and speed will be shown for caution laps.

2.1.7 Count First Crossing at Start

If this box is checked the first crossing will be counted as a lap. This is often used when the start is different than the finish/scoring line such as in motocross racing. If the box is not checked the first crossing will not be counted, but the second crossing will be counted as the completion of the first lap.

Race Manager
File Options Export Help

Lap: **2** ☐ Down ☐ RMon - Practice Quality View Scoreboard Refresh Network

First crossing is counted

Place	No.	Name	Tx ID	Laps
1	02	B Two	1002	2
2	03	C Three	1003	2
3	04	D Four	1004	2
4	05	E Five	1005	2
5	01	A One	1001	2

Index	No.	Name	Tx ID	Lap	Laptime	Speed
1-L	04	D Four	1004	1	---	---
2	05	E Five	1005	1	---	---
3	01	A One	1001	1	---	---
4	02	B Two	1002	1	---	---
5	03	C Three	1003	1	---	---
6-L	02	B Two	1002	2	05.111	0.000
7	03	C Three	1003	2	05.079	0.000
8	04	D Four	1004	2	05.293	0.000
9	05	E Five	1005	2	05.323	0.000
10	01	A One	1001	2	05.344	0.000

All Single Results

PRE-START START CAUTION CAUTION - SCORE RED FLAG FINISH STOP STOP LINEUP

Setup Assign Timing

Count First Crossing at Start is checked

Race Manager
File Options Export Help

Lap: **1** ☐ Down ☐ RMon - Practice Quality View Scoreboard Refresh Network

First crossing is not counted

Place	No.	Name	Tx ID	Laps	Lag	Adj
1	03	C Three	1003	1	00.000	0
2	04	D Four	1004	1	-00.081	0
3	05	E Five	1005	1	-00.103	0
4	01	A One	1001	1	-00.190	0
5	02	B Two	1002	1	-00.272	0

Index	No.	Name	Tx ID	Lap	Laptime
1-L	04	D Four	1004	---	---
2	05	E Five	1005	---	---
3	01	A One	1001	---	---
4	02	B Two	1002	---	---
5	03	C Three	1003	---	---
6-L	03	C Three	1003	1	05.08
7	04	D Four	1004	1	05.342
8	05	E Five	1005	1	05.281
9	01	A One	1001	1	05.336
10	02	B Two	1002	1	05.406

All Single Results

PRE-START START CAUTION CAUTION - SCORE RED FLAG FINISH STOP STOP LINEUP

Setup Assign Timing

Count First Crossing at Start is unchecked

2.1.8 Count First Crossing on Return to Green

If this box is checked the very first crossing after returning from either a caution or restart to green condition will be counted. In this case the start (green flag) button is pressed after all the vehicles have gone by the start/finish and the flag person has thrown the green flag.

If this box is not checked the very first crossing is not scored after returning to green condition. In this case the start (green flag) button is pressed as the flag person throws the green flag and before the vehicles have crossed the start/finish.

2.1.9 Score Red Flag Laps

If this box is checked when clicking red flag button the laps will count instead of not being scored in a typical red flag circumstance.

2.1.10 Auto Delete Partial Laps for Red Flag

If this box is checked when partial laps will be marked as red when pressing the **Red Flag** button on the timing screen. For instance, if there are 10 competitors on the track and two vehicles cross the start/finish line before the red flag is thrown, the crossings by the first two vehicles will be automatically marked as red.

2.1.11 Auto Finish

If this box is checked the software will automatically activate the **Finish Flag** button when the specified number of laps is reached. The number of laps for a race is specified for each assignment on the **Assign Tab**. See section 2.2.5.

2.1.12 Last Lap Indicator

If this box is checked, the software will show the last lap indicator when the lap count is 1 lap from the total number of laps specified. The number of laps for a race is specified for each assignment on the **Assign Tab**. See section 2.2.5.



2.1.13 Scoreboard Control

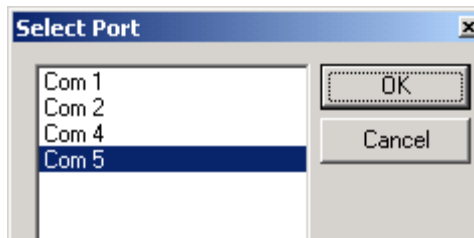
This section contains the controls to set up the scoreboard. To use the scoreboard to display data you must first properly connect the computer to the scoreboard controller. The PC must have a second available RS232 serial port or a USB to serial adapter to use the scoreboard. Be sure to have the PC and scoreboard controller connected before enabling the scoreboard output.

2.1.13.1 Set Comm Port

This is used to select the port that will output data to the scoreboard.

Click on the **Set Comm Port** button. A window with a list of ports will appear.

Select the appropriate port and click **OK**.



2.1.13.2 Total Positions

This control is used to set the number of positions on the scoreboard. Be sure to select the proper number for the scoreboard being used. This limits the amount of data sent from the software to the scoreboard. If the software is set for more positions than the scoreboard supports both the software and scoreboard must process extra data. Some scoreboards may also exhibit unpredictable behavior. To set the number of positions use the up and down arrow buttons next to the control to increment or decrement the number.

2.1.13.3 Scoreboard Type

Use the scoreboard type list box to select the type of scoreboard that will be used.

Daktronics: This is for Daktronics scoreboards operating with the All Sport 5000 series controller. In order to use this option, there are certain settings that must be made to the All Sport controller. First the console must be placed in proper configuration by using the code corresponding to transponder usage and the proper scoreboard. Second, place the console in race mode (not qualify) and press either 'Display Time' or 'Display Laps' button.

Generic: This is for scoreboards that are programmed to work with the generic scoreboard protocol provided by Race Manager. Both All American scoreboards from Everbrite as well as TSI Timers scoreboards can be configured for operation with Race Manager. Note that a separate hardware or software update may be necessary from the scoreboard manufacturer. Please contact the appropriate manufacturer for additional information.

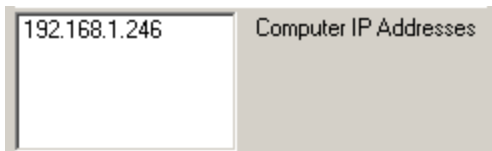
Race America and Westhold selections will work with those respective scoreboards.

2.1.13.4 Enable Scoreboard Output

Before the Race Manager software outputs data to the scoreboard, this checkbox must be checked.

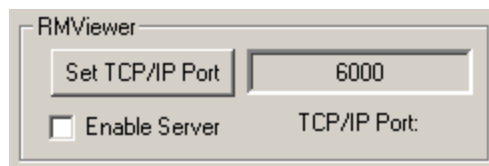
2.1.14 Network IP Addresses

Lists all network interfaces available on the computer and can be helpful for determining if it is possible to connect to the IDEC decoder on one of the interfaces or if a modification is necessary to one of the interfaces in order to connect to the IDEC.

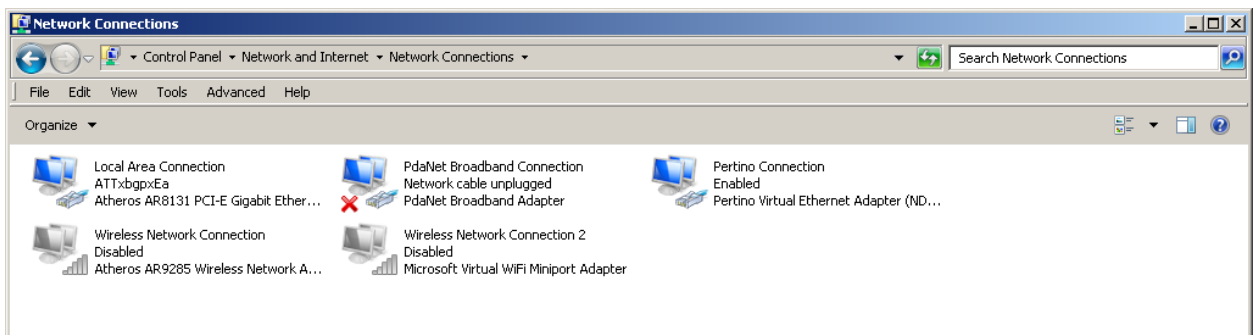


2.1.15 RMViewer

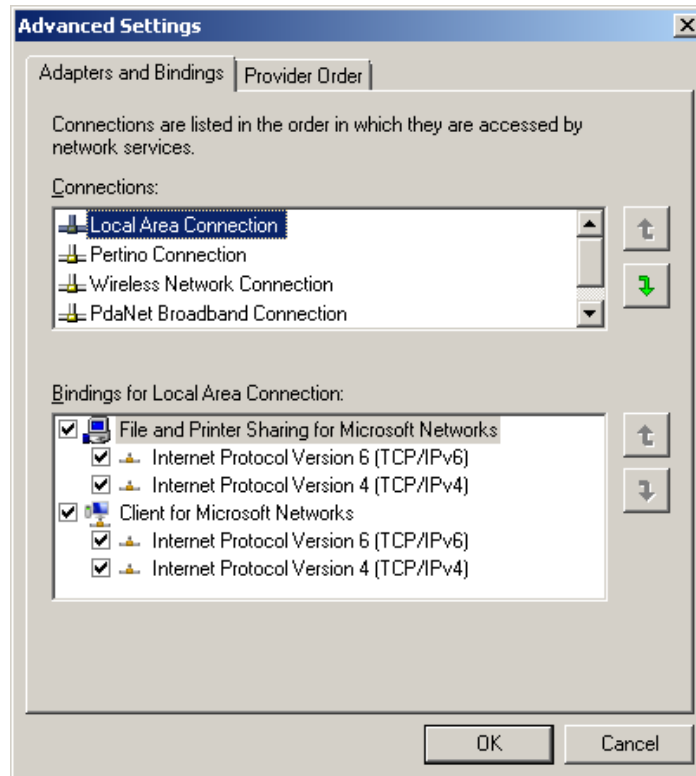
This feature is used in conjunction with the **Westhold RMViewer**, a software application used by announcers and other personnel monitoring the race from a networked computer.



The IP Address shown in the window is the address of the computer the Race Manager software resides on. Note that if a computer has multiple network adapters (e.g. wired or wireless) that are enabled, Race Manager will select the first one on the list. The list order can be changed in **Windows 7** and earlier versions by going to the Change Adapter Settings screen, clicking the Alt key and then selecting the file menu Advanced->Advanced Settings



The following window will appear. Highlight the network adapter you would like to be the first adapter and use the arrow keys on the right to move the selection to the top. When Race Manager is restarted the adapter IP address will appear in the IP Address window.



2.1.15.1 Set Parameters

This is used to set the IP port that the information service will broadcast over. The default is 6000.

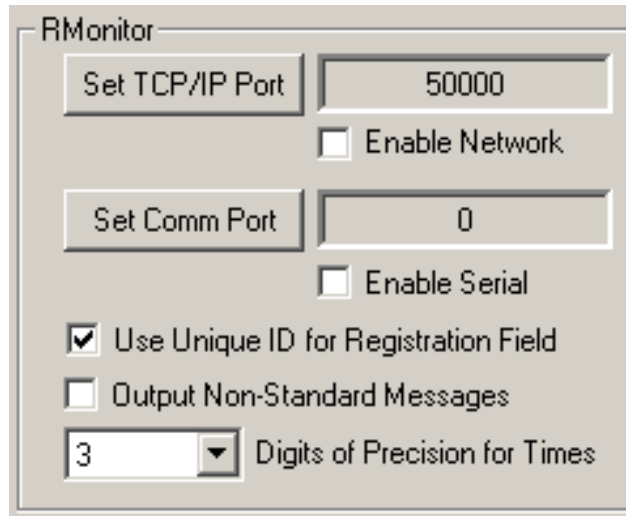
2.1.15.2 Enable Server

To enable the RMViewer broadcast this checkbox must be selected. If this is not enabled the RMViewer software will be unable to connect to the service and obtain race information.

2.1.16 RMonitor

This section contains the controls for outputting an RMonitor protocol stream. This stream is used by many applications and hardware, including some scoreboards.

NOTE: Some scoreboards will use the RMonitor feed. In this case it is not necessary to set up the **Scoreboard Control** section.



2.1.16.1 Set TCP/IP Port

This is used to set the IP port that the RMonitor information will be broadcast over.

2.1.16.2 Enable Network

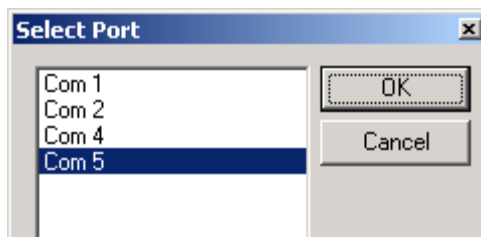
To enable the RMonitor information broadcast server this checkbox must be selected. If this is not enabled devices expecting a data stream will be unable to connect to the service and obtain race information.

2.1.16.3 Set Comm Port

This is used to select the serial port to output the RMonitor data on.

Click on the **Set Comm Port** button. A window with a list of ports will appear.

Select the appropriate port and click **OK**.



2.1.16.4 Enable Serial

To enable the serial port to transmit RMonitor data this checkbox must be selected. If this is not enabled devices expecting a data stream will be unable to obtain the data feed.

2.1.16.5 Use Unique ID for Registration Field

If checked the RMonitor feed will use the transponder ID in the Registration field. This allows racers with the same number to be used in the same sessions. For example, there can be two cars with 5X. If this is not

checked there will be way to distinguish which car is which.

Be aware that some devices use non-standard implementations of the RMonitor data feed so may not properly handle the unique ID capability described in the next section.

2.1.16.6 Output Non-standard Messages

If checked the RMonitor feed will output some non-standard RMonitor messages. Messages include. 'P-Start' and 'Stop' in the \$F field.

2.1.16.7 Digits of Precision

Use this to specify the digits of precision for time output (e.g. laptime, total time)

2.1.17 Sound On

Check this box to enable the PC to output a beep each time a crossing is detected during a race. This is a useful feature to help determine if a transponder was detected.

2.1.18 Count Up Timer

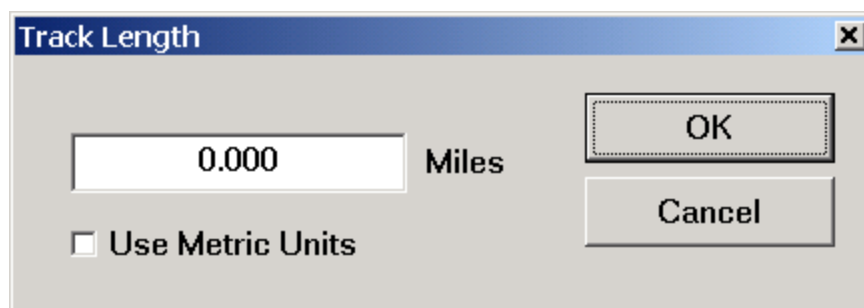
Check this box to enable the scoreboard output to show lap time counting up. This is only shown for lap 1.

2.1.19 Organization Name

Enter your organization name (e.g. Westhold Raceway) that will be placed on printouts, the RMonitor data output and exported data.

2.1.20 Default Track Length

Click on the **Default Track Length** button to bring up a window that allows the entry of the default track length. This is used to set the default track length when creating a new transponder assignment template.



Click on the **Use Metric Units** checkbox to change the type of units to use for the speed calculation.

NOTE: You must set this to a non-zero number in order to see the average lap speed displayed on the timing screen.

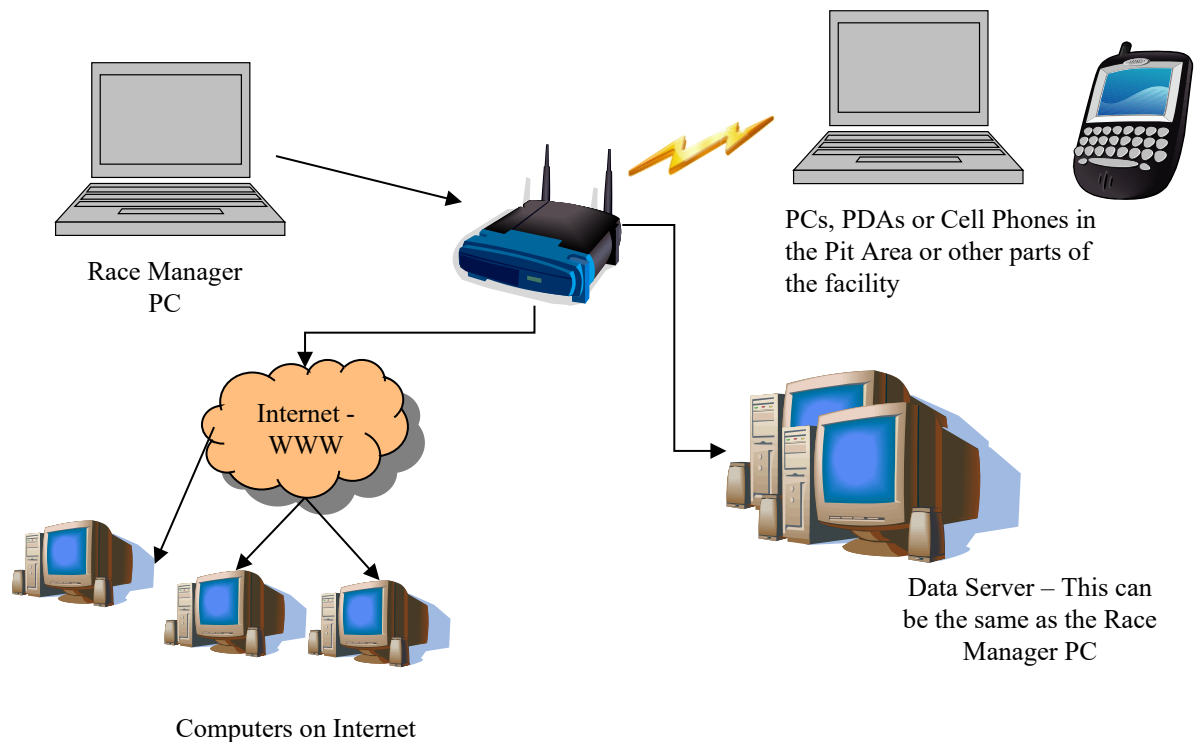
2.1.21 Web Data

This section describes how it is possible to generate data for live internet feeds to the World Wide Web or for a local in-the-pits data feed that racers or fans may view. Many Microsoft based PCs have a web server built in. It is possible to configure a PC to feed race data information which can be broadcast over a wired or wireless network to racers or fans. Data can then be viewed with a PC, mobile phone or other devices that can connect to the network and have a web browser.

The server PC can be the computer running Race Manager or it can be a different computer on the local network. It can even be a computer hooked up to the internet.

When Race Manager is timing a race and the web data section is enabled, Race Manager will output a file called 'racedata.xml' file every 1 second. This file contains information about the race including the race order and lap time information. This file can be used with the additional data files Race Manager generates as described below or can be parsed and used in a custom setting.

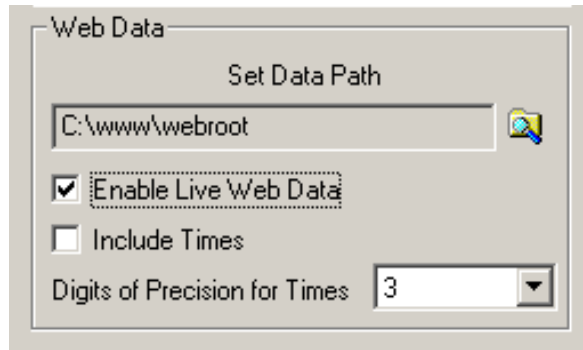
Race Manager also has a file transfer protocol (FTP) feature which allows for the upload of the racedata.xml data to a webserver without the need for an external program to transfer the data.



2.1.21.1 Set Data Path

Click on the folder icon to set the directory where you would like the race data file to be output. If Race Manager determines the folder does not contain the default web pages, and associated files needed to display in-the-pits information it will ask if it should create those files. The files include HTML, PHP and Java Script files. You must have your web server configured properly to serve up this data.

It is not necessary to have these files if your IT person will not be using them. Instead your IT person can use the 'racedata.xml' file and create custom web pages and data feeds. For an example of usage visit the 'LiveTiming' section of the www.westholdtiming.com website.



2.1.21.2 Enable Live Web Data

Check this box to enable the output of the 'racedata.xml' data file to the specified directory.

2.1.21.3 Include Times

Check this box to include lap times in the racedata.xml file. The racedata.xml file that Race Manager generates does not process lap times. However, a custom web interface can be made to display this information.

2.1.21.4 Digits of Precision for Times

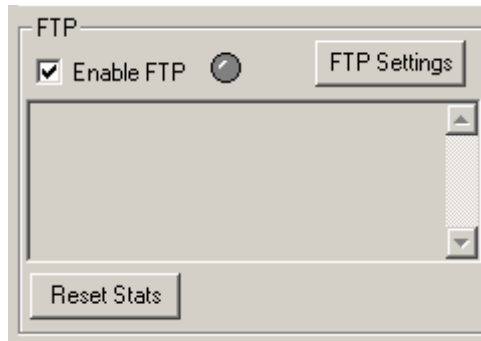
You may select the total digits of precision times for the racedata.xml file. Default is 3 digits.

2.1.22 FTP

Race Manager has a built-in FTP function for uploading the information in racedata.xml file described in the previous section directly to a server rather than producing the racedata.xml file described in the previous section.

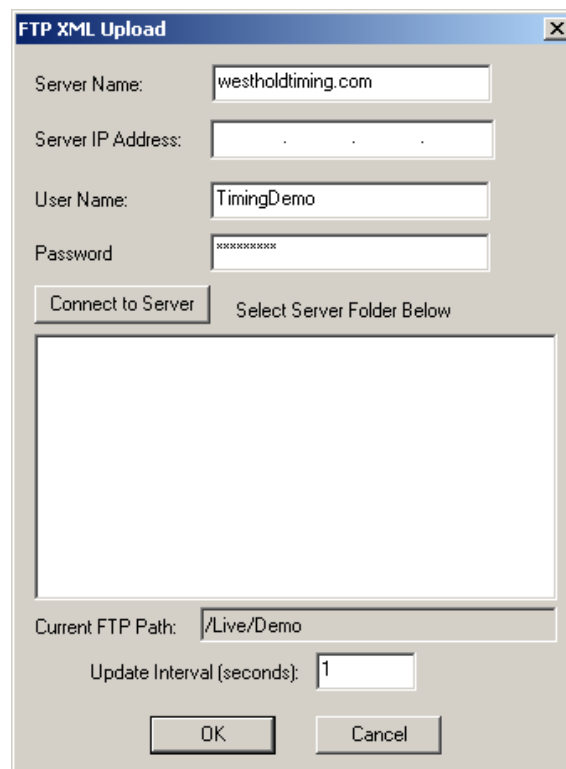
2.1.22.1 Enable FTP

Check this box to enable the FTP data connection. You must first set up the FTP parameters described in the next section.



2.1.22.2 FTP Settings

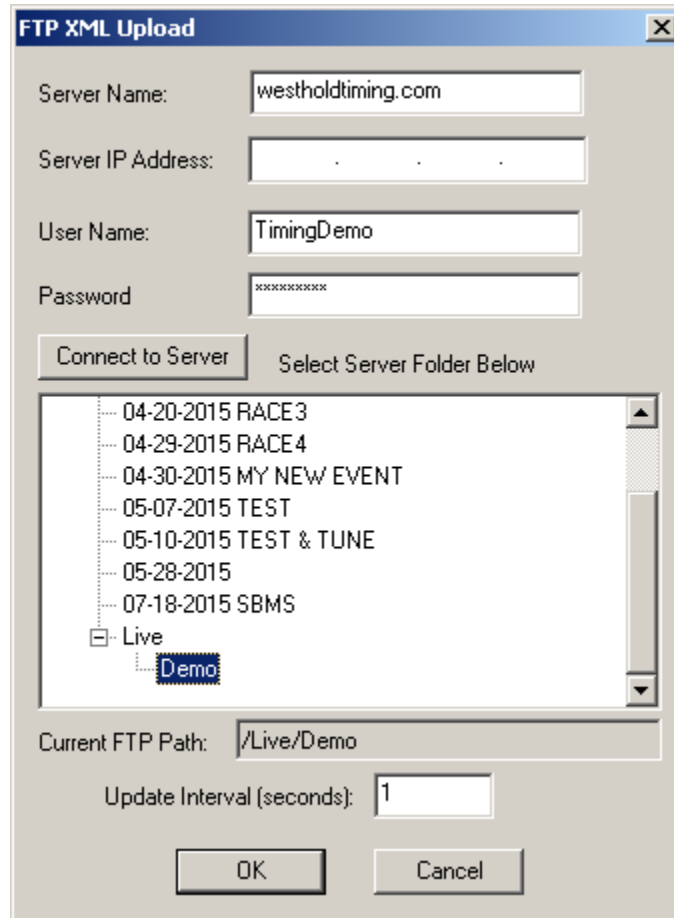
Click the **FTP Settings** button to bring up the window where FTP information can be entered.



Note that you only need to enter either the Server Name or the Server IP Address. It is not necessary to enter both pieces of information. Once that information and the Username and Password are entered click the **Connect to Server** button. Once this is done the FTP path location may be selected.

Enter how frequently the racedata.xml information will be written to the server in the **Update Interval** field.

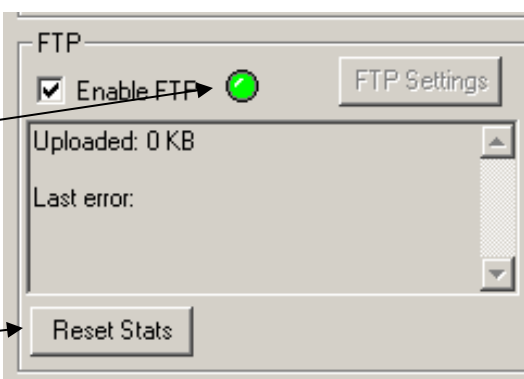
Click the **OK** button when finished selecting the server directory where the racedata.xml file will be saved.



The dialog box is titled "FTP XML Upload". It contains the following fields and controls:

- Server Name: westholdtiming.com
- Server IP Address: . . .
- User Name: TimingDemo
- Password: xxxxxxxx
- Buttons: "Connect to Server" and "Select Server Folder Below"
- Folder list:
 - 04-20-2015 RACE3
 - 04-29-2015 RACE4
 - 04-30-2015 MY NEW EVENT
 - 05-07-2015 TEST
 - 05-10-2015 TEST & TUNE
 - 05-28-2015
 - 07-18-2015 SBMS
 - Live (expanded)
 - Demo (selected)
- Current FTP Path: /Live/Demo
- Update Interval (seconds): 1
- Buttons: "OK" and "Cancel"

NOTE: To change these settings while a race is occurring you must uncheck the Enable FTP checkbox. You do not have to reenter every piece of information or connect to the server to do this if you want to simply change the Update Interval.



The dialog box is titled "FTP". It contains the following elements:

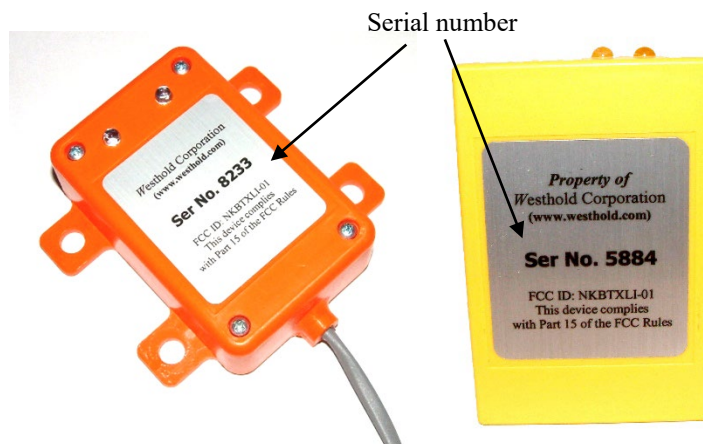
- Enable FTP: ☒ (indicated by a green light icon)
- FTP Settings button
- Uploaded: 0 KB
- Last error:
- Reset Stats button

Annotations:

- "The indicator will blink when data is sent to the server" points to the green light icon next to the "Enable FTP" checkbox.
- "Click the Reset Stats button to reset the FTP information" points to the "Reset Stats" button.

2.2 Assign Tab

The Assign page is used to create a mapping between transponder serial number identifications and vehicle numbers and participant names.



Transponders

Race Manager
File Options Export Help

DEMO
MODIFIEDS
SPRINT

Add New Delete

On Track Assign - DEMO

Number of Laps: 0 Track Length: 0.000 Breakout (Seconds) 0.000 Race Duration (Minutes): 0

Index	Trns ID	Racer No.	Last Name	First Name	Misc	Backup Trns ID	Qualify Time
1	1001	1	One	Alice			
2	1002	2	Two	Ben			
3	1003	3	Three	Christine			
4	1004	4	Four	David			
5	1005	5	Five	Ellen			
6	1006	6	Six	Frank			
7	1007	7	Seven	Gina			
8	1008	8	Eight	Henry			
9	1009	9	Nine	Ida			
10	1010	10	Ten	John			

Print Line-up Use Quality

Setup Assign Timing

Columns are sort able. Click on a column header to sort ascending or descending.

Assign Tab

Enter the transponder serial number (**Trns ID**) and the racer number (**Race No.**) the transponder is assigned to. This is the minimum data needed to score a race. The **Misc** column can be any data desired. This can be useful for classifying different types of racers.

It is possible to assign two transponders per racer. The second transponder would be entered in the **Backup Trns ID** column. Backup transponders are rarely used, but in cases where the race data is critical such as for television broadcast it can be useful. See section 2.1.4 for additional information on backup transponder usage.

2.2.1 Assignment Template List

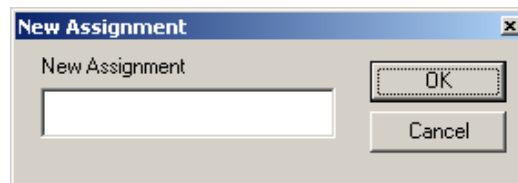
A list of available assignment templates is shown in the box at the top of the screen. Each template has a set of mappings between transponder ID and car numbers. A template may be selected at any time, even during a race.

NOTE: Be careful when selecting a template during a race as this will change what is displayed on the Timing screen as well as on the scoreboard.

The assignment template can be viewed as a class or even a heat assignment. Usage will vary depending on the user and how they choose to organize the assignment templates.

2.2.2 Add New

This is used to create a new assignment template. Click on the **Add New** button and a window will pop up asking for an assignment name. Type in a name and click **OK** when done. Click **Cancel** to abort.



2.2.3 Delete

This button is used to delete an assignment template. To delete a template, click on the template to from the list and click the **Delete** button. This will permanently delete the assignment template and all the assignment information.

2.2.4 On Track Assign

The **On Track Assign** window is used to create the mapping between the transponder ID and the vehicle number.

Select the assignment template from the list of assignment templates.

Now enter new data or modify existing data from the template. First enter the transponder serial number which is four numbers. This is found on the outside of the transponder. Then enter the vehicle number and other relevant information. It is not necessary to enter driver names, but it can be helpful when generating reports later on.

To create a new entry simply hit the **Enter** key on the PC keyboard and a new line will appear.

To delete an entry, simply highlight the data to delete and hit the **Delete** key on the PC keyboard.

2.2.5 Number of Laps

The total number of laps may be entered in the edit box. When the total number of laps is reached during a race, the race is automatically finished as if the “Finish” button on the timing page were pressed. This gives every competitor one more valid crossing.

Note that if this feature is being used the number entered should always be verified prior to a timing session since the number of laps for heat races are often different than that used for the feature race.

2.2.6 Track Length

The track length is the length of the track in miles or kilometers depending on the default mile/km setting found on the **Setup** page. When a new assignment template is created, the default track length from the **Setup** page is entered for the new template.

Note: Make sure both track lengths match so that speeds will appear on Timing Screen.

2.2.7 Breakout (Seconds)

The breakout entry is used with the Qualify Time column in the assignment template. If a qualify time is entered Race Manager will indicate when the racer lap time is equivalent to or faster than the breakout time interval. For instance, if the qualifying time for a racer is 16.250 seconds and the breakout is set to 0.250 seconds the breakout indicator will appear.

The breakout is indicated by an orange highlight on the Timing page.

The screenshot shows the Race Manager software interface. At the top, there's a menu bar with 'File', 'Options', 'Export', and 'Help'. Below the menu bar, there's a status bar with 'Lap: 7', 'Down', 'RMon - Practice', 'Qualify View', and 'Scoreboard'. To the right of the status bar, there are two timers: 'Elapsed Total' showing '00:00:36' and 'Elapsed Green' showing '00:00:36'. There are also buttons for 'Refresh Network' and 'Scroll Lock'.

The main display area is divided into two tables. The left table is titled 'DEMO' and has columns: Place, No., Name, Trns ID, Laps, Lag, and Adjust. The right table has columns: Index, No., Name, Trns ID, Lap, Laptime, Speed, Hits/Power, and Misc. The right table is currently displaying a list of racers and their lap times. The row for 'Irene Nine' (Index 41-L, No. 9, Trns ID 1009, Lap 4) is highlighted in blue, and the 'Laptime' column for this row is highlighted in orange, indicating a breakout.

Place	No.	Name	Trns ID	Laps	Lag	Adjust
1	5	Earl...	1005	7	0...	0
2	7	Geo...	1007	7	-0...	0
3	8	Hen...	1008	7	-0...	0
4	9	Iren...	1009	7	-0...	0
5	10	Jill Ten	1010	7	-0...	0
6	1	Ada...	1001	7	-0...	0
7	2	Bob...	1002	7	-0...	0
8	3	Chri...	1003	7	-0...	0
9	4	Dav...	1004	7	-0...	0
10	6	Fra...	1006	6	-1...	0

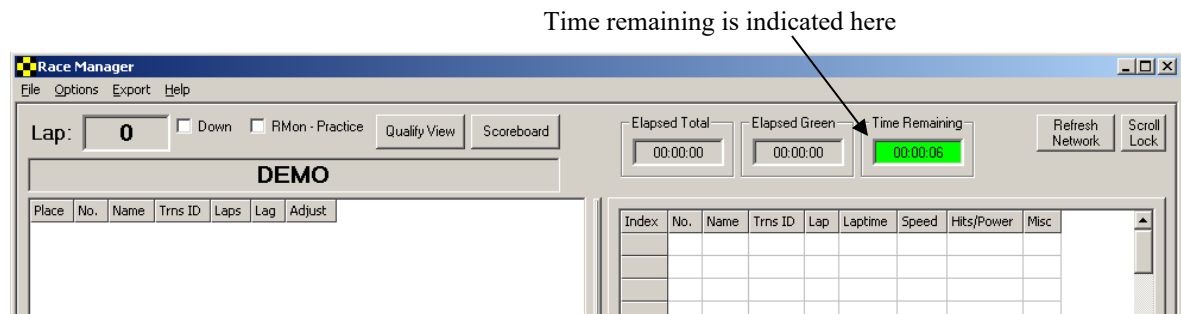
Index	No.	Name	Trns ID	Lap	Laptime	Speed	Hits/Power	Misc
33	4	David Four	1004	3	05.050	0.000	100/50.0	
34	5	Earl Five	1005	3	05.058	0.000	100/50.0	
35	6	Francis Six	1006	3	05.182	0.000	100/50.0	
36	7	George Se...	1007	3	05.175	0.000	100/50.0	
37	8	Henry Eight	1008	3	05.161	0.000	100/50.0	
38	9	Irene Nine	1009	3	05.148	0.000	100/50.0	
39	10	Jill Ten	1010	3	05.148	0.000	100/50.0	
40	1	Adam One	1001	3	05.137	0.000	100/50.0	
41-L	9	Irene Nine	1009	4	05.028	0.000	100/50.0	
42	10	Jill Ten	1010	4	05.021	0.000	100/50.0	
43	1	Adam One	1001	4	05.027	0.000	100/50.0	
44	2	Bob Two	1002	4	05.135	0.000	100/50.0	
45	3	Christine T...	1003	4	05.136	0.000	100/50.0	
46	4	David Four	1004	4	05.122	0.000	100/50.0	
47	5	Earl Five	1005	4	05.135	0.000	100/50.0	
48	6	Francis Six	1006	4	05.138	0.000	100/50.0	
49	7	George Se...	1007	4	05.144	0.000	100/50.0	

At the bottom of the right table, there are buttons for 'All', 'Single', and 'Results'.

2.2.8 Race Duration (Minutes)

You may enter the total amount of time you would like the race to run for in minutes. If the checkbox for **Auto Finish** on the **Setup** page is checked, the race will automatically finish as if the "Finish" flag were pressed.

Note that if this feature is being used the number entered should always be verified prior to a timing session since the duration may be different for different race sessions.



2.2.9 Use Qualify

You may enter the qualify time used with the breakout feature one at a time by hand. Or you may open up results with qualifying time and press the **Use Qualify** button. This will automatically populate the Qualify Time field.

2.2.10 Print Line-Up

This prints the assignment template currently open. Click on the **Print Line-up** to print a copy of what is currently displayed on the **On-Track** assignment screen.

2.3 Timing Tab

This page is used during timing and scoring operations. The current running order or qualifying order is displayed on the left-hand side window and the crossings are displayed on the right-hand side.

Race Manager - C:\RaceManager\Results\410 Sprints - A-Main 1.csv

File Options Export Help

Lap: **30** ☐ Down ☐ RMon - Practice

410 Sprints - A-Main 1

Place	No.	Name	Trns ID	Laps	Lag	Scored Time	Total Time	Adjust
1	23	Cale Th...	22334	30	00.000	06:34.988	14:45.403	0
2	48	Danny ...	64878	30	-00.001	06:33.954	14:45.404	0
3	33W	Cap He...	19188	30	-02.445	06:37.224	14:47.848	0
4	24D	Danny S...	106106	30	-05.016	06:41.183	14:50.419	0
5	4*	Tyler Str...	87715	30	-05.963	06:42.318	14:51.365	0
6	22	Cole Du...	45074	30	-06.598	06:42.636	14:52.001	0
7	99	Skylar G...	65136	30	-06.973	06:42.842	14:52.376	0
8	101	Caleb H...	85651	30	-07.466	06:43.763	14:52.869	0
9	15K	Creed K...	81243	30	-07.810	06:43.980	14:53.213	0
10	22G	Riley Go...	65190	30	-08.236	06:44.647	14:53.639	0
11	27	Emerso...	65132	30	-09.058	06:45.177	14:54.461	0
12	28M	Conner ...	67775	30	-09.714	06:45.832	14:55.117	0
13	W20	Greg Wi...	26351	30	-10.276	06:46.224	14:55.679	0
14	11N	Kasey Je...	109424	30	-10.697	06:47.249	14:56.099	0
15	49x	Tim Sha...	84345	30	-12.120	06:47.893	14:57.522	0
16	71H	Max St...	109412	30	-13.046	06:48.063	14:58.449	0
17	4	Zane De...	72773	30	-14.071	06:50.167	14:59.474	0
18	9	Trey Jac...	72580	14	-16 Laps	03:23.955	11:33.528	0
19	29	Zeth Sabo	23359	11	-19 Laps	02:41.227	10:50.243	0
20	5T	Travis P...	87916	9	-21 Laps	02:13.773	10:23.689	0

Setup Assign Timing

Left Side Columns in Race View:

Place – Running order

No. – Racer number

Name – Name of racer

Trns ID – Transponder number

Laps – Laps completed

Lag – Time from leader

Scored Time – Total time for all laps scored under green flag

Total Time – Elapsed time from very first transponder crossing of session.

Right Side Columns in Race and Qualify View:

Index – Crossing number

Name – Name of racer

Trns ID – Transponder number

Lap – Lap crossing occurred

Laptime – Laptime of lap

Speed – Average speed for the lap (Nonzero if track length has been entered)

Hits/Power – Hits = number of transmissions seen as transponder passes. Power = strength of transponder signal.

Misc – Displays Misc field for the entry in the assignment. Can be whatever the user enters.

410 Sprints - A-Main 1

Place	No.	Name	Trns ID	Laps	Fast Lap	Fast Time	Last Time
1	48	Dann...	64878	30	26	11.732	12.540
2	33W	Cap ...	19188	30	30	12.295	12.295
3	27	Emer...	65132	30	26	12.408	12.969
4	23	Cale ...	22334	30	24	12.454	12.931
5	49x	Tim ...	84345	30	20	12.471	12.928
6	71H	Max ...	109412	30	23	12.486	13.373
7	11N	Kase...	109424	30	17	12.515	12.820
8	15K	Cree...	81243	30	18	12.566	12.801
9	28M	Con...	67775	30	29	12.568	12.792
10	101	Cale...	85651	30	27	12.578	12.869
11	24D	Dann...	106106	30	26	12.583	12.901
12	99	Skyla...	65136	30	19	12.612	12.775
13	4	Zane...	72773	30	24	12.632	15.140
14	W20	Greg ...	26351	30	29	12.674	12.745
15	22	Cole ...	45074	30	26	12.724	13.050
16	4*	Tyler ...	87715	30	30	12.735	12.735
17	22G	Riley ...	65190	30	21	12.741	12.891
18	9	Trey J...	72580	14	12	13.615	14.108
19	29	Zeth ...	23359	11	10	13.884	14.107
20	5T	Travi...	87916	9	5	14.264	14.524

Index	No.	Name	Trns ID	Lap	Laptime	Speed	Hits/Power	Misc
240	49x	Tim ...	84345	---	---	---	151/54.5	
241	9	Trey J...	72580	---	---	---	255/62.5	
242	5T	Travi...	87916	---	---	---	189/63.5	
243	71H	Max ...	109412	---	---	---	210/59.0	
244	35	Stuar...	68327	---	---	---	208/69.0	
245	45B	Devo...	64893	---	---	---	98/66.5	
246	81	Lee J...	19830	---	---	---	253/67.5	
247...	33W	Cap ...	19188	1	13.725	0.000	198/66.5	
248	48	Dann...	64878	1	13.827	0.000	125/67.5	
249	24D	Dann...	106106	1	14.584	0.000	196/65.5	
250	23	Cale ...	22334	1	14.407	0.000	160/63.5	
251	22	Cole ...	45074	1	14.693	0.000	198/66.5	
252	15K	Cree...	81243	1	15.145	0.000	160/63.0	
253	4*	Tyler ...	87715	1	14.733	0.000	142/63.0	
254	22G	Riley ...	65190	1	15.295	0.000	130/63.0	
255	27	Emer...	65132	1	14.860	0.000	101/69.0	
256	28M	Con...	67775	1	15.327	0.000	38/37.5	
257	101	Cale...	85651	1	15.466	0.000	222/67.5	

Left Side Columns in Qualify View:

Place – Running order

No. – Racer number

Name – Name of racer

Trns ID – Transponder number

Laps – Laps completed

Fast Lap – Lap when fastest laptime occurred

Fast Time – Time of fastest lap

Last Time – Laptime of most recent lap

2.3.1 Lap Display Box

This displays the current lap if the **Down** checkbox is unchecked. If the **Down** checkbox is checked the display shows the number of laps left in the race. If the scoreboard is enabled, the lap count will also be reflected in the scoreboard output.

Note: A number other than 0 must be entered for the session on the **Assign Tab** screen if you want to count downwards. Otherwise, the display will count upwards.

2.3.2 Down Checkbox

If this checkbox is checked and the number of laps entered on the **Assign Tab** screen is greater than 0 then the lap display will indicate the number of laps left in the race. If this checkbox is unchecked the lap indicator will indicate the current lap.

Once the countdown reaches 0, the counter will stop at 0 even if more laps are run.

2.3.3 RMon – Practice

This is used in conjunction with the RMonitor feed. If the checkbox is **NOT** checked, the transmitted session name will include the word 'Race' in it. Otherwise, it will not. This is useful for software or devices which use this feed to indicate whether the session is a practice session or a race session.

2.3.4 Qualify/Place View Button

This button toggles the Place/Qualify window between a running order (or place) display and the qualify display. In the Place display the current running order is shown with the leader at the top. The Qualify view will display the current qualifying order sorted by fastest lap.

NOTE: This view may be changed during a race or qualifying session. However, the scoreboard display will also change so caution must be used when selecting the view.

Each column's contents are described by the header at the top of the column. The Tx ID column also displays additional information besides the transponder ID number. If the battery of the transponder is low (1 day or less battery life) the word "Batt" will appear next to the transponder ID.

2.3.5 Scoreboard Button

The scoreboard button opens a scoreboard control dialog. The 'G' button informs the scoreboard to turn on its green light. The 'Y' button turns on the yellow light and the 'R' button the red light. The 'Clear' button will send a reset command to the scoreboard which will either blank the scoreboard or put all zeroes into the scoreboard positions. Note that not all scoreboards will respond to all the buttons.



2.3.6 Elapsed Total

The elapsed total display shows the total time that has elapsed since the **Start** button was pressed. The time is displayed in hours:minutes:seconds format. When the **Finish** button is pressed the time stops updating. This feature is useful for noting if a race is going beyond its allotted time frame. The information is saved along with the race information.

2.3.7 Elapsed Green

The elapsed green display shows the total time that has elapsed under Green flag conditions. The time is displayed in hours:minutes:seconds format. When the **Yellow, Red, or Finish** button is pressed the time stops updating. This feature is useful for noting the time it has taken to run the race under race conditions.

2.3.8 Time Remaining

The time remaining display shows the amount of time left for the race timer. The total time is entered on the **Assign** page for each assignment. For example, if a time of 5 minutes were entered, the timer would be shown counting down to 0. When it reaches 0, the timer will turn red.

2.3.9 Refresh Network

Clicking this button causes Race Manager to send information via the Network broadcast and RMonitor data feeds. This is useful for forcing an update when something has changed.

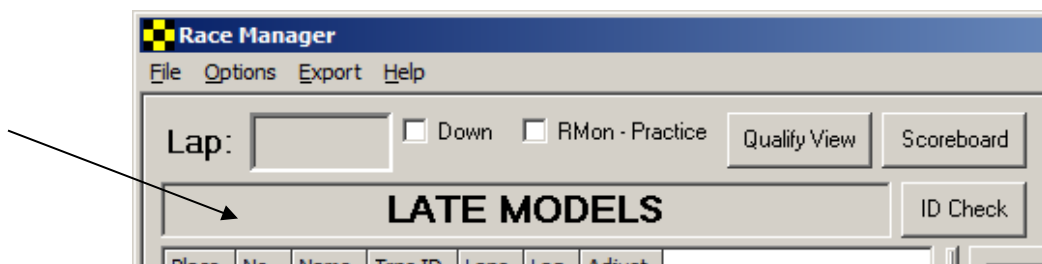
2.3.10 Scroll Lock

When new crossings occur the crossings grid will scroll. Click on the **Scroll Lock** button to toggle this feature on and off.

This is helpful when wanting to go back and check on a lap or vehicle that might have lost a lap and would like to find it.

2.3.11 Session Name

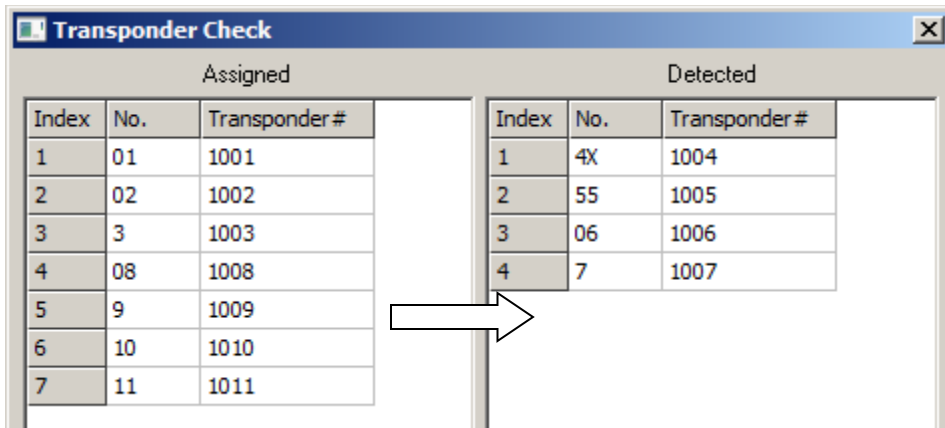
When an Assignment is selected from the **Assign** tab the name of the assignment will appear in the Session Name window.



2.3.12 ID Check

Click the **ID Check** button to bring up a window to check which racer with transponder is on the track. This is useful for determining if a racer has forgotten their transponder or if a transponder is not operating or if a racer has not shown up on the track.

The list on the right side of the window shows the racers and transponders in the assignment. As racers are detected the racer/transponder are moved to the list on the right.

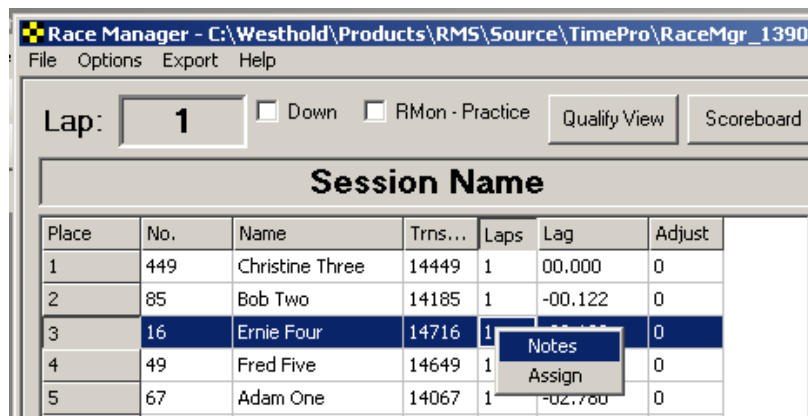


2.3.13 Place/Qualify Window

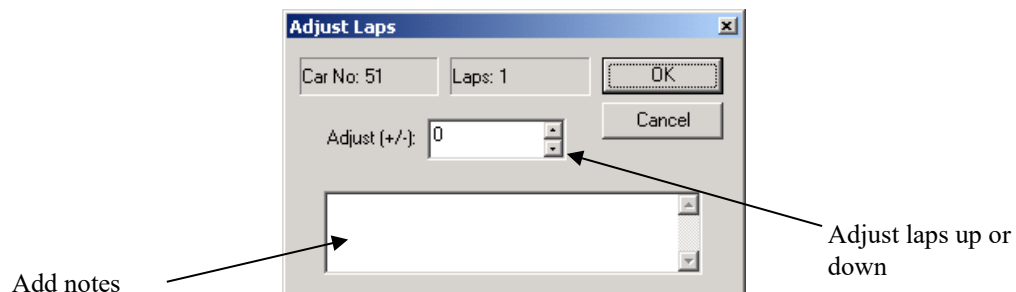
The **Place/Qualify Window** on the left side of the screen is used to display the current running or qualifying order.

2.3.13.1 Notes

When the window is displaying the place view the right mouse button may be clicked, and a pop-up window will display and allow the software user to adjust laps up or down for a vehicle and make notes. To do this a vehicle must first be highlighted. Use the mouse cursor to click on the desired line in the window and select the vehicle. Then right mouse click and click on the **Notes** selection to bring up the lap adjustment window as show in the figure below.



Place/Qualify Window



Notes

Clicking the up and down arrows of the **Adjust (+/-)** entry will increase or decrease the number of laps for a car.

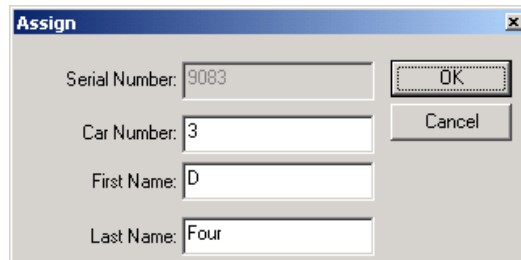
Note: This adjustment is only a rough adjustment. It cannot be used to place a vehicle in exactly the correct spot. Be very careful when using this feature.

When used it may cause a vehicle to appear in the incorrect spot. Upon the next crossing of the vehicle over the start/finish the vehicle will get an actual crossing time and be sorted in the correct order. To more accurately add a lap, use the **Insert Manual Crossing** feature described in section 2.3.21.2.

The text box may be used to add notes that may be referenced later.

2.3.13.2 Assign

To make changes to the car number or assignments right mouse click on the line that will be changed. Select the **Assign** selection and a dialog box will pop up to allow you to make changes or assignments.

A screenshot of a Windows-style dialog box titled "Assign". It contains four text input fields: "Serial Number" with the value "9083", "Car Number" with the value "3", "First Name" with the value "D", and "Last Name" with the value "Four". To the right of the fields are two buttons: "OK" and "Cancel".

Assign

Make the changes and press the **OK** button. Pressing the **Cancel** button will cancel any changes made.

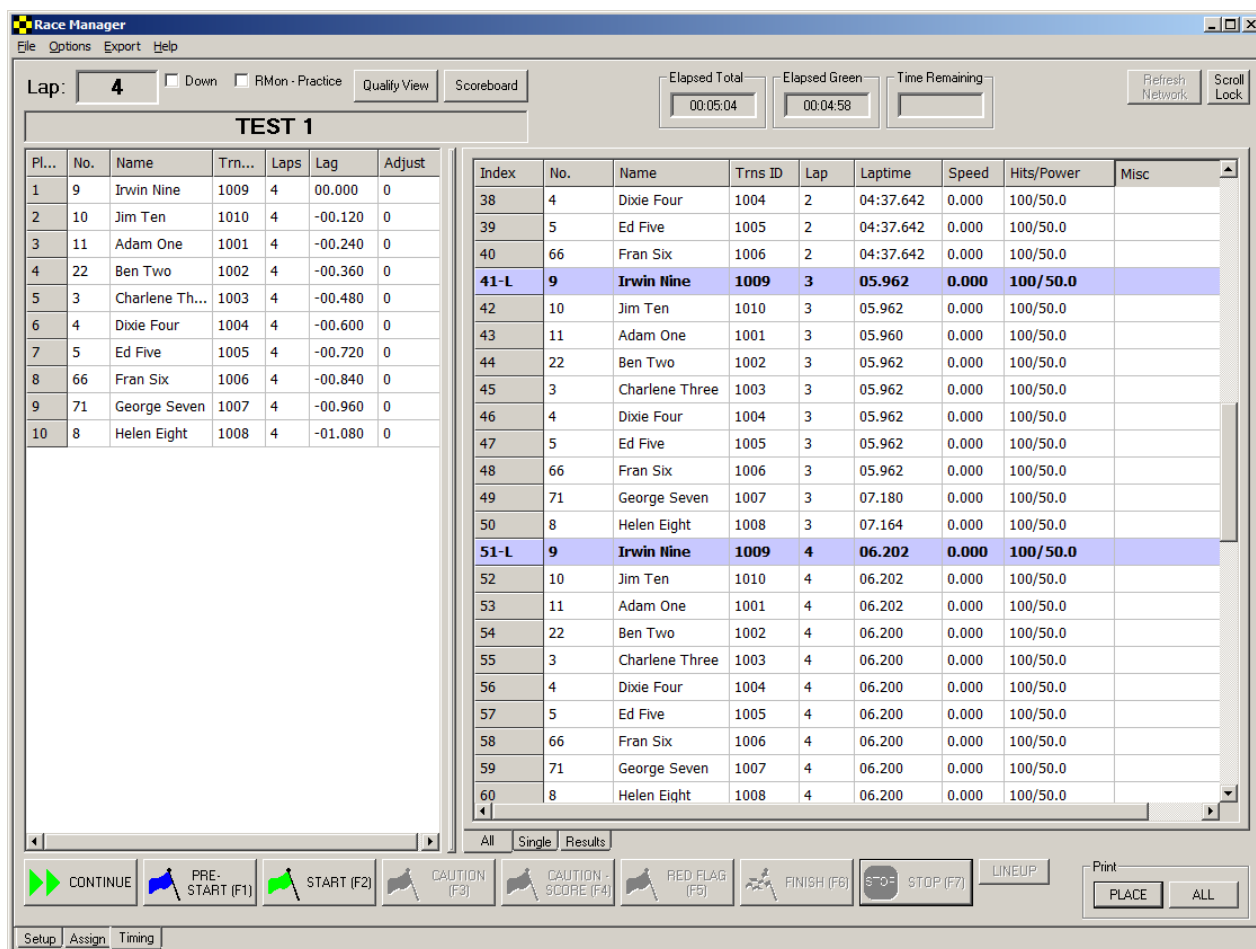
Note: Any changes made here will not be reflected on the assignment template.

2.3.13.3 Double Click

Double click on one of the racers in the **Place/Qualify** window will manually insert a crossing to the end of the crossing list. This is useful if a racer should be credited for a lap but went through the in-field and missed the detection loop or went into the pits.

2.3.14 Crossing Window

The **Crossing Window** is used to display all crossings. There are three tab selections for this window-**ALL**, **Single** and **Results**. By selecting **ALL**, every crossing by every vehicle will be displayed. By selecting **Single** the crossings of a single vehicle selected on the **Place Window** will be displayed. To do this click and select the desired line from the **Place/Qualify Window**. See section 2.3.22 for information on the results tab



All Tab

There are several columns in the **Crossings** window. Most are self-evident. The Hits/Power column has very useful data. This data can help trouble-shoot your setup. It can help determine if a transponder is mounted poorly or if there is possible external interference to the system.

Each transponder transmits its serial number over and over again very rapidly on a periodic basis. The Hits number indicates how many times the system “saw” the serial number being transmitted as it passes by the start/finish line detection point. The faster the vehicle crosses the detection point, the lower the Hits number will be.

The Power number is a measure of the transponder’s signal strength. Strength numbers below mid 30s indicate possible problems either with the transponder location or poor cable connections in the antenna loop or coax cable.

Hints

1. As each vehicle crosses the start/finish verify that the power numbers are consistent and above high 30’s.
2. If a transponder has numbers on average lower than the rest by about 10 then that indicates the transponder is not mounted in the same way as the other cars. If the Power number is low, then the transponder should be relocated to a better position.
3. If the Power number is in the good range (about 40 and above), but the Hits number is low compared to other cars, this indicates poor mounting position. This means that the transponder is not being “seen” very well. It could be that the transponder is in a recessed location surrounded by metal or facing the wrong direction (Label side of transponder should face the antenna loop)

- Race Manager**

File Options Export Help

Lap: 4 ☐ Down ☐ RMon - Practice Qualify View Scoreboard

Elapsed Total: 00:05:04 Elapsed Green: 00:04:58 Time Remaining:

Refresh Network Scroll Lock

TEST 1

Pt...	No.	Name	Trn...	Laps	Lag	Adjust
1	9	Irwin Nine	1009	4	00.000	0
2	10	Jim Ten	1010	4	-00.120	0
3	11	Adam One	1001	4	-00.240	0
4	22	Ben Two	1002	4	-00.360	0
5	3	Charlene Th...	1003	4	-00.480	0
6	4	Dixie Four	1004	4	-00.600	0
7	5	Ed Five	1005	4	-00.720	0
8	66	Fran Six	1006	4	-00.840	0
9	71	George Seven	1007	4	-00.960	0
10	8	Helen Eight	1008	4	-01.080	0

Index	No.	Name	Trns ID	Lap	Laptime
1-Pre	11	Adam One	1001	---	---
2	11	Adam One	1001	---	---
3	11	Adam One	1001	1	05.480
4	11	Adam One	1001	2	04:37.642
5	11	Adam One	1001	3	05.960
6	11	Adam One	1001	4	06.202

All Single Results

CONTINUE
 PRE-START (F1)
 START (F2)
 CAUTION (F3)
 CAUTION - SCORE (F4)
 RED FLAG (F5)
 FINISH (F6)
 STOP (F7) LINEUP

Setup Assign Timing

2.3.15 Unassigned Transponder

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Race Manager - C:\Westhold\Products\RMS\Source\TimePro\RaceMgr_139049\Recovery.CSV

File Options Export Help

Lap: **1** ☐ Down ☐ RMon - Practice Quality View Scoreboard

Elapsed Total: 00:34:27 Elapsed Green: 00:33:33 Refresh Network Scroll Lock

Session Name

Place	No.	Name	Trns...	Laps	Lag	Adjust
1	449	Christine Three	14449	1	00.000	0
2	85	Bob Two	14185	1	-00.122	0
3	16	Ernie Four	14716	1	-00.133	0
4	49	Fred Five	14649	1	-02.742	0
5	67	Adam One	14067	1	-02.780	0
6			14462	0	-2 Laps	0

Index	No.	Name	Trns ID	Lap	Laptime	Speed	Hits/Power
1-Pre	16	Ernie Four	14716	---	---	---	162/36.0
2-Pre	449	Christine Three	14449	---	---	---	223/36.0
3-Pre	85	Bob Two	14185	---	---	---	144/35.0
4-Pre	67	Adam One	14067	---	---	---	248/36.0
5-Pre	49	Fred Five	14649	---	---	---	161/36.0
6-L	85	Bob Two	14185	---	---	---	220/35.0
7	449	Christine Three	14449	---	---	---	206/35.0
8	16	Ernie Four	14716	---	---	---	217/40.0
9	49	Fred Five	14649	---	---	---	230/33.0
10	67	Adam One	14067	---	---	---	243/36.5
11-L	449	Christine Thr...	14449	1	08.461	0.000	164/30.0
12	85	Bob Two	14185	1	08.674	0.000	159/32.5
13	16	Ernie Four	14716	1	08.393	0.000	125/33.0
14	49	Fred Five	14649	1	08.918	0.000	238/34.5
15	67	Adam One	14067	1	08.927	0.000	242/36.5
16	ID=14462		14462	---	---	---	124/32.5

Pre-Start crossings in blue

2.3.18 Start Button

To begin a timing session, click on the **Start** button. It is not necessary to select an assignment template from the **Assign** page. If no assignment template is selected or a blank one is selected the display will only indicate the transponder ID numbers. Although it is possible to change a template selection during a session, it is **NOT** recommended, as this will change the output to the Timing page and the scoreboard.

2.3.19 Caution Button (For non-scoring cautions)

If a caution occurs this button may be pressed, and a caution condition will be enabled. This causes the crossings on the **Crossing Window** to display the affected crossings in bronze if it is in the **All** view. All crossings are highlighted and will not be scored.

Race Manager

File Options Export Help

Lap: **3** ☐ Down ☐ RMon - Practice Quality View Scoreboard

Elapsed Time: 00:39:26 Refresh Network Scroll Lock

Place	No.	Name	Tx ID	Laps	Adjust
1	4	E Five	9084	3	0
2	1	B Two	9081	3	0
3	2	C Three	9082	3	0
4	00	A One	9080	3	0
5	3	D Four	9083	3	0

Index	No.	Name	Tx ID	Lap	Laptime	Speed	Hits/Power
4	3	D Four	9083	1	---	---	36/34.0
5	00	A One	9080	1	---	---	6/33.0
6-L	1	B Two	9081	2	23.638	38.074	43/33.0
7	4	E Five	9084	2	23.613	38.114	255/37.5
8	2	C Three	9082	2	07.360	122.277	23/32.5
9	00	A One	9080	2	16.805	53.554	87/34.5
10	3	D Four	9083	2	16.839	53.447	136/35.0
11-L	4	E Five	9084	3	19.436	46.306	147/34.0
12	1	B Two	9081	3	21.392	42.071	168/35.5
13	2	C Three	9082	3	20.788	43.294	161/35.0
14	00	A One	9080	3	11.307	79.599	100/33.5
15	3	D Four	9083	3	11.280	79.789	74/34.5
16-Y	3	D Four	9083	3	---	---	107/37.5
17-Y	2	C Three	9082	3	---	---	208/39.5
18-L-Y	4	E Five	9084	3	---	---	50/33.0
19-Y	00	A One	9080	3	---	---	206/38.0
20-Y	1	B Two	9081	3	---	---	75/35.5

Caution

If the **Auto Delete Partial Laps for Caution** checkbox on the **Setup** page is checked a partial lap will be deleted and not scored.

Race Manager
File Options Export Help

Lap: **4** ☐ Down ☐ RMon - Practice **Quality View** **Scoreboard** Elapsed Time: 00:01:46 **Refresh Network** **Scroll Lock**

Place	No.	Name	Tx ID	Laps	Adjust
1	4	E Five	9084	4	0
2	1	B Two	9081	4	0
3	2	C Three	9082	3	0
4	00	A One	9080	3	0
5	3	D Four	9083	3	0

Index	No.	Name	Tx ID	Lap	Laptime	Speed	Hits/Power
1-L	1	B Two	9081	1	---	---	77/34.5
2	4	E Five	9084	1	---	---	92/35.0
3	2	C Three	9082	1	---	---	90/35.5
4	3	D Four	9083	1	---	---	39/33.0
5	00	A One	9080	1	---	---	58/34.0
6-L	1	B Two	9081	2	13.468	66.824	54/33.0
7	4	E Five	9084	2	13.722	65.587	70/34.0
8	2	C Three	9082	2	14.981	60.075	77/34.0
9	00	A One	9080	2	11.593	77.632	80/35.5
10	3	D Four	9083	2	18.001	49.998	16/31.0
11-L	4	E Five	9084	3	13.488	66.726	21/32.0
12	1	B Two	9081	3	17.357	51.851	19/31.0
13	2	C Three	9082	3	15.457	58.225	101/35.0
14	00	A One	9080	3	16.975	53.019	68/35.0
15	3	D Four	9083	3	18.451	48.777	8/30.5
16-L	4	E Five	9084	4	28.707	31.351	2/29.0
17	1	B Two	9081	4	28.205	31.909	13/32.0

PRE-START START CAUTION CAUTION SCORE RED FLAG FINISH STOP STOP LINEUP Print PLACE ALL

Setup Assign Timing

Say the Caution button is pressed here

Before Caution Button

Race Manager
File Options Export Help

Lap: **3** ☐ Down ☐ RMon - Practice **Quality View** **Scoreboard** Elapsed Time: 00:02:53 **Refresh Network** **Scroll Lock**

Place	No.	Name	Tx ID	Laps	Adjust
1	4	E Five	9084	3	0
2	1	B Two	9081	3	0
3	2	C Three	9082	3	0
4	00	A One	9080	3	0
5	3	D Four	9083	3	0

Index	No.	Name	Tx ID	Lap	Laptime	Speed	Hits/Power
1-L	1	B Two	9081	1	---	---	77/34.5
2	4	E Five	9084	1	---	---	92/35.0
3	2	C Three	9082	1	---	---	90/35.5
4	3	D Four	9083	1	---	---	39/33.0
5	00	A One	9080	1	---	---	58/34.0
6-L	1	B Two	9081	2	13.468	66.824	54/33.0
7	4	E Five	9084	2	13.722	65.587	70/34.0
8	2	C Three	9082	2	14.981	60.075	77/34.0
9	00	A One	9080	2	11.593	77.632	80/35.5
10	3	D Four	9083	2	18.001	49.998	16/31.0
11-L	4	E Five	9084	3	13.488	66.726	21/32.0
12	1	B Two	9081	3	17.357	51.851	19/31.0
13	2	C Three	9082	3	15.457	58.225	101/35.0
14	00	A One	9080	3	16.975	53.019	68/35.0
15	3	D Four	9083	3	18.451	48.777	8/30.5
16-L-Y	4	E Five	9084	3	---	---	2/29.0
17-Y	1	B Two	9081	3	---	---	13/32.0

PRE-START START CAUTION CAUTION SCORE RED FLAG FINISH STOP STOP LINEUP Print PLACE ALL

Setup Assign Timing

Crossings are deleted (i.e. marked as caution and not scored)

Auto Delete Partial Lap

When the **Caution** button is clicked a screen with the current lineup will appear showing the order the cars crossed the start/finish line during the last complete lap. See section 2.3.18 for details.

After the caution period is over click on the **Start** button to go back to a green condition. If the item **Count First Crossing on Return to Green** is checked on the **Setup** page described in section 2.1.8 the very first crossing over the start/finish line will be scored. If this is the case, the computer operator should wait until all the vehicles have passed the start/finish when the green is thrown before clicking on the **Start** button.

If the option **Count First Crossing on Return to Green** is not checked the operator should click on the **Start** button just as the green is thrown, but before the vehicles cross the start/finish. The very first crossing will not be counted. The subsequent crossing will then be counted as the first completed lap.

2.3.20 Caution-Score Button

The **Caution-Score** button is used when the caution crossings will be scored. All crossings in this case will be scored unless the **Finish Lap on Caution (Only for Scored Cautions)** checkbox described in section 2.1.6.1 is checked. See the tutorial section 3.1 for a guide to split scoring.

2.3.21 Red Flag Button

If a red flag condition occurs pressing this button will cause a red flag to be enabled. All crossings affected will be highlighted in red. See section 2.3.18 for details on the lineup screen. When the red period is over click on the **Start** button to go back to a green condition.

Note: Leave red even if running under yellow until ready to go back green then press **Start** button unless scoring yellows then press **Start** button and press **Caution-Score**.

2.3.22 Lineup Screen

When the **Caution**, **Caution-Score** or **Red Flag** buttons are clicked a screen with the current lineup will appear showing the order the cars crossed the start/finish line during the last complete lap or it will show the last race position depending on whether or not the **Use Race Results for Lineup** checkbox on the **Setup** page is checked.

Original				Modified			
Pos	No.	Lap	Lag	Pos	No.	Lap	Lag
1	9	4	00.000	1	9	4	00.000
2	10	4	-00.120	2	10	4	-00.120
3	11	4	-00.240	3	11	4	-00.240
4	22	4	-00.360	4	22	4	-00.360
5	3	4	-00.480	5	3	4	-00.480
6	4	4	-00.600	6	4	4	-00.600
7	5	4	-00.720	7	5	4	-00.720
8	66	4	-00.840	8	66	4	-00.840
9	71	4	-00.960	9	71	4	-00.960
10	8	4	-01.080	10	8	4	-01.080

Lineup Window

The left-hand side of the screen shows the lineup according to the scoring system. The right-hand side is used to modify the scoreboard output. Adjustments can be made on the right-hand side of the screen. To do this you click on one of the entries on the right so that it is highlighted. Then, click on one of the buttons on the right to either move the selected entry up or down.

The **Top** button moves the entry all the way to the first-place position. The **Bottom** button moves the participant to the very bottom of the list. The **Up** and **Down** buttons move the entry up and down one position respectively.

Once you are satisfied with the rearrangement the **Update Scoreboard** button may be clicked to send the modified arrangement to the scoreboard. The **Update Network** button may be used to send the modified update over the RMonitor feed. This is useful for updating devices with the lineup that use the RMonitor feed.

Note 1: Modifications on the Lineup screen does not change the actual positions of the cars. The modifications are for the benefit of the scoreboard display.

Note 2: While the Lineup screen is displayed the scoreboard will not update positional changes in non-scoring cautions conditions.

2.3.23 Finish Button

Click the **Finish** button right before the leader takes the checkered. This allows each competitor to be scored for only one more crossing. All subsequent crossings are recorded but not scored. This prevents the leaders from being accidentally scored if they do not get off the track right after crossing the start/finish line.

When the **Finish** button is pressed a line with checkered flags will appear on the crossing window. When a crossing occurs after this line a small, checkered flag will appear next to the racer on the **Place/Qualify** window to indicate the racer has taken the checkered.

NOTE: This is a useful feature to determine if there are racers still left on a track.

Race Manager
File Options Export Help

Lap: **6** ☐ Down ☐ RMon - Practice

Elapsed Total: 00:13:12 Elapsed Green: 00:12:48 Time Remaining:

TEST 1

Pl...	No.	Name	Trn...	Laps	Lag	Adjust
1	3	Charlene Th...	1003	6	00.000	0
2	4	Dixie Four	1004	6	-00.120	0
3	5	Ed Five	1005	6	-00.249	0
4	66	Fran Six	1006	6	-00.388	0
5	71	George Seven	1007	6	-00.530	0
6	8	Helen Eight	1008	6	-00.650	0
7	9	Irwin Nine	1009	6	-00.802	0
8	10	Jim Ten	1010	6	-00.922	0
9	11	Adam One	1001	6	-01.042	0
10	22	Ben Two	1002	6	-01.162	0

Index	No.	Name	Trns ID	Lap	Lapttime
159	71	George Seven	1007	5	06.682
160	8	Helen Eight	1008	5	06.682
161	3	Charlene Th...	1003	6	05.722
162-L	3	Charlene Thr...	1003	6	05.722
163	4	Dixie Four	1004	6	05.722
164	5	Ed Five	1005	6	05.731
165	66	Fran Six	1006	6	05.750
166	71	George Seven	1007	6	05.770
167	8	Helen Eight	1008	6	05.770
168	9	Irwin Nine	1009	6	07.004
169	10	Jim Ten	1010	6	07.004
170	11	Adam One	1001	6	07.004
171	22	Ben Two	1002	6	07.004
172-Del	11	Adam One	1001	---	---
173-Del	22	Ben Two	1002	---	---
174-Del	3	Charlene Three	1003	---	---
175-Del	4	Dixie Four	1004	---	---
176-Del	5	Ed Five	1005	---	---
177-Del	66	Fran Six	1006	---	---
178-Del	71	George Seven	1007	---	---

All Single Results

Setup Assign Timing

NOTE: If you are unable to click the **Finish** button before the leader crosses the start/finish then you can left-mouse click on the finish flag and drag the finish flag to the correct position. You may also hit the stop button before the leader returns to the start/finish line.

If the **Finish** button were accidentally pressed the race can be continued by clicking on the **Start** button. The finish flag line will disappear, and the deleted crossings will be turned into green flag crossings.

2.3.24 Stop Button

Click the **Stop** button to stop all scoring. When this is done a window will pop up and the user is given a chance to save the results of the timing session. The default file name is the name of the assignment template used. You can change this by typing the name of the file to save the data as and click **OK**. If **Cancel** is clicked, no data is saved. However, it is still possible to save the data by going to the menu item <FILE>\<SAVE RESULTS>.

NOTE: A very useful feature is the **auto save** feature. When the **Stop** button is pressed Race Manager automatically saves the race data in a folder called '**AutoSave**'. This folder is located in the directory that Race Manager is located in.

Attention: For Windows Vista machines and higher this may not be the case. If your PC is configured for multiple users (i.e. User Control ON - default for Vista PCs) and Race Manager is installed under C:\ProgramFiles (x86) your data will be stored in a virtual directory under your main C drive. This is usually the directory C:\Users\AppData\Local\VirtualStore\Program Files\RaceManager. The auto saved races are named with the assignment name first followed by a date/time stamp.

2.3.25 Crossing Window Pop-Up Menu (Used to modify crossing status)

This menu can be used to change any crossing to a different flag condition. For instance, it can be used to change a green flag crossing to a caution flag crossing or a red crossing. There are also several other options for inserting manual crossings. See the sections below for a more detailed description.

2.3.25.1 Changing Crossing Type

Individual or multiple crossings may be selected for, and their crossing type changed by first highlighting the desired crossing and then right-clicking the mouse with the mouse cursor in the **Crossing** window. Select the desired choice such as **Set Caution** and the crossing type will change. This is a very useful feature used to correct mistakes such as accidentally pressing the **Caution** button at the wrong time.

Race Manager
File Options Export Help

Lap: **2** ☐ Down ☐ RMon - Practice

Elapsed Total Elapsed Green

DEMO

Place	No.	Name	Tx ID	Laps	Lag
1	3	C Three	1003	2	00.000
2	4	D Four	1004	2	-00.019
3	5	E Five	1005	2	-00.064
4	6	F Six	1006	2	-00.084
5	7	G Seven	1007	2	-00.125
6	8	H Eight	1008	2	-00.191
7	10	J Ten	1010	1	-1 Laps
8	01	A One	1001	1	-1 Laps
9	2	B Two	1002	1	-1 Laps
10	9	I Nine	1009	1	-2 Laps

Highlighted crossing is changed

Index	No.	Name	Tx ID	Lap	Laptime	Speed	Hits/Po...
6	10	J Ten	1010	---	---	---	255/0.0
7	01	A One	1001	---	---	---	255/0.0
8	2	B Two	1002	---	---	---	255/0.0
9	3	C Three	1003	---	---	---	255/0.0
10	4	D Four	1004	---	---	---	255/0.0
11-L	4	D Four	1004	1	05.022	0.000	255/0.0
12	5	E Five	1005	1	05.594	0.000	255/0.0
13	6	F Six	1006	1	05.550	0.000	255/0.0
14	7	G Seven	1007	1	05.591	0.000	255/0.0
15	8	H Eight	1008	1	05.578	0.000	255/0.0
16-Y	9	I Nine	1009	---	---	---	255/0.0
17	10	J Ten	1010	1	05.530	0.000	255/0.0
18	01	A One	1001	1	05.591	0.000	255/0.0
19	2	B Two	1002	1	05.594	0.000	255/0.0
20	3	C Three	1003	1	05.589	0.000	255/0.0
21-L	3	C Three	1003	2	05.022	0.000	255/0.0
22	4	D Four	1004	2	05.585	0.000	255/0.0
23	5	E Five	1005	2	05.544	0.000	255/0.0
24	6	F Six	1006	2	05.524	0.000	255/0.0
25	7	G Seven	1007	2	05.487	0.000	255/0.0
26	8	H Eight	1008	2	05.503	0.000	255/0.0

All Single Results

PRE-START START CAUTION CAUTION SCORE RED FLAG FINISH STOP LINEUP

Print

Setup Assign Timing

Highlighted Crossing Changed

Note: Be careful using this feature. It is a powerful feature but can have unintended consequences.

There is a special crossing type called **Force Count**. Depending on the selections made in the **Setup** page sometimes a crossing may not be counted. For example, after returning to green from a caution the first crossing is not counted if the **Count First Crossing on Return to Green** checkbox is not checked. If the competitor has gone to the pits and upon their return the crossing must be counted, then select the **Force Count** selection. See the figure below.

Race Manager
File Options Export Help

Lap: **2** ☐ Down ☐ RMon - Practice Elapsed Total: 00:00:15 Elapsed Green: 00:00:15

demo

Place	No.	Name	Trns ID	Laps	Lag	Adjus
1	4	D Four	1004	2	00.000	0
2	5	E Five	1005	2	-00.009	0
3	1	A One	1001	2	-00.028	0

Say this competitor went into the pits. Upon returning to the track it is not counted since we just returned to green.

Index	No.	Name	Trns ID	Lap	Laptime	Speed
9	4	D Four	1004	---	---	---
10	5	E Five	1005	---	---	---
11	4	D Four	1004	1	05.035	0.000
12	5	E Five	1005	1	05.024	0.000
13	1	A One	1001	1	---	---
14	2	B Two	1002	1	---	---
15	3	C Three	1003	---	---	---
16-L	4	D Four	1004	2	05.059	0.000
17	5	E Five	1005	2	05.062	0.000
18	1	A One	1001	2	05.070	0.000
19	2	B Two	1002	2	05.075	0.000
20	3	C Three	1003	1	05.082	0.000

All Single Results

Use Force Count

Race Manager
File Options Export Help

Lap: **2** ☐ Down ☐ RMon - Practice Elapsed Total: 00:00:15 Elapsed Green: 00:00:15

demo

Place	No.	Name	Trns ID	Laps	Lag	Adjus
1	4	D Four	1004	2	00.000	0
2	5	E Five	1005	2	-00.009	0
3	1	A One	1001	2	-00.028	0
4	2	B Two	1002	2	-00.049	0
5	3	C Three	1003	2	-00.069	0

Index	No.	Name	Trns ID	Lap	Laptime	Speed
9	4	D Four	1004	---	---	---
10	5	E Five	1005	---	---	---
11	4	D Four	1004	1	05.035	0.000
12	5	E Five	1005	1	05.024	0.000
13	1	A One	1001	1	---	---
14	2	B Two	1002	1	---	---
15	3	C Three	1003	1	10.162	0.000
16-L	4	D Four	1004	2	05.059	0.000
17	5	E Five	1005	2	05.062	0.000
18	1	A One	1001	2	05.070	0.000
19	2	B Two	1002	2	05.075	0.000
20	3	C Three	1003	2	05.082	0.000

All Single Results

PRE- START (F2) CAUTION CAUTION - RED FLAG FINISH (F1) STOP STOP (F2) LINEUP

Crossing is now counted.

2.3.25.2 Insert Manual Crossing

There are two ways to add a manual crossing. The first way is done by selecting a car in the **Place/Qualify** window on the left and selecting which crossing the manual lap should be inserted before on the **Crossing** window.

The screenshot shows the 'Race Manager' interface. The 'demo' window displays a table of cars with columns: Place, No., Name, Trns ID, Laps, Lag, and Adjus. The table is sorted by Place. A callout box points to the 'Lap' column of the table, with the text 'Say we want to insert a crossing here'.

Place	No.	Name	Trns ID	Laps	Lag	Adjus
1	4	D Four	1004	3	00.000	0
2	5	E Five	1005	3	-00.021	0
3	1	A One	1001	3	-00.032	0
4	2	B Two	1002	3	-00.048	0
5	3	C Three	1003	2	-1 Laps	0

Highlight Driver

A car will get a manual lap inserted before the first car crosses. Note that the manual lap is created such that it is exactly halfway in time between the crossing immediately before and immediately after the point it is inserted. Manual laps are useful if a car misses the antenna loop by perhaps driving through the infield area.

The screenshot shows the 'Race Manager' interface. The 'demo' window displays a table of cars with columns: Index, No., Name, Trns ID, Lap, Laptime, and Speed. A callout box points to the 'Lap' column of the table, with the text 'Manual crossing'.

Index	No.	Name	Trns ID	Lap	Laptime	Speed
10	5	E Five	1005	2	05.042	0.000
11-L	2	B Two	1002	2	05.056	0.000
12	3	C Three	1003	2	05.115	0.000
13	4	D Four	1004	2	05.034	0.000
14	5	E Five	1005	2	05.035	0.000
15	1	A One	1001	2	05.040	0.000
16-L	4	D Four	1004	3	05.034	0.000
17	5	E Five	1005	3	05.035	0.000
18	1	A One	1001	3	05.040	0.000
19	2	B Two	1002	3	05.099	0.000

Inserted Manual Crossing

This first method requires that a transponder already has any entry on the left-hand **Place** window. The second method does not require this. There are 2 ways to do this. For the first method left double click on the line on the **Crossing** window that the manual crossing will be entered at. The **Manual Racer Quick Add** window will pop up.

Index	No.	Name	Trns ID
1	1	One A	1001
2	2	Two B	1002
3	3	Three C	1003
4	4	Four D	1004
5	5	Five E	1005
6	6	Six F	1006
7	7	Seven G	1007
8	8	Eight H	1008
9	9	Nine I	1009
10	10	Ten J	1010
11	11	Eleven K	1011
12	12	Twelve L	1012

OK Cancel

Manual Quick Add Window

Now either select the racer to add a crossing for and click the **OK** button or double click on the racer. This will add a new manual crossing.

The second way to bring up this window is to click on the crossing on the crossing screen where you want the manual crossing to be entered. Then right mouse click to bring up the pop-up menu. Now select the **Add Driver** option. The **Manual Quick Add** window will appear.

View Scoreboard Elapsed Total: 00:00:15 Elapsed Green: 00:00:15 Refresh Network Scroll Lock

Index	No.	Name	Trns ID	Lap	Laptime	Speed
13	4	D Four	1004	2	05.042	0.000
14	5	E Five	1005	2	05.056	0.000
15	1	A One	1001	2	05.115	0.000
16-L	4	D Four	1004	3	05.034	0.000
17	3	C Three	1003	3	05.055M	Manual
18	5			3	05.035	0.000
19	1			3	05.040	0.000
20	2			3	05.099	0.000

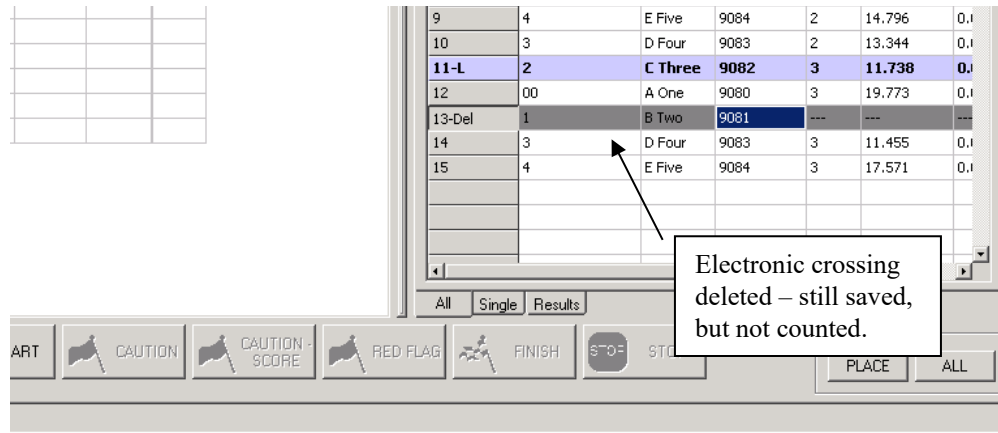
- Set Pre-start
- Set Green
- Set Caution
- Set Caution - Score
- Set Red Flag
- Force Count
- Insert Manual Crossing
- Delete Crossing
- Insert Lap
- Delete Lap
- Insert Finish Flag
- Delete Finish Flag
- Add Driver

Select Add Driver

CAUTION - SCORE (F4) STOP (F6) STOP (F7) UNEUP

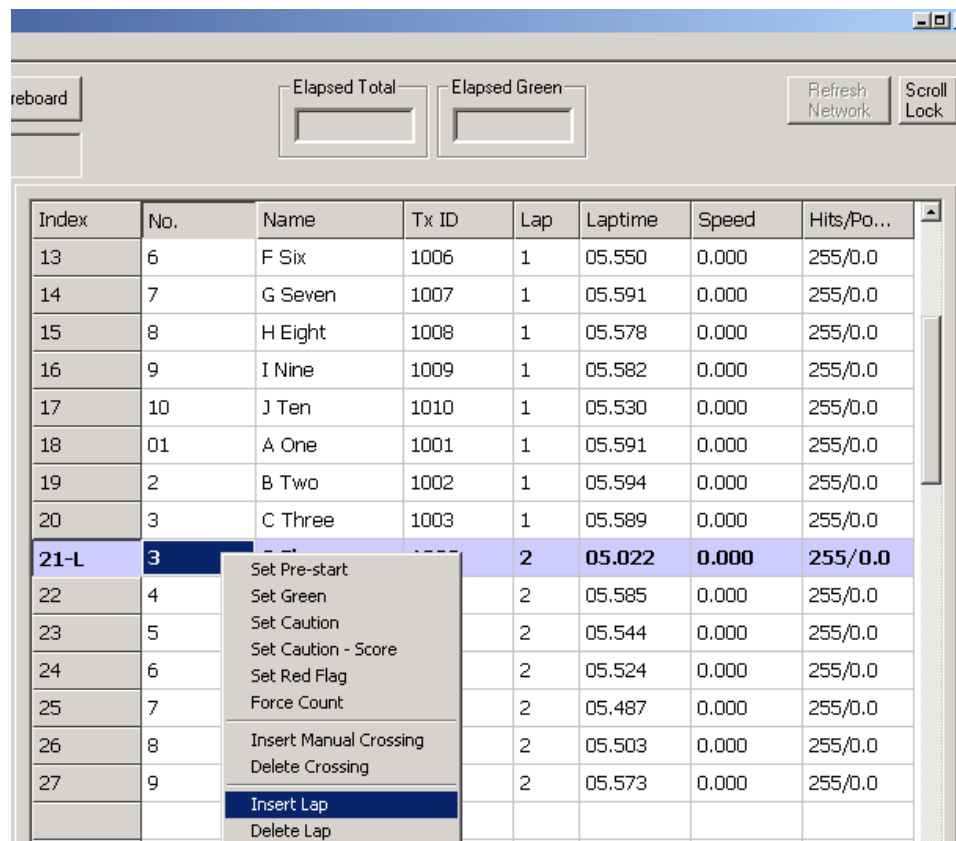
2.3.25.3 Delete Crossing

A crossing may be deleted by highlighting a crossing, right mouse click over the **Crossing** window and selecting **Delete Crossing** from the pop-up menu. Manual crossings will be permanently deleted. Electronic crossings will be grayed out and not counted towards scoring.



2.3.25.4 Insert Lap

To add a lap to the entire field highlight the line where the lap should be inserted, right mouse click over the **Crossing** window and select **Insert Lap** from the pop-up menu.



board

Elapsed Total

Elapsed Green

Refresh Network

Scroll Lock

Index	No.	Name	Tx ID	Lap	Laptime	Speed	Hits/Po...
13	6	F Six	1006	1	05.550	0.000	255/0.0
14	7	G Seven	1007	1	05.591	0.000	255/0.0
15	8	H Eight	1008	1	05.594	0.000	255/0.0
16	9	I Nine	1009	1	05.589	0.000	255/0.0
17	10	J Ten	1010	1	05.530	0.000	255/0.0
18	01	A One	1001	1	05.591	0.000	255/0.0
19	2	B Two	1002	1	05.594	0.000	255/0.0
20	3	C Three	1003	1	05.589	0.000	255/0.0
21	Lap +1						---
22-L	3	C Three	1003	3	05.022	0.000	255/0.0
23	4	D Four	1004	3	05.585	0.000	255/0.0
24	5	E Five	1005	3	05.544	0.000	255/0.0
25	6	F Six	1006	3	05.524	0.000	255/0.0
26	7	G Seven	1007	3	05.487	0.000	255/0.0
27	8	H Eight	1008	3	05.503	0.000	255/0.0
28	9	I Nine	1009	3	05.573	0.000	255/0.0

All

Single

Results

RED FLAG

FINISH

STOP

STOP

LINEUP

Print

PLACE

ALL

Note all crossings after the inserted lap are bumped up by 1 lap.

2.3.25.5 Delete Lap

A manually inserted lap may be deleted by highlighting the manual lap (ie **Lap+1**) and selecting **Delete Lap** from the pop-up menu.

16	9	I Nine	1009	1	05.582	0.000	255/0.0
17	10	J Ten	1010	1	05.530	0.000	255/0.0
18	01	A One	1001	1	05.591	0.000	255/0.0
19	2	B Two	1002	1	05.594	0.000	255/0.0
20	3	C Three	1003	1	05.589	0.000	255/0.0
21	Lap +1						---
22-L	3	C Three	1003	3	05.022	0.000	255/0.0
23	4	D Four	1004	3	05.585	0.000	255/0.0
24	5	E Five	1005	3	05.544	0.000	255/0.0
25	6	F Six	1006	3	05.524	0.000	255/0.0
26	7	G Seven	1007	3	05.487	0.000	255/0.0
27	8	H Eight	1008	3	05.503	0.000	255/0.0
28	9	I Nine	1009	3	05.573	0.000	255/0.0

Set Pre-start

Set Green

Set Caution

Set Caution - Score

Set Red Flag

Force Count

Insert Manual Crossing

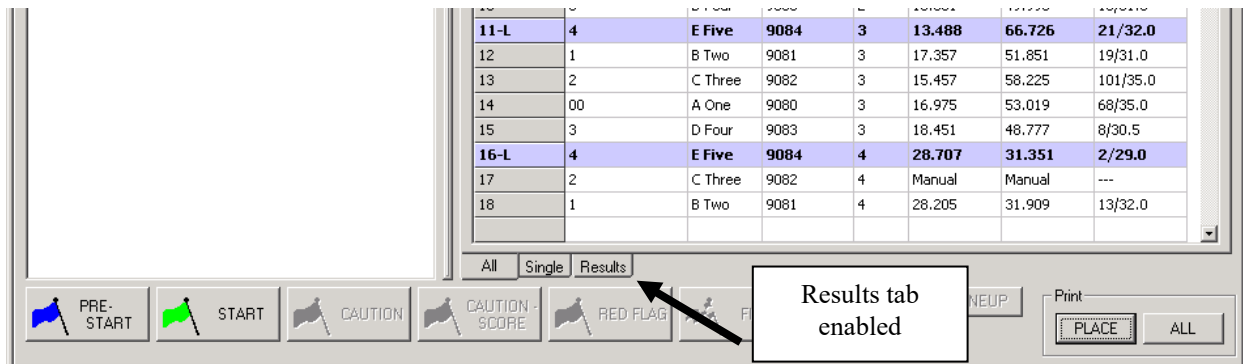
Delete Crossing

Insert Lap

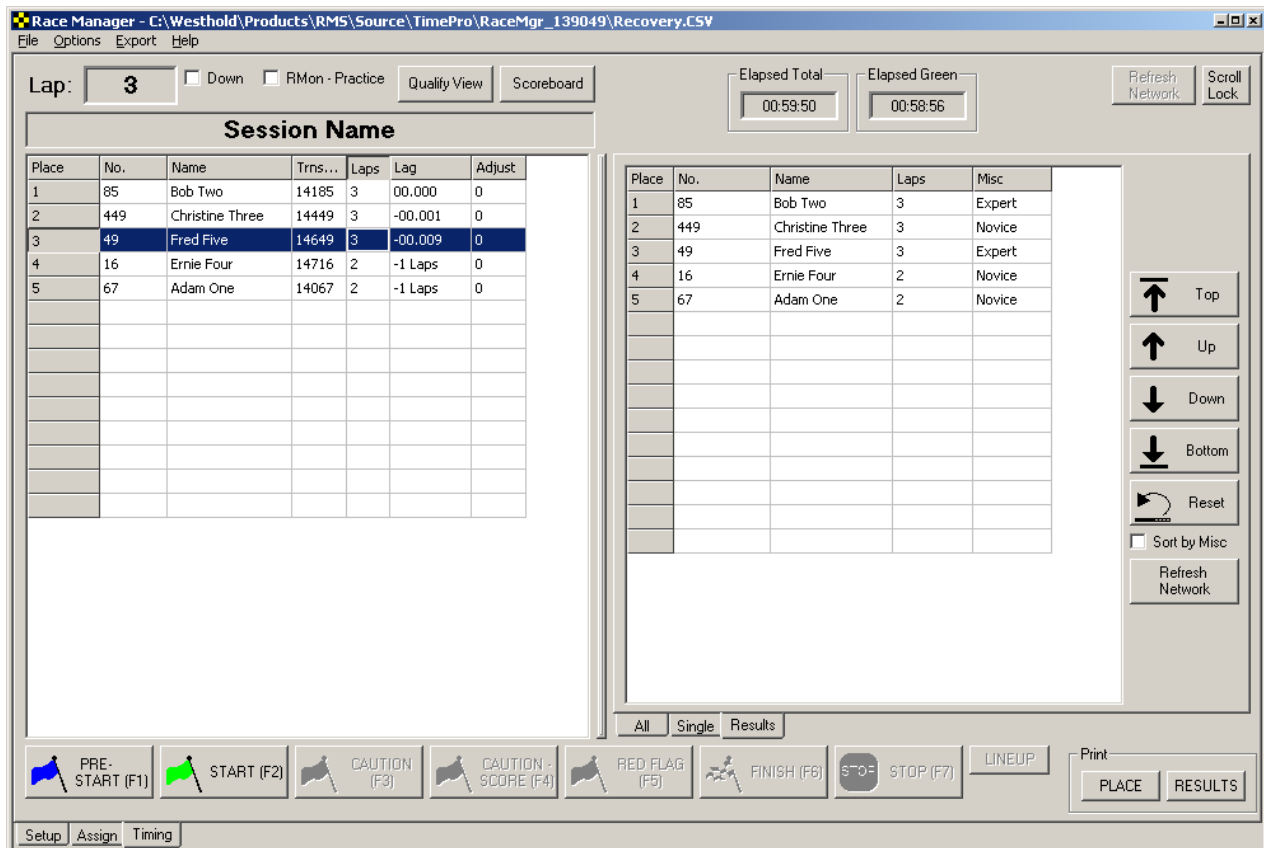
Delete Lap

2.3.26 Results Tab

When the **Stop Button** is pressed and a timing session is concluded, the **Results** tab on the **Crossing** window becomes enabled. Clicking on the tab shows the final results view of the session.



Results Tab



Results Screen

The results may be manipulated using the buttons on the right-hand side of the screen. Highlight the competitor to modify and click on one of the buttons on the right-hand side to move the competitor.

The **Refresh Network** button is used to send the modified results to applications that use the network broadcast or

RMonitor feed.

Note: After manipulating the results, the data must be saved. Do this by selecting the menu item <File>/<Save Results> or <File>/<Save Results As>.

If the **Misc** column were used in the assignment template, you can sort the finish according to the Misc column information. Note in the figure below that the finish order is sorted according to the Misc column as opposed to showing the overall order.

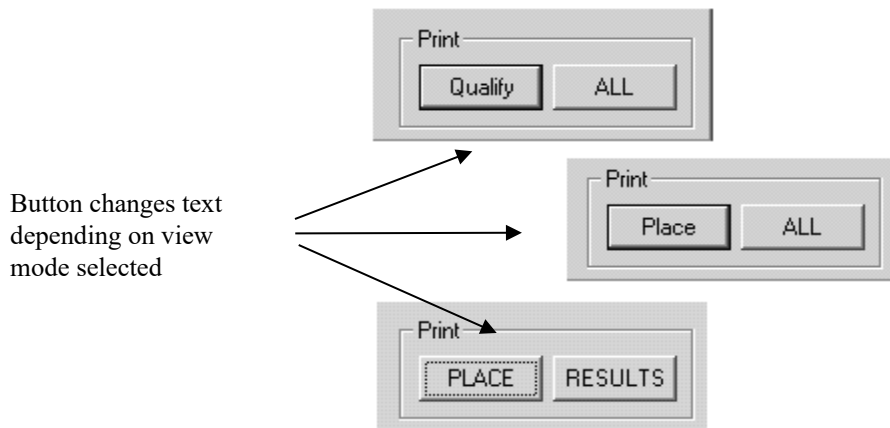
The screenshot shows a window titled "9\Recovery.CSV". At the top, there are two digital displays: "Elapsed Total" showing "00:59:50" and "Elapsed Green" showing "00:58:56". To the right of these are two buttons: "Refresh Network" and "Scroll Lock". Below the displays is a table with the following data:

Place	No.	Name	Laps	Misc
1	449	Christine Three	3	Novice
2	16	Ernie Four	2	Novice
3	67	Adam One	2	Novice
4	85	Bob Two	3	Expert
5	49	Fred Five	3	Expert

To the right of the table is a vertical column of buttons: "Top" (with an up arrow), "Up" (with an up arrow), "Down" (with a down arrow), "Bottom" (with a down arrow), "Reset" (with a circular arrow), and a checked checkbox labeled "Sort by Misc". Below these buttons is another "Refresh Network" button.

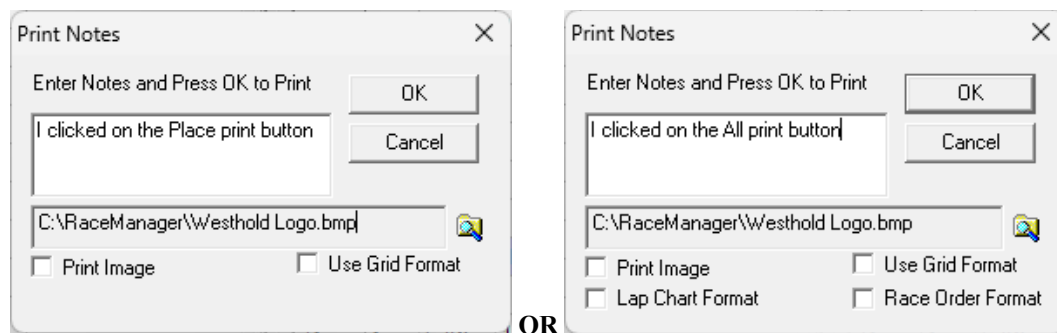
2.3.27 Print Buttons

There are two print buttons. One button will print what is in the **Place/Qualify** window; the other button will print all crossings found in the **Crossing** window. The functionality of the left print button will print the appropriate information depending on whether the software is in qualifying or place mode as defined by the **Qualify/Place View** button. Note that the button will change text to indicate what will be printed.



2.3.27.1 Print Dialog

When one of the print buttons is pressed a window will pop up. Depending on which print button is pressed the window may look slightly different.



There are 2 print formats to choose from. One is the Standard format, and the other is the Grid format. The standard format allows for the addition of notes and a logo. The Grid Format prints what is shown on the Race Manager grids.

<div> Date/Time: February 07, 2024 - 12:53PM Session: DEMO WITH LAPTIMES Elapsed Time: 00:00:15, Elapsed Green: 00:00:15 This printout has an image </div> <div>WESTHOLD</div>							
PLACE							
Place	Car No	Name	Trns ID	Laps	Lag	Scored Time	Total Time
1	2	Two, Ben	1002	2	00.000	11.599	13.535
2	3	Three, Cathy	1003	2	-00.140	13.675	13.675
3	4	Four, Denny	1004	2	-00.280	13.008	13.815
4	5	Five, Ellen	1005	2	-00.421	13.007	13.956
5	6	Six, Fred	1006	2	-00.563	13.007	14.098
6	7	Seven, Ginny	1007	2	-00.702	13.005	14.237
7	8	Eight, Harry	1008	2	-00.844	13.006	14.379
8	09	Nine, Indira	1009	2	-00.985	13.007	14.520
9	10	Ten, Jeff	1010	2	-01.126	13.007	14.662
10	1	One, Adam	1001	2	-01.265	13.005	14.801

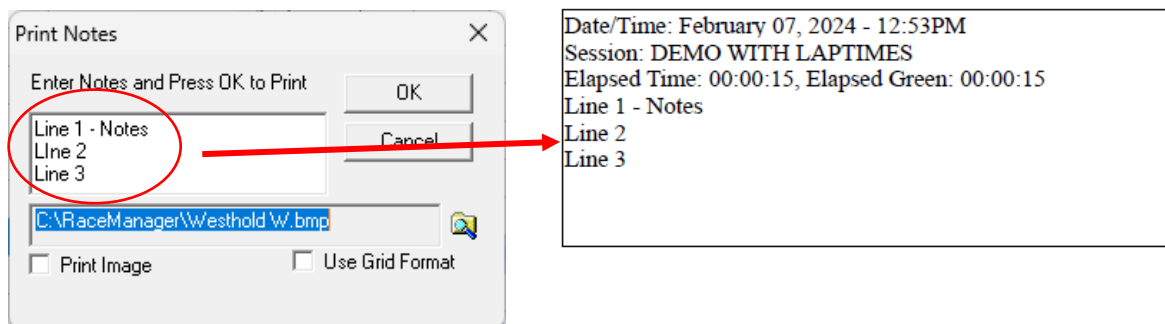
Grid Format

This format is printed in a “what you see is what you get” format and prints what is shown on the timing page. You may have to adjust the columns in order to fit the page size selected.

Place DEMO WITH LAPTIMES (Elapsed Time: 00:00:15, Elapsed Green: 00:00:15)								2024-Feb-07 12:53PM
Place	No.	Name	Trns ID	Laps	Lag	Scored Time	Total Time	Adjust
1	2	Ben Two	1002	2	00....	11.599	13.535	0
2	3	Cathy Three	1003	2	-00...	13.675	13.675	0
3	4	Denny Four	1004	2	-00...	13.008	13.815	0
4	5	Ellen Five	1005	2	-00...	13.007	13.956	0
5	6	Fred Six	1006	2	-00...	13.007	14.098	0
6	7	Ginny Seven	1007	2	-00...	13.005	14.237	0
7	8	Harry Eight	1008	2	-00...	13.006	14.379	0
8	09	Indira Nine	1009	2	-00...	13.007	14.520	0
9	10	Jeff Ten	1010	2	-01...	13.007	14.662	0
10	1	Adam One	1001	2	-01...	13.005	14.801	0

2.3.27.2 Print Notes

Allows for the insertion of notes in the **Standard** format report. When producing Grid format reports the notes will not be printed.

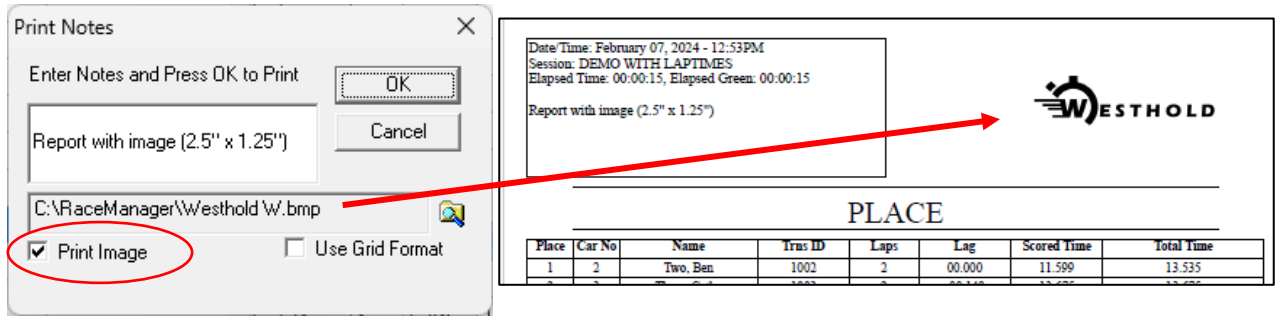


2.3.27.3 Print Image

It is possible to include an image such as your organization’s logo or sponsor’s logo in your printout. Click on the folder icon and choose the image you want to print. The only format Race Manager currently supports is the bitmap format (.bmp files). If you have a JPEG (.jpg) or GIF (.gif) format image you can open this in a program such as Microsoft Paint and then ‘save as’ a bitmap file.

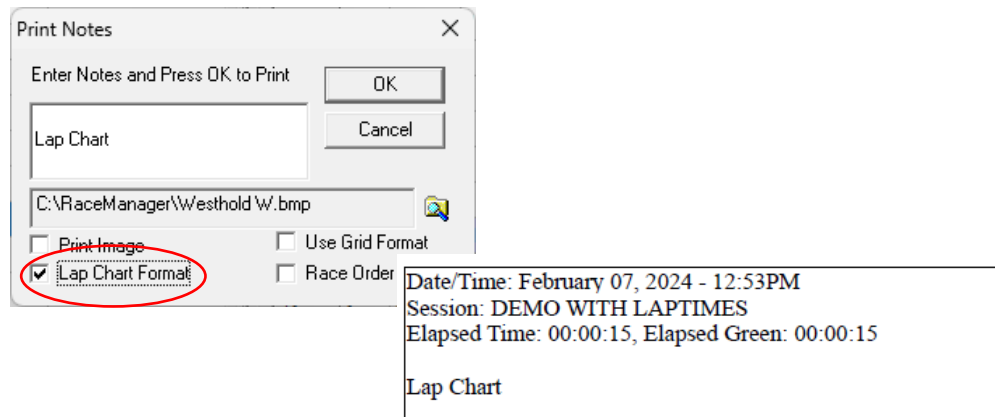
In order to print the logo, the **Print Image** box must be checked.

Images will auto-size to fill a 2.5 inch wide and 1.25 inch high area. In other words, images should have an aspect ratio of 2:1.



2.3.27.4 Lap Chart Format

This option is available when the **All** print button is pressed. Selecting this option will create a printout in lap chart format. The lap chart shows the order each racer passed the start/finish line for each lap.



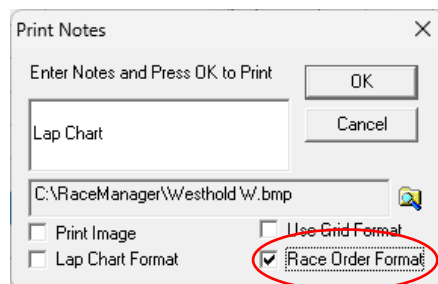
Lap Chart

	Lap	0	1	2
1	3	1	2	
2	4	2	3	
3	5	3	4	
4	6	4	5	
5	7	5	6	
6	8	6	7	
7	09	7	8	
8	10	8	09	
9	1	09	10	
10	2	10	1	

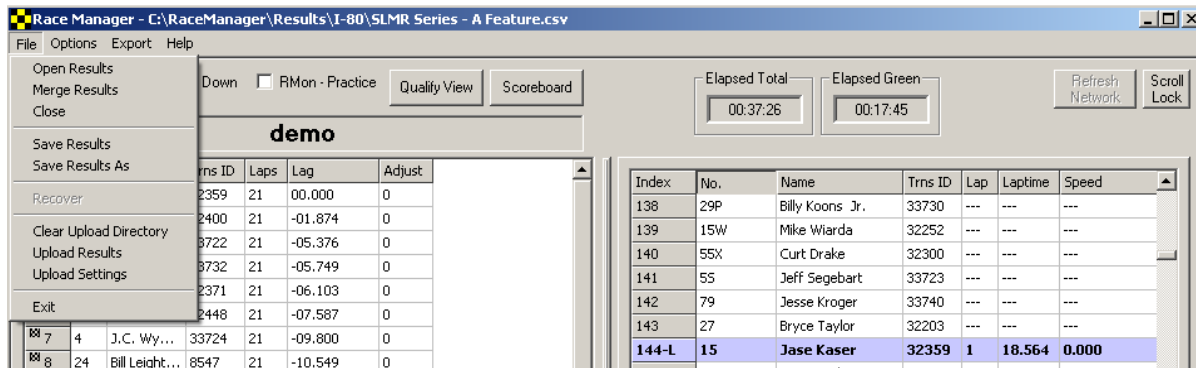
11

2.3.27.5 Race Order Format

Use this option to create a printout showing the racer position for each lap. This report is similar in appearance to the lap chart but shows the running position for each racer at each lap.



2.3.28 Menu Items



2.3.28.1 File->Open Results Menu Item

Select the **File->Open Results** menu item to open previously saved results and display them on the screen. Open results may be adjusted using the **Adjust Laps** and the **Set Green/Set Caution, etc** features described above on the crossing screen only. The results may then be re-saved.

2.3.28.2 File->Merge Results Menu Item

Select the **File->Merge Results** menu item to combine another set of results to currently open results. This feature is useful when there is more than one qualifying session for a class.

2.3.28.3 File->Close Menu Item

This clears the data from the screen and from memory.

2.3.28.4 File->Save Results Menu Item

This will save the results on the screen.

2.3.28.5 File->Save Results As Menu Item

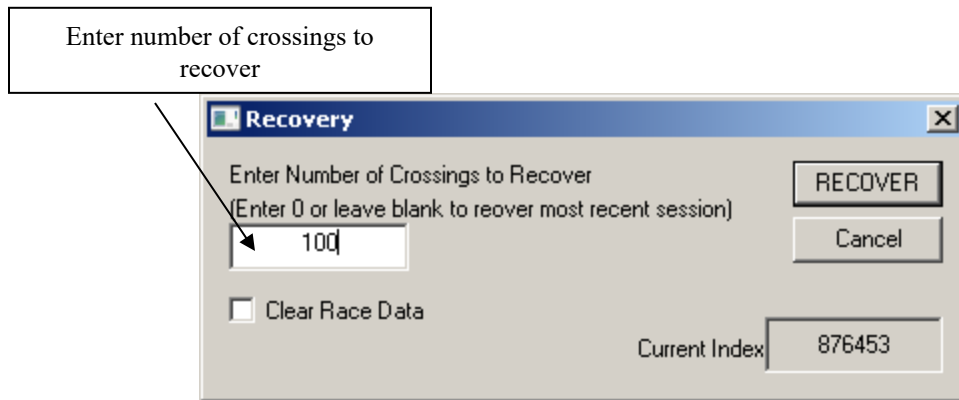
This will save the currently open race results on the screen to a new file.

2.3.28.6 File->Recover

This item allows for the recovery of data from the system. If for instance your PC crashes or someone exits the Race Manager program before the **Stop** button was pressed you can recover the race data. Normally when Race Manager is restarted it will detect that the software was closed prematurely and will ask whether the user wants to recover the race.

In some circumstances the user may have accidentally pressed the **Stop** button before the race finished. By

selecting the File->Recover menu item it is possible to recover the data.

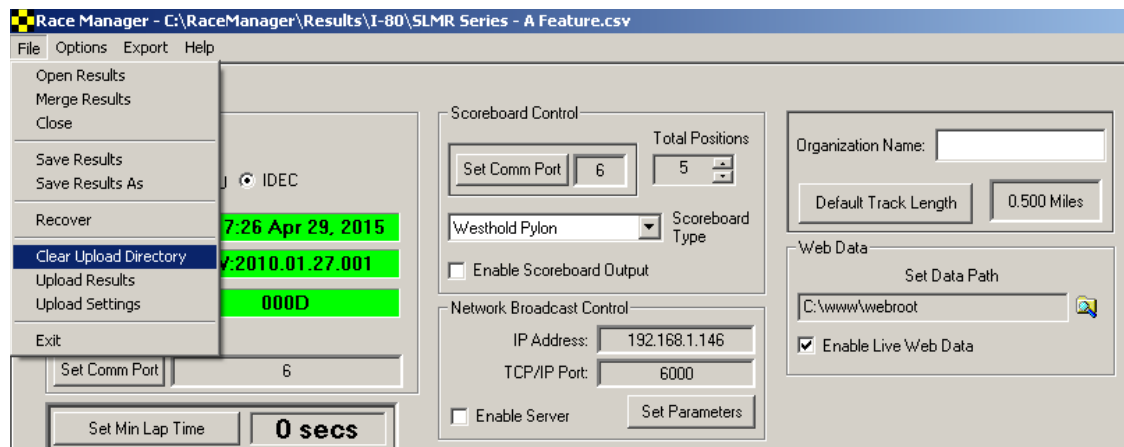


Check the **Clear Race Data** checkbox if you wish to clear what is currently on the timing page. Otherwise, the data will be added to what is already in Race Manager memory.

NOTE: This will not work for IDU systems. On IDU systems once the **Stop** button is pressed the data in the IDU will be deleted. However, some of the recovery data may still be on the PC hard drive and that data may be recovered.

2.3.28.7 Upload Menu Items

There are 3 menu items used for uploading data to the westholdtiming.com server. These are the **Clear Upload Directory**, **Upload Results** and **Upload Settings** described below. The data uploaded to the westholdtiming.com server may be incorporated into your own website using an iFrame.



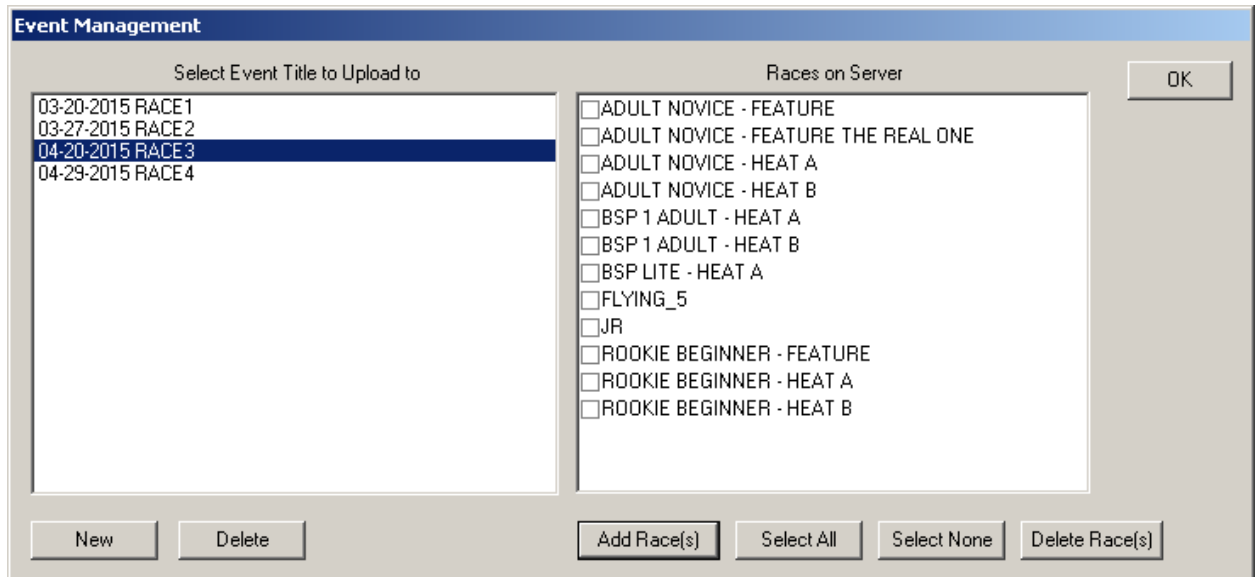
2.3.28.7.1 File->Clear Upload Directory

This deletes all files in a directory called UploadXML. This directory is created by Race Manager to hold data for uploading. The files in this directory are generated whenever you start, stop and save the race data. You should clear this directory before each event or there may be many unnecessary files in the directory.

Note: If you do not save the timing session results an upload file will not be saved for that session.

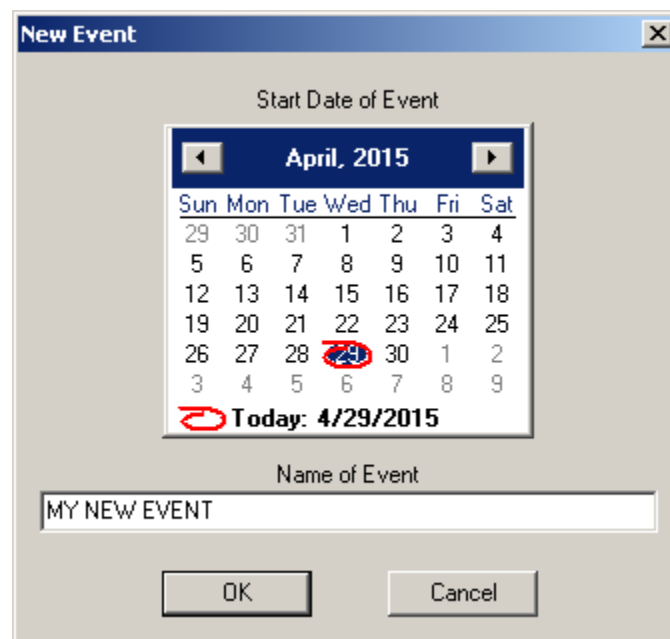
2.3.28.7.2 File->Upload Results

To upload results to the westholdtiming.com server select this menu item. The window shown below will appear. This window is used to manage the events and races on the server. The left side shows the events on the server. The right side shows the races under each event.

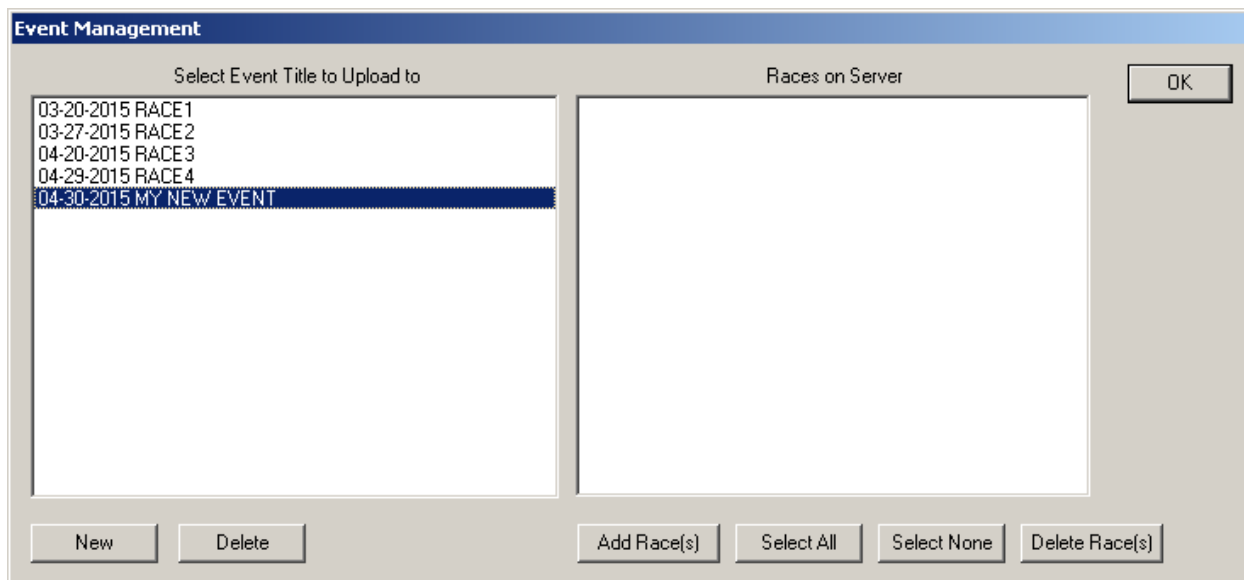


The Event Management window is divided into two main sections. The left section, titled 'Select Event Title to Upload to', contains a list of four events: '03-20-2015 RACE1', '03-27-2015 RACE2', '04-20-2015 RACE3' (which is highlighted), and '04-29-2015 RACE4'. Below this list are 'New' and 'Delete' buttons. The right section, titled 'Races on Server', contains a list of race categories with checkboxes: 'ADULT NOVICE - FEATURE', 'ADULT NOVICE - FEATURE THE REAL ONE', 'ADULT NOVICE - HEAT A', 'ADULT NOVICE - HEAT B', 'BSP 1 ADULT - HEAT A', 'BSP 1 ADULT - HEAT B', 'BSP LITE - HEAT A', 'FLYING_5', 'JR', 'ROOKIE BEGINNER - FEATURE', 'ROOKIE BEGINNER - HEAT A', and 'ROOKIE BEGINNER - HEAT B'. Below this list are 'Add Race(s)', 'Select All', 'Select None', and 'Delete Race(s)' buttons. An 'OK' button is located in the top right corner.

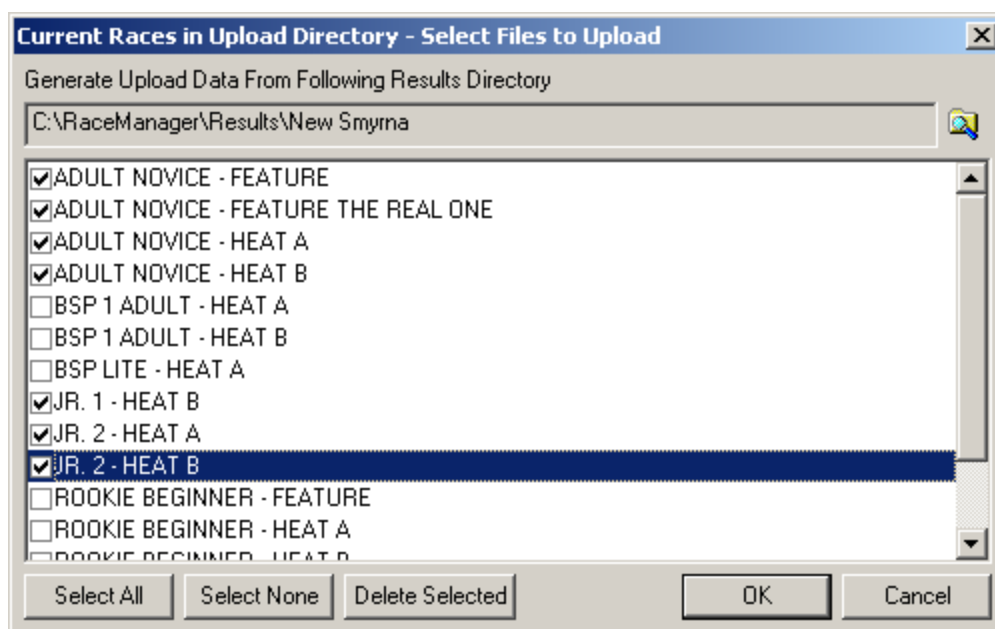
Click the **New** button to add a new event. Select the day of the event and type in a name. Then click the **OK** button when finished.



The New Event window features a calendar for selecting the 'Start Date of Event'. The calendar is set to April 2015, with the date 29 highlighted. Below the calendar, a red arrow points to the text 'Today: 4/29/2015'. Underneath the calendar is a text field for the 'Name of Event' containing the text 'MY NEW EVENT'. At the bottom of the window are 'OK' and 'Cancel' buttons.

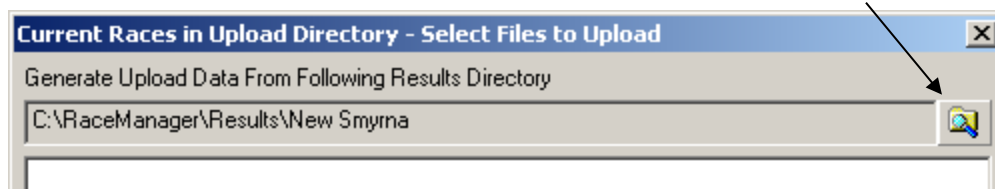


Select the event to add races to and click the **Add Race(s)** button. A window will appear to allow you to select races to add.

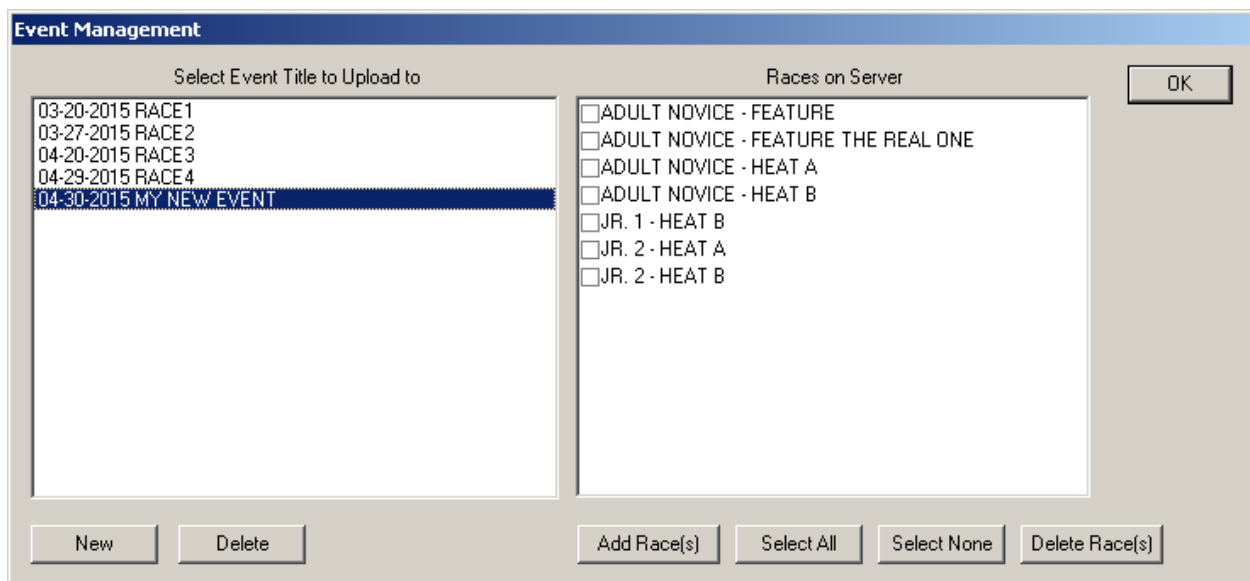
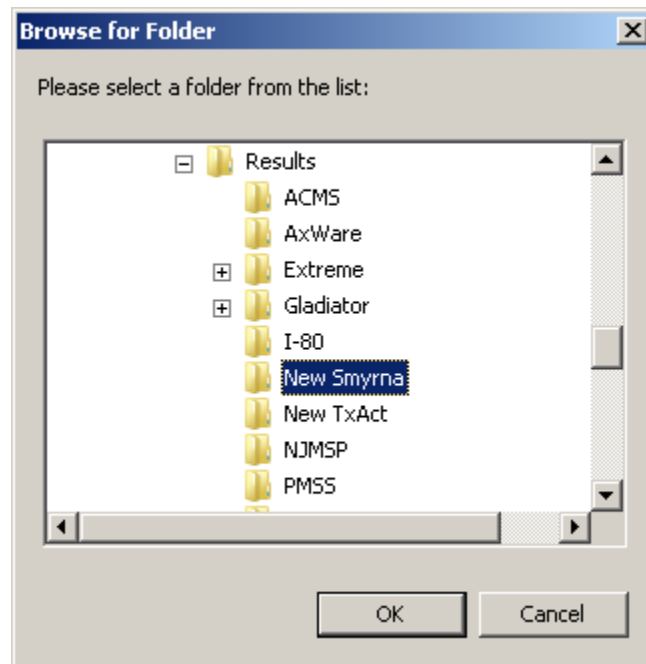


You can then select which races to upload by checking the box next to each race or use the **Select All** button to select all of the races. Click the **OK** button when finished.

If there are no races in the UploadXML directory you may generate these files by clicking the folder icon in the upper right.



A window will open as shown below. Use this to navigate to the location of your results files. Click the **OK** button and the upload files will be generated. Then you can select and upload the desired races to the server.



You may delete an event by selecting the event to delete and clicking the **Delete** button. To delete specific races, check the checkbox next to each race to delete and then click the **Delete Race(s)** button.

2.3.28.7.3 File->Upload Settings

This is used to enter the password and username for your organization. You must obtain this from

Westhold. You may contact them via email (info@westhold.com) or phone (see Contact at www.westhold.com). You only have to enter this once before using the **File->Upload Results** selection. All subsequent uploads will not require you to reenter this information.

The 'Upload Settings' dialog box is shown with the following details:

- Server Name:** westholdtiming.com
- Username:** MyUserName
- Password:** xxxxxxxxxxxx
- Buttons:** OK, Cancel

Note: If you experience problems connecting to the server you may need make sure the Windows firewall or your anti-virus program allows Race Manager access to the internet. You may also have to allow port 21 to be open.

2.3.28.8 File->Exit Menu Item

This will exit the Race Manager program.

2.3.28.9 Options->Font Menu Item

This option is used to change the font size of the place and crossings grids' text. Note that the font is not saved when closing the program.

The 'Race Manager' application window is shown with the following details:

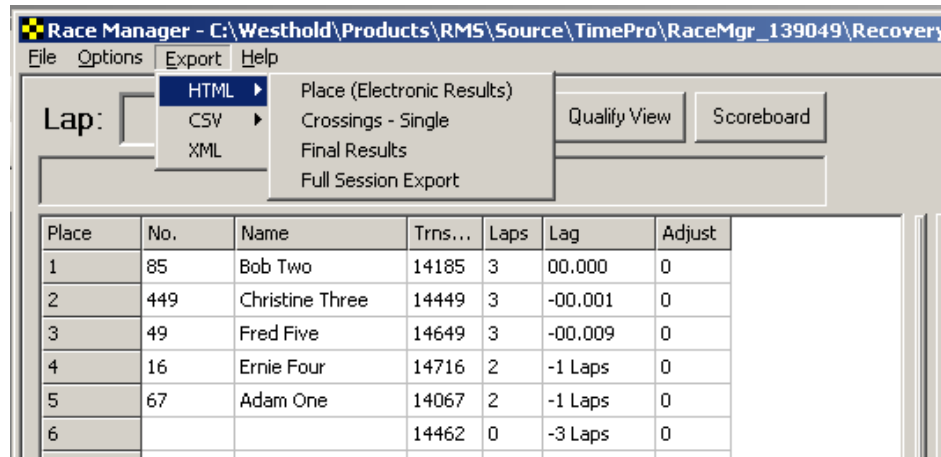
- Menu Bar:** File, Options, Export, Help
- Font Menu:** Highlighted under the 'Options' menu.
- Buttons:** Lap: 3, Down, RMon - Practice, Quality View, Scoreboard
- Table 1 (Main):**

Place	No.	Name	Tx ID	Laps	Adjust
1	2	C Three	9082	3	0
2	00	A One	9080	3	0
3	1	B Two	9081	3	0
4	3	D Four	9083	3	0
5	4	E Five	9084	3	0
- Table 2 (Scoreboard):**

Index	No.
1-L	2
2	4
3	00
4	1
5	3
6-L	00
7	1
8	2
9	4
10	3
11-L	2

2.3.28.10 Export Menu Item

The export menu allows the race data to be exported to HTML files or comma separated ASCII text files for either uploading to a website or for further processing.



2.3.28.10.1 Export->HTML Menu Items

Export->HTML->Place (Electronic Results) – Exports only the electronic place results.

Export->HTML->Crossings – Single – Exports only the crossings data for a single selected competitor.

Export->HTML->Final Results – Exports the modified results from the **Results** tab page.

Export->HTML->Full Session Export – Creates a final results page with links to all the single crossings report for each competitor.

2.3.28.10.2 Export->CSV Menu Items

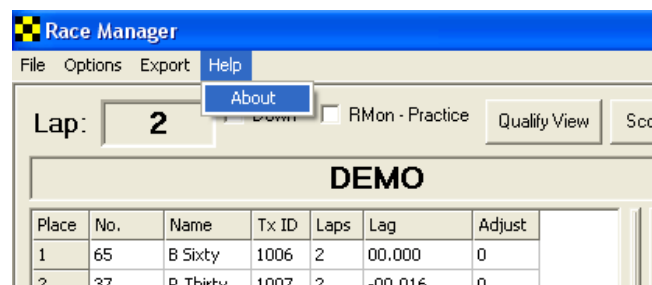
The CSV exports operate just like the HTML exports except comma separated CSV files are generated.

2.3.28.10.3 Export->XML Menu Item

The XML export operates like the HTML and CSV exports except there is only a single option. This can be used to individually generate upload files for uploading to the westholdtiming.com server.

2.3.28.11 Help Menu Item

This option is used to identify what version of software is being used and copyright information.



3. Tutorials

3.1 Split Score Guide

This section describes how split scoring works. In this tutorial we will count caution as the leader plus one or more competitors cross the start/finish before the caution is thrown.

1. Caution Handling Setup

Check the **Finish Lap on Caution** checkbox. This setting allows each driver to finish the current lap when the caution drops. This only works with the **Caution-Score** button.

Check the **Auto Delete Partial Laps for Caution** checkbox. When the non-scoring **Caution** button is pressed, partial lap crossings are set to caution and not counted.

If you want to immediately count the lap as complete when the green flag comes out and the leader crosses the start/finish line, check **Count First Crossing on Return to Green**.

If the first crossing upon returning to green flag condition is the start of the lap, then **DO NOT** check **Count First Crossing on Return to Green**.

Attn: If the entire field has passed the start/finish and completed a lap and the caution comes out while the cars are on the back stretch of the track, press the **Caution-Score** button to count the lap. Otherwise, pressing the **Caution** button will revert the lap to the last completed lap despite the lap having been completed.

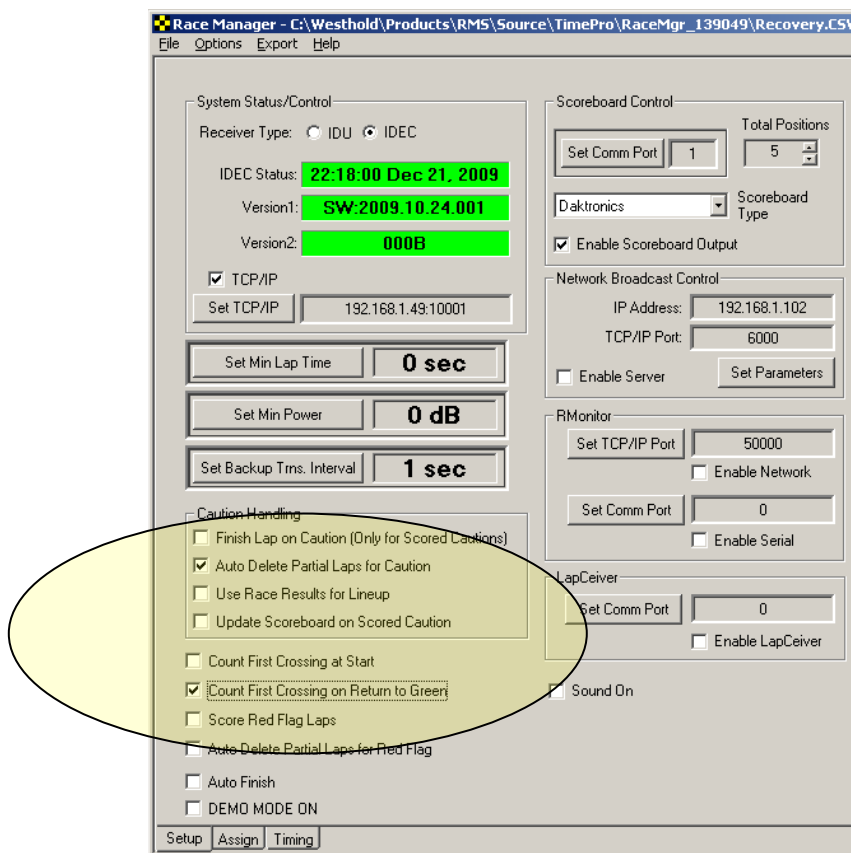


Fig 3.1-1

2. If the yellow flag is thrown after at least the leader has crossed press the **Caution-Score** button. See fig 3.1-2

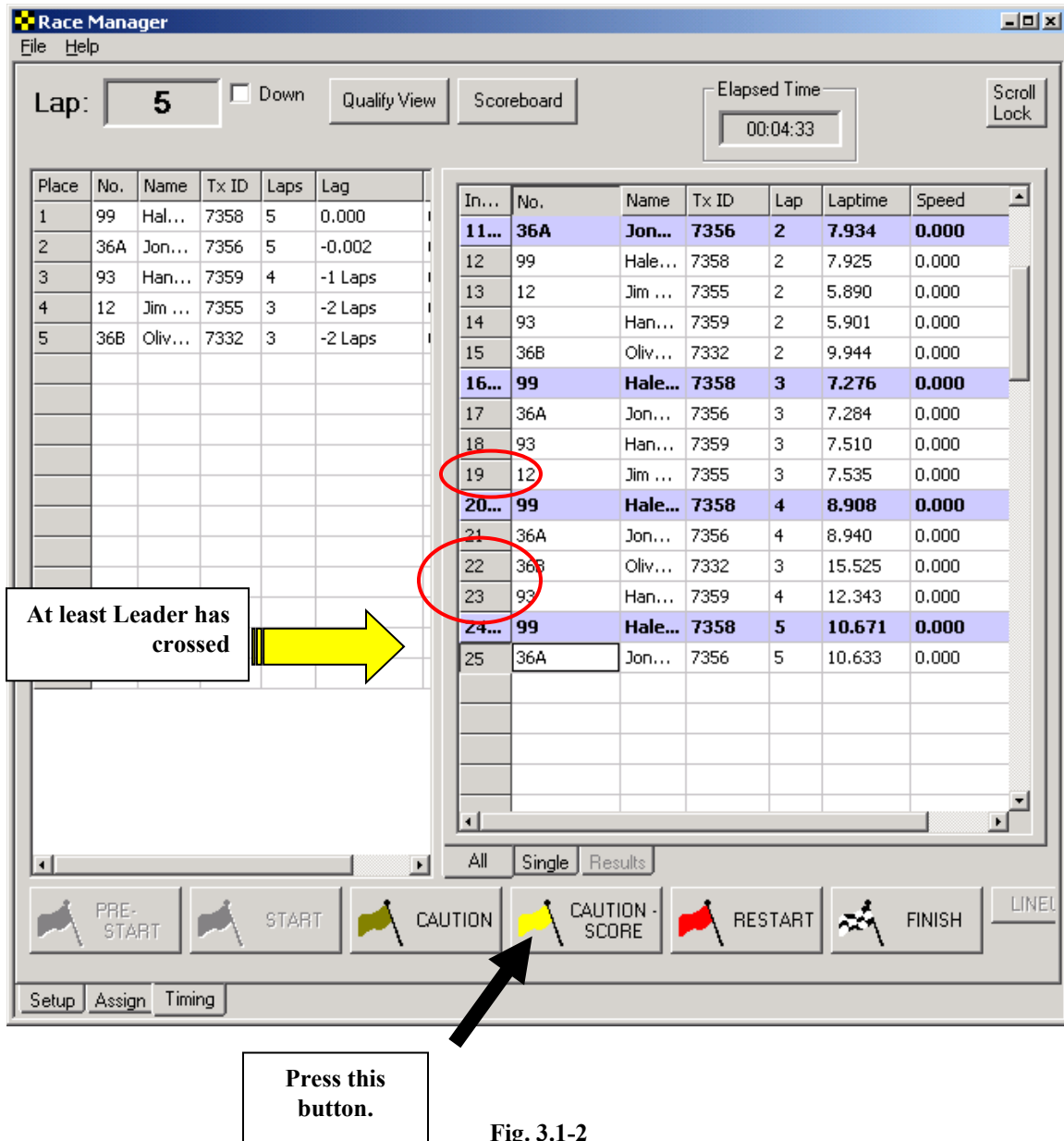


Fig. 3.1-2

The lineup screen will pop up showing the order. See fig 3.1-3 below. Note how cars 99 and 36A are first and second and in the order they crossed before the caution. Now cars 36B, 93 are drawn from the previous crossing. And car 12 comes in at the end.

Lineup					
Original					
Pos	No.	Lag		Pos	No
1	99	0.000		1	99
2	36A	-0.002		2	36
3	36B	-1 Laps		3	36I
4	93	-17:36.979		4	93
5	12	-1 Laps		5	12

Fig 3.1-5

3. In the case where it is decided that the caution will not be scored and the leader has crossed before the caution is thrown, hit the non-scoring **Caution** button. Fig 3.1-6.

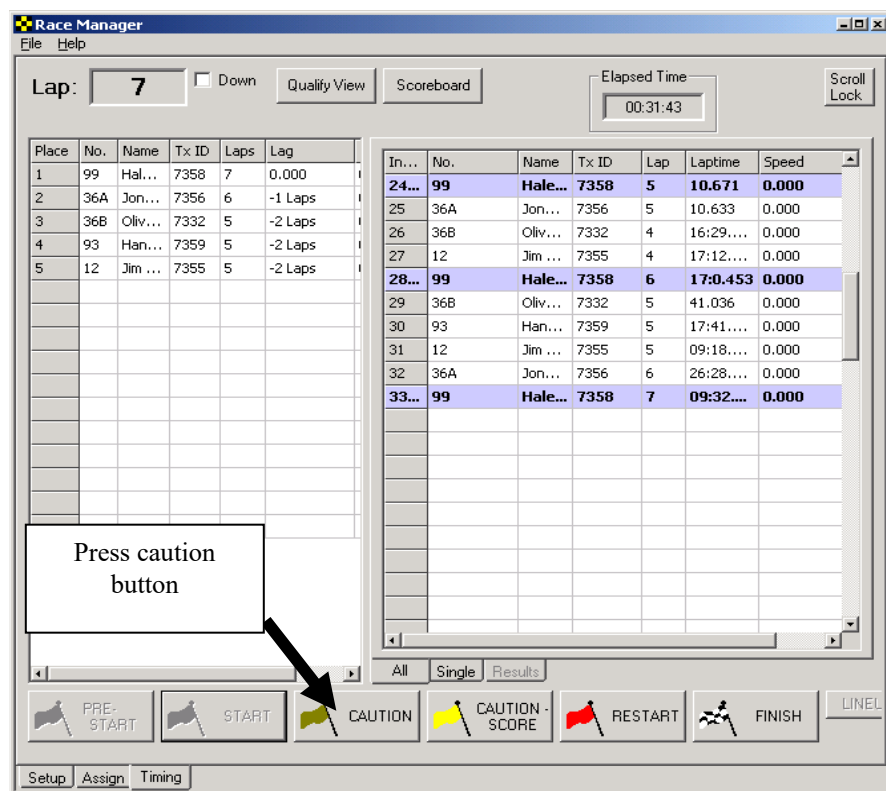


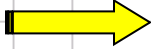
Fig 3.1-6 – Only leader has crossed

The partial lap will automatically be deleted. Fig 3.1-7.

Race Manager
File Help

Lap: **6** ☐ Down Quality View Scoreboard Elapsed Time 00:34:37 Scroll Lock

Place	No.	Name	Tx ID	Laps	Lag
1	99	Hale...	7358	6	0.000
2	36A	Jon...	7356	6	-09:27.624
3	36B	Oliv...	7332	5	-1 Laps
4	93	Han...	7359	5	-1 Laps
5	12	Jim ...	7355	5	-1 Laps



In...	No.	Name	Tx ID	Lap	Laptime	Speed
24...	99	Hale...	7358	5	10.671	0.000
25	36A	Jon...	7356	5	10.633	0.000
26	36B	Oliv...	7332	4	16:29....	0.000
27	12	Jim ...	7355	4	17:12....	0.000
28...	99	Hale...	7358	6	17:0.453	0.000
29	36B	Oliv...	7332	5	41.036	0.000
30	93	Han...	7359	5	17:41....	0.000
31	12	Jim ...	7355	5	09:18....	0.000
32	36A	Jon...	7356	6	26:28....	0.000
33-L	99	Hale...	7358	6	---	---

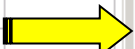
Fig 3.1-7

All subsequent crossings will also not be scored.

Note that if you accidentally press the “Caution” button too late and more than 1 car has gone by that is ok. The partial lap will still automatically be deleted. Fig 3.1-8

6 ☐ Down Quality View Scoreboard Elapsed Time 00:37:13 Scroll Lock

No.	Name	Tx ID	Laps	Lag
99	Hale...	7358	6	0.000
36A	Jon...	7356	6	-09:27.624
36B	Oliv...	7332	5	-1 Laps
93	Han...	7359	5	-1 Laps
12	Jim ...	7355	5	-1 Laps



In...	No.	Name	Tx ID	Lap	Laptime	Speed
24...	99	Hale...	7358	5	10.671	0.000
25	36A	Jon...	7356	5	10.633	0.000
26	36B	Oliv...	7332	4	16:29....	0.000
27	12	Jim ...	7355	4	17:12....	0.000
28...	99	Hale...	7358	6	17:0.453	0.000
29	36B	Oliv...	7332	5	41.036	0.000
30	93	Han...	7359	5	17:41....	0.000
31	12	Jim ...	7355	5	09:18....	0.000
32	36A	Jon...	7356	6	26:28....	0.000
33...	99	Hale...	7358	6	---	---
34	36B	Oliv...	7332	5	---	---

Say you pressed caution here. This is OK

Fig 3.1-8

The lineup in this case is based on the previous lap completed (lap 6 – index 28). Fig 3.1-9 below.

Lineup				
Original				
Pos	No.	Lag		Pos
1	99	0.000		1
2	36B	-1 Laps		2
3	93	-1 Laps		3
4	12	-1 Laps		4
5	36A	-09:27.624		5

Fig 3.1-9

Note that anything can be changed by highlighting the crossings you want to change and right clicking the mouse button on the crossings screen. Just select how you want to change the highlighted crossings. You can correct mistakes you might have made. Fig 3.1-10.

The screenshot shows the 'Race Manager' software interface. At the top, there's a 'Lap:' field set to '6' and a 'Down' checkbox. Below this are 'Quality View' and 'Scoreboard' buttons. An 'Elapsed Time' field shows '00:42:48' and a 'Scroll Lock' button. The main area contains two tables. The left table shows a lineup with columns: Place, No., Name, Tx ID, Laps, Lag. The right table shows a list of crossings with columns: In..., No., Name, Tx ID, Lap, Laptime, Speed. A row in the right table is highlighted in blue. A context menu is open over this row, with options: Set Pre-start, Set Green, Set Caution, Set Caution - Score, Set Restart, Insert Manual Cross, and Delete Crossing. An arrow points from a text box to the 'Set Caution' option. The text box says 'Select what you want the crossings changed. to.' At the bottom, there are buttons for 'PRE-START', 'START', 'CAUTION', 'CAUTION - SCORE', 'RESTART', 'FINISH', and 'LINE'. Below these are 'Setup', 'Assign', and 'Timing' buttons.

Place	No.	Name	Tx ID	Laps	Lag
1	99	Hale...	7358	6	0.000
2	36A	Jon...	7356	6	-09:27.624
3	36B	Oliv...	7332	5	-1 Laps
4	93	Han...	7359	5	-1 Laps
5	12	Jim ...	7355	5	-1 Laps

In...	No.	Name	Tx ID	Lap	Laptime	Speed
24...	99	Hale...	7358	5	10.671	0.000
25	36A	Jon...	7356	5	10.633	0.000
26	36B	Oliv...	7332	4	16:29....	0.000
27	12	Jim ...	7355	4	17:12....	0.000
28...	99	Hale...	7358	6	17:0.453	0.000
29	36B	Oliv...	7332	5	41.036	0.000
30	93	Han...	7359	5	17:41....	0.000
31	12	Jim ...	7355	5	09:18....	0.000
32	36A	Jon...	7356	6	26:28....	0.000
33...	99	Hale...	7358	6	---	---
34	36B	Oliv...	7332	5	---	---

Set Pre-start
Set Green
Set Caution
Set Caution - Score
Set Restart
Insert Manual Cross
Delete Crossing

Select what you want the crossings changed. to.

PRE-START START CAUTION CAUTION - SCORE RESTART FINISH

Setup Assign Timing

Fig 3.1-10