

RACE **A** MERICA

INNOVATION. TECHNOLOGY. RELIABILITY.

XLSCORERR Roll Race Race Management Software Owner's Manual

*for use with
2700rr XL Wireless*

Rev R.0

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PRODUCT INFORMATION LINKS

RaceAmerica Website	www.raceamerica.com
RaceAmerica Online Store	store.raceamerica.com
Raceamerica Online Forum	www.raceamerica.com/forum
Product Warranty	www.raceamerica.com/legal.html
Service & Repairs	www.raceamerica.com/service.html
Technical Assistance	www.raceamerica.com/techcall.html
Owner's Manuals	www.raceamerica.com/prodpdf.html
Mounting Diagrams	www.raceamerica.com/mountpdf.html
Product Catalog	www.raceamerica.com/catalog.html

THEORY OF OPERATION and OPERATIONAL CONSIDERATIONS

The XLSCORE RR Software runs on any PC connected via a serial port or USB Wireless Unit communicating to the XL Electronics timing box. The powerful software allows the main PC to be connected to additional PC's for remote driver registration, race results viewing by an announcer and other locations like the pits.

When the XLSCORE RR software is used with a **XL 2700rr Wireless Timing System**, system functions are shared with the XL Wireless system. Configuration of track parameters are shared between the software and the XL Wireless system while running races and data management are maintained by the software. Races can be run either as standalone races (using the Manual Control function) or as part of an entire race event managed by the Race Management functions of the XLSCORE RR software.

It is important to understand how the driver, class, and race results interact when using the manage Race Management functions. Note:

- *All driver & race results are tied to a class name.*
- *Drivers are registered into a class forming a unique driver-name/class-name/vehicle-number set within the software.*

When using the Manual Control function to run races outside of the Race Management functions, the software does not tie a driver to a class since classes only exist within the Race Management functions.

When running the XLscoreRR management software the choice of file deletion/saving is extremely important. The program provides several options on start up.

- CONTINUE - using existing files
- BACK UP -all files and use existing files
- DELETE - results and begin new event
- SAVE - all files and begin a new event
- LOAD -files previously saved

(options explained in detail later in this manual)

Therefore, when the XL software starts, you have flexibility to delete or save race data and or

driver/class information. You may also continue with the current race and driver/class data for multiple day events.

DRIVER STATUS FOR A SINGLE EVENT

Since tracks often have the same drivers at multiple events, the program lets you DELETE/SAVE PREVIOUS race results, but keep THE CLASSES and DRIVER INFORMATION. Using STATUS REVIEW, you can make a driver inactive/active for a particular event by changing their status to Y or N. STATUS REVIEW can be found under the REGISTER DRIVERS option on the main menu.

Once drivers are registered into their race classes, and selected as participating in today's event, the racing action occurs in Rounds that progress from Practice to Qualifying to Eliminations. Each round of racing builds PC data files storing race results used for reporting, building the next round, and running the current round. Qualifying runs are used to determine who will be participating in the Elimination Rounds and driver/class information is stored with each run. It is important to remember, once the Elimination Round has started, new driver/class registrations and new qualifying runs cannot be added unless the 'ladders' used in the Elimination Rounds are rebuilt. However, this rebuilding erases all previously recorded Elimination Round results and restarts the Elimination Round for every class.

When starting a new race the program needs to clear the previous race results data. The save/back-up options allow you to save information at any time during the race or before you begin the next race for later recall. The software also continually saves all data entered during a race. Therefore, if there is a computer failure, power out etc..., most of your data will be recovered when you re-start the program.

LOAD THE XLSCORE PC SOFTWARE

To install the XL software download it from www.raceamerica.com and click the setup icon and follow the instructions. The program will be installed on your computer under the default locations C:\RaceAmerica\XLscoreRR. The program will NOT start immediately after installation. The XLscore RR icon will be placed on your desktop for starting the program. A second program will run to install the necessary FTDI drivers for the USB communications to the timer.

COMMUNICATION PORT

In order for the XLscore RR to operate it must detect a connection to a COM (communications) port. This connection is made by simply connecting the PC, through the USB or Serial port, to the timing system. For the 2700 XL Wireless RR, the 4520 Wireless Unit is connected to the PC via the a USB or Serial connection.

DEVICE DRIVERS

When the USB hardwire or wireless communications are first connected to your computer the computer will ask for the drivers for these devices. **THE DRIVERS are in the FTDI drivers folder located in the same folder as the XLSCORE RR software** and were added to your computer when the XL software program was installed. Use the install PDFs matching the Windows OS on your computer. Now you are ready to use the software.

RACE AND DRIVER CLASS FILES

Click on the XLscoreRR Icon to start the XLSCORE RR software. The XLSCORE

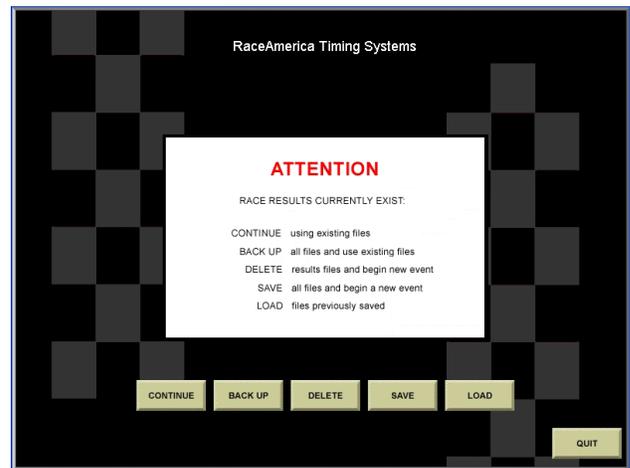


Figure 1a - Existing Files Alert

RR software checks for files on the hard drive from previous race events and then prompts the user with an alert screen shown in Figure 1a. (If the race files are empty, like at initial installation, the software will not show this alert)

Click:

CONTINUE to use the existing race results, driver, and class registration data.

BACKUP to store the current race results, driver, and class registration data to the hard drive of the computer and continue using the existing data.

DELETE to remove the current race data from the software without saving to the hard drive and begin a new event.

SAVE to save the current race data to the hard drive, then delete the data from the software and begin a new event.

LOAD to replace the existing race and Driver & Class registration data with a previous set of data saved or backed up to the hard drive.

Clicking LOAD, SAVE, or BACKUP will display the screen shown in Figure 1b to prompt for the specific archive filename. During SAVE and BACKUP, a title can be added to help identify file contents for a race event.

The XLSCORE RR software will then check for existing DRIVERS/CLASSES and prompt you to either:

CONTINUE to use the existing driver and class registration data.

DELETE to remove the current driver/ classes data from the software without saving and

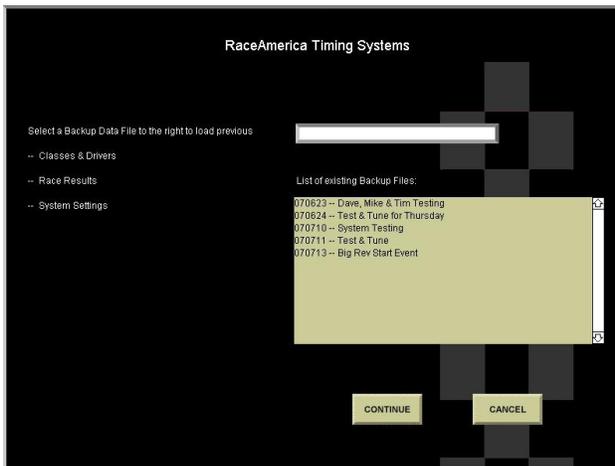


Figure 1b - Load, Save or Backup

begin a new event.

BACK to go back to the race results files options screen.

Entering New Classes and Drivers

Select **EDIT CLASSES** to create your new classes by entering a class name and selecting class attributes in the edit classes screen. When you exit the screen you will be prompted to save changes and then returned to the Main Menu. To Register drivers click the **REGISTER DRIVERS** button, select the class for that driver and enter in their information. Note the custom driver registration fields need to be configured on the system settings screen.

WARNING: To protect race results once runs are made in Practice, Qualifying and Eliminations, those results are saved to files with the then current information and cannot be modified. Also, if you modify a class or driver name after elimination runs, the build eliminations function will not recognize that driver. Therefore, make sure the class and driver information is entered correctly before you start any racing.

(See the **DRIVER & CLASS REGISTRATION** section of this manual for Registration details)

SYSTEM SETTINGS

Logo Image File

Selected Announcer Screen html pages can

include a custom logo. Click to select the image file. Image will be resized proportionally to fit into 200px x 200px.

XL Timing Systems PC Port

The XLSCORE RR software automatically detects the Serial or USB port connected to the XL Timing System. When complete, the Systems Setting screen in Figure 2 is displayed. (If you experience a detection problem please make sure the PC is connected to the Timing System and the Timing System is powered on.)

The COM Port of the PC connected to the timing system is automatically detected by the XLSCORE RR software and the port name placed next to **XL TIMING SYSTEM PC PORT**. If 'none' is displayed, the timing system was not detected. Click the **LOCATE XL BOX** button to make another attempt at locating the PC Port connected to the timing system and establishing communications.

Printer (or Wireless) PC Port

A printer can be connected to the XL timing box as well as directly to the PC. (If using a wireless connection, multiple printers can be utilized) To connect the printer to the PC insert the printer cable to the PC USB or Serial port. Then select that port from the yellow drop down list to the right of **Printer (or Wireless) PC Port**. Click on the yellow pull-down menu located to the right of **PC Port assigned to** in order to select the desired option.

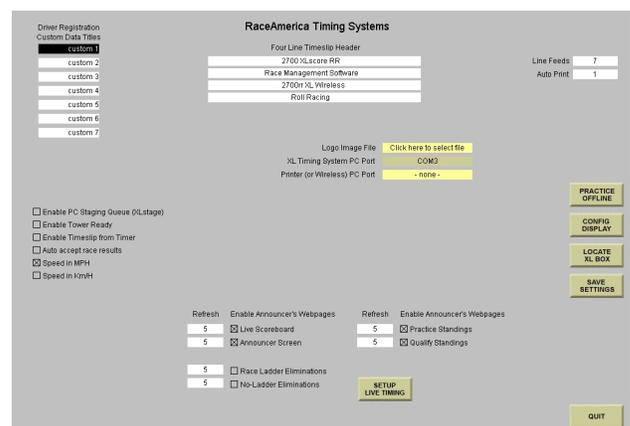


Figure 2 - System Settings Screen

Note **ANNOUNCER WEBPAGES**, including the Race Ladders Eliminations and No-Ladder Eliminations can be printed to a standard printer connected to your PC through the normal Windows OS environment. Simply click the print button. See the ANNOUNCER SCREENS section in this manual.

PRACTICE OFFLINE

Clicking on PRACTICE OFFLINE will enable the user to become familiar with the software offline without the connection to the XL BOX. The software will configure a PC COM Port and continue. Most of the software functions are enabled. In Practice Mode, simulated race results can be received as if from the timing system. To simulate race results, press START RUN on the Manual, Practice, Qualifying or Eliminations screens to generate simulated race results. Clicking START RUN will cause the software to fill in race results for an imaginary run so full software functionality can be learned before going live on race day.

Only hardware required to be connected to the PC is the USB Wireless Unit. These hardware items create the necessary PC COM port to enable Practice Offline.

All drivers data, class data, race results are stored as a real race and can be re-used when during future race events. No need to reenter classes and drivers.

Locate XL Box Button

Click here to automatically sense which COM port the timing system is connected to. The software will scan all available COM ports for a response from the timing system, then enter the COM port in the XL Timing System PC Port. If the COM port cannot be located, - none - will be entered. Check connections and try again.

Four line Timeslip Header

All timeslips printed by the XLSCORE software contain a 4-line header centered at the top of each timeslip. The header is entered in the FOUR LINE TIMESLIP HEADER area of the settings screen with a maximum of 35 characters

per line allowed.

Generally, after printing the last line of the timeslip, printers require a 'form feed' command to eject the timeslip, however, some printers require line feeds to eject the timeslip. For those printers the number of line feeds can be entered in LINE FEEDS box. Zero line feeds defaults to sending the 'form feed' command to the printers. Some experimentation may be required to match the number of line feeds required to eject the timeslip out of the printer connected to the timing system or to the PC.

When a race has completed, XLSCORE RR can automatically print up to nine timeslips by entering the desired quantity in AUTO PRINT. Entering a zero disables this feature.

Driver Registration Custom Data Titles

Seven user defined fields on the driver registration screen allow the you to customize input for driver registration. (Up to 12 characters for each line are available) Simply type over the fields to enter the information you would like to collect at registration. Car number, driver name, and class are already permanent fields in the REGISTER DRIVER section - use the custom fields to collect additional information.

SYSTEM SETTINGS - CHECKBOXES

Enable Staging Queue

To stage up to five pairs of vehicles use the XLStageRR PC program. When using the XLStageRR PC program, run the program on the same PC or on a network mapped PC.

Enable Tower Ready

To prevent the starter from pressing the starter's handheld pushbutton and starting a race when the tower was not ready, enabling this function places control in the tower. When enabled, the run screens display a CLEAR ALL SEND NEXT button. Press this button when the tower is ready to run a race and the button changes to TOWER READY. The Starter's Pushbutton is enabled and the starter can begin a race.

Enable Timeslip from Timer

If the timeslip printer is connected to the timer, enable this function. Additional time between races is required to send the timeslip to the timer and then to the printer. If printing timeslips direct from the PC, uncheck this function to shorten time between races.

Auto Accept Race Results

After each race, the software prompts for validation of both lanes race results. To speed this process up during Manual Control and Practice Round, this function will automatically accept race results. The Practice Round results can be edited later if necessary.

Speed Selection

The XLscore RR software can use either speed metric and switch between them for mixed race events. Select the speed measurement unit as Mile per Hour (MPH) or Kilometers per Hour (Km/H) and the race results screens will display the change..

After all selections have been made, click on the SAVE SETTINGS button to save the system settings information and continue or click on the QUIT button to end the software program without saving the configuration data displayed on the screen.

NON-RACEAMERICA PRINTER CONFIGURATION

If you are not using a RaceAmerica timeslip printer, ensure the settings for your timeslip printer are correct. A serial printer connected directly to the XL Electronics Box (or XL Wireless console) connector marked RS232 PRINTER or the PC COM port, must be configured to 9600 baud, 8 bit data, no parity, and 1 stop bit.

LIVE TIMING

Click on the LIVE TIMING button to access the settings screen (Figure 3) for the Live

Timing function to send timeslips to the web for internet viewing of race results as they happen. This function requires access to the internet to communicate to the web based server.

After signing up for Live Timing, and the Annual Subscription file has been added to the same folder as the XLscore software, enter the Event Date as YYYY-MM-DD and click the ENABLE LIVE TIMING SERVER button. Your assigned Club Name will appear and enable the connection to the Live Timing server. If the Event Date entered does not match the current Event Date in the Live Timing server, a message will appear. Confirm the date entered is the correct date.

Click the TEST CONNECTION button to confirm the software is able to connect to the server. A new button will be added to each of the run race pages, SEND TO LIVE TIMING to allow when a timeslip is to be published for web viewing.

Timeslips can be sent to the web during testing and setup and cleared out prior to the beginning of the official race event by clicking the ERASE ALL TIMESLIPS with the current Event Date entered. This will clear out all previous timeslips to start the race event.

Once an event is complete, the timeslips will remain viewable online until they are cleared in preparation for the next race event. To clear the timeslips and advance to the next race event, enter the new Event Date and click the ERASE ALL TIMESLIPS. This will clear all timeslips

The screenshot shows the 'RaceAmerica Timing Systems' settings interface. It includes the following elements:

- Title:** RaceAmerica Timing Systems
- Fields:**
 - Live Timing Club Name (text input)
 - Live Timing Event ID (text input with value 2021-04-10 and placeholder YYYY-MM-DD)
- Checkbox:** Enable Live Timing Server
- Buttons:**
 - RESEND TIMESLIPS
 - TEST CONNECTION
 - ERASE ALL TIMESLIPS
 - SAVE SETTINGS

Figure 3 - Live Timing Screen

and advance to the next race event available in the online server. From this point forward, use the new Event Date until the next race event is ready to begin.

If there is a loss of internet connection and a timeslip fails to be sent to the Live Timing server, continue to attempt to send each race until the internet connection is reestablished. By continuing to attempt to send the timeslips, the software keeps track of which results has been selected to be displayed online. Once the internet connection is reestablished, click the RESEND ALL TIMESLIPS button to update the Live Timing server with all missed timeslips. As the timeslips are sent to the Live Timing server, a progress indicator will be displayed.

Resending timeslips will not duplicate timeslips online. Only the missed timeslips will be added to the existing timeslips on the Live Timing server. Resending timeslips can be performed at any time and as many times as necessary. The only requirement is to continue to attempt to send the timeslips even if it will fail to send. This keeps the software up-to-date for resending at a later time.

When done, click the SAVE SETTINGS button to return to the SYSTEM SETTINGS screen.

UTILITIES

Click on the UTILITIES button to access the utilities feature of XLscore PRO as shown in Figure 4.

To reprint a timeslip for a previous Practice, Qualify, or Eliminations race, click on REPRINT

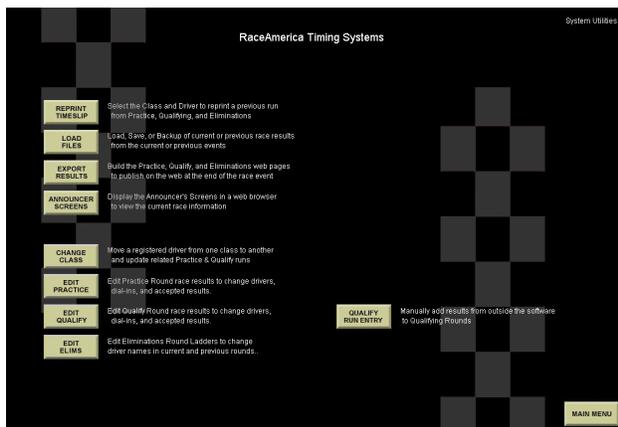


Figure 4 - Utilities Screen

TIMESLIP. Select a class, then select a driver to retrieve all validated runs for the class/driver pair. Click on NEXT/PREVIOUS to move through each race. Once the timeslip is located, click PRINT TIMESLIP to print the timeslip on the printer connected to the computer. Clicking on the class name is a convenient way to RETURN to the previous page to select a different class then driver to print.

Clicking on LOAD FILES will jump back to the ALERT screen shown in Figure 1a to allow archiving the race data or load a previous event's race data.

Click on EXPORT RESULTS to update the Announcer's Web-pages with current information.

Click on ANNOUNCER SCREENS to view the web browser based Announcer Screens enabled on the SYSTEMS SETTINGS page. Clicking OK will open the local web browser and load the index of available screens.

NOTE: Race results saved during Driver Registration, Practice Rounds and Qualifying Rounds can be modified to correct for input errors. Before proceeding, it is strongly suggested to use the BACKUP function to save a copy of the race results and driver registration prior to editing live race results. BACKUP can be used multiple times to save several edit 'steps' and allow backing up in the edit process and reload good data in the event an edit was in error.

MOVE DRIVER TO NEW CLASS

Drivers can be reassigned to a different class before, during or after Practice and Qualifying have completed (Figure 5). Click on CHANGE CLASS and select the class containing the driver. Select the driver to be moved. The screen in Figure 3b will show your current selections and prompt to select the new class. Once a class is selected, click MAKE CHANGE to move the driver. Click on START OVER to abort the change and reselect the current class and driver. More than one driver can be moved by clicking the ANOTHER CHANGE button. To exit the edit mode or save the changes, click the SAVE CHANGES button.

EDIT PRACTICE/QUALIFY RUNS

Selections made and saved during Practice Rounds and Qualifying Rounds can be edited to correct for clicking on the wrong item. Click EDIT PRACTICE or EDIT QUALIFY, select the class, then select the driver to edit. All of the saved runs for that class/driver will be displayed as shown in Figure 6a. Use NEXT and PREVIOUS to locate the specific run to edit.

Click the WIN LANE VIOLATION to give the other lane the win.

Click DRIVERS LANE SWAP to swap drivers names between lanes. This is convenient when the race results were accepted but the correct drivers were in the opposite lanes compared to the timeslip.

Click ACCEPT LEFT, ACCEPT RIGHT, ACCEPT BOTH, or RE-RUN BOTH to correct for errors accepting or rejecting race results for both lanes. The win will be assigned to the correct lane based on the accept/re-run selection.

Click CHANGE DRIVERS to correct for the wrong driver in each lane. The drivers' names will be highlighted for edit. Click on a driver name and a pulldown will appear as shown in Figure 6b. Click on the desired name to assign the driver to the displayed race results for that lane. To exit the edit mode, click anywhere on the screen outside the drivers names and drivers list. Click SAVE DRIVERS to return to the main edit screen.

Once all edits are completed for this class/driver pair, click SAVE CHANGES to either exit without saving the changes or save the changes and reload the edited data files.

MANUAL ENTRY OF A QUALIFY RUN

In the event a qualifying run is not recorded by the software or to add results from outside the timing system, click the QUALIFY RUN ENTRY button. Figure 7 will be displayed and selection of driver name, redlight, speed and ET for each lane can be entered. To change the REDLIGHT, click on the YES/NO to toggle each lane. When results entry is complete, click the CHECK FIRST TO FINISH button to determine breakouts and the mathematical winning lane. The winning lane can be changed by clicking the SWAP WIN LANE button.

Once all entry is complete, click the SAVE TIMESLIP button. Click the SEND TO LIVE TIMING and/or PRINT TIMESLIP as appropriate. Click ADD ANOTHER to begin again for the next manual entry. To change class, click on the



Figure 6a - Edit Practice/Qualify Screen

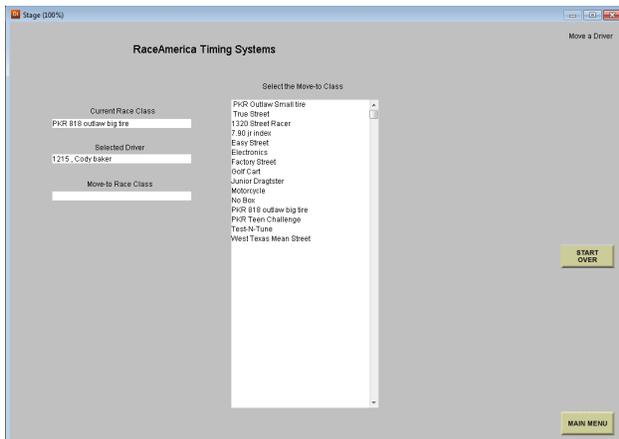


Figure 5 - Change Class Screen

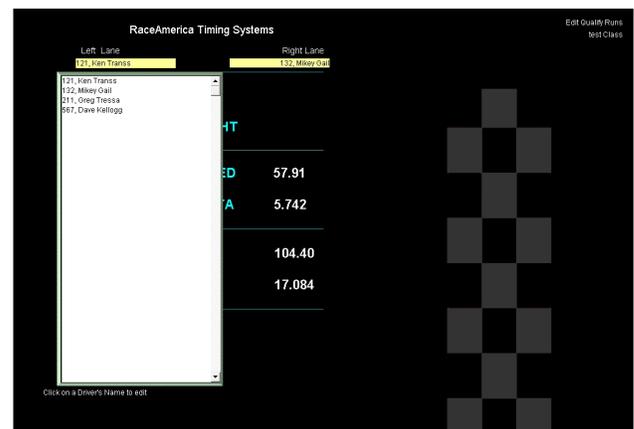


Figure 6b - Change Drivers Screen

class name in the upper righthand corner. To exit manual entry, click MAIN MENU.

EDIT ELIMS

If a data entry error occurs during Ladder Eliminations where the wrong driver advanced in a round or a driver name must be overridden or changed due to local rules, Edit Elims allows these edits during the current round for pairings just completed or not yet run in the round.

Click EDIT ELIMS and then select the desired class to edit. Pairings for the current round are displaced as shown in Figure 8a. Click on a pair then click on RERUN PAIR to rerun the selected pair and remove the results from their previous run from the ladder. Click on EDIT PAIR to edit a driver name or winner if the run has completed as shown in Figure 8b. If changing the driver name, click on the driver name and a list of drivers in that class is displayed as shown in Figure 8c.

Click on the driver name then click SAVE DRIVERS then SAVE CHANGES . The XLscoreRR program will restart and include the edits updating the pairings and ladders.

MAIN MENU

The Main Screen shown in Figure 9 is used to create race classes, register drivers, build racing ladders, display standings, and run races. For a quick reference explanation of the information displayed by the XLSCORE RR software screen used to perform these functions, review the SCREEN DEFINITION pages in back of this

manual.

If the PC communication port connected to the XL Timing System was not detected, the Main Menu screen will disable several functions

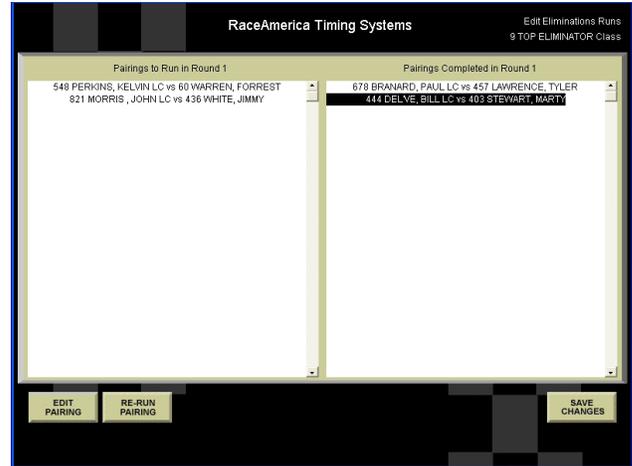


Figure 8a - Select Elims pair to edit



Figure 8b - Edit selection

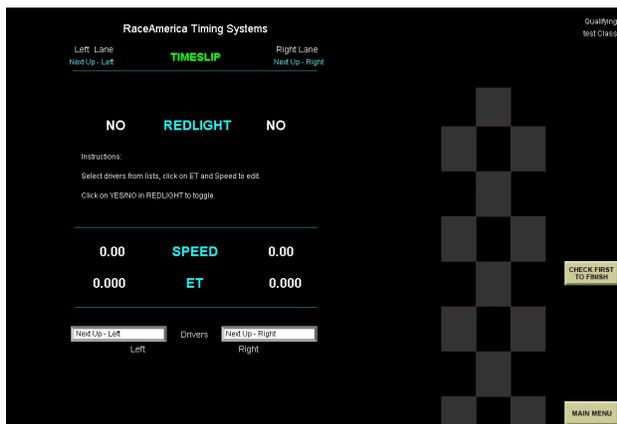


Figure 7 - Manual Entry of Qualifying Run

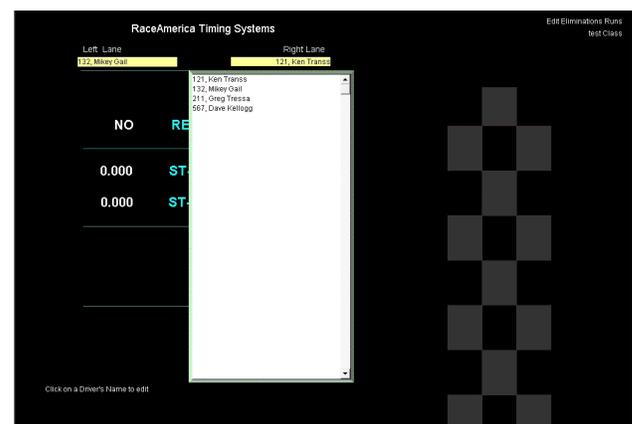


Figure 8c - Select new driver name

which require communications to the timing system. When functions are disabled, the Main Menu grays out the disabled functions. To enable these functions, select the SYSTEM SETTINGS button and configure the PC port connected to the timing system.

On the lower left corner of the Main Menu screen is the revision level of the software and the firmware in the XL BOX.

The software also auto detects whether the reporting format will be in FEET or METERS. Systems reporting speed in MPH will display FEET and Km/H will display METERS.

ALIGNMENT MODE

Sensor Alignment 2700 XL Wireless rr

The **2700 XL Wireless rr Console** is used to verify Track Sensor Alignment, Battery Levels and RF Integrity of the wireless system. To enter alignment mode section within the Diagnostics menu on the console press the [*5#] keys in succession to verify correct alignment of START, START-SPEED (T-LinkID A&B), SPEED and FINISH (T-LinkIDs C&D).

Physical Sensor Alignment

To maximize the alignment of the emitter/sensor pairs, it is suggested to rotate the Beam Emitter slowly left and right until out of alignment, to detect the left/right limits of alignment. This technique will determine the maximum lateral detection angle. Rotating the Beam Emitter up

and down until out of alignment determines the maximum vertical detection angle. Once these extremes are established, position the Beam Emitter in the center of the left/right detection angle and up/down detection angle. Repeat this same process with all other Beam Emitters and all Track Sensors. This will maximize the alignment accuracy.

RUNNING A RACE USING MANUAL CONTROL

The XLSCORE RR software program offers a race screen for optional freeform manual entry of driver's names. The software also offers automated race screens for managing large events. The following discussion runs races using the Manual Control mode of the XLSCORE RR software.

STEP 1 - GETTING READY FOR THE NEXT RUN

The XLSCORE RR software can capture and print the driver's names or vehicle numbers. The system also allows a single lane to be used for BYE runs without the need to manually break the beams in the unused lane.

If desired, enter the Driver's Names into the field at the bottom of the PC screen using the TAB key to move from one field to another. Up to 15 characters can be entered for the Driver's Names. *Note: entering a preceding zero in the vehicle number causes the program to sort vehicles in numeric order from 001 to 999.*

STEP 2 - STARTING AND SCORING A RACE

Click on the CLEAR ALL SEND NEXT button to send the Driver's Names to the Announcer's Screens. Clicking on the START RUN button will cause the timing system to reset all previous race data and utilize the settings entered in STEP 1. This step is irreversible and previous race results will be erased when starting the next race.

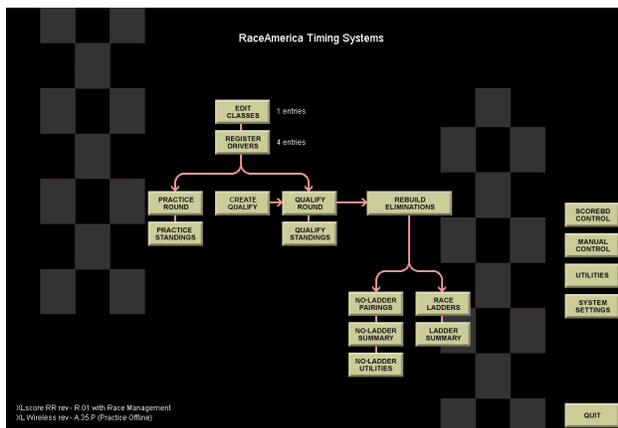


Figure 9 - Main Menu for XL Wireless

The timing system repeatedly checks all sensor alignments to best insure the equipment has not failed or been bumped out of alignment.

As the race begins, the optional Compliance Lights will flash red then green to indicate the system is ready. Once both vehicles have crossed the start line, the speeds of each vehicle are displayed as well as the time differential between lanes and redlight information for both lanes. See the PC SCREEN DEFINITIONS pages in this manual for a screen layout.

When all lanes which broke the start beam cross the finish line, the PC updates with all measured statistics. The Winning lane is indicated in GREEN next to the winning lane's ET.

NOTE: If a vehicle in either lane 'breaks' the starting beam but is unable to cross the finish line and 'break' the finish beam, click on the END RACE button to tell the timing system the race is over. It is not necessary to manually block the start or finish beams in the lane not starting or not finishing. All measured statistics will be updated on the PC based on how far the vehicles were able to progress down the track. Speeds cannot be reported unless both the Speed and Finish beams are broken by the vehicle.

At the top of the race results displayed on the screen is displayed in green the time difference between the lane's runs as 'by X.XXX'. This is the actual time difference between finish line crossings.

In the event a center lane crossing occurred or other racing violation which effects the outcome of the race, the race director can override the timing system's winner determination by clicking on the WIN LANE VIOLATION button to change the winning lane to the other lane. This feature allows the local race track to over-ride the timing system's win determination and print timeslips reflecting the violation. When the WIN LANE VIOLATION button is used, the differential time at the top of the screen displayed in green will be replaced with VIOLATION indicating over-ride of the timing system's win determination.

Clicking on the PRINT TIMESLIP button prints a timeslip on all printers connected to

the timing system and PC. Click on the PRINT TIMESLIP button for each additional timeslip to be printed. If a number was entered in the Configuration Screen to automatically print timeslips at the end of each race, timeslips are printed at this point and the number of copies are displayed during the printing process.

RACE RESULTS FILE DEFINITION FOR MANUAL CONTROL

Selecting SAVE ALL RACES or WHEN PRINTED on the Configuration Screen for SAVE RACE RESULTS enables the software to save race results to a file. If the manual.dat file currently exists, the software opens the file and adds new race results to the file without destroying previous race data. Restarting the XLSCORE RR software will also not lose any race results from previous runs. If the manual.dat file does not exist when the XLSCORE RR software is started, the software will create the file for new race results.

When race results are saved to a file, the data is stored in the various '.dat' files in a tab delimited format. This format provides easy import into most spreadsheet software applications.

Once the race results data is imported into a spreadsheet, the data forms a multi-column representation of the race results displayed on the PC screen after each race. Each race adds two lines of information to the '.dat' file, first the left lane results are added, then the right lane results are added.

Results for both lanes are added regardless if only one lane is used or only one lane finishes. If a lane is unable to finish, race results saved will consist of the stats measured by the timing system for each lane as far as the vehicle could progress. An example of this would be a vehicle in the right lane starts, then stalls and is unable to finish. The redlight info will be saved. The elapsed time and vehicle speed will be zero. The saved race results for the right lane will be the same as displayed on the PC screen after the race.

The following column definitions apply to the spreadsheet when importing the 'manual.dat' file created from running races using the

Manual Control feature of the XLSCORE RR software. Columns after the import of this file into a spreadsheet application are defined from left to right as:

Date and time stamp
 Lane identification text
 Driver's name as entered on PC screen
 Elapsed time - finish
 Vehicle speed - finish
 * blank *
 Redlight as YES or NO
 * blank *
 * blank *
 * blank *
 * blank *
 Time delta - start
 Vehicle speed - start
 * blank *
 * blank *
 WIN or LOSE or blank text
 Win determination as blank or:
 by xx.xxx
 REDLIGHT
 VIOLATION

Initially the data is sorted by the Date/Time Stamp column, then by the Lane Identification column. To view a single race, the left lane results will appear above the right lane results for the same race.

To view a driver's list of runs in a chronological order, sort by the Driver's Name column, then by Date/Time Stamp column.

NOTE: Many spreadsheet applications have preference settings which set the default for the Date/Time format giving the appearance of a shortened Date/Time stamp. The format of the Date/Time column is MM/DD/YY or DD/MM/YY for the date and HH:MM:SS AM/PM for the time. The date and time are acquired from the PC's date and time settings. If the date or time is logged incorrectly to the file, the problem is corrected by resetting the date or time in the PC operating system.

RACE MANAGEMENT OVERVIEW

The race management software functions of the XLSCORE RR software are driven by classes and the drivers registered in each class. For new users of the XLSCORE RR software, it is suggested to use the Manual Control method of running races on the Main Menu in order to become familiar with the operation of the XL Timing System in conjunction with the XLSCORE RR software package. Once a good operational understanding of the hardware and software has been achieved, proceed to this Race Management portion of the XLSCORE RR software package. Many references in the following documentation are built on previous knowledge of the hardware and software using the Manual Control method to run races. When selecting any of the race management functions, the software prompts for a class to be selected. All registered driver's names are separated and placed in pop-up lists. The following is a short definition of each of the race management and reporting functions.

Practice Round

Similar to Manual Control with the addition of driver names selected from popup lists when the Left Driver or Right Driver are clicked on. Individual race results are saved in a file named 'practice.dat'

Practice Standings

Displays standings of runs made during Practice Round for each class showing the lowest to the highest Elapsed Time by driver and the highest to lowest Speed by driver. Standings can display each driver's best finish ET and Speed.

Create Qualify

Provides alternate methods to create Qualifying Round runs required to build the Eliminations Round..

Qualify Round

Operates the same as Practice Round with the results used to generate reports and ladders used in the Elimination Rounds. Individual race results

are saved in a file named 'qualify.dat'

Qualify Standings

Displays standings of runs made during Qualify Round for each class showing the lowest to the highest Elapsed Time by driver or the highest to lowest Speed by driver. Standings can be displayed for each driver's best finish ET and Speed.

Build/Rebuild Eliminations

This function uses the Qualifying Round results and ladder seeding from the Configuration Screen to create structured NHRA-style Race Ladders and freeform pairings style Single Elimination lists. If elimination files currently exist, the Build Ladders button is replaced by a Rebuild Ladders button.

Race Ladders

Race ladders are structured pairing type ladders with round 1 seeded based on a driver's best qualifying runs and the seeding method selected on the Configuration Screen. Race ladders are built for each class with 2 or more drivers with valid qualifying runs. Ladders can range from 2 drivers to 64 drivers in a class. For classes with more than 64 drivers, the top 64 in the standings are used. ET's and Lane Choice can be displayed when viewing the ladder. Individual eliminations race results are saved in the 'elims.dat' file.

Race Ladder Summary

To enable viewing of the Race Announcer summary screen, make sure the RACE LADDER ELIMINATIONS is enabled in the SYSTEM SETTINGS screen under Enable Announcer's webpages. From the Main Menu simply click on the LADDER SUMMARY button and then click OK. The Announcer summary index will pop up as an HTML screen. Click on the desired enabled announcer's screen for viewing. Alternatively, you can go to the HTML folder and double click the INDEX.HTM file. Your web browser will load the INDEX.HTM file to view Race Ladder Summary by class. The summary is updated after every run as shown in Figure 20.

No-Ladder Pairings

Operates under the 'pairings are selected for each round' elimination method with a maximum of five losses before being eliminated from competition. At the start of No-Ladder Eliminations, all drivers in a class completing qualifying runs are loaded into a driver pop-up list. Pairings are performed manually by selecting a name from the pop-up list of drivers for each lane. When a pair is selected from the list to run a race, the software keeps track of wins and losses by driver until the driver reaches the maximum number of losses as configured for their class. When the next round begins for that class, only the advancing driver names appear in the pop-up list until a winner is determined. Individual race results are saved in the 'elims.dat' file.

No Ladder Summary

To enable viewing of the No-Ladder Race Announcer summary screen, follow the instructions for Race Ladders Summary above and select No-Ladder Screen.

No Ladder Utilities

The utilities include functions to Eliminate a driver, if their vehicle can no longer come to the line, provide Buy Backs for any round, and use the remaining drivers in a class to generate a Race Ladder. The No-Ladder Utilities screen is shown in Figure 20.

SHORTCUT TIP: When running one of the above race management functions and a different class is desired, a shortcut exists to easily select another class without returning to the Main Menu. Position the cursor over the class name in the upper right hand corner. Once the class name changes **color to red**, click on the class name and the software will change to the class selection screen.

NOTE: Eliminations are handled separately by class. This feature provides the flexibility to use different elimination round methods on different classes. Once a class completes its first race and race results have been validated, the method of eliminations used for that class cannot change.

Attempting to change to another method of eliminations will result in an error message. Other classes may use any elimination method as long as no races have completed in that class.

RACE MANAGEMENT SOFTWARE DRIVER & CLASS REGISTRATION

If no classes have been entered, the DRIVER REGISTRATION button on the Main Menu will be disabled until at least one race class exists. To enter a race class, click on the EDIT CLASSES button on the Main Menu and the Class Registration screen is displayed, Figure 10.

When the Eliminations Round is built for this class, structured ladders (Race Ladders) are created based on the type of seeding selected in the RACE LADDER SEEDING field. Select PROFESSIONAL, SPORTSMAN, RANDOM or FIRST ROUND BYES to select the type of seeding to be used when building race ladders for this class. Professional seeding will pair the fastest in qualifying round to the slowest in qualifying round then second fastest to second slowest, etc. Sportsman seeding will divide the qualifying into two halves, the upper fast half and the lower slow half. The fastest in the fast half will be paired against the fastest in the slow half then second fastest to second fastest, etc.. Random seeding uses a computer generated random pairing seeding. Bye runs are distributed randomly. First Round Byes places all Bye runs in the first round awarding the fastest drivers with the Bye runs then

uses the Professional seeding to pair the remaining drivers, fastest to the slowest.

Select what race results will be used to build the race ladders in the ELIMINATIONS SORT METHOD field. Best finish ET and Speed can be used when building the Race Ladder for this class.

When No Ladder Eliminations will be used for a class, select the number of losses before a driver is eliminated from competition. In the No Ladder Summary, the driver's name and their win/loss record will be displayed.

To edit or delete an existing class name, click on the class name as it appears in the list. The entry is highlighted and copied to the RACE CLASS field. Click on the DELETE button to delete this class from the list or make modifications to the class name and click on MODIFY. An error message will be displayed if the newly modified class name already exists in the class listing. After all class names have been entered, click on the MAIN MENU button to return to the main menu.

To register drivers, click on the DRIVER REGISTER button on the Main Menu. The user is prompted to select a Race Class for the drivers to be registered as shown in Figure 11a. Click on a Race Class from the list displayed to proceed.

Figure 11b is displaying the listing of all drivers currently registered in the selected race class. Enter the Car Number, Driver's First and Last name, and any Notes or Comments for this driver. If custom titles were defined on the Configuration Screen, they will appear below

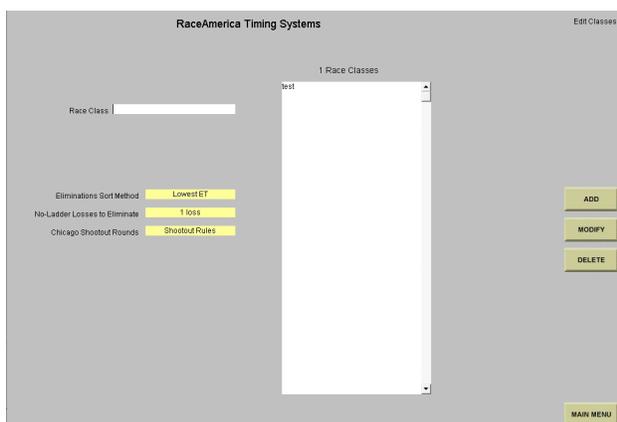


Figure 10 - Class Registration Screen

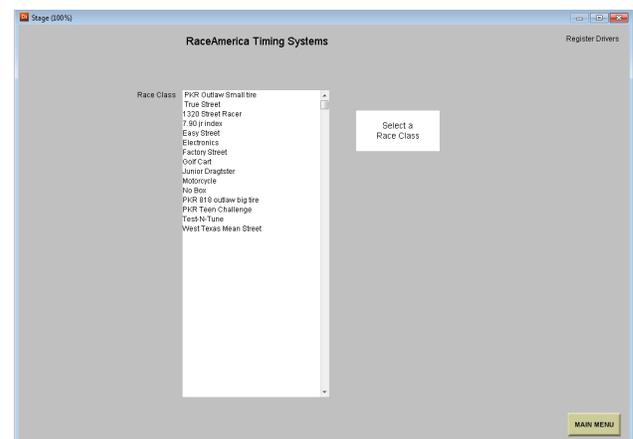


Figure 11a - Selecting a Class

the STATUS field and above the COMMENTS & NOTES field. The user can enter up to 24 characters in the 7 defined custom fields. The Note & Comments field is limited to 100 characters. The STATUS field (enter Y or N, default is Y) indicates whether this driver will be racing in today's race event. Click on the ADD button to register the driver information into that class. If the driver is racing in multiple classes, the driver information should be entered for each class. An error message will be displayed if the driver is already registered in the class. To delete or modify driver information, click on the driver's name in the list. To delete the driver from that class, click on the DELETE button. To modify the existing entry, make all changes and click MODIFY. An error message will be displayed if the new modifications result in a name that already exists in the list for that class.

To print a list of drivers registered in this class, click on the PRINT button as shown in Figure 11b. The print function will be available if a local printer was configured on the Configuration Screen of the XLSCORE RR software.

When holding multiple race events with many of the same drivers, the ability to select which drivers will be racing during any one particular event is helpful to make the driver pop-up lists reflect who is racing rather than all the drivers registered in the XLSCORE RR program. Clicking on the STATUS REVIEW button will display the current race day status of each driver registered in the selected class (Figure 11c). Click

on a driver's name to toggle the Race Day Status from Yes to No. When set to Yes, the driver's name will appear in the driver pop-up lists during practice and qualifying rounds. This status for a driver can be changed at any time.

To exit the Driver Registration screen, click on the Main Menu button.

If at least one class has been entered and at least one driver registered, many of the disabled features of the XLSCORE RR software will become enabled. This is observed on the Main Menu where full color buttons replace the grayed out disabled buttons.

RACE MANAGEMENT SOFTWARE PRACTICE ROUND

When the PRACTICE ROUND button is selected from the Main Menu, the software prompts for a class selection to separate only those drivers registered in a class. Click on the desired class to enter the race screen under a practice mode scenario. The Practice Round screen is similar to the Manual Control screen with the addition of driver name entry replaced by a pop-up list of all drivers registered in the selected class. Positioning the cursor over the Left Driver Name or Right Driver Name and clicking will recall the scrolling pop-up list of driver's names as illustrated in Figure 12. Click on the desired name to select it or begin typing the desired entry on the keyboard. As each character is entered on the keyboard, the pop up list is shortened to only those entries

RaceAmerica Timing Systems Register Drivers

4 Drivers in Class

Race Class:

Car Number:

Driver Name:

Status:

custom 1:

custom 2:

custom 3:

custom 4:

custom 5:

custom 6:

custom 7:

Comments & Notes:

121, Ken Trass
132, Mikey Oall
211, Greg Thessa
567, Dave Kellogg

PRINT
STATUS REVIEW
ADD
MODIFY
DELETE
MAIN MENU

Figure 11b - Driver Registration

RaceAmerica Timing Systems Status Review

Text Class

Status	Car Number, Driver Name
Y	121, Ken Trass
Y	132, Mikey Oall
Y	211, Greg Thessa
Y	567, Dave Kellogg

"Yes" Status indicates the driver in this class is racing in the current event and will appear in driver pop-up lists for practice and qualifying runs.

ALL STATUS TO YES
ALL STATUS TO NO
NEXT
PREVIOUS
SAVE SETTINGS

Figure 11c - Status Review Screen

matching the characters typed. When only one entry remains, it is automatically selected for that lane. If no entries match the characters typed on the keyboard, the pop-up list will be blanked and contain no entries. Use the backspace key on the keyboard to erase typed characters. The list will automatically lengthen as more entries match the remaining characters appearing in the Driver's Name field.

Click on the START RUN button, same as when using Manual Control to run a race. When the race has completed, the software prompts for validation of the race results as illustrated in Figure 13. In the event some unforeseen situation occurred that is not detectable by the timing system, each lane can be validated separately. Click on the ACCEPT LEFT button if only the left lane has valid race results, ACCEPT RIGHT if only the right lane contains valid race results, ACCEPT BOTH if both lanes should be saved or RE-RUN BOTH if the race was an error operating the timing equipment or both lanes have invalid race results. When the results are saved in the practice.dat file, any lanes not containing valid runs will be marked as NOT VALIDATED. Practice Round is just what it says: practice runs with bad race results flagged. No win indication is displayed on the PC screen or saved to the practice.dat file since the winning lane means nothing during practice. This makes later statistical analysis of the practice runs more accurate with bad runs and operational errors easily identified in the race results. For the occasional 'grudge matches', use Manual Control

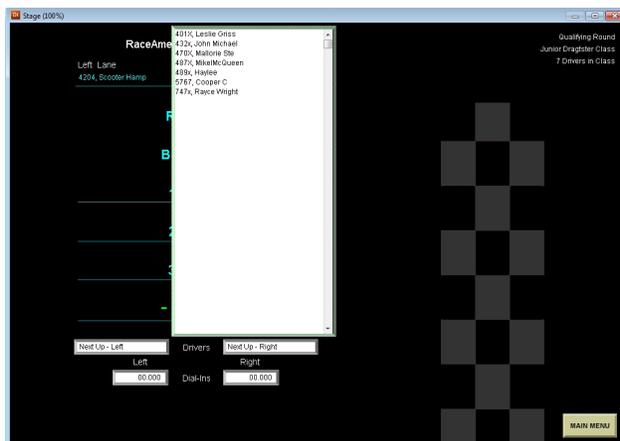


Figure 12 - Driver's List Pop-up

to run the race and indicate a winner.

RACE MANAGEMENT SOFTWARE PRACTICE ROUND STANDINGS

At any time during and after the practice or qualifying round, the standings can be reviewed sorted by Elapsed Time or Speed. Select the PRACTICE STANDINGS button from the Main Menu to open the Announcer's Screen containing the Practice Round Standings for all classes as shown in Figure 14. One PC can run the races while a second PC can display the standings for an announcer to view. Networking PC's together is discussed later in this manual. Practice Round Standings Announcer's Screens are enabled on the System Setting Screen.

RACE MANAGEMENT SOFTWARE CREATE QUALIFY

Since Eliminations Round is built from Qualifying Round, the XLSCORE RR software offers three methods to create Qualify Round race results. The standard method is to add classes and then add (register) drivers to each class on the front end before the racing action starts then run Qualifying Round and run each registered driver at least once.

A second method is to let the program create fake qualifying results. This method allows Eliminations Round to be run without running a Qualify Round prior.



Figure 13 - Validation of Race Results

CREATE QUALIFY MIN/MAX ET RANGE

This method of assigning classes to drivers is determined by comparing the driver's lowest ET during the Practice Round to the min ET & max ET entered for each class. To use this automated function, there are a few requirements to insure proper operation.

(1) A class or classes are created with the MIN ET and MAX ET entered as 0.000 or left blank.

(2) Drivers are initially registered into one of the classes created in (1). Registering drivers in these classes tells the automated class assignment function which drivers to evaluate and assign to a class.

(3) The final desired classes are entered with the MIN ET and MAX ET set to the limits for that class. Note the Min/Max ET's can not overlap another class.

As shown in Figure 15, clicking on the MIN/MAX ET RANGE button displays a list of classes that exist and their ET ranges. These are the classes the drivers will be assigned to based on lowest ET.

Clicking on the BEGIN ASSIGN button starts the evaluation of the Practice Round results and the assignment of drivers by class. The number of assigned drivers increments on-screen as the assignments occur. Assignments are the same as registering a driver in a second class, that is, the original registration is retained and a new registration is added to the Driver Registration screen. Note the total count of drivers registered has increased as displayed on the Main Menu.

Driver	ET	Closest
1 Wilson, Betty	11.333	0.333
2 Willianson, Beth	10.011	1.634
3 Kay, Mark	14.072	3.072
4 Mester, Paul	15.874	4.874
5 Kateton, Cal	10.584	B0.142

LEGEND:
R = redlight
click heading to sort standings

Figure 14 - Standings Screen

To remove all new assignments from the Driver Registration count, click on the RESET ASSIGN button. This will delete all driver entries registered in classes where the Min/Max ET is non-zero.

At this point the Qualifying Round has been loaded based on lowest ET in the Practice Round and Min/Max ET of each class. The results are the same as if the drivers were initially registered in classes that would have matched their lowest ET, and, their lowest ET had been accomplished during an actual Qualifying Round. Click on the BUILD LADDERS function on the Main Menu to load the pseudo Qualifying Round results to build the Single Eliminations and Race Ladders..

CREATE QUALIFY CREATE RUNS

To create fake qualifying race results for every driver and skip Qualify Round completely, click on CREATE QUALIFY, then click on CREATE RUNS. Select a class and race results are added for all drivers with STATUS = Y. If race results already exist in the class selected, any runs less than 11.111 seconds remain unchanged. This method is most effective when no qualify run will be completed and advance directly to Eliminations Round.

Assigned	ET Min	ET Max	Qualified Class Names
10.000	10.399	10 sec	
10.400	11.999	10.4 sec	
12.000	13.999	12 sec	
14.000	18.799	14 sec	
18.800	99.000	over 18.8	
1.000	9.999	sub 10 sec	

Buttons: 0.000 DIAL-IN, RESET ASSIGN, BEGIN ASSIGN, MAIN MENU

Figure 15 - Min/Max ET Range Screen

RACE MANAGEMENT SOFTWARE QUALIFYING ROUND

When the QUALIFY ROUND button is selected from the Main Menu, the software prompts for a class selection. Click on the desired class to begin the qualifying process. Qualify Round operates identical to Practice Round with one important exception:

NOTE: In order for a driver to be included in the elimination rounds, there must be at least one run successfully completed and saved as a validated run during the qualifying round.

Redlights during qualifying have no meaning since the purpose of the qualifying round is to establish who will be participating in the eliminations round and what was their best run during qualifying.

RACE MANAGEMENT SOFTWARE QUALIFYING ROUND STANDINGS

At any time during and after the qualifying or practice rounds, the standings can be reviewed sorted by Elapsed Time or Speed. Select the QUALIFY STANDINGS button from the Main Menu to open the Announcer's Screen containing the Qualify Round Standings for all classes as shown in Figure 14. One PC can run the races while a second PC can display the standings for an announcer to view. Networking PC's together is discussed later in this manual. Qualify Round Standings Announcer's Screens are enabled on the System Setting Screen.

RACE MANAGEMENT SOFTWARE BUILDING ELIMINATION ROUND

When the qualifying round has completed, the qualifying runs are used to generate the Race Ladders Eliminations (structured ladders) and No Ladder Eliminations (free-form pairings) necessary for the elimination rounds. Clicking on the BUILD ELIMINATIONS button from the Main Menu will begin the elimination round building process for

all classes in all three types of racing.

As a safety check, the software will prompt a second time to build eliminations before proceeding and deleting existing Elimination Round files. Clicking on the MAIN MENU button at this point will return to the Main Menu without performing the build process. Clicking on the BUILD LADDERS button will begin the process of building the elimination files for each class. As each class is built, a message will be displayed until all classes have been built. When Build Complete is shown (only takes a few seconds) click Main Menu and you are ready for the elimination rounds to begin.

As each class is evaluated, elimination files are built based on the number of qualifying entries and the build status is listed on the screen. If the Announcer Webpages were selected for No Ladder or Race Ladders Eliminations on the System Settings screen, the appropriate files will be generated and placed in the HTML folder on the hard drive. If the files already exist on the hard drive from a previous eliminations build, the button will be labeled REBUILD LADDERS. Rebuilding the ladders replaces the existing information generated previously with the latest ladders. This is convenient when the ladders have been built and a last minute entry takes a quick qualifying run and should be included in the ladders. If elimination rounds have been started, clicking on the REBUILD LADDERS will erase all previous elimination runs so it is important to start the elimination round once all qualifying runs have completed.

If after building a class and examining the list of drivers, there may be need to remove a driver prior to the elimination round starting. To remove a driver from the build process, go to the driver registration screen and click on STATUS REVIEW. Locate the driver's name and click on it to change the Y status to N status. Save the changes and rebuild the ladders. Note during the class build the driver's name will be listed as removed to confirm the driver is out of competition. The driver's qualifying runs still remain in the qualifying standings list and the runs are not deleted. In the event the wrong driver was removed, simply return

to the status review screen and click on the driver's name to change the N back to Y, save the changes, and rebuild the ladders.

RACE MANAGEMENT SOFTWARE RACE LADDER ELIMINATIONS

Clicking on the RACE LADDERS button on the Main Menu, then selecting a class will load driver's names for that class and automatically generate drivers pairings using the ladder size and seeding method selected on the EDIT CLASSES screen. If the class contains 64 or less entries, the size of the ladder is adjusted to match the size of the race field. Driver pairings are then displayed as shown in Figure 16a. Lane Choice is indicated by (LC) next to the driver's name.

To print the pairings, click on PRINT PAIRINGS. This function generates a print-out for the staging line personnel and audit trail.

To run a pairing, click on the desired pair, then click on RUN PAIRING. The names are loaded into the race screen as shown in Figure 16b. Since the software does not know the lane choice decision, driver's names are placed on the race screen based on their position on the ladder screen. Click on the LANE CHOICE button to trade lanes between the two drivers to match how they are positioned at the start line of the race track. Clicking on the BACK TO PAIRINGS button will cancel the race and return to the ladder screen without running a race. The driver pairings screen is displayed and updated to reflect which pairings have completed their run in the current round.

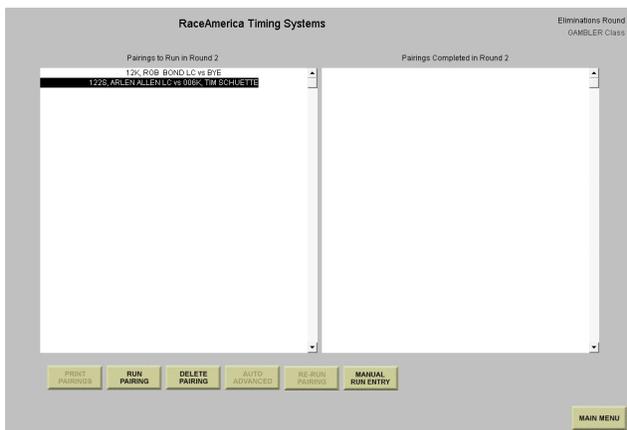


Figure 16a - Race Ladder Pairings Screen

After running a race, the software prompts for validation of the race results. Since the winning lane is important during eliminations, the WIN LANE VIOLATION button enables the winning lane to be toggled to the other lane in the event a disqualifying event occurred (i.e. center line crossing, etc.) that the timing system is not able to detect. Clicking on the ACCEPT RESULTS button saves the race results in the elims.dat file and updates the ladder by advancing the winning driver. Clicking on the RE-RUN RACE button will not advance the winner, saves the race results, marks the race results as NOT VALIDATED, and returns to the ladder screen with nothing changed.

If a pair of drivers are listed and both drivers are unable to come to the line, click on the pair, then click on DELETE PAIRING to remove both drivers from competition. The ladder will reflect both drivers have been eliminated and no one advanced to the next round. A FORCED BYE

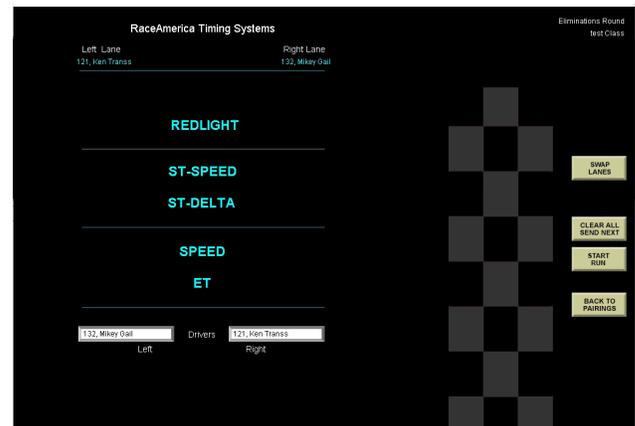


Figure 16b - Race Ladders Run Screen



Figure 16c - Race Ladders Confirm Screen

will be inserted into the ladder slot in the next round. The FORCED BYE functions the same as a BYE run.

If a driver is paired up with a BYE run, and local rules do not require the driver to make a run to advance to the next round, click on the driver pairing, then click on AUTO ADVANCE to advance the driver to the next round without making a run. The ladder will be updated to indicate the driver advanced to the next round and will use the previous round's ET.

Once a race has completed as shown in Figure 16c and the race results displayed on the PC screen are valid, click on the PRINT TIMESLIP button to print a timeslip prior to accepting the race results (if auto print was not enabled on the System Settings Screen). During the Race Ladder elimination method, this is the only time a timeslip can be printed. Click on the BACK TO PAIRINGS to return to the driver pairings list for the next race.

If a pair was run, deleted or advanced in error, click on the pairing, then click on RE-RUN PAIRING to move the pair back to the Yet To Run list. The Ladder will be updated indicating the run never occurred.

When all pairings have run in a round, click on MAIN MENU to exit the Eliminations Round for this class. The software will notify the user that all drivers have run in this round and exiting the screen will advance this class to the next round. Ensure no changes are required before continuing as once the round has advanced, previous round information cannot be changed.

Once there is only one driver left in a class, the eliminations screens for the race ladders will not be accessible.

MANUAL RUN ENTRY FOR RACE LADDER PAIRINGS

To manually enter race results for a Race Ladder Pairing, click the MANUAL RUN ENTRY button. A screen similar to Figure 7 enables entry of redlight, speed and ET for each lane. Driver names are already determined by the pairing selected. To edit the REDLIGHT, click on the YES/NO to toggle. Driver names in each lane can

be swapped by clicking the SWAP LANES button.

When all entry is complete, click the CHECK FIRST TO FINISH. Winning lane by who mathmatically finished first. The winning lane can be changed by clicking on SWAP WIN LANE button. Click the SAVE TIMESLIP button to save the entered race pairing result as shown in Figure 16d.

Click BACK TO PAIRINGS button to return to the Eliminations Round pairings drivers list.

RACE MANAGEMENT SOFTWARE LADDER SUMMARY

To view live updating eliminations ladders with progress for each class, you can click on the LADDER SUMMARY button and then click OK on the pop up window. This will take you to the XLscore PRO Webpages index (Announcer's index page). Click on any of the enabled screens in order to view them. The screen index can also be accessed through the UTILITIES button from the Main Menu. From Utilities screen simply click ANNOUNCE SCREENS button. Finally, you go outside the XLSCORE RR program directly to the HTML folder and double click the INDEX. HTM file which will load your web browser with the Webpage index. Click on the Race Ladder Eliminations link.

To view a specific class, click on RACE LADDER ELIMINATIONS, then click on the

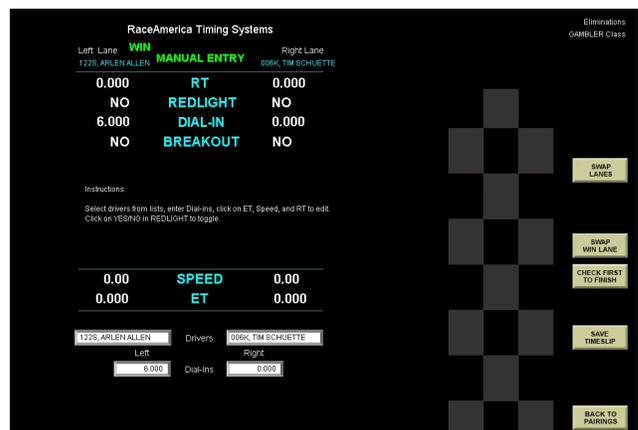


Figure 16d - Manual Run Entry Race Pairing

desired class name. As each elimination round progresses, the ladder is updated after every race. Ladders can range from 2 drivers to 64 drivers and are displayed up to 32 drivers at a time. Ladders larger than 32 drivers will be divided in half with buttons indicating the right or left side of the ladder.

This manual explains how to configure multiple PC's to view live race results and eliminations on-screen. Go to the XLSCORE RR USING NETWORKED PC'S section of this manual for detailed information and example screen shots of networked PC's.

RACE MANAGEMENT SOFTWARE NO LADDER ELIMINATIONS

Clicking on the NO LADDER PAIRINGS button on the Main Menu, then selecting a class will begin the elimination round using freeform pairings (no structured ladders) for each round. Pop-up lists are created with driver's names for the each round of eliminations. The text in the upper right hand corner of the PC screen indicates how many drivers remain in the list for the current round. Selecting driver's for each lane is similar to the selection method of the qualifying round. Positioning the cursor over the Left Driver Name or Right Driver Name and clicking will recall the scrolling pop-up list of driver's names who have not yet raced in the current round. Click on the desired name to select it or begin typing the desired entry on the keyboard. As each character is entered on the keyboard, the pop-up list is shortened to only those entries matching the characters typed. When only one entry remains, it is automatically selected for that lane. If no entries match the characters typed on the keyboard, the pop-up list will be blanked and contain no entries. Use the backspace key on the keyboard to erase typed characters. The list will automatically lengthen as more entries match the remaining characters appearing in the Driver's Name field.

Click on the START RUN button to start the race. When the race has completed, the race results are displayed on the PC screen and validation of the race results is required to

determine who advances and who is eliminated. Since the winning lane is important during eliminations, the WIN LANE VIOLATION button enables the winning lane to be toggled to the other lane in the event a disqualifying event occurred (i.e. center line crossing, etc.) that the timing system is not able to detect. Clicking on the ACCEPT RESULTS button saves the race results in the elims.dat file, advances the winning driver, and removes both drivers' names from the popup list for the current round. Clicking on the RE-RUN RACE button will not advance the winner, saves the race results, mark the race results as NOT VALIDATED, and returns to the Single Elimination screen with nothing changed.

As each race completes, the winning driver advances to the next round of eliminations while the losing driver is eliminated from the next round if they have reached the maximum number of losses for their class. Both driver's names are removed from the current rounds driver's pop-up list and the text in the upper right hand corner of the PC screen is updated to reflect the number of remaining drivers in the current round.

To advance to the next round, insure all drivers in the current round have completed their races. When the remaining driver count reaches zero, the round will automatically advance when you exit the No Ladder Pairings screen. You can exit by returning to the Main Menu, or an alternate method is to position the cursor over the class name, wait until the text changes color to red, then click to select a different class. Select the same class and return to the No ladder Pairings screen and the round number and driver count are changed indicating eliminations have advanced to the next round.

NOTE: If a driver drops out of competition in the middle of a round, the driver must be removed from the list in order to advance to the next round of eliminations. This can be accomplished under the NO LADDER SUMMARY function on the Main Menu and is discussed in the next section of this manual.

RACE MANAGEMENT SOFTWARE NO-LADDER UTILITY

The utility section enables drivers to be manually eliminated, provide a Buy-Back, and convert the remaining drivers into a structured race ladder. Driver's names are displayed in each column with their win/loss record. Drivers with an asterick next to their win/loss record indicates they have received a Buy Back sometime during the competition.

Some race events with very large classes use the No Ladder Pairings during the start of the eliminations round and convert over to a structured ladder once the number of remaining drivers becomes small enough to manage and use a traditional ladder pairings list. Once the number of drivers remaining is 64 or lower, click on the CONVERT TO LADDER button and the Race Ladder will be rebuilt for this class only. All Announcer's Web-pages will also be updated with the new ladder.

Click the PRINT button to print a summary of all rounds completed. The printout will indicate which drivers were eliminated and which advanced by round.

If a driver is listed in the Yet To Run column and they are unable to continue to race, they can be eliminated from the list by clicking on their name, then click on the ELIMINATE button. The screen will update moving the driver to the eliminated column.

If the Buy-Back option is used at the race event, a driver can buy back into competition at anytime, any round giving the user the flexibility to match their local rules for Buy-Back. Click on a drivers name in the eliminated column, then click on BUY-BACK. If there are no drivers listed in the Yet To Run column, the Buy-Back will place the selected driver in the next round. If there are drivers listed in the Yet To Run column when clicking on the BUY-BACK button, the driver will be moved to the current round. Care should be taken to complete a round before using the Buy-Back function to ensure the driver moves to the next round of competition.

Use the NEXT and PREVIOUS buttons

to move through each round's summary. When the NEXT button becomes grayed out, the last round of competition is being displayed for that class. Remember, the results displayed are completed results for the round indicated in the Eliminated and Completed columns. For example, if round 3 is in progress with half of the drivers having completed round 3 races, round 1 and round 2 summaries will indicate the complete list of drivers' results while round 3's summary will only indicate half the drivers, that is, only the drivers who have completed round 3. The remaining drivers to compete in round 3 are listed in round 1 and round 2 results and are listed in round 3 under the Yet To Run column. This can be confusing when reviewing a round that has not fully completed all drivers racing for that round.

RACE MANAGEMENT SOFTWARE NO-LADDER SUMMARY

To view live updating eliminations ladders with progress for each class, you can click on the NO-LADDER SUMMARY button and then click OK on the pop up window. This will take you to the XLscore RR Webpages index (Announcer's index page). Click on any of the enabled screens in order to view them. The screen index can also be accessed through the UTILITIES button from the Main Menu. From Utilities screen simply click ANNOUNCE SCREENS button. Finally, you go outside the XLSCORE RR program directly to the HTML folder and double click the INDEX. HTM file which will load your web browser with the Webpage index. Click on the No-Ladder Eliminations link.

As each elimination round progresses, the on-screen columns are updated after every race indicating the driver's win/loss record (i.e. 2-1 means two wins one loss). If a driver has received a Buy Back, an asterick will appear next to their win/loss record.

When a driver is eliminated from competition, the round they were eliminated will appear in the ELIMINATED IN ROUND column and the round number is displayed as (x) where x is the round they were eliminated.

This manual explains how to configure multiple PC's to view live race results and eliminations on screen. Go to the XLSCORE RR USING NETWORKED PC'S section of this manual for detailed information and example screen shots of networked PC's.

EXTERNAL STAGING QUEUE

The XLSTAGE RR software provides advance staging of up to five pairs of vehicles. The XLSCORE RR software uses this staging queue to provide the operator a single click load of the next two drivers in the queue during the Practice and the Qualifying rounds.

To enable the XLSCORE RR software to use the staging queue, click the EXTERNAL STAGING QUEUE box on the SYSTEM SETTINGS screen. XLSCORE RR will automatically build the Announcer's Web-pages for the staging queue.

If the XLSCORE RR software detects an existing staging queue file, the software will prompt if the current staging queue should be used or if the current staging queue entries should be discarded as shown in Figure 17.

During Practice and Qualifying rounds, the run screen removes the driver pop-up windows and replaces them with a single LOAD NEXT button as shown in Figure 18.

When ready to run the next pair of drivers in the queue, click the LOAD NEXT button.

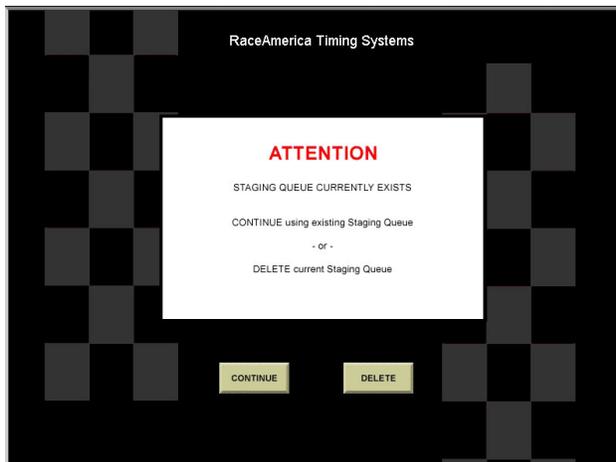


Figure 17 - Staging Queue Exists

XLSTAGE RR PROGRAM

The XLSTAGE RR software provides advance staging of up to five pairs of vehicles. If the program created a staging queue file previously, the software will prompt if the current staging queue should be used or if the current staging queue entries should be discarded.

Select the class to place into the staging queue as shown in Figure 19. The XLSTAGE RR software will display a list of drivers to choose from. When a driver is selected and placed in the queue, the XLSTAGE RR software can remove the drivers from the list or leave the drivers on the list. Click on the box to REMOVE DRIVER FROM LIST WHEN PLACED IN QUEUE. An X in this box will remove drivers names as they are queued. This is helpful when all drivers should make a run before any drivers make a second run.

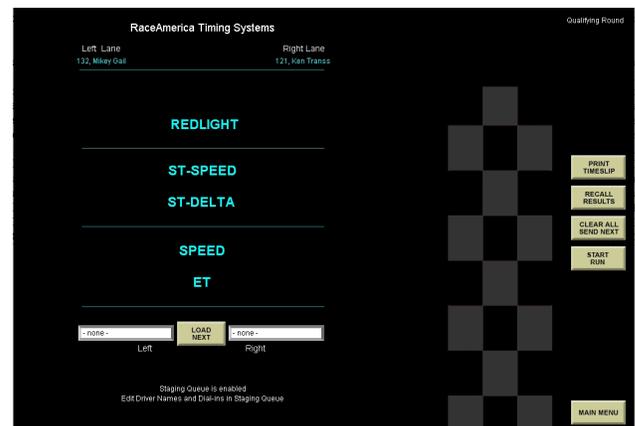


Figure 18 - Using the Staging Queue

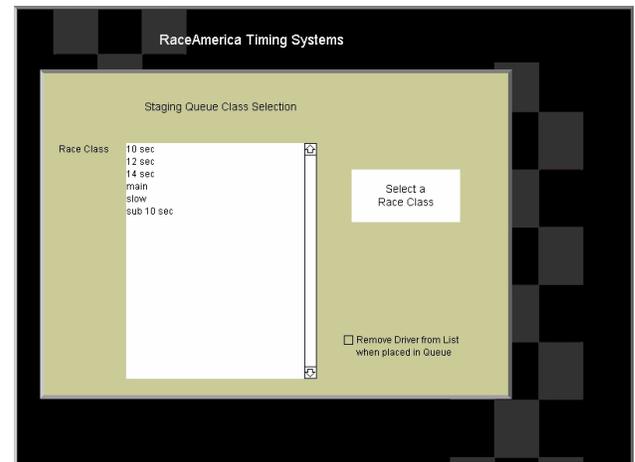


Figure 19 - Class Selection

After a class is selected, the main queue screen is displayed with the list of drivers in that class as shown in Figure 20. To queue a driver, click on the name to highlight, then click on the driver name box to add to the staging queue. When a driver is placed in the staging queue, a BYE run is automatically loaded into the other lane. To replace the BYE run with a second driver, click on a driver name, then click on the BYE. Once the queue contains as many drivers as desired, click the UPDATE button to save the stage queue for the XLSCORE RR software to use. Each time the XLSCORE RR software completes a race, the drivers at the top of the queue are removed and all other queued drivers move up in the queue. If the queue has changed due to completed races, the displayed queue will update when the UPDATE button is pressed. The staging queue is updated in the background and the updated display occurs when UPDATE or CLEAR are pressed.

To clear out one of the queued pairs, press the CLEAR button next to the queue position. Both drivers will be removed from the queue and returned to the driver's list and the queue will be updated in the event races have completed.

XLSTAGE RR allows different classes to be staged interleaved in the queue as long as both drivers are from the same class. To select a different class, click on the CHANGE CLASS button. If the option to remove drivers from the list when they are queued, the list will be kept up to date for all classes, therefore, when changing classes, the driver's list will be only the remaining

drivers who have not been queued.

When the driver's list is very long, typing the beginning characters will automatically shorten the list to only those driver names matching exactly what is typed. Backspace will remove one character at a time lengthening the list to match what has been typed as shown in Figure 21. Once the list is shortened, click on a driver name, then click on the queue position to move the driver. Once the driver is moved, the typed input is cleared and the list returns to normal.

NOTE: For Practice and Qualifying rounds, the displayed queue is not transferred to the shared staging queue file until the CLEAR or UPDATE buttons are pressed. The XLSCORE RR software will attempt to access the top of the queue to load the next pair of drivers. If driver names are available, they will be loaded otherwise '- none -' appears in their names when the top of the queue is empty.

SCOREBOARD CONTROL

RaceAmerica LED Scoreboards connected to the XL Timing System can be controlled and reconfigured to selected specific race information to be displayed during each race over-riding the DIP switch settings on each display unit.

Clicking on the SCOREBD CONTROL button on the Main Menu displays the Scoreboard Control and Configuration Screen shown in Figure 22. The items on the screen are enabled by placing

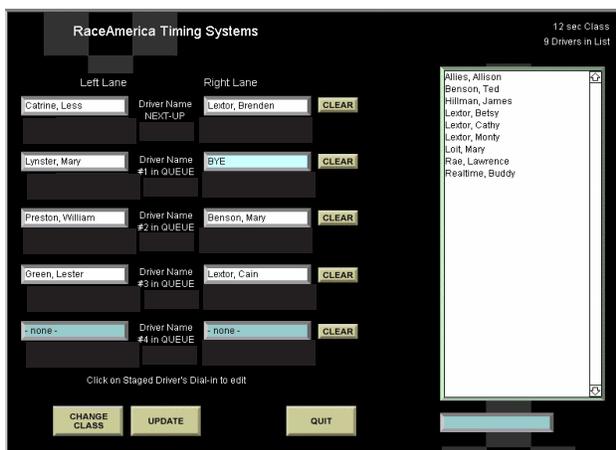


Figure 20 - The Staging Queue

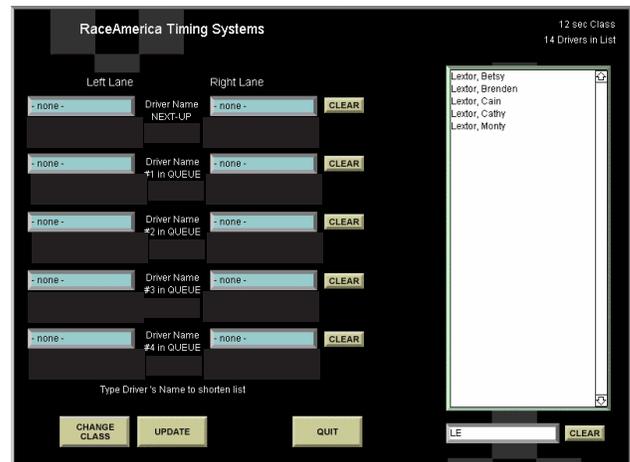


Figure 21 - Typed Name Selection

an 'X' in the appropriate box by clicking on the box or text of the feature to be enabled. To disable display of the race results on the scoreboards, remove the 'X' from the square by clicking on the box or the text.

For XL Wireless systems, scoreboard control is performed in the CONFIG functions directly from the timer and are not enabled in the scoreboard control screen.

RaceAmerica Digital Scoreboards are pre-configured with DIP switches. The XLSCORE RR software can reconfigure what will be displayed and the length of time the race results are displayed before blanking out the display. The XLSCORE RR software allows selection of 30 seconds before blanking the display or the scoreboards can be cleared when new information is sent from the XL Timing System, generally at the start of the next race.

The following settings can be enabled:

VEHICLE SPEED - displayed at the end of a race. When both ET and Speed are selected, the scoreboard displays both.

ELAPSED TIME - displayed at the end of a race. When both ET and Speed are selected, the scoreboard displays both.

Once the desired configuration settings have been selected on-screen, click the CONFIG SCOREBD button to reconfigure the scoreboards.

To display the time of day present in the PC,

click on the DISPLAY CLOCK button and the scoreboards will display the current time of day and function as a time of day clock.

During an intermission in the racing action, there may be times when it is preferred to display a countdown timer. Enter the minutes and seconds of the intermission as MM:SS and click on the DISPLAY TIMER button to display a countdown timer on the scoreboards.

XLSCORE RR USING NETWORKED COMPUTERS

XLSCORE RR can be run as a distributed program over several computers networked together using standard Peer-to-Peer network software supplied with the Windows OS and ethernet connections between computers.

Live race results, scoring, staging, driver registration information, and previous runs are available to the announcer. These screens are updated before and after each race.

The main 'host' computer is the computer connected to the timing system and would contain the XLSCORE RR software program and all files. Other computers can be used for Driver Registration, Staging Queue, and Announcer Screens for live statistics and standings, and a computer in the Pits for quick lookup of standings.

To configure the host computer to share, select the folder with the XLSCORE RR software and enable File Sharing. Once other computers are physically networked together, map a Network Drive from each computer to the shared folder on the host computer. Both the XLSCORE PRO and the XLSTAGE programs will reside only on the host computer.

ANNOUNCER'S COMPUTER

Race results can be accessed from the host computer and all networked computers with access to the HTML folder residing on the host computer. By double clicking on the INDEX.HTM file in the HTML folder, a web browser will open and display the index screen as shown in Figure 23. Some web browsers use ActiveX

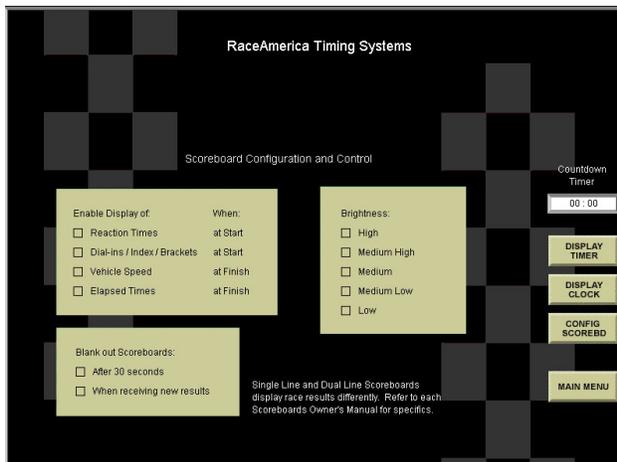


Figure 22 - Scoreboard Control Screen

Control to reduce the possibility of viruses through the web browser and provide a warning message as shown in Figure 24a. ActiveX Control must be disabled to navigate the Announcer's Web-pages. Disabling ActiveX Control and Blocked Content is simple and safe since no access to the outside web will be performed. To temporarily disable ActiveX Control for the Announcer's Web-pages only, click on the highlighted band at the top of the page, then click Allow Blocked Content as shown in Figure 24b. Repeat this process for each browser window the first time a new browser window opens.

XLSTAGE software loads drivers into the queue, the Announcer Web-page is updated. When the XLSCORE RR software pulls a driver pair from the queue and starts a race, the queue is updated by shifting the queue forward and updating the Announcer Web-pages.

If a position in the Staging Queue does not contain any driver names, '- none-' is inserted for the driver name.

If ActiveX Control is enabled, the Staging Queue will require it be turned off temporarily to display all five queue positions (Figure 24a 24b).

STAGING QUEUE COMPUTER

When the staging queue is enabled in the XLSCORE RR software, the announcer can view the next five pairs of drivers, the driver information entered into the system when they registered, and all previous validated race results during Practice, Qualifying, and Elimination rounds. To enable the Staging Queue in XLSCORE RR, click on the EXTERNAL STAGING QUEUE box located on the SYSTEM SETTINGS screen. The software will generate the staging queue files. When



Announcer's Screens

- Live Scoreboard
- Announcer Screen
- Staging Queue
- Race Ladder Eliminations (disabled)
- No-Ladder Eliminations (disabled)
- Practice Round Standings
- Qualify Round Standings

Having problems with the links above?

[Click Here](#)

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Figure 23 - Announcer's Web-pages Index

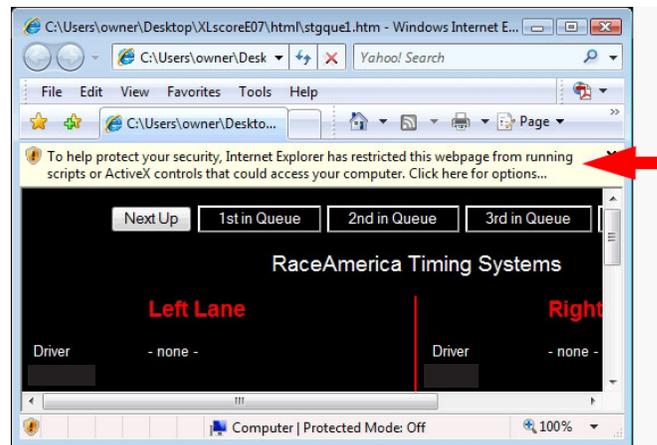


Figure 24a - ActiveX Control warning

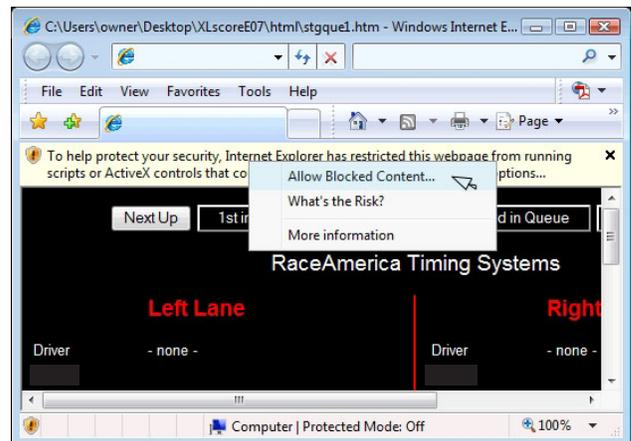


Figure 24b - Disabling ActiveX Control

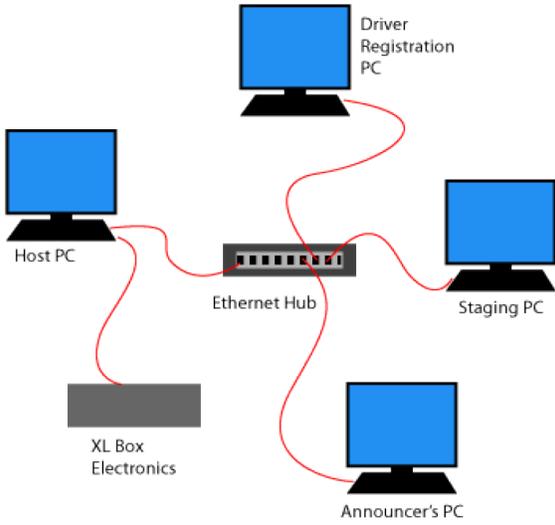


Figure 25 - Networked Computer Example

7 PRO MODIFIED | 8 PRO ELIMINATOR | 9 TOP ELIMINATOR | 10 MODIFIED ELIMINATOR | 11 STOCK ELIMINATOR | **12 RIVER RACER** | test class

[Print](#)

12 RIVER RACER -- Qualify Round

Driver	ET	Closest
1 Harrington, Paul	12.052	0.052
2 Booth, Caleb	12.186	0.077
3 Collier, Edward	11.829	0.217
4 Shepherd, Suzy	13.370	1.074
5 Alley Jr., Skully	12.703	B0.212
6 Lawrence, Tyler	12.378	B0.322

LEGEND:
R = redlight
click heading to sort standings

Classic | Junior Dragster | Modified | Modified Bike

Super Sedan | Super Street | Supercharged Outlaws

[Print](#)

Classic -- Practice Round

Driver	ET	Closest
1 2866 DONNELLY, JASON	5.225	B0.000
2 1768 DUFFY, PETER	5.567	B0.000
3 179 STEWART, MARK	5.669	B0.000
4 3849 WAGSTAFF, ANDREW	6.194	B0.000
5 6006 NAUGHTON, SUE	7.824	B0.000
6 1469 ACHILLES, ROBERT	10.288	B0.000
7 6027 WEISE, ANGELA	10.683	B0.000

LEGEND:
R = redlight
click heading to sort standings

Figure 26a - Sample Announcer Web-pages Qualifying Standings, Practice Standings

RaceAmerica Timing Systems

Left Lane	Right Lane	
121, Ken Transs	211, Greg Tressa	
by 2.104 WIN		
NO	REDLIGHT	NO
55.58	ST-SPEED	60.51
0.000	ST-DELTA	0.609
102.35	SPEED	101.89
15.143	ET	16.638
Qualifying Round		test Class

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E:\bmp\laddr13.htm - Windows Internet Explorer

10 sec 10.4 sec 12 sec Q4 12 sec

14 sec Q8 14 sec over 18.8

14 sec -- Ladder Eliminations

E:\bmp\lannounce.htm - Windows Internet Explorer

RaceAmerica Timing Systems

Left Lane	Right Lane
Driver: Bass, Olin	Driver: Talamore, Tommy
Model: Dodge	Model: Pontiac
Make: Charger	Make: Firebird
Sponsor: Able State	Sponsor: New York
City: Trent	City: New York
State: New Jersey	State: New York
Vehicle Year: 2008	Vehicle Year: 1970
Driver's Age: 42	Driver's Age: 30

Practice:	ET	Speed	Lane/Time
Qualify:	16.365	0.00	03:03P
Eliminations:	w 10.772	103.60	L 03:46P
	w 15.674	106.77	R 03:47P
	w 11.471	106.16	R 03:48P
	w 10.698	104.07	R 03:50P

Class: 14 sec w = win R = right lane
r = redlight L = left lane

E:\bmp\stgque4.htm - Windows Internet Explorer

Next Up 1st in Queue 2nd in Queue 3rd in Queue 4th in Queue

RaceAmerica Timing Systems

Left Lane	Right Lane
Driver: Polk, Thomas	Driver: Talamore, Kip
Model: Ford	Model: Pontiac
Make: Mustang	Make: G8
Sponsor: Bill's Race Supply	Sponsor: General Motors
City: Nateley	City: Cheyenne
State: Alabama	State: Wyoming
Vehicle Year: 1966	Vehicle Year: 2008
Driver's Age: 26	Driver's Age: 39

Practice:	ET	Speed	Lane/Time
Qualify:	16.400	0.00	03:03P
Eliminations:	w 12.345	106.01	R 03:45P
	w 17.569	108.23	L 03:47P
	w 14.273	100.97	R 03:48P

Class: 14 sec w = win R = right lane
r = redlight L = left lane

W:\html\elims13.htm - Windows Internet Explorer

10 sec 10.4 sec 12 sec Q4 12 sec

14 sec Q8 14 sec over 18.8

14 sec -- No Ladder Eliminations

Not Yet Run in Round 4	Advanced to Round 5	Eliminated in Round (x)
Hartford, Fredrick 3-0 Lextor, Brook 2-1 Mason, Terry 3-0 Polk, Thomas 3-0	Bass, Olin 3-1 Smith, Fred 3-1	Bass, Harry 2-2 (4) Jake, Tom 2-2 (4) Keller, Andrew 0-2 (2) Lextor, Barnie 0-2 (2) Lextor, Manny 0-2 (2) Mason, Mike 0-2 (2) Preston, Harold 1-2 (3) Talamore, Tommy 1-2 (3)

Figure 26b - Sample Announcer Web-pages (top to bottom, left to right) Live Scoreboard, Announcer Screen, Race Ladder Eliminations, Staging Queue, No Ladder Eliminations

DAT FILE COLUMN DEFINITIONS FOR SAVED RACE RESULTS

<u>Column Data Stored in .dat file</u>	<u>XLSCORE Screen Running a Race</u>			
	<u>Manual</u>	<u>Practice</u>	<u>Qualify</u>	<u>Elimination</u>
Date and Time Stamp	Y	Y	Y	Y
Class Name		Y	Y	Y
Lane Identification as LEFT or RIGHT LANE	Y	Y	Y	Y
Driver's Name as entered on PC screen	Y	Y	Y	Y
Elapsed Time	Y	Y	Y	Y
Vehicle Speed	Y	Y	Y	Y
Redlight as YES or NO	Y	Y	Y	Y
WIN or LOSE or blank text	Y	Y	Y	Y
Win Determination as blank or: by xx.xxx REDLIGHT BREAKOUT VIOLATION	Y	Y	Y	Y

COMPUTER SCREEN DEFINITIONS

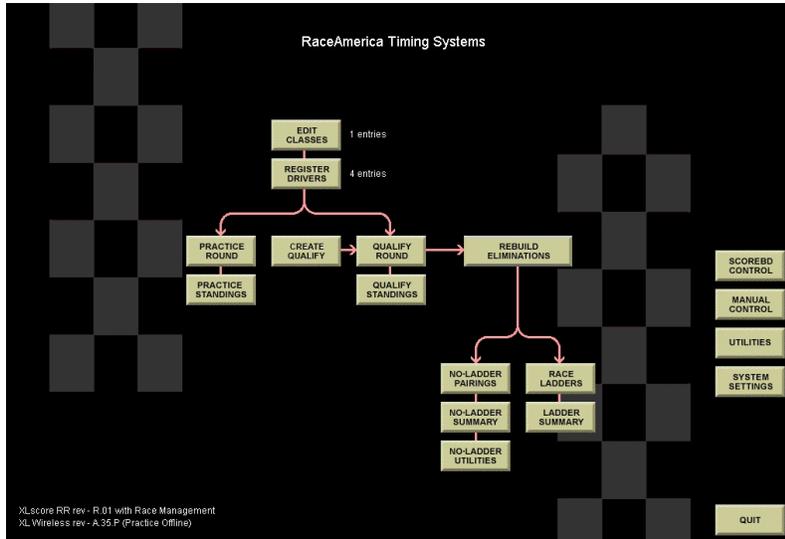


Illustration 1 - Main Menu Screen Definitions

EDIT CLASSES

create and edit race class names

REGISTER DRIVERS

driver registration by class

MANUAL CONTROL

run races with manual entry of information

PRACTICE ROUND

run races selecting from registered drivers

PRACTICE STANDINGS

generate practice standings from practice round runs

ASSIGN CLASSES

automated driver-to-class assignment based on practice runs

QUALIFY ROUND

run races building standings for ET and Speed

QUALIFY STANDINGS

generate qualifying standings from qualify round runs

BUILD ELIMINATIONS

build race ladders from qualifying runs

NO LADDER PAIRINGS

run single elimination racing by class

NO LADDER SUMMARY

instructions to review single elimination round results

NO LADDER UTILITY

provide manual elimination, buy backs, conversion to ladders

RACE LADDERS

run on-screen 64-car NHRA style race ladders

LADDER SUMMARY

instructions to display ladders by class

SCOREBD CONTROL

control what is displayed by RACEAMERICA Scoreboards

UTILITIES

various utilities to display or edit race results

SYSTEM SETTINGS

configuration settings for the XLSCORE RR and computer

QUIT

exit the XLSCORE RR software program

TIMESLIPS

The timeslip printouts vary based on the track length selected in the Setup section.

The first four lines of any timeslip can be changed to reflect the local race program information.

2700 XLscore RR
 Race Management Software
 2700rr XL Wireless
 Roll Racing

- Qualifying Round -
test

121, Ken Transs 567, Dave Kello

LEFT	WIN	by 0.023	RIGHT
YES		REDLIGHT	YES
27.36		START SPEED	19.81
0.000		ST-DELTA	0.022
49.51		VEHICLE SPEED	83.92
2.463		ELAPSED TIME	2.464

Run on 03/31/23 at 05:43:12 PM 

Roll Race by RaceAmerica
www.raceamerica.com

2700 XLscore RR
 Race Management Software
 2700rr XL Wireless
 Roll Racing

032, Ken Marks 121, Kelly Young

LEFT	by 0.047	<u>WIN</u>	RIGHT
YES		REDLIGHT	NO
45.14		START SPEED	59.47
0.016		ST-DELTA	0.000
83.21		VEHICLE SPEED	121.16
6.099		ELAPSED TIME	6.052

Run on 03/31/23 at 05:43:31 PM

Roll Race by RaceAmerica
www.raceamerica.com

Rounds Timeslip

2700 XLscore RR
 Race Management Software
 2700rr XL Wireless
 Roll Racing

LEFT	by 0.022	RIGHT
0000	WIN	CAR NUMBER
NO		REDLIGHT
48.94		START SPEED
0.000		TIME DIF
120.43		VEHICLE SPEED
8.267		ELAPSED TIME

Roll Race by RaceAmerica
www.raceamerica.com

Manual Control