

BRR-SCCA Timing & Scoring System

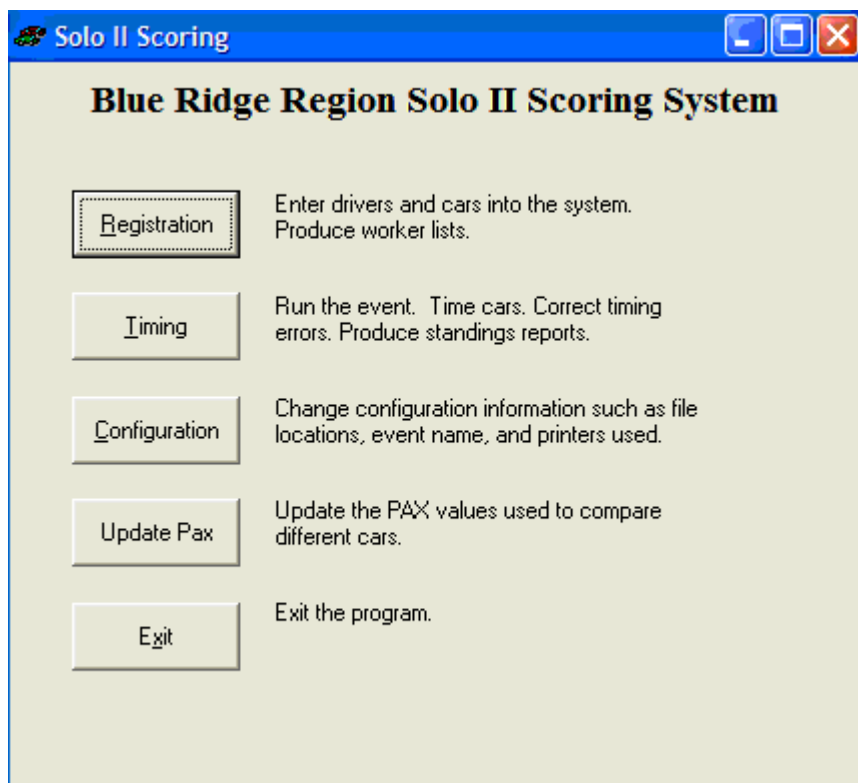
Introduction

Solo2Scoring is a scoring system for Solo II events. It is designed to track times and provide useful reports for the event. It does not attempt to provide season points, mailing list, or other club operations. It is a pure, day of the event, type operation. Only the information to run an event is captured.

The program operates on the basic theory that we have one car currently running and other cars staged or just off the line. All timing operations are made to the "current car" and the display includes all information about that car. Normally, we will have a current car and one or two staged cars. The current car completes its run and the time is sent from the timer to the program. It gets displayed on the screen. Penalty pylons can be entered anytime. Once we accept the time as correct, the entry for the current car is updated and the staged car is made the current car.

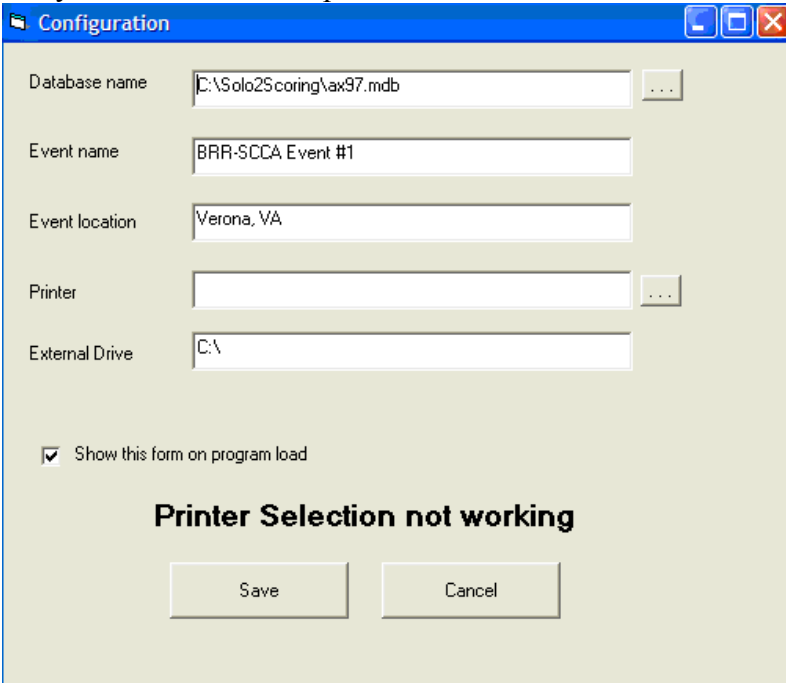
Main Menu

The main menu screen is the opening screen for the program. It has 5 selections as shown below. The Registration button takes us to the registration screen for the initial entry of contestants. The Timing button goes to the main timing form where most of the event takes place. The Configuration button displays a form for system configuration information. The Update Pax button is used once per year to enter the new pax values into the system. The Exit button quits the program.



Configuration

The configuration screen automatically opens when the program is started, assuming that you need to set the event name & location for the day. You can also click on the configuration button at any time to set various parameters as shown below:



Configuration

Database name: C:\Solo2Scoring\ax97.mdb

Event name: BRR-SCCA Event #1

Event location: Verona, VA

Printer:

External Drive: C:\

Show this form on program load

Printer Selection not working

Save Cancel

The database name setting is rarely changed. Pointing to the wrong file will cause problems. The event name and location should be changed to match the event. These print on the results and are displayed on the website. This provides proof of running for people in contingency and support programs. The external drive field is where the Import Entries looks first and where saved reports are written. It is usually set to the E:\ drive for a thumb drive. Once everything is correct, click on Save to store the results.

Registration

The registration screen is shown below. Members and regular participants can be entered into the permanent numbers table to make data entry easier. The Entrant list shows all people currently entered along with a count.

The screenshot shows the 'Entry' software interface. The 'Entry Form' on the left contains fields for Car#, Class, Driver, Car, Bump, Pax Class, and Class Group, with buttons for Perm, Add, New, and Update. The central 'Entries' list displays 26 entries, each with a car number and name. The 'Perm Numbers' list on the right shows 26 corresponding permission numbers and names. At the bottom, there are buttons for 'Workers by Class', 'Dbl Spaced List of Entries', 'Import Entries', 'Workers by Car #', 'Clear Entry Database', 'Exit', 'Show Clock', 'Edit', 'Delete', 'Entries: 104', 'Delete No Shows', 'Copy to Form', and 'Delete'.

The data entry frame is where all the work takes place. Typically, only 4 pieces of information are needed: Car number, Car class, Driver, and Car description. The other items are generated automatically. The tab stops more through the fields in that order, ending on the add button. A good typist can enter people in a very short time. All fields are automatically converted to upper case. The normal entry sequence is: number class name car Once is pressed, the entrant is added to the database and the form is cleared to accept the next entrant. The combination of car number and class must be unique. The program supports duplicate car numbers in different classes but all numbers within a class must be different. Suffixing a class with N will put that person in the Novice class, suffixing a L will put that person in Ladies, and adding a T will place the driver in the Street Tire class.

Three items require explanation, Bump, Pax and Group. The Bump is the class that the car is to be bumped into. In most case, it is the same as the entered class. The Paxed classes will show the Pax class name here: LAD, NOV, TIRE. If bumping is used on single car classes, this can be changed later once all the bumps are determined.

Pax is the class that is used to calculate pax times. It must be one of the primary classes. A driver could be entered in CSN (C-Stock Novice), have a bump class of NOV, and the pax class would be CS.

The group is used for sorting classes together. It keeps all Mods in one group, Prepared in another, SP in a third, Stock in the fourth, ST and SM in the fifth, and NOV, TIRE, and LAD in the sixth. The following table shows which classes go with which groups.

Group	Classes
A	AM, BM, CM., DM, EM
B	AP, BP, CP, DP, EP, FP, XP
C	ASP, BSP, CSP, DSP, ESP, FSP
D	SS, AS, BS, CS, DS, ES, FS, GS, HS
E	ST, STS, STR, STU, STX, SM, SMF, SSM, Formula
F	NOV, LAD, TIRE

When the class information on the entry form is changed the correct group is entered automatically.

Double clicking on an entry in the entrant list displays it in the entry form where it can be changed and then updated. The car number and class cannot be changed. If necessary to change the car number and class, make the change to the entry and add it as a new entry and then delete the old entry (shown below).

Selecting an entry (single click) in the entrant list and clicking on Delete Entrant pops up a message box confirming that you want to delete that entrant. Click OK to delete them. Once deleted, entrants cannot be recovered. They must be re-entered.

At the bottom of the form are three buttons for reports of entrants. These are useful for checking off workers. Depending on run order, the list can be sorted by class or number. The third list, double spaced, is used for providing a paper backup of run times. A worker position is assigned the task of recording times on this sheet. In the event of a computer malfunction or power outage, this will provide a backup of times. It also provides an audit trail.

Used only once at the start of the day is the Clear Entry Database button. This deletes all drivers from the database so we can start entering data. There are multiple confirmation prompts to verify that you want to clear the entries.

Entries can be imported from an external file. We have a special report defined on MotorSportsReg.Com that generates a file in the proper format. The usual method is to download the entries to a thumb drive the day before the event. At the event, startup the program and click on the Import button. Browse to the file on the thumb drive and click Open. All valid entries in the file will be imported. Invalid entries will be skipped. This includes cars without a valid number or class. Once the entries are imported walkups can be entered as described above.

The Show Clock button sends the current time to the RaceAmerica display. This gives people a good reference as to how long until the driver's meeting.

Once all drivers are entered and reports printed, click on Exit to return to the main menu.

Timing

Click on the timing button to open the timing and announcer screens. The announcer screen must be moved over to the announcer's monitor. The primary timing screen stays on the laptop. The timing screen is where all the work takes place during the event. It is shown below. It is divided into 7 frames: Current Car, Last Car, Staged Car, Driver List, Timer, Reports, and Commands. While complex, most of the work only involves two frames: Staged car and Timer. Note that a number of buttons have keyboard shortcuts. Most timing operations can be accomplished without using the mouse.

The screenshot shows the 'Timing' software interface with the following sections:

- Last Car:** Fields for # (15), Class (EST), Time (63.639), Pyl (2), Name (GLEN THOMPSON), and Car (1991 MAZDA MIATA). Includes 'Add Cone' and 'Sub Cone' buttons.
- Current Car:** Fields for Car # (95), Class (CSP), Driver (LYNN COMBS), and Car (1999 MAZDA MIATA). Includes an 'Unlock' button.
- Staged:** A list of staged cars: 90 STS SCOTT KRZASTEK 1990 MAZDA MIATA and 42 DS RAY SCHUMIN MIATA. Includes 'Top to Current', 'Clear List', and 'Delete Car' buttons.
- Timer:** Fields for Time and Pylons, with 'Accept', 'Reject', 'DNE', and 'Reset Timer' buttons. Includes checkboxes for 'Fun Runs' and 'Log printer'.
- Reports:** A grid of buttons: 'By Class', 'Raw Times', 'View Class', 'Write to File', 'Audit Results', 'Announcer', 'Overall', 'Pax Overall', 'Log Top 10', 'Show Clock', 'Quick Stats', and 'Exit'.
- Bottom Status:** Shows 'Position 3 of 4', 'FTD 51.61 MARTIN KRIZ', and 'FPD 45.26 MARTIN KRIZ'.
- Right Panel:** 'Stage a Car' section with fields for #, Class, Name, and Car, and buttons for 'Stage', 'To Current', 'Move Next', and 'Move Prev'. Below is a scrollable list of drivers and cars, with '42 DS RAY SCHUMIN - MIATA' selected.

To start running, a car must be made current. There are a number of methods to accomplish this. We can select a driver from the Driver List and click on the Make Current button or we can stage the car and then click on the To Current button in the staged car frame.

Staging a car

To stage a car, press <alt> G or click on the Stage button. This clears out any information in the frame and puts the cursor in the car number field. Typing in a car number and pressing return will display the first car in the database that has that number. If the car numbers are unique (often the situation) that car will be displayed and nothing else is required. If multiple cars have the same number, clicking on the Next car button or pressing <alt>N will get the next car.

Pressing <alt>V will move to the previous car. The entire database can be navigated using the <alt>N and <alt>V keys.

If car numbers are not unique, the entry sequence becomes car# Class

To move a staged car to the current car frame without doing anything with the current car information, press <alt>C or click on the To Current button.

After is pressed in the car number or class fields, the closest matching entry is found in the database. Focus then moves to the “Move Car to Staged List” button. Pressing or clicking on this button moves the entry to the staged car list. This is a first in/first out queue. If the event operations allow, many cars can be staged. If a car has to be skipped, it can be removed from the list with the Delete Car button.

Below the stage car frame is a list of all cars entered in the event. Cars can be selected from this list and moved to the staged list or current car. It’s often used to fix problems during a break. If an entry needs to be added, clicking on the Add Driver button brings up the registration screen to enable entry of a new car.

Current car

The current car frame contains all information about the car that is in the database. Any of the data can be changed here. To change the car number or class the Unlock button must be clicked to allow the fields to be changed. If any information is changed, the Update Info button must be pressed to save it to the database.

In normal operations, little, if any, information will be changed directly on the Current Car frame. It is only used to correct errors.

The Best Time and Pax Time fields are calculated automatically when the record is saved to the database. These fields should not be changed.

Last Car

The Last Car frame shows the information for the last three cars that ran. It’s useful to keep it on the screen in case someone points out a possible discrepancy like pylon count or time and the announcer can use this information. Clicking on the Back button will return the car to the current car frame for corrections and roll the current car back to the staged car frame. Changes can be made and then Update Info clicked, followed by Next to return things as they were.

If a late cone count comes in, the Add Cone, Sub Cone buttons can be used to adjust the cones for the last driver without having to backup the records.

Timer

The Timer frame shows the run time received from the timer (or entered by the user) and the pylon count entered by the user. Entering a pylon count of 99 is scored as a DNF (Did Not

Finish or off course). The + - * / keys on the numeric pad can be used to enter pylons for the current driver. + adds one cone, - subtracts a cone, * enters 99 cones, and / resets the pylon count back to 0.

Once a time is available for the current car and the pylon count entered, click on the Accept button or press <alt>A to save the time and move to the next car. The top staged car will be made current, the old current car will move to the top of the last cars and the cursor will move to the Staged car number field.

The Log printer checkbox enables the receipt printer. It prints run details for a run after the Accept button is clicked. The Fun Run Mode checkbox enables the log printer to print out just the times as they are sent to the computer. This enables the timing person to work on results while fun runs are going on and still have a record of fun run times.

Normal operation

Following the following sequence minimizes the keystrokes and mouse movements of the operator.

1. Press <alt>G to stage a car
2. Type in car number and press
3. Verify car and press <alt>C to make it current
4. Press <alt>G to stage next car
5. Type in car number and press
6. Wait for current car to finish run.
7. Enter pylon count at anytime.
8. Once time and pylon count is entered press <alt>A to accept
9. Go to step 5.

As additional cars come to the line, only steps 5 through 9 need to be done.

Reports

Four printed reports are available. Best times can be sorted by Class, Overall, or Pax overall. Individual times can be displayed in class order. These reports are sent to the default Windows printer.

Printing can be done at almost anytime without affecting the operation of the event. On most computers it only requires a second or two to spool the report to Windows. The only caution is that a report should not be started just as a car is nearing the finish line.

Selecting the Write to File button will send the equivalent reports to disk files. These can then be used by other programs, or uploaded to the web site. A HTML table is also generated for including into a web page. This allows results to be posted almost immediately.

All disk output is written to the folder specified in the configuration screen.

The Log Top 10 button prints the top 10 raw and pax times on the receipt printer. This can be handy for the announcer to have.

Also displayed in the Reports frame is the fastest time of the day (FTD), fastest pax of the day, and the current car's position in class.

The View Class button pops up a window with the current class standings of the current car. It shows all the cars in the class in order, along with the fastest time of the day and the fastest pax of the day. Handy for the announcer.

The Show Clock simply displays the current time on the big display.

The Audit Results brings up the screen shown below that allows various data checks to be performed. Cars with no runs can be displayed and deleted from the event. Cars that have too many or too few runs can be shown. This is very helpful in the case of two driver cars that forget to change their numbers. Any car that had its results manually changed can be displayed.

The screenshot shows a window titled 'Form1' with a table of race results. The table has columns for Count, Car #, Class, Driver, Description, Run 1, Run 2, Run 3, Run 4, Run 5, and Run 6. Below the table are several control buttons: 'Print Table', 'Run Discrepancies', a 'Runs' input field with the value '4', 'Manual Changes', 'Display No Shows', 'Delete No Shows', and 'Exit'.

Count	Car #	Class	Driver	Description	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6
1	3	SM	MARSHALL MURPHY	95 NISSAN SKYLINE	45.662(99)	78.136(99)	0(0)	0(0)	0(0)	0(0)
2	88	DSP	CHRIS COKE	SPEC MIATA	38.121(0)	35.394(0)	33.718(0)	0(0)	0(0)	0(0)
3	113	CSP	SETH MOYER	NEON SRT	39.576(0)	37.409(0)	36.145(0)	0(0)	0(0)	0(0)
4	115	ESP	DALE BLANKENSH	77 CHEVROLET Z28 BLACK	47.923(99)	0(0)	0(0)	0(0)	0(0)	0(0)
5	130	ASP	CHRIS BISHOP	NISSAN SKYLINE	35.797(1)	0(0)	0(0)	0(0)	0(0)	0(0)
6	241	ESP	CHRIS MOODY	89 SHO	33.105(0)	99.999(0)	31.754(0)	31.654(0)	31.378(0)	0(0)

In our example, we displayed the cars that didn't have 4 runs entered. The Skyline and the Z28 both had mechanical problems and had to quit. The SHO had one run entered wrong and it was easier to make it a large number than to correct the whole list.

The Help button isn't implemented yet.

The Exit button returns to the main menu screen.

Announcer Screen

The attached monitor can display an announcer's screen that provides additional information about the current car, the next car to run, and the car that just completed a run. The screen is shown below. On program startup this screen will not be in the proper position. To move it, click on the announcer tab on the Windows taskbar to bring it to the front. Grab the title bar and drag it over to the announcer's display. Click on the maximize button to fill the screen.

Announcer ☐ ☐ ☒

Previous Driver				Current Driver				Next Driver			
15		GLEN THOMPSON		95		LYNN COMBS		90		SCOTT KRZASTEK	
EST		1991 MAZDA MIATA		CSP		1999 MAZDA MIATA		STS		1990 MAZDA MIATA	
Run	Time	Pylons		Run	Time	Pylons		Run	Time	Pylons	
Run 1	79.662	1	Best Time 61.238	Run 1	62.602	0	Best Time 57.777	Run 1	58.147	0	Best Time 57.854
Run 2	61.745	1	Best Pax 50.766	Run 2	61.124	0	Best Pax 49.862	Run 2	57.854	0	Best Pax 47.787
Run 3	61.238	0	Pax Position 42	Run 3	58.341	0	Pax Position 32	Run 3	58.027	0	Pax Position 10
Run 4	61.386	0	Overall Position 50	Run 4	57.777	0	Overall Position 18	Run 4	57.237	1	Overall Position 21
Run 5	63.639	2	Class Position 3	Run 5	0	0	Class Position 3	Run 5	0	0	Class Position 2
Run 6	0	0		Run 6	0	0		Run 6	0	0	
Delta from 1st in class			2.460	Delta from 1st in class			2.225	Delta from 1st in class			0.490
Delta from Top Pax			5.503	Delta from Top Pax			4.599	Delta from Top Pax			2.524
Delta from FTD			9.627	Delta from FTD			6.166	Delta from FTD			6.243

Overall

Fastest Time of Day 22 SM MARTIN KRIZ 2006 SUBARU WRX STI **51.611**

Fastest Pax of Day 22 SM MARTIN KRIZ 2006 SUBARU WRX STI **45.263**

Last Run Info

Timer: Pylons:

Fixing common problems

As with any activity, occasional problems come up. Here are the most common ones and how to handle them.

Driver on line not in entries

Quickly get correct information then click on Add Driver to bring the registration screen back up. Enter the information and Add them to the event. Click on Exit to return to the timing screen. Click on Refresh on the Drivers window and the person should now show up. To minimize delays when you know the car number, it's faster to just enter Unknown for the driver name and a short entry for the car description like BMW.

Driver information not correct

If a driver was entered in the wrong class or wants to be in Novice after being entered in the regular class, the information on the Current Driver screen can be changed. To move someone to Novice, all that's required is to change the Bump class to NOV and change the Group to F. If it's necessary to change their number or class, click on the Unlock button and make the changes. After making ANY changes, click on the Save Chgs button to save them.

If someone is in the wrong class, i.e. ES when their modifications put them in CSP, it may be easier to change the bump and pax classes than to change their actual class. Since they may have the wrong class already taped on the car, just change the bump and Pax to CSP, change the group to B and save the changes.

Additional pylon or O/C call comes in after time accepted

If it is just the last car, click on Add Cone to add a cone. If it's two cars back, click on the Back button two or three times to move the run back to current. Make any changes necessary. If off course, number of pylons should be set to 99. Click on Save Chgs and then Next to get the car back in the correct place.

Two driver car gets numbers confused

Since the drivers messed up, it's up to them to figure out which runs belong to which driver. They should then let you know the correct times. It's then a matter of manually entering the correct times. If class position is all that matters, only the fastest run has to be correct.

Timer mishaps

The most common timer problems are inadvertent timer trips and low batteries. The timer sensors are sensitive to windblown debris. A leaf blowing close to either the emitter or sensor can cause a false start or finish. A worker walking through the lights is a common problem. If the finish lights get tripped accidentally, press the Continue button on the timer keypad (shown below) to resume timing. The timer maintains the current timing information even after a finish trip. If the start light gets tripped by accident, allow enough time before starting the next car. Allow the current car to finish, record its time then press the manual stop button on the timer keypad. Ignore the time received and wait for the next car to finish normally.



Low batteries will cause inadvertent timer starts and finishes. These will occur at a much faster rate than debris blowing through the sensor. If this starts happening, replace the batteries.

If the large display starts behaving erratically it usually indicates that the auto batteries powering the system are not providing enough voltage. The charger may not be working or the battery has a problem.