



GPS-Based Road Rally Update

Rich Bireta, January 28, 2022

Agenda

- An Introduction to the System
- 2021 Year in Review
- Recent News
 - Web Site Update - Documentation Page
 - “Handling Common Issues” documentation
 - Backup Devices
- New Function in 2022, Release Schedule
- Q&A
 - Get your questions ready!
- Using Backup Devices
- Meaning of Competitor app being “Ready”

Identify the Location





An introduction to the system

- The Richta GPS Timing and Scoring System provides real time scoring for road rallies, reports scores to the entrants on their phone and automatically transmits scores to the rally organizers.
- See 2021 convention presentations for an introductory presentation and an advanced topics presentation
- Available at “2021 Virtual Convention Schedule Released” and also at my.scca.com, My Learning, SCCA Convention
 - <https://www.scca.com/articles/2014621-2021-virtual-convention-schedule-released>
 - Introduction to GPS-Based Road Rally
 - Advanced GPS Road Rally

2021 Year in Review

- Use of Richta GPS Timing and Scoring Grows
 - 100 Events, up from 58 in 2020, 16 in 2019
 - 100,000th timeslip created
 - Adoption by Porsche Club of America
 - Adoption by Ranier Auto Sport Club, Nor'wester, 2022 Alcan 5000
 - 35 40 events already in system for 2022
- Successful use of "Flying Start - Round Up" and "Flying Start - Truncate" Restart Checkpoints in course rallies
 - Keeps rallies with off course loops moving at competitors' pace

Recent News

- Web Site Update (<https://www.richtarally.com/>)
 - Documentation page contains list of current releases, links to documentation
- “Handling Common Issues” documentation
 - “Using Backup Devices” included in above
- GPS Checkpoints: Getting Started
 - Essential information for rallymasters using the system for the first time.
 - Link is accessed by clicking “New rallymasters putting together their first event [should be familiar with this presentation.](#)”
- Also Facebook Group: Richta GPS Checkpoints

Richta Rally

News Apps Documentation

Richta GPS Checkpoints

Are you ready to road rally?

Download the Competitor app

GET IT ON Google Play

Download on the App Store

Lakeside Loop - Car #18

Rally Clock 20:08:20

Score 0

GPS Accuracy 5 meters

Time Allowance 00:00

TA- TA+

Completed Checkpoints

CP	In Time	Difference	Score
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ELR 2 CRV3 the start.jpg

Type here to search

20°F Partly sunny 8:32 AM 1/28/2022



Web Site

Current Releases an x Google Calendar - x Log in | SilverSneak x 2022 SCCA Nationa x IBM \$132.52 (▼1.2% x PezHead/richta-we x

← → ↻ richtarally.com/apps/docs.html

Apps + Personal Bookmarks Find My Device Andrew Come Road Rally W... Other bookmarks Reading list

Rallymaster:

- iOS - 1.13.2
- Android - 1.31

Scoreboard:

- iOS - 1.2
- Android - 19

New to the system? Review a [basic introduction to the system](#).

Looking for instruction on how to use the Competitor app? See [these instructions from the Detroit Region SCCA](#).

New rallymasters putting together their first event should be familiar with this presentation.

Ready for an advanced discussion? See [this advanced discussion](#) from the 2021 SCCA National Convention.

Introductory documentation is available [here](#).

Documentation on how to handle unusual situations is available [here](#).

ELR 2 CRV3 the start.jpg Show all x

Type here to search 20°F Partly sunny 8:34 AM 1/28/2022

New Function in 2022

- Competitor
 - One release planned for 2022 (1.22)
 - Voice announcement of your score as you pass checkpoints
 - Several other less visible enhancements and bug fixes

- Rallymaster
 - Released as function is available throughout year
 - e.g. Support for using timeslips from backup device

- Under Investigation: Optional bearing for checkpoints
 - You must pass CP in this direction

Example New Function in 2022

→ Rallymaster – Target Date: February 6

- (Apple)
 - Export Scores – Match Android-generated format
 - Allow setting share_timeslips to be set (keeps scores secret)
 - Full critique message not visible on phones (bug)
- (Both)
 - Validate Event – flag duplicate checkpoint locations

→ Competitor – Target Date: February 15

- Text-to-Speech – Announce score after passing checkpoint
 - “Early 2.2”, “Late 7”, “Zero”, “Restart”
 - (Apple) Split Rally Clock
 - Fractional CZT Restart time recorded (bug)



Question and answer

Questions?

Backup topic: Using backup devices

- As more events use this system, failure of phone/tablet becomes more critical
 - Interestingly, has not had to be used to date
 - More common, entrant forgetting to turn phone on after break, missing restart CP
- Several requests, underground use of a second device as backup
- Added support and recommendations for backup devices

Backup topic: Using backup devices

→ Recommended Use:

- Register backup device as primary device number + 100
 - Car #7 registers backup device as car #107
- DO NOT REGISTER BACKUP DEVICE AS SAME CAR NUMBER
 - Both devices will register checkpoint times and scores, update unpredictable
- If primary device fails:
 - (Android) Rallymaster app: Replace Missing Timeslips
 - Enter car numbers of primary and backup devices
 - App will show timeslips missing from primary and those available on backup
 - "Replace" button will copy timing data from backup to primary timeslips
 - Rallymaster may need to rescore new timeslips with Edit Timeslips
 - Out time will be that of the backup device, any TA may be missing.
 - Avoids temptation to cherry pick scores from backup devices

Replace Missing Timeslips

Advanced Menu - Ver 1.32c

Alfabert Rally

- Broadcast Message
- Add Missing Timeslips
- Edit Timeslips
- Show Short TAs
- Delete Leg
- Timestamp Converter
- Export Event
- Export Arrival Times
- Back

Add Missing Timeslips:

Alfabert Rally

Car number: 12

Car number of backup device: 5

Back Go

Add Missing Timeslips

Event Name: Alfabert Rally

Back Add Missing Timeslips

Car Number: 12
Backup Car Number: 5

Missing Timeslips:
2, 9, 10, 11,

Available on backup device:
2, 9, 10, 11,

Rescore these timeslips:

Replace Missing Timeslips

Add Missing Timeslips

Event Name: Alfabert Rally

[Back](#)

Car Number: 12

Backup Car Number: 5

Missing Timeslips:

Available on backup device:

Rescore these timeslips:

2, 9, 10, 11,

Go to Edit Timeslips and rescore replaced timeslips if necessary

Edit Timeslips:

Alfabert Rally

Checkpoint number: 10

Timed from previous checkpoint

Car number: 12

Prev Out Time: 17 : 29 : 37 . 291

Ideal Leg Time: 00:00:10.000

TA Time: 00 : 00 : 00 . 000

Due: 17:29:47.291

In Time: 17 : 29 : 54 . 082

Difference: 00:00:06.791

Penalty: 6.7 Late

[Prev Leg](#)

[Next Leg](#)

[Rescore](#)

Backup topic: Who's Not Ready?

→ Background:

- Early on recognized need for event organizers to verify all entrants are ready to go with the apps at a glance. Registered in Competitor, data downloaded, etc...
- To satisfy this created "Who's Not Ready?" screen, now shown on "Cars"
 - Competitor app is "ready" if all data downloaded.
- A few entrants forgot to turn on their Locations Services, needed an automated way to alert the organizers to this

Backup topic: Who's Not Ready?

- Detecting lack of Location Services – first implementation
 - Uses fact that Competitor app reports its location regularly, 5x/minute
 - Cars (Android) Reports “Ready” if data loaded, green background if a GPS location has been reported by that competitor recently

- Detecting lack of Location Services – future
 - Android
 - “Ready” and green background if data loaded, Location Services is on
 - “Data” and / or “GPS” and red background if there is a problem
 - Apple
 - Slightly different screen layout showing nature of the problem, data not loaded or Location Services off.

Backup topic: Who's Not Ready?

→ Current Android Cars screen

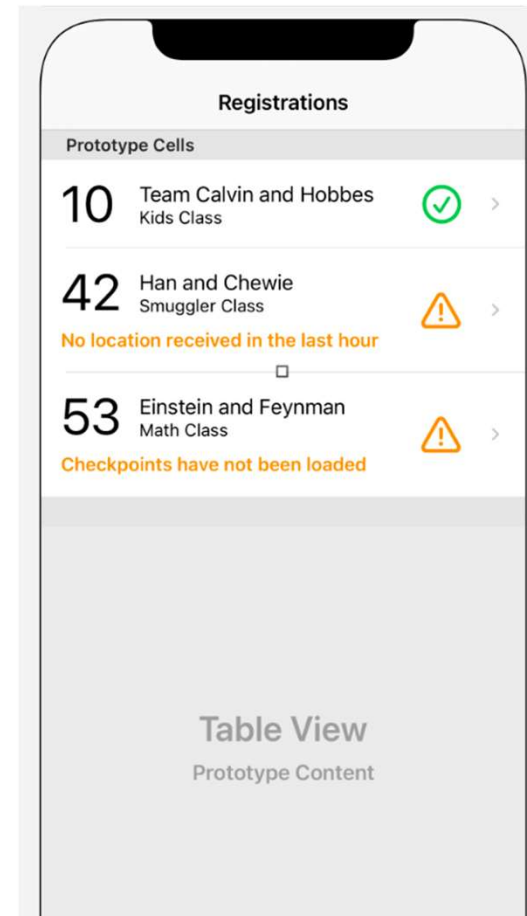
Cars				
Alfabert Rally				
Num CPs: 20 Num Cars: 50				
Car	Class	Team	Ver	Ready?
1	A	Bireta/Weaver	1.22d	Ready
2	A		1.22c	Ready
3	B		1.19	Ready
4	B		1.19	Ready
5			1.19	Ready
6			1.19.1	Ready
7			1.19	Ready
8			1.19.1	Ready
9			1.20	Ready
10			1.22d	Ready
11			1.19k	Ready
12			1.20a	Ready
13	-	-	-	-
14	-	-	-	-
15			1.22d	Ready
16			1.22d	Ready
17	-	-	-	-
18	-	-	-	-
19	-	-	-	-
20	-	-	-	-
21			1.22e	Ready
22	-	-	-	-
23	-	-	-	-

Backup topic: Who's Not Ready?

Proposed screen from iOS

Rallymaster showing:

- Car 10 is ready to go
- Car 42 does not have their Location Services turned on
- Car 53 has not downloaded the rally data.





Question and answer

Questions?

Please give us feedback!

Please rate this session on the Whova app!

Additional Questions or Feedback?

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