



WHEN THINGS GO WRONG: HANDLING UNUSUAL SITUATIONS IN RICHTA GPS CHECKPOINTS

Rich Bireta, July 28, 2022

- With over 260 events in three years and over 150,000 timeslips generated, several situations have occurred where everything did not go according to plan.
- This presentation serves as a guide for how to handle these situations.
- These charts can be downloaded from [www. Richtarally.com](http://www.Richtarally.com), Documentation page.
 - “Documentation on how to handle unusual situations is available [here.](#)”
- Thanks to John Fishbeck, Detroit Region, for his suggestions regarding this material, and Jim Crittenden for moderating chat.

BUT FIRST ...

- New releases of Competitor and Rallymaster, Android and iOS released in July 2022 added support for DSCPs – Directionally Sensitive Checkpoints.
- Optional. Allows direction-of-travel to be specified on CPs. Competitor must be travelling in that direction (+/- 45 deg) in order for the CP to be detected.
- Used: Rarely. When course doubles back or comes too close to a later section of road, or reuses the same road in the opposite direction. May replace the need for CP open and close times in many situations.



THANK YOU ...

- ... for 265+ events
 - ... run by over 3,700 entrants,
 - ... through 9,000 checkpoints,
 - ... generating over 150,000 time slips.
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- Thank for trying this system and adopting it for the timing and scoring of your road rally events.

High Water Marks:

102 entrants (2022 Pittsburgh charity rally)

175 CPs (Press On Regardless 2021)

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DISCARDING A LEG

→ Situation:

- It is occasionally necessary to discard a leg from being included in the scores for an event. This could be due to misplacing a CP, excessive delays during the event or, in a trap rally, a logic error in constructing the trap.

→ Solution:

- Rallymaster app: select Discard Leg function. This will set the score in all timeslips to 0.

→ Note:

- Discarding can be undone by rescoring a leg.

INCORRECT IDEAL LEG TIME

→ Situation:

- Sometimes an error is made in calculating the ideal leg time.

→ Solution:

- Enter the correct ideal leg time in Rallymaster. Select Rescore Leg function. This will rescore all timeslips in the database for that leg only.

→ Note:

- This operation may have to be repeated if any cars pass the checkpoint after the rescore operation.

COMPETITOR DEVICE FAILURE

→ Situation:

- As more events use this system, failure of phone/tablet becomes more critical

→ Solution:

- Added support and recommendations for backup devices
- See next page for a recommended procedure.

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, surviving 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

GENERAL ISSUES WITH COMPETITOR APP

→ Situation:

- Some issue about the operation of the Competitor app arises and needs to be investigated.

→ Solution:

- The app records significant events in a debug log which can be sent for review via email. Review the device's debug log and contact me if additional assistance is needed.
- Events recorded include app startup, checkpoint approach and detection, etc...
- Android (Send Debug Log), iOS (Send Device Log)

MISSING RESTART TIMESLIP

→ Situation:

- Entrants have missed Restart CPs due to failing to restart the Competitor app after a break. Subsequent checkpoints receive a max score.

→ Solution:

- Use the Edit Timeslip function in Rallymaster to create a timeslip for the missed CP and rescore the legs.
- The app will show “Timeslip not found” when displaying the timeslip.
- Add the correct In Time for the missing CP, press Rescore and Save
- Rescore checkpoints which are timed from this restart using Edit Timeslips.

ADJUSTING A SCORE

→ Situation:

- An entrant failed to take a time allowance, or the incorrect TA was entered for one of several reasons. The rallymaster needs to adjust that entrants score for the leg.

→ Solution:

- The Competitor app provides no ability to alter a timeslip.
- Use Rallymaster app, Edit Timeslip to change the timeslip.
- The Out Time, TA Time and In Time can be changed and the timeslip Rescored and Saved. You must press Save to retain the changes.



EVENT DELAYED FOR ALL ENTRANTS

→ Situation:

- An unforeseen event causes entrants to be delayed and some or all are not able to get to CZT Restarts on time.

→ Solution:

- An Emergency Broadcast Message can be sent to all entrants (with data coverage at their current location).
- Correct the scores at the end of the event. Change the CZT Restart time to the adjusted time and Rescore Leg for all checkpoints which are timed from there.

→ Note:

- Rescore Leg may need to be re-run if additional cars pass the checkpoint.

PRE-CHECK CONDUCTED AT DIFFERENT TOD

→ Situation:

- The time of day for the event pre-check needs to be different than the CZT Restart times for the event.

→ Solution:

- No need to change CZTs.
- Event Setting, Precheck Offset: Number of minutes to add to each CZT. May be negative to run pre-check earlier than the event.

→ Notes:

- Set Pre-check Offset to 0 prior to event.
- Precheck Offset, if any, is shown on Competitor app screen.
- Pre-check not zero is called out as error in Validity Report.

SECTIONS NEED TO RUN OUT OF ORDER

→ Situation:

- A day-of-event situation requires the sections of the rally to run in an order differently than planned. (Example: a bike race is discovered to use the same roads as Section 2. Need to run rally in this order: Sections 1, 3, 4, 2 and 5.)

→ Solution:

- Adjust CZT Restart times.
- Each entrant must stop the Competitor app and restart Competitor while in an area with data coverage or connected to Wi-Fi.
- (Or, use Edit Timeslips to change the leg start time for all timeslips and rescore.)

→ Notes:

- Android: Exit app and restart it
- Apple: Double-click button, force stop app by flicking off screen.
- Or, power-cycle phone (i.e. turn it off and back on again).
- Must be in area of data coverage for this to work!

CHECKPOINT DETECTED EARLY

→ Situation:

- On a two-day event, checkpoints from day #2 were detected during day #1.

→ Solution:

- Contact the developer and request that the day #2 timeslip(s) be deleted. Restart the Competitor apps to force the timeslips to be read again.

→ Notes:

- See "Sections run out of order" for app restart process.



LOCATION SERVICES NOT ENABLED

→ Situation:

- Entrants fail to enable Location Services (i.e. fail to turn on GPS) before the event. This causes failure in detecting checkpoints.

→ Solution:

- Organizer visually inspect phones at start of rally.
- Rallymaster app Cars screen shows "Ready" (data is loaded) with green background if a GPS location has been reported recently by that phone.

→ Notes:

- Enhancements made in July 2022 to Cars screen to explicitly call out reason for not being ready.

ICONS REPRESENTING CARS NOT ADVANCING ON MAP

→ Situation

- On Map, icons representing cars do not advance several times a minute. Cars appear to be bunched in a particular location. Eventually the icons are seen to advance along the rally route.

→ Solution:

- This is not a problem. The rally route has likely entered a dead zone with respect to data coverage. When a car gets back into a data coverage area the location updates will flow and the car will be seen to be advancing down the route.

EVENT DOES NOT SHOW UP IN COMPETITOR APP

→ Situation

- A rally has been entered and validated, but the event does not show up on the list of rallies in the Competitor app.

→ Solution:

- An event shows up on the list of available events in Competitor if the event setting has marked the event as "open". A setting of "open" means it can be selected by Competitors and entered. If the event is not open, it won't show up on the list in Competitor.

ENTRANTS CAN NOT EDIT THEIR ENTRY DETAILS

→ Situation

- Once they complete the self-registration process, entrants can not get back to the registration screen to edit their team name, class, phone, email, etc...

→ Solution:

- Known requirement, will be address with a Competitor app update.
- Original design goal was to be able to quickly restart Competitor in the event it is closed. No prompts are required once registration is completed. No event, car number or password required on app restart.

CRITIQUE SLIPS – INVALID CHARACTERS

→ Situation

- Some characters typed in on critique slip are replaced with X's when saved.

→ Solution:

- Avoid these special characters in critique slips:

, ^ & - %

- These special characters cause errors in event export (backup/archive format)



A RALLY THAT CAN BE RUN AT ANY TIME OF DAY

→ Situation

- An event which entrants can run at any time of day on any day is desired, perhaps for testing, training or evaluation purposes.

→ Solution:

- Restarts - Use Flying Start - Truncate to 0:30
- Place actual Restart CP 0.2 miles (0.3 kilometers) after the point you instruct entrants to start at.
- Tell entrants to leave at the top of their desired minute. Restart time will be truncated to the top of that minute.
- Result: "Good" restart times will be assigned (13:21:00.000) whenever the CP is passed.



REAL KEYBOARD NEEDED FOR RALLYMASTER APP

→ Situation

- A better, real keyboard is needed for the Rallymaster app to enter critique slip text, CP position data or to edit entrants' registration details.

→ Solution:

- Bluestacks app.
- Free download for Windows, MacOS or Linux PCs or laptops.
- Android emulator

→ Tips:

- Make sure you have version 5 - much better performance
- Maps look great on large screen
- No GPS support
- Install and start Bluestacks app, Start Google Play Store, install Rallymaster AND Gmail apps. Tailor Gmail.



DIRECTIONALLY SENSITIVE CP DETECTED WHEN PASSED IN WRONG DIRECTION

→ Situation

- A CP designated as directionally sensitive was detected when it should not have been, having been passed in the wrong direction

→ Solution:

- An older version of the Competitor app was used by this entrant.
- Competitor version 1.23 or later needs to be used in order to honor directional sensitivity.
- Competitor version numbers are show on Rallymaster app Cars screen.

QUESTIONS

- 1) What is the current release number of each app?
 - 1) www.richtarally.com, see Documentation page

- 2) Can this system be used to time a hill climb?
 - 1) Yes. Testing in progress. An event for each run up hill, start is Flying Start a few feet after start line, finish line is Timed CP, ideal leg time =0, use DSCP on both CPs. Can also set up sectors or intervals..

- 3) What future enhancements are planned for the timing and scoring apps?
 - 1) We're looking at event lifecycle management: event creation, backup, archiving, deleting and automating other aspects of event management.
 - 2) Competitor - allow entrant to edit their registration details.