



When Things Go Wrong: Handling Unusual Situations in Richta GPS Checkpoints

Rich Bireta, January 28, 2022

Agenda

- With over 160 events in three years and over 110,000 timeslips generated, several uncommon, unusual situations have occurred.
- This presentation serves as a guide for how to handle these situations.
- Thanks to John Fishbeck, Detroit Region, for his suggestions regarding this material.

Contents

1. Discarding a Leg
2. Incorrect Ideal Leg Time
3. Competitor Device Failure
4. General Competitor Issues
5. Missing Restart Timeslips
6. Adjusting a Time Allowance or Score
7. Event Delay for all entrants
8. Pre-check conducted at different time of day
9. Sections run out of order
10. Early CP detection
11. Location Services not enabled

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...

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.

→ 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 coming in 2022 to Cars screen to explicitly call out reason for not being ready.