

2021



National Convention

April 22, 2021
Version 1

GPS Checkpoints: Getting Started

Rich Bireta, Kansas City Region, rbireta@gmail.com



Agenda - Getting Started

- Introduction
- Getting Comfortable with the System
- Select Event Style
- Layout the Rally
- Set CP Locations in Rallymaster
- Set CP Types and Times in Rallymaster
- First Precheck
- Additional Prechecks, Event Freeze
- The Week Before
- At the Start
- During the Event
- At the Finish
- Course, Monte Carlo, GTA Rallies



Introduction

This presentation provides a step by step approach to the task of timing and scoring your first road rally with Richta GPS Checkpoints.

The audience is presumed to have experience organizing road rally events and to be familiar with the basics of GPS Checkpoints. (Two sessions at 2021 SCCA Convention)

Feel free to ask questions during the presentation, but please confine the questions to the topic at hand. This is not the time or place for advanced questions or feature requests.

Feel free to post questions in the chat.

This event is being recorded.



Getting Comfortable

Collect Documentation

www.richtarally.com/apps/rallymaster

SCCA 2021 Convention Presentations

Request test event with your event

Email to rbireta@gmail.com

Learn the system using your test event

Engage with experienced rallymaster for guidance, Q&A

Download apps (Rallymaster, Competitor, Scoreboard)

Full names: Competitor – Richta GPS Checkpoints (etc.)



Getting Comfortable - Test Event

Your Test Event

Convenient to your home

Short, about 10 checkpoints

Suggested route: around the block where you live.

Suggested CP Type and Order:

Time Check, Flying Start, Timed from Previous Restart (TFPR),
TFPR, Flying Start, TFPR, TFPR

Test Event is a scale model of your full event

Restart Types, order, etc.

Use this event to learn, experiment



Select Event Style

Event Style refers to the
Type of Restart CPs used
The CP from which each leg is started

Several common styles in use, but many other options available

Discussed in Advanced Topics Presentation at 2021 SCCA Convention

Suggestion: Use Madison Style for your first event



Event Styles - "Madison"

"Madison" Style

CP 1 - CZT Restart

CP 2 - Timed CP – from last restart (1)

CP 3 - Timed CP – from last restart (1)

CP 4 - Timed CP – from last restart (1)

CP 5 - CZT Restart

CP 6 - Timed CP – from last restart (5)

CP 7 - Timed CP – from last restart (5)

...

Most frequently used style.

Each timed CP is timed from the previous restart, NOT from the previous CP

Introduces "double jeopardy" – being late at CP 2 must be made up before CP 3

This is not an issue with low traffic roads, appropriate speeds, few stop signs/traffic lights.



Event Styles - "Evansville"

"Evansville" Style

CP 1 - CZT Restart

CP 2 - Timed CP – from last CP (1)

CP 3 - Timed CP – from last CP (2)

CP 4 - Timed CP – from last CP (3)

CP 5 - Timed CP – from last CP (4)

CP 6 - CZT Restart

CP 7 - Timed CP – from last CP (6)

CP 8 - Timed CP – from last CP (7)

CP 9 - Timed CP – from last CP (8)

.....

Each timed CP is timed from the previous CP

Eliminates "double jeopardy" – being penalized twice for the same amount of being early or late at a CP.

More difficult for entrants calculating as they need to stop and reset their calculations for each leg.
More challenging contest.



Layout the Rally

Layout Full Event

Starting location

Route

Rest Stops

Ending location

Note locations of Restarts and Timed Checkpoints

Exit criteria: Route firm, CP locations and types determined

Disclose approximate CP location in route instructions

“17. Stop Ahead” – CP 23”

Better experience for entrant



Set CP Locations in Rallymaster App

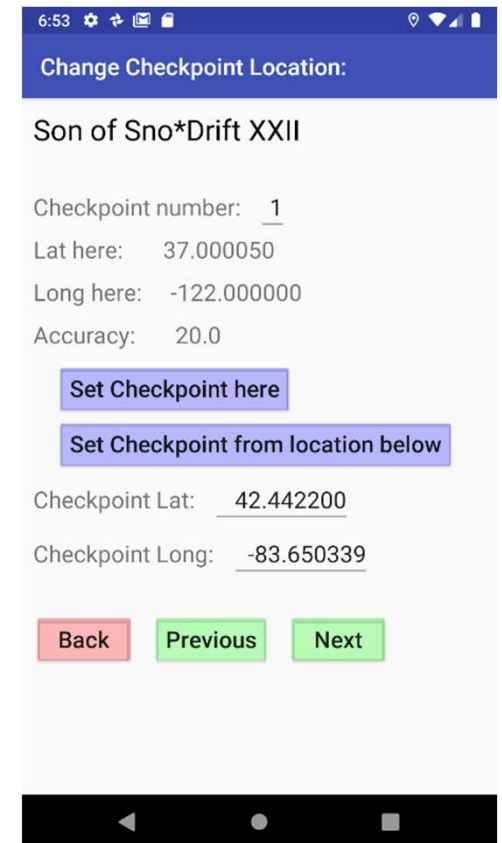
Drive the route with the Rallymaster app open

Pause at each CP, let GPS location settle
(1-2 seconds)

Press Set Checkpoint Here button

Press Next button (CP # advances)

Drive to next CP location, repeat





Set CP Types and Times in Rallymaster App

In the comfort of your home ...

Rallymaster: Change CP Time Information

Set CP Type and ideal leg time

Press "Save and Show Next Leg"

Repeat for all CPs

Set Event Settings

Number of CPs, Max Cars, ...

Run a Validity Check

Checks for logical consistency in event

Resolve or understand all warnings or errors

A screenshot of the Rallymaster app's "Change Checkpoint Time Information" screen. The screen is titled "Change Checkpoint Time Information:" and shows the event name "Son of Sno*Drift XXII". There are four buttons: "No Save, Prev Leg" (blue), "No Save, Next Leg" (blue), "Back" (red), and "Save and Show Next Leg" (green). Below the buttons, the "Checkpoint number" is set to 3, and the "Type" is "Timed from previous TOD restart or..". The "Enter ideal leg time:" section has input fields for Hour (00), Minute (06), Second (07), and Millis (686). At the bottom, there is a "Critique message:" field with a placeholder text "Tap to enter message for critique slip". The top status bar shows the time 6:54 and various icons. The bottom navigation bar is visible.



First Precheck

Run with Competitor App on

Ensure all CPs detected

Ensure CPs not detected early

Plus the normal pre-check activities

Speeds appropriate?

CPs in good location?

Ideal leg times accurately entered?

Restart CPs work as expected?

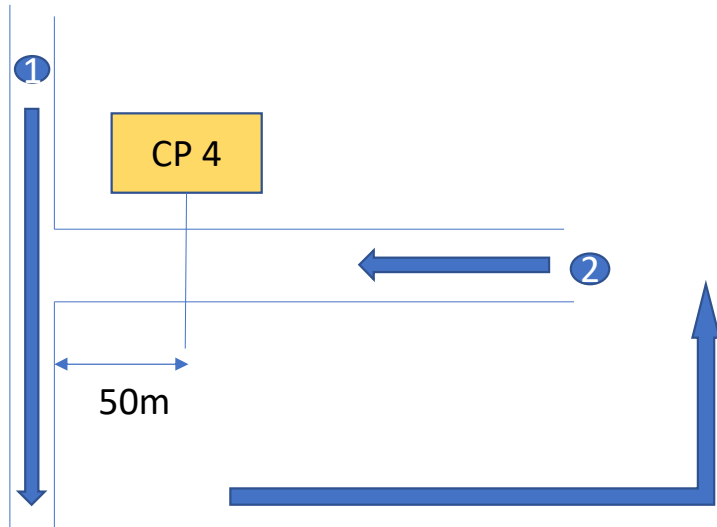
...



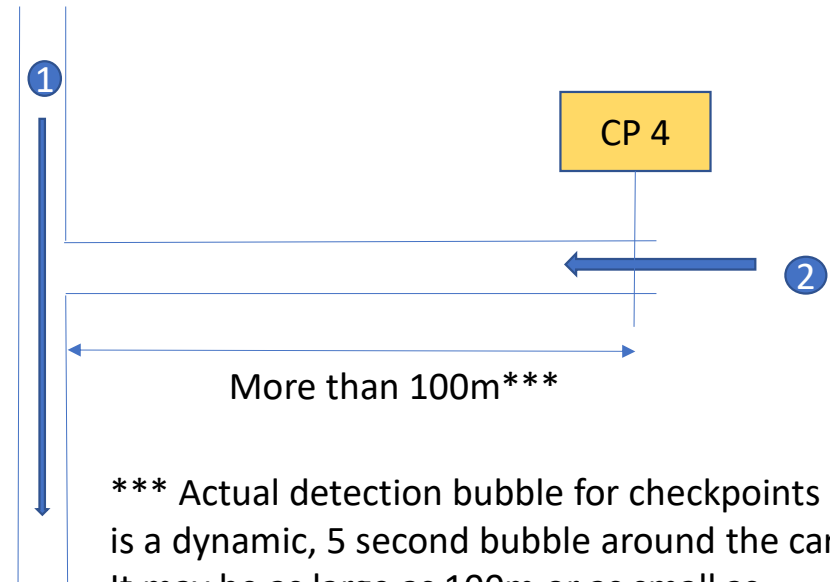
Avoid Early Detection of Checkpoints

Don't do this: CP 4 too close to earlier route, will be detected as cars first pass (arrow #1)

Can also occur when route is on Interstate, CP located on service road.



Keep CP 4 100m away from earlier route.



*** Actual detection bubble for checkpoints is a dynamic, 5 second bubble around the car. It may be as large as 100m or as small as 15m.



Additional Prechecks, Event Freeze

Make any adjustments based on first precheck

Additional prechecks are business as usual

Safety precheck

Confirming accuracy of calculations, mileages, route instructions, etc.

Precheck Offset event setting

Allows precheck without altering CZT Times

Adjusts CZT Restart times, specified in minutes, + or -

When complete, consider event “frozen”

Do not relocate CPs, Change CP types, insert new CPs, ...

Correcting ideal leg times is OK



The Week Before the Event

Final pre-event reset

(Before cars allowed to register)

Delete entries used to precheck

Ensure pre-check offset set to 0

(Reported in Validity Report)

Review Validity Report

Errors should be resolved

Warnings should be resolved or understood

Example: WARNING – CZT Restart before 7 am.

Practice rescoring legs, dropping legs from scoring



At the Start

Sample language for General Instructions is in the app documentation.

Detroit Region SCCA has a good page for entrants:

<http://drscca.org/rally/using-the-richta-competitor-app/>

Conduct the start of the rally at a location that has wi-fi service or set up a wi-fi hot spot. This will be needed for contestants to download the scoring app or register for the event. Alternatively, communicate with all entrants the instructions for downloading the event and registering for the event in the app.

Monitor their progress with the Rallymaster Cars screen under Manage Entries. Assign someone at the start of the event to review the competitors devices used for the app.

Ensure that location services are enabled on the device and that the correct car number is shown. Ensure they show up as "ready" in the "Who's not ready?" screen of Rallymaster.

Being "ready" means the entrant has self-registered with a car number and that their app has loaded all necessary CP location and timing information.



During the Event

Consider having a designated Event Observer

Located at their home

Access to Map in Rallymaster

Armed with entry list, phone numbers for entrants

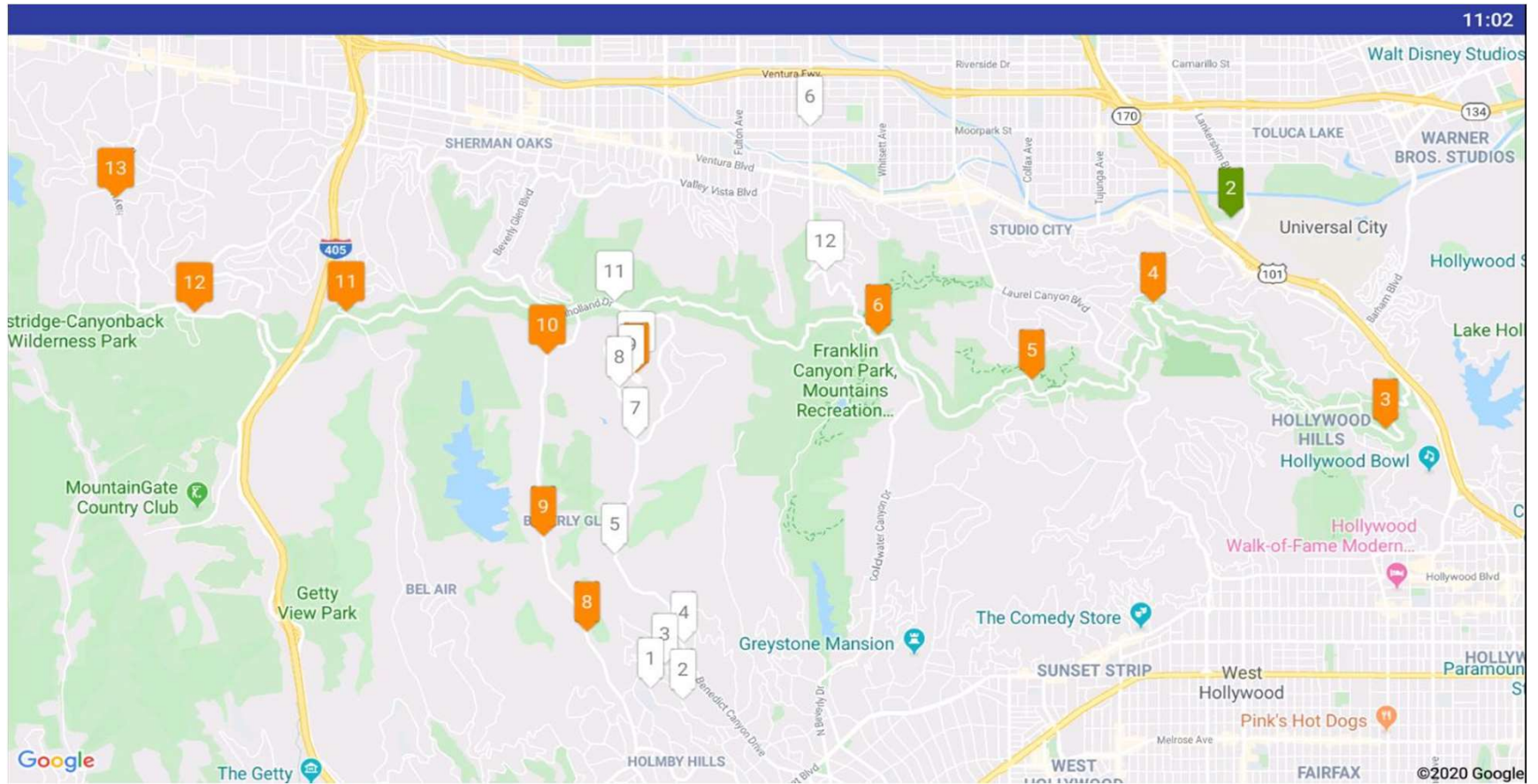
Monitor entrants for off course excursions

Contact entrant if detected

This technique is being successfully used in several locations.



Monitor Off Course Entrants





At the Finish

See “Advanced Topics” presentation for a more complete discussion

Strive for provisional scores to be posted as soon as last car passes last CP

Having a dedicated Scoring Crew will speed scoring

This is where your pre-event practice and skill building will pay off

Entrants can use Scoreboard app to see provisional scores

Edit Timeslips can be used to amend scores for one car

“We needed to take a longer break ...”

“Bad calcs?”

Use Change Checkpoint Time to enter corrected time

Use Rescore Leg to recalculate scores for all cars, one leg



Course, Monte Carlo, GTA Rallys

On Course CP type - scored 0 or a max

Can be used to confirm passing a point

Off Course CP type – scored as a max when passed

Flying Start Truncate/Round Up Restart CPs for events using loops.

See “Advanced Topics” presentation for more detail.

Monte Carlo events (“pass this point at 2:15 plus car number”)

Start each section with CZT Restart

Timed CPs are timed from previous restart

Feedback info?

rbireta@gmail.com



National Convention