

Case Study: Performance Optimization to a GPS-based lap timer application for Track Attack

Client

The client is a GPS-based lap timer app that integrates HD video with lap time, vehicle speed, track maps, acceleration and deceleration.

Challenges

The client sought performance optimization for their GPS-based lap timer application. Some of the areas where they specifically sought improvement were:

- Synchronizing pre-installed tracks on the handheld
- Instant video playback
- Profiling of the tracks and maps
- Enhancements for recording, reviewing, storing and sharing of lap performance.
- Support for all the new session types










Solution

ISHIR's mobility experts helped the client to develop a comprehensive mobile strategy and enabled the following:

- Fully integrated solution for GPS-based lap timer, capturing top, average and low speeds, acceleration/deceleration and location on the track map for iOS, Android and Windows Phone
- Enhanced session history and track database functionality
- Custom track according to user's location
- Intuitive dashboard reports
- Instant playback and improvement in timing accuracy
- Full version support and maintenance
- Automatically starts and cuts videos to lap length
- Fully integrated with the iPhone assets library


Some screenshots are given below:

TRACK ATTACK Driver: [gaguilarGTR](#)

-  ROAD COURSE >
-  RALLY STAGE >
-  RALLY-CROSS >
-  AUTO-X >
-  OVAL >
-  DRAG >
-  HILL CLIMB >
-  DRIFT >
-  FUN RUN >

Drive Session History Upload Profile Settings

Track: Pacific Raceways-Unit...




130.8 MPH 00:09.21
 Top: 133.1 mph Time: 01:37.99
 Low: 7.8 mph Lap: 10/10

GPS: Ready! 6(m) Track: 149th street test dec 10




00:16.47

Lap: 1
 Best: 00:00.0
 Last: 00:00.0


Stop

SESSION HISTORY 


Portland International Race...
Sat, April 26, 2014

START	LAPS	FASTEST
 03:15PM	20	01:27.00
 12:35PM	15	01:25.00
 10:41AM	11	01:27.96

Portland International Race...
Fri, April 25, 2014

START	LAPS	FASTEST
 04:00PM	9	01:27.99

Drive Session History Upload Profile Settings

 VIEW SESSION

Pacific Raceways-United States

Saturday, September, 14 2013


Fast Lap: #10: 01:37.99

Laps: 10 **Top Speed:** 133.1 MPH

Stored: Online Only **Avg. Speed:** 72.1 MPH

Low Speed: 7.8 MPH

Lap #	Lap Time	Avg Speed	Distance
3	01:40.88	70.46	0.00
4	01:41.10	70.74	0.00
5	01:39.25	71.30	0.00
6	01:38.91	69.90	0.00
7	01:38.04	68.23	0.00
8	01:38.18	67.67	0.00
9	01:38.93	67.67	0.00
10	01:37.99	72.42	0.00

Drive Session History Upload Profile Settings

Result

- Enabled enhanced session history and track database functionality
- Improved session record and session playback screens
- Improved lap detection and timing engine

Technologies: iOS, Android and Windows