Sector Times App for Shutoku Revival Project

Welcome to the Sector Times App by Captain Bale! This app is designed to give you detailed, real-time feedback on your lap and sector performance, using a custom gate-based system for high precision. It allows you to race against your own personal bests from the current session or your all-time saved records.

Features

- **Live Delta Timer:** A large, clear display showing your real-time gap to a reference lap (+/- seconds).

- **Server-Accurate Sector Times:** Displays official sector and lap times as they are reported by the server.

- **Dual Reference Modes:** Instantly switch between comparing your performance against:

  1. Your best lap from the **current session**.
  2. Your all-time **Personal Best (PB)** saved to disk.

- **Automatic PB Saving:** Automatically saves your new personal best valid laps to disk for future use (overwrites the old time, only one save per car per route is possible).

- **Shareable PBs:** The save file system is simple, allowing you to share your best lap files (found in the **savedtimes** folder in the main app directory) with friends to race against their times (must use the same exact car). Since this will overwrite your own file, make sure to back it up somewhere in case you need it again.

How to Use

1. **Install the App:** Place the sector_times_app folder into your assettocorsa/apps/lua/ directory.
2. **Enable the App:** In Assetto Corsa, enable the "Sector Times" app from your apps sidebar.
3. **Start Driving:** The app works automatically. When you start a timed lap on a supported route, the app will begin tracking your progress.

The Main Window

The main window is split into three sections:

1. **Live Delta Display:**
   - At the top, you'll find the main **Current Lap Delta** display. This number updates in real-time as you drive through the 500+ timing gates placed on each route.
     - **Green** means you are faster than the reference lap.
     - **Yellow** means you are slower than the reference lap.
   - Next to the title is a button that allows you to toggle the reference mode 🔄

2. **Current Lap:**
   ○ This section shows the official server sector times for the lap you are currently driving.
   ○ The numbers in [brackets] are the reference times you are being compared against (either your session best or your all-time PB).
3. **Last Lap:**
   ○ This section displays the final, official server times for the lap you just completed.

Settings

To access settings, move your mouse to the right edge of the Assetto Corsa window to show the apps sidebar, and click the gear icon next to the "Sector Times" app.

Settings Tab

● **Appearance**

   ○ **Show Window Background:** Toggles the transparent background of the main app window on or off for a cleaner look.

● **Behavior**

   ○ **Count invalid laps towards session PB's:** If this is checked, a lap marked as (invalid) by the server can still become your session PB if it's the fastest time you've set in that session. This does **not** affect your all-time saved PB; only valid laps can be saved.

● **Personal Best Management**

   ○ This section shows the current car and loop you are driving on.

   ○ **Delete saved PB for this loop:** This button will delete the all-time personal best .json file for the specific car and route combination you are currently using. Use this if you want to start fresh and set a new PB.