ChecklistGuro

Vehicle Tracking System Accuracy Checklist

Data Input & Transmission

Focuses on the initial capture and transmission of vehicle location data. This section examines potential issues stemming from hardware malfunctions, network connectivity problems, and data formatting.

Average Data Transmission Latency (seconds)

Enter a number...

Data Transmission Success Rate (%)

Enter a number...

Communication Protocol Used

☐ TCP/IP

☐ UDP

☐ HTTP

☐ MQTT

☐ Other

Describe any observed data transmission errors or inconsistencies.

Write something...

Data Format Used

☐ JSON

☐ XML

☐ CSV

☐ Binary

☐ Other

Data Packet Size (bytes)

Enter a number...

Date of last data transmission configuration check

Enter date...

GPS Signal Acquisition & Processing

Evaluates the system's ability to acquire and process GPS signals accurately. This includes assessing factors like satellite visibility, signal strength, and positioning algorithm performance.

Average GPS Signal Strength (dBm)

Enter a number...

Average GPS Accuracy (meters)

Enter a number...

Percentage of Successful GPS Lock Attempts

Enter a number...

GPS Antenna Type

- [ ] Internal
- [ ] External
- [ ] Combination

GPS Positioning Algorithm

- [ ] Default
- [ ] Custom (Specify in LONG_TEXT)

Details about Custom Positioning Algorithm (if applicable)

Write something...

Date of Last GPS System Calibration

Enter date...

Typical Time to First GPS Fix (seconds)

Geofencing & Route Deviation

Focuses on the accuracy of geofence definitions and the system's ability to detect and report deviations from defined routes.

Geofence Definition Accuracy

- [ ] Highly Accurate
- [ ] Moderately Accurate
- [ ] Slightly Accurate
- [ ] Inaccurate

Geofence Radius Tolerance (meters)

Enter a number...

Describe any instances of route deviations detected. (Provide date, time, vehicle ID, and deviation details)

Write something...

Which types of route deviations are flagged by the system?

- [ ] Entering Unauthorized Zones
- [ ] Exceeding Speed Limits
- [ ] Significant Route Detours
- [ ] Unexpected Stops
- [ ] Other (Specify in Long Text)

Date of last geofence review/update

Enter date...

Is the deviation alert threshold appropriate?

☐ Yes

☐ No

☐ Needs Adjustment

Location of a recurring route deviation point (if applicable)

📍 Set My Current Location

Percentage of Route Deviations Successfully Flagged (Estimate)

Enter a number...

Real-Time Location Updates

Assesses the frequency and reliability of real-time location updates. Considers latency and potential delays in data reporting.

Average Update Frequency (seconds)

Enter a number...

Maximum Acceptable Latency (seconds)

Enter a number...

Update Frequency Configuration Method

☐ Fixed Interval

☐ Dynamic (based on vehicle speed)

☐ User-Defined

Data Transmission Protocol

☐ TCP

☐ UDP

☐ MQTT

☐ HTTPS

Time of Last Data Transmission Failure (if applicable)

Describe any observed inconsistencies in real-time data (if any)

Write something...

Percentage of Updates Received Successfully (over a sample period)

Enter a number...

Historical Data Accuracy & Integrity

Focuses on the accuracy and completeness of historical location data stored within the system. Checks for data loss, corruption, and timestamp discrepancies.

Percentage of Records with Missing Timestamp Data

Enter a number...

Average Timestamp Discrepancy (Seconds) vs. Actual Time

Enter a number...

Percentage of Records with Plausible Location Data (Within Geographic Boundaries)

Enter a number...

Data Retention Policy Adherence (Days)

☐ 30
☐ 60
☐ 90
☐ Custom (Specify in LONG_TEXT)

Description of Any Data Corruption Events (Date, Cause, Resolution)

Write something...

Date of Last Data Integrity Check

Enter date...

Backup Frequency (For Historical Data)

☐ Daily

☐ Weekly

☐ Monthly

☐ As Needed

Details of Any Known Data Inconsistencies or Anomalies Observed

Write something...

Sample Historical Data File (for review)

⬆ Upload File

Reporting & Visualization Accuracy

Evaluates the accuracy of location data displayed on maps, reports, and dashboards. Considers potential mapping errors and data presentation issues.

Map Display Accuracy Deviation (meters)

Enter a number...

Map Provider Accuracy Rating (if applicable)

☐ Excellent

☐ Good

☐ Fair

☐ Poor

Describe any discrepancies observed between reported location and actual vehicle position.

Write something...

Timestamp Synchronization Error (seconds)

Enter a number...

Reporting Units (e.g., miles, kilometers)

☐ Miles

☐ Kilometers

Frequency of map refresh (seconds)

Enter a number...

Calibration & Maintenance

Checks procedures for calibrating the system and ensuring ongoing accuracy through regular maintenance and updates.

Last GPS Antenna Calibration Date

Enter date...

GPS Antenna Calibration Frequency (Months)

Enter a number...

Description of Calibration Procedure

Write something...

Calibration Method Used

☐ Factory Default

☐ User Defined

☐ Third Party Tool

Post-Calibration Accuracy Test Result (m)

Enter a number...

Firmware Version

Last Firmware Update Date

Enter date...

Notes on Calibration/Maintenance

Write something...