APTIV CONNECT
QUALIFIER

Environmental Insights

Enhance your vehicle validation processes by integrating weather and road data into Aptiv Connect Qualifier.

Ensure test coverage in various environmental conditions

Streamline troubleshooting for issues related to external factors

Reduce the time and expense of validating ADAS and EV systems

When you are validating a vehicle, the external environment can have a huge impact. A system that performs well on a sunny, clear day on a flat road may perform very differently in a blizzard in the mountains. And that's especially true for advanced driver-assistance systems (ADAS) and electric vehicles (EVs).

That's why most engineering teams plan to test their vehicles under a variety of environmental conditions. But ensuring that you have met those testing goals is very challenging if you are relying on manual procedures to record the conditions.

Environmental Insights for Aptiv Connect Qualifier makes it much easier to ensure test coverage. It integrates road and weather data with the data coming from the vehicle, giving you a comprehensive view.

Environmental Insights can also aid in troubleshooting — making it easier to pinpoint the root cause of problems that only occur in certain situations. It can shave days or even months off the time it takes to address an issue, resulting in lower costs for you and higher quality for your customers.

To learn more or see a demo, contact your Aptiv representative or email sales@aptivcs.com.

Part of the Aptiv Connect Qualifier ADAS Solution:
• Qualifier Analytics
• Environmental Insights
• Video Insights
• Command Center

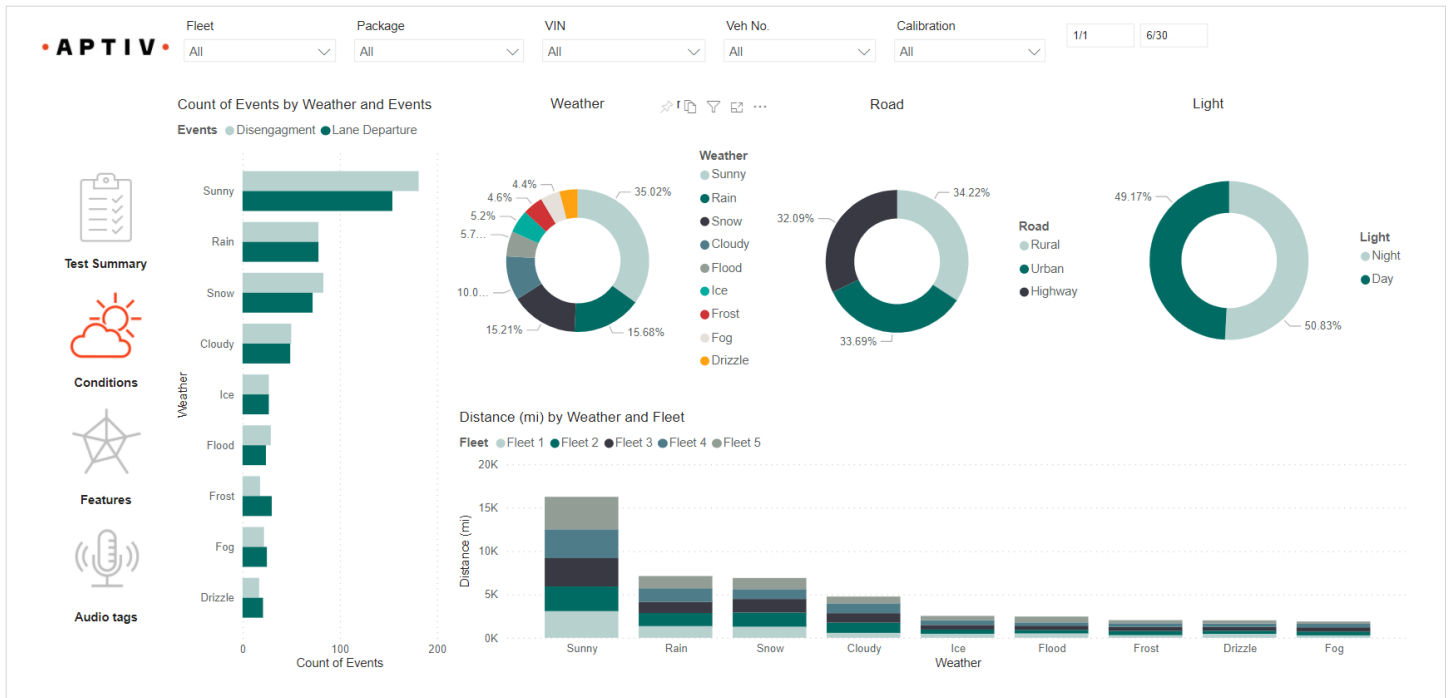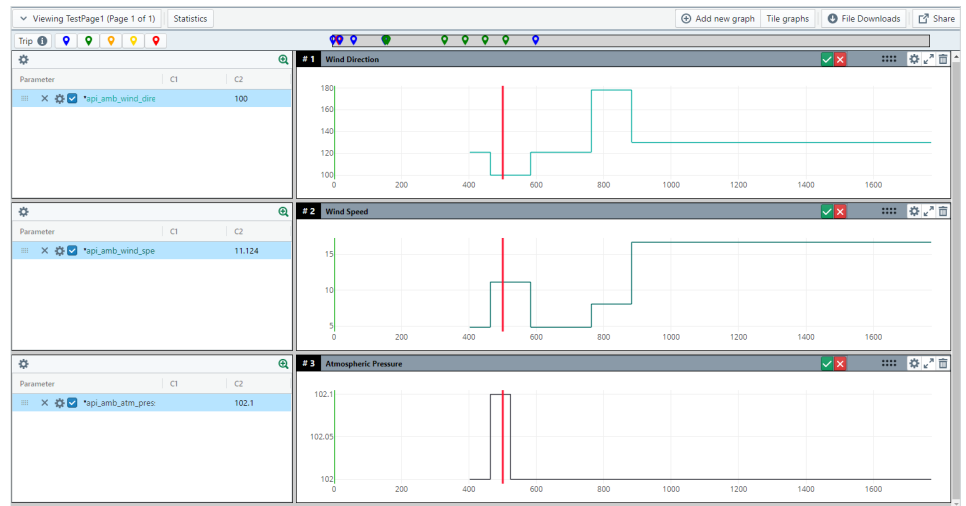**•APTIV•**

How Environmental Insights Works

Environmental Insights is available for organizations with an Aptiv Connect Qualifier subscription. When you purchase Environmental Insights, your Aptiv Customer Success Engineer (CSE) will work with you to set up the service. Any vehicle data recorders (VDRs) with the service enabled will begin collecting road and weather data on the edge at a feature-relevant rate. You will then be able to access that data in several places within Qualifier:

- By showing stats for an individual occurrence on the Events or DTC Manager page
- Within AC-Graph
- By downloading a CSV file
- On any Analytics reports that include weather or road data

Aptiv has pre-built ADAS and test coverage reports for the Analytics page that include weather and road data. Contact your Aptiv representative if you would like to enable one of these reports or design a custom report for your organization.

You can access Environmental Insights data from multiple sections of the Qualifier web application.

Test Coverage

Fleet	Package	VIN	Vehicle Number	Calibration	7/4	8/3
ADAS	All	All	All	All		

HAS Engaged KPI		Fleet Highway Mileage (Mi)	Inhibits / 1000 miles	Disengages / 1000 miles	%Time HAS Mode
39816 Miles	535 Time (Hr)	73.54K	26.42	0.33	44.17%

HAS Engaged KPI

Distance Over Time	Accumulated Distance

Distance Over Time (Miles)

Test Summary

Weather

Features

Audio tags

Light
- ☐ Day
- ☐ Night

Road
- ☐ Highway
- ☐ Rural
- ☐ Urban

Weather
- ☐ Clear
- ☐ Cloudy
- ☐ Rain
- ☐ Snow

Distance (Miles)

6K
4K
2K
0K

July 6, July 7, July 8, July 9, July 10, July 12, July 13, July 14, July 15, July 16, July 17, July 18, July 19, July 20, July 21, July 22, July 23, July 24, July 25, July 26, July 27, July 28, July 29, July 30, July 31, Au... 1, Au... 2, Au... 3
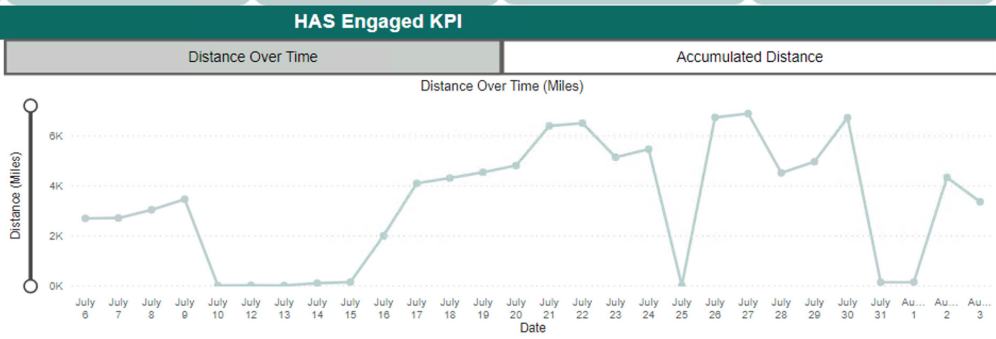
Date

The Interactive Environmental Insights dashboards allow you to track your mileage in various weather, road, and light conditions, as well as how often critical events happen in those situations. This example tracks the performance of a highway assist system in various conditions.

Available Weather Data*

- Ambient temperature
- Atmospheric pressure
- Atmospheric humidity
- Wind speed and direction
- Weather condition
  - Thunderstorm
  - Drizzle
  - Rain
  - Snow
  - Clear
  - Clouds
  - Mist
  - Smoke
  - Fog
  - Haze
  - Dust
  - Ash
  - Squall
  - Tornado
- Weather condition detail
  - Thunderstorm with heavy rain
  - Light intensity drizzle
  - Moderate rain, shower snow
  - Few clouds 11-25%
  - Etc.
- Rain and snow volume for the last hour

Available Road Data*

- Travel direction
- Existence of road dividers
- Type of intersection
- Speed category (based on posted speed limits)
- Traffic pattern
- Number of lanes
- Pavement/surface type
- Type of access
  - Controlled
  - Limited
  - Public
  - Private
- Road slope
- Road curvature
- Bicycle access

*Some data not available in all regions.

Coming Soon!

Future updates will include
- Traffic data
- Data collection triggered by environmental conditions

For more information or a demo, contact your Aptiv representative or email sales@aptivcs.com.

About Aptiv

Aptiv is a global technology leader with more than 180,000 people across 124 manufacturing facilities and 12 major technical centers worldwide. With a presence in 44 countries, we address mobility's toughest challenges through our deep software and systems integration expertise, delivering market-relevant solutions for our customers.

Our mission is to make the world safer, greener, and more connected than ever before. As these trends converge and the world of mobility changes, we will lead this change.

Mobility has the power to change the world, and we have the power to change mobility.