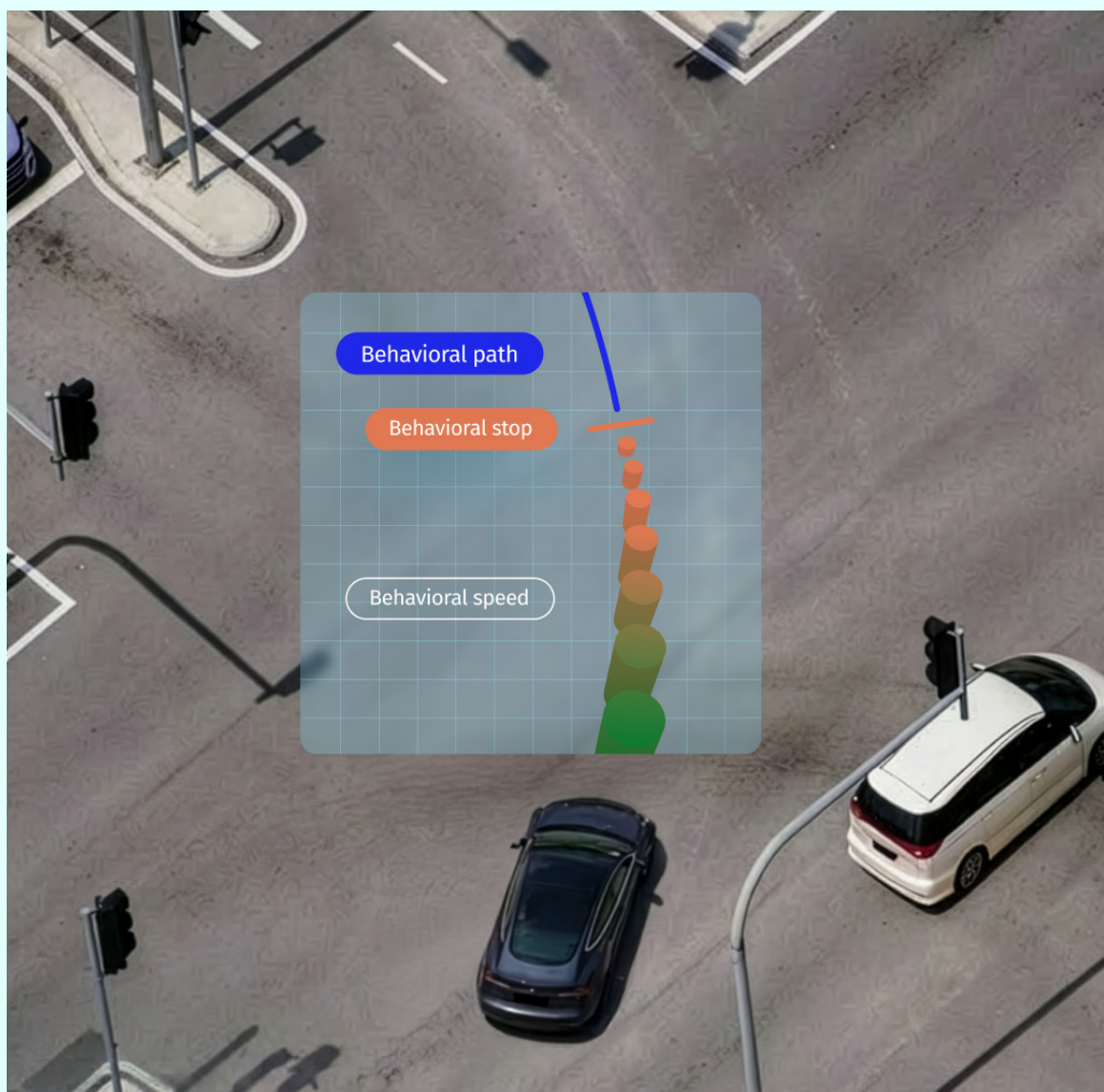


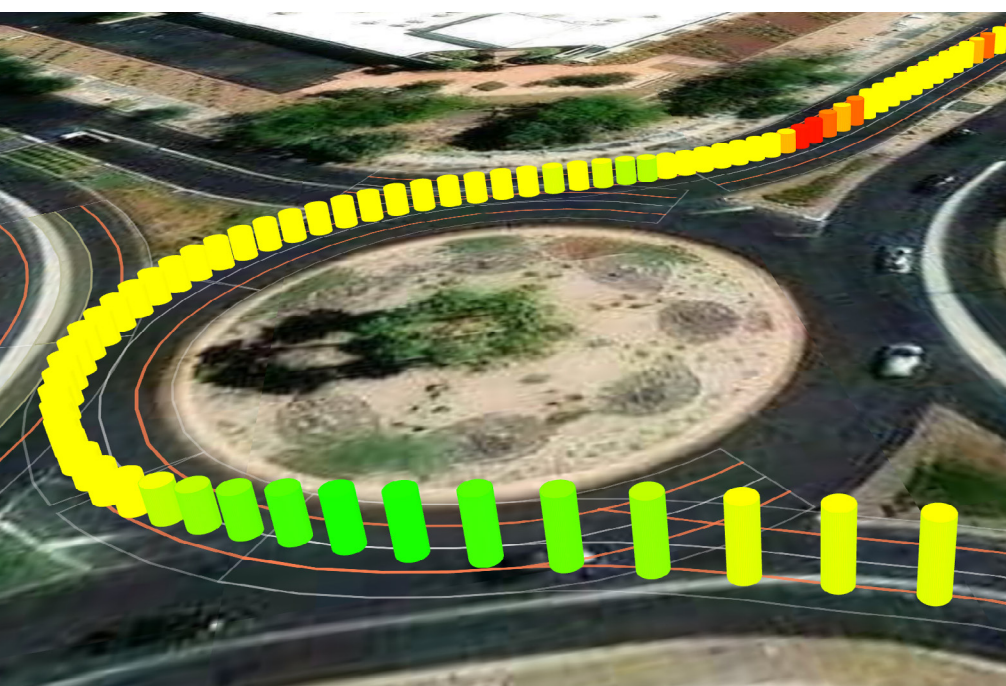
HERE Behavioral Maneuvers

Human like driving intelligence that can anticipate lane trajectories, transitions, speed, stops and warnings for a comfortable and safe ADAS-AD experience



HERE Behavioral Maneuvers enables vehicles to enhance their final maneuver decisions by providing vehicle systems with human like driving intelligence, which predicts how drivers naturally steer and brake, at lane-level, and react to critical situations. They capture predominant drive paths, transitions, speeds, stops and warnings, using large scale vehicle perception data (VPD) across real road conditions, including intersections, roundabouts, ramps, missing markings, curves, slopes and complex urban layouts.

This data enables more comfortable and safer ADAS and automated driving (AD) experience. Automakers can deliver smoother lane level maneuvers, reduce abrupt actions, anticipate critical areas and align driving behavior with what human drivers would intuitively do. HERE Behavioral Maneuvers are a patented HERE content using AI/ML designed to support steering and braking maneuvers with consistent coverage and reliable delivery.



High quality technology

Using AI/ML, HERE Behavioral Maneuvers provides AD steering and braking intelligence for advanced AD use cases



Human-like trajectory insight

Grounded in reality, these maneuvers reflect real driver behavior at lane level with rich safety warnings



Large and representative coverage

Continuously updated from a pool of global fleets

Benefits

- **Smoother driving experience:** Reduces abrupt steering/braking for comfort
- **Greater safety at critical spots:** Identifies unexpected or risky road behavior
- **Realistic verification and validation:** Humanized ground truth for testing
- **Future-proof AD scalability:** VPD keeps behaviors current across regions

Features

- **Behavioral drive path**
Predominant trajectory within or between lanes, e.g. intersections, roundabouts, exit lanes etc.
- **Behavioral speed**
Human acceleration and deceleration, including roundabouts, ramps and unlimited speed roads
- **Behavioral stop**
Explicit and implicit stopping points, e.g. virtual stops at stop lines or in the middle of an intersection
- **Behavioral transition**
Where vehicles start or end transitions before, during and after intersections
- **Behavioral warnings**
Safety-critical zones where unexpected behavior occurs e.g. parked cars and U-turns



Delivery

- Delivered via NDS Live with VPD-based updates for consistent global behavior coverage
- Delivered as a bundle to ensure complete AD maneuver support



Coverage

Coverage driven by VPD availability across NA, WEU and expanding global markets



Industry use cases

- Path planning, using the predominant maneuvers from past drivers
- Path planning, using the critical areas identified with unexpected behaviors
- Path planning, validation and verification, using realistic motions (ego and participant) in simulations
- Path Planning, validation and verification, comparing the drive logic output against a human-like ground truth

About HERE Technologies

HERE is the global leader in mapping and location technology. For over 40 years, we've been powering innovation for the world's most recognizable companies: from launching our first digital map in 1985, to shaping the future of software-defined vehicles today. With the industry's freshest and richest unified map and a portfolio of products, services and solutions that serve the needs of multiple industries, HERE reveals opportunities that drive progress and unlock new possibilities for every moving vehicle. Discover more at here.com.

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