NavVis and HERE Combine Efforts on Future of Mobility

NavVis and HERE Technologies have decided to join forces to bring high-definition indoor mapping and visual positioning to parking garage operators and transportation hubs. NavVis is known for its innovative mobile mapping and reality capture solutions, while HERE Technologies is one of the world's leading location data and services platforms.

This partnership leverages three key technologies from NavVis: NavVis mobile mapping systems, NavVis IVION and NavVis visual positioning technology.

NavVis mobile mapping systems are deployed to generate high-definition point cloud data, while also capturing 360-degree panoramic images. The NavVis mobile mapping devices, such as NavVis VLX, use simultaneous localization and mapping (SLAM) and Lidar to produce this data at unprecedented speed without compromising quality.

Converting Point Cloud Data into Usable Maps

Once the data is captured, NavVis IVION is used to post-process this data and then as a visualization tool to help convert point cloud data into usable maps and 3D views. Based on this data, HERE creates HD indoor maps that include essential attributes like ramp angle, clearance height and curve radii for specific use cases such as automated valet parking.

Finally, the revolutionary NavVis visual positioning technology is deployed to enable positioning and route-finding capabilities in HERE's indoor maps. Visual positioning is the determination of a position (location and heading) using inputs such as images from a smartphone camera. It is key for deploying AR solutions at scale without any additional infrastructure such as Bluetooth beacons, Wi-Fi or QR codes. NavVis's high-definition point cloud data and its visual positioning technology extend HERE's outdoor and indoor mapping portfolio and truly allows for seamless end-to-end guidance.

Pushing the Frontiers of Indoor Spatial Intelligence

"We're very pleased to work with NavVis on pushing the frontiers of indoor spatial intelligence. Bringing together NavVis' high-definition point cloud data, their visual positioning technology and our indoor mapping capabilities, we now can offer clients HD indoor maps with true end-to-end guidance and AR functionality without any additional hardware," said Victor van Dinten, head of indoor, parking and charging at HERE Technologies.

Ignacio Pérez Hallerbach, global head of partners and platform at NavVis, said his company is very happy to complement the HERE indoor map offering with high-quality, large-scale data, delivered via NavVis IVION and the NavVis IVION API. "We look forward to bringing next-generation user experiences to additional spaces such as parking garages and transportation hubs and providing the foundation for meaningful AR solutions at scale," he said.

The point cloud data behind HERE's indoor maps is delivered via NavVis IVION software.