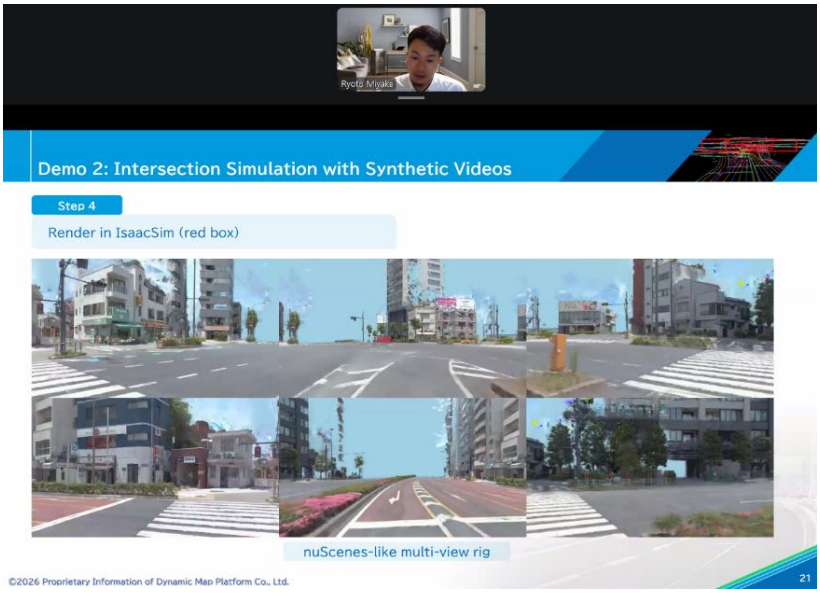
September 28, 2026

Dynamic Map Platform Co., Ltd.

Dynamic Map Platform Presents at Voxel51 Event, Showcasing Simulation and Synthetic Data Generation for Physical AI Using Real-World Data

Dynamic Map Platform Co., Ltd. (Head Office: Shibuya-ku, Tokyo; CEO & President: Shuichi Yoshimura; "Dynamic Map Platform") presented at the Voxel51-hosted online event "ADAS, AV, and AI Meetup," held on September 17, 2026 (Pacific Time; September 18 in Japan).

In a session titled "From Survey-Grade Maps to Physical AI: Scaling Real-World Data for Training and Simulation," Dynamic Map Platform introduced initiatives that apply High-Precision 3D Map Data and point cloud data to AI training and evaluation. The presentation also showcased examples of extending real-world data into AI development, including the generation of photorealistic driving videos using High-Precision 3D Data and the creation of digital twin environments using 3D Gaussian Splatting (3DGS) and NVIDIA Isaac Sim.



Ryoto Miyake of Dynamic Map Platform's Technology Unit, Software Technology Department, presenting at the ADAS, AV, and AI Meetup

■Real-World Data for Driving Video Generation and Digital Twin Environments

The presentation introduced Dynamic Map Platform's work on simulation and synthetic data generation using High-Precision 3D Map Data and point cloud data.

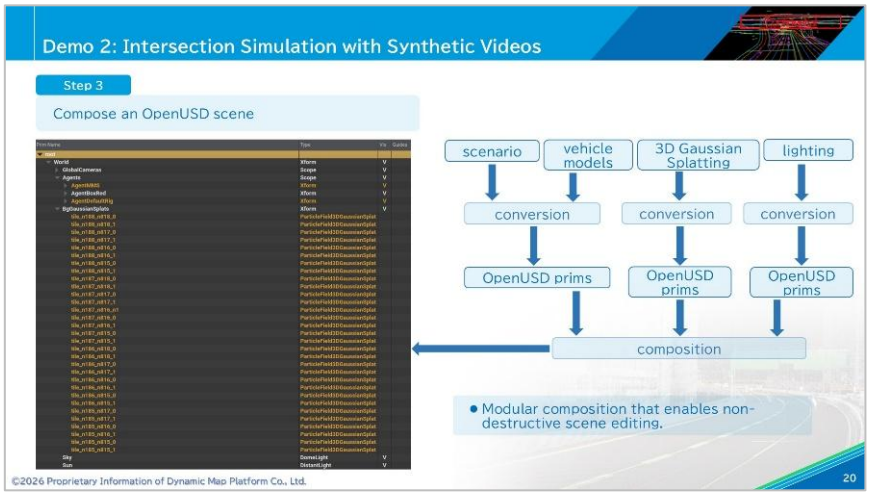
In the first case, scenario videos generated in a simulation environment using High-Precision 3D Map Data were converted into photorealistic driving videos with the NVIDIA Cosmos Transfer 2.5 AV Model.

By generating videos under different weather and time-of-day conditions, Dynamic Map Platform demonstrated the potential to efficiently create diverse data for AI training and evaluation.

Dynamic Map Platform also presented its work on 3D Gaussian Splatting (3DGS), a technology for reconstructing surrounding environments in three dimensions from numerous images captured in the real world. By combining 3DGS with the High-Precision 3D Data developed for autonomous driving, Dynamic Map Platform is working to create digital twin environments that reflect real-world locations.

The presentation showed a digital twin environment in which driving scenarios generated from High-Precision 3D Map Data, real-world environments reconstructed with 3DGS, vehicle models, and other assets were integrated in OpenUSD and simulated in NVIDIA Isaac Sim. By combining vehicle models and driving scenarios, Dynamic Map Platform demonstrated how diverse conditions can be reproduced in environments grounded in the real world for use in autonomous driving AI and Physical AI training and evaluation.

Dynamic Map Platform also introduced a vehicle dynamics simulation use case using OpenCRG data, which reproduces road surface geometry from high-density, high-precision point cloud data.



Integrating 3DGS, vehicle models, and driving scenarios in OpenUSD to create a simulation environment

■Real-World Data to Support AI Training and Evaluation

The presentation also introduced Dynamic Map Platform's efforts to use High-Precision 3D Map Data and point cloud data, originally developed for autonomous driving, as data for AI training and evaluation. High-precision 3D map data contains information on real-world features such as lane markings, road edges, and traffic signs, together with lane centerlines, road connectivity, and road geometry. This information can be used as training labels for AI and as ground truth for comparing and validating recognition results.

Dynamic Map Platform also presented semantic data created by adding meaning to image and point cloud data. Combining raw data captured from the real world with semantic data can help streamline annotation work and support the evaluation and validation of recognition accuracy in AI development.

Building on the High-Precision 3D Data developed for autonomous driving, Dynamic Map Platform is

advancing its Data for AI business initiative.

Part of the data used in the presentation is available as a sample dataset on the AI development platform Hugging Face.

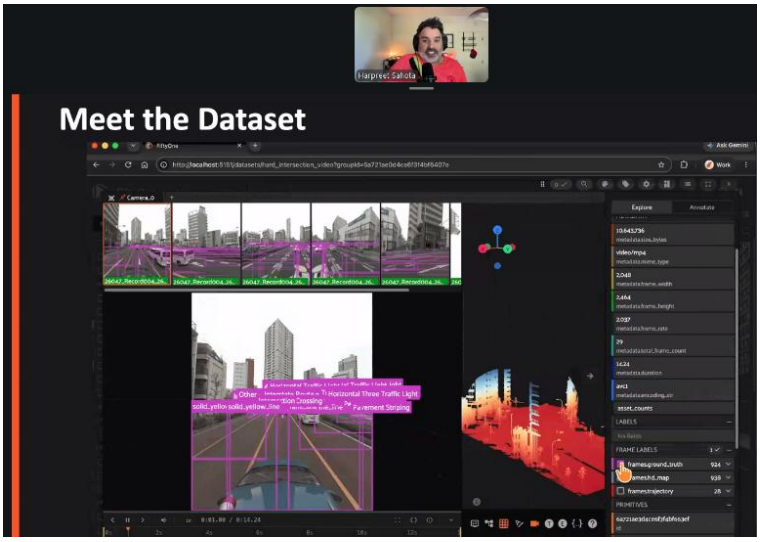
Sample dataset: https://huggingface.co/datasets/dynamic-maps/hard-intersection-multimodal-sample

■Voxel51 Demonstration Using Dynamic Map Platform's Public Dataset

Dynamic Map Platform's public sample dataset is also available through the Voxel51 Dataset Zoo. During the seminar, Voxel51 demonstrated how the dataset can be visualized and analyzed in its multimodal data platform.

The demonstration combined multiple camera views, semantic data, and High-Precision 3D Map Data, highlighting how AI developers can efficiently analyze and evaluate real-world data.

With Dynamic Map Platform's data now available through the Voxel51 Dataset Zoo, AI researchers and developers around the world can more easily access the dataset.



Demonstration of Dynamic Map Platform's sample dataset in Voxel51

■Presentation Archive

The recording of the presentation published by Voxel51 is available at the following link:
https://youtu.be/-qON2gdnk1g?si=VosYoFW3eD8JIFjZ

Dynamic Map Platform will continue to leverage the expertise it has developed in High-Precision 3D Data for autonomous driving and advance the provision of data infrastructure for AI training, evaluation, and simulation through its Data for AI business initiative.

＜Event Overview＞

Event Name	ADAS, AV, and AI Meetup
Date & Time	September 17, 2026, 9:00 AM - 11:00 AM (PDT) September 18, 2026, 2:00 AM - 4:00 AM (JST)
Format	Online (Zoom)
Participation Fee	Free
Speaker	Ryoto Miyake (Software Technology Department, Technology Unit)
Organizer	Voxel51

＜About Dynamic Map Platform＞

Dynamic Map Platform was established with the backing of the Japanese government and investment from 10 Japanese automobile manufacturers and other enterprises. Headquartered in Japan, and we also have bases in North America, Europe, the Middle East, and South Korea, currently operating in 26 countries. We provide High-Precision 3D Data for a wide range of applications, including autonomous driving (AD), Advanced Driver Assistance Systems (ADAS), simulator environment construction, infrastructure management, and snow removal support.

With our vision of “Modeling the Earth”—digitizing the planet—we co-create innovation across diverse industries as a platform provider for High-Precision 3D Data.

Established: June 2016

Headquarters: Shibuya-ku, Tokyo

Representative: YOSHIMURA Shuichi

Business: Providing High-Precision 3D Data for a variety of industries, including automated driving and ADAS.

Website: https://www.dynamic-maps.co.jp/en/

LinkedIn: https://jp.linkedin.com/company/dynamic-map-platform