

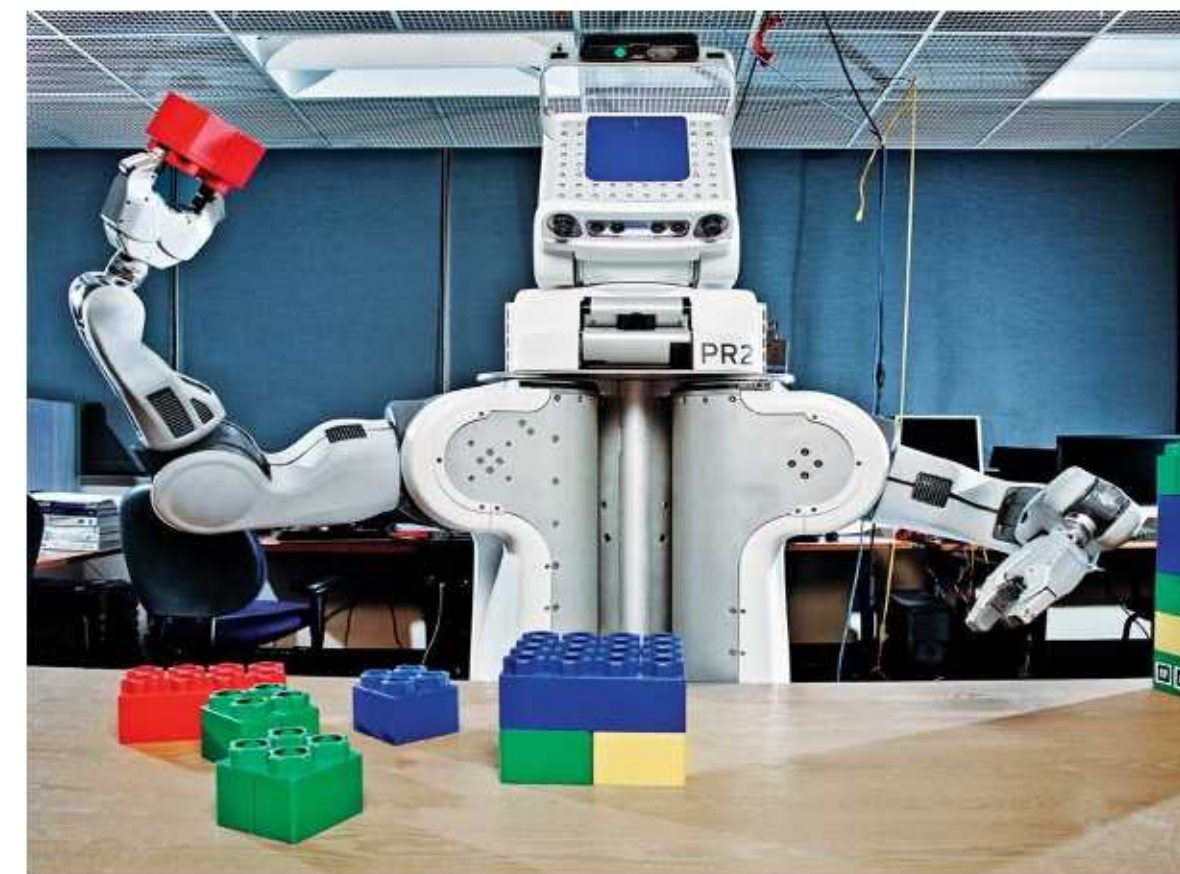


NVIDIA OMNIVERSE

A NEW ERA OF COLLABORATION AND SIMULATION

PAUL GRAHAM, PGRAHAM@NVIDIA.COM

NVIDIA

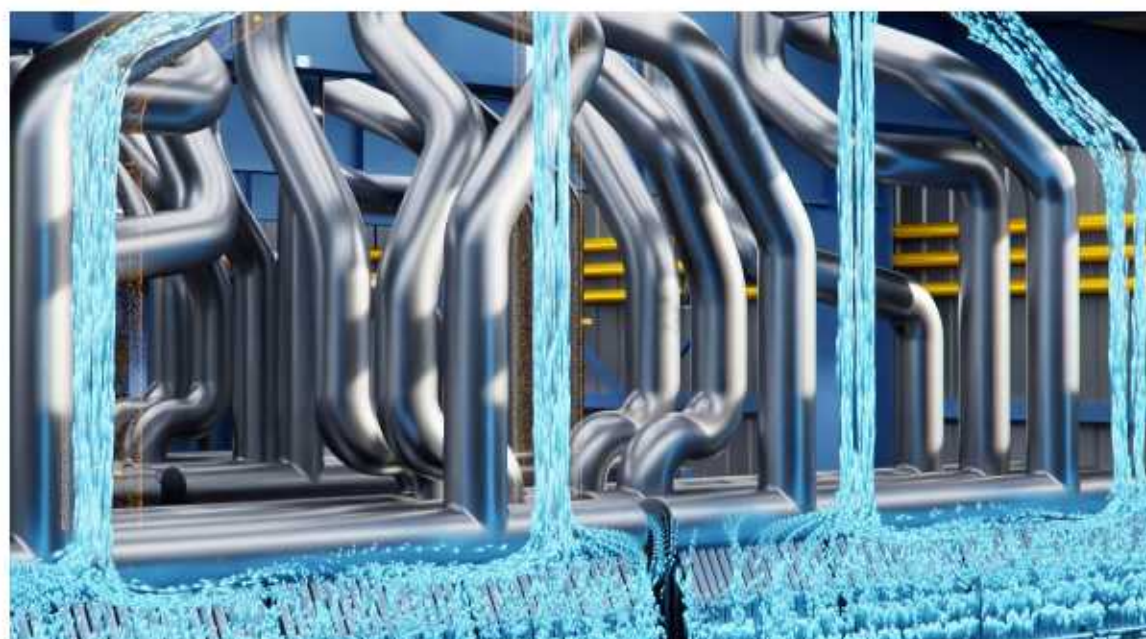
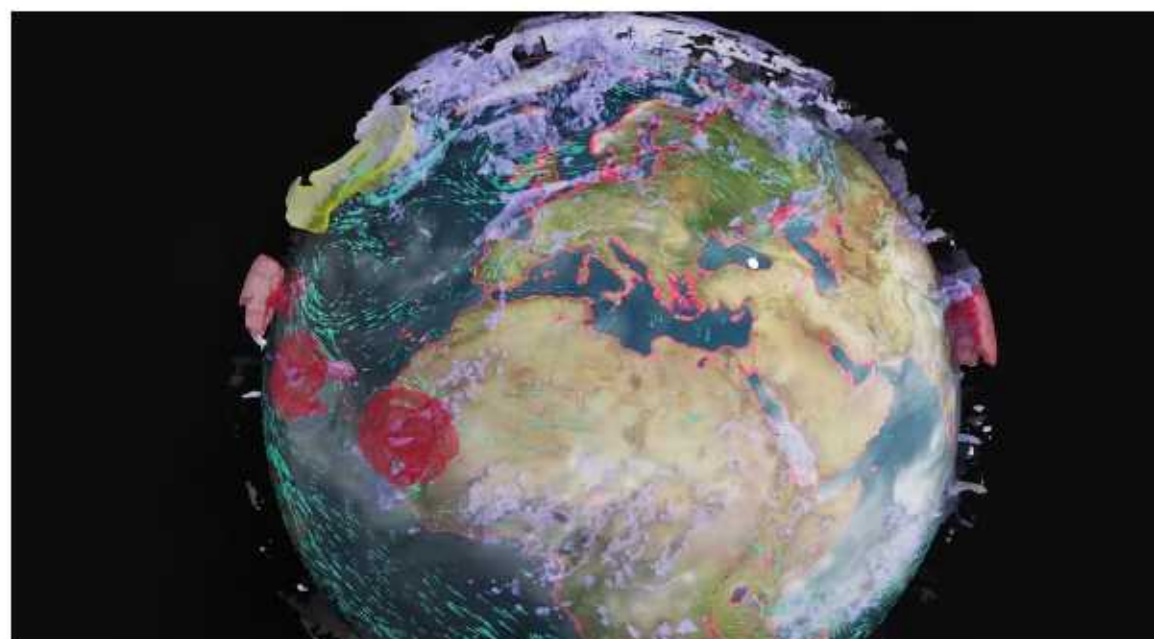
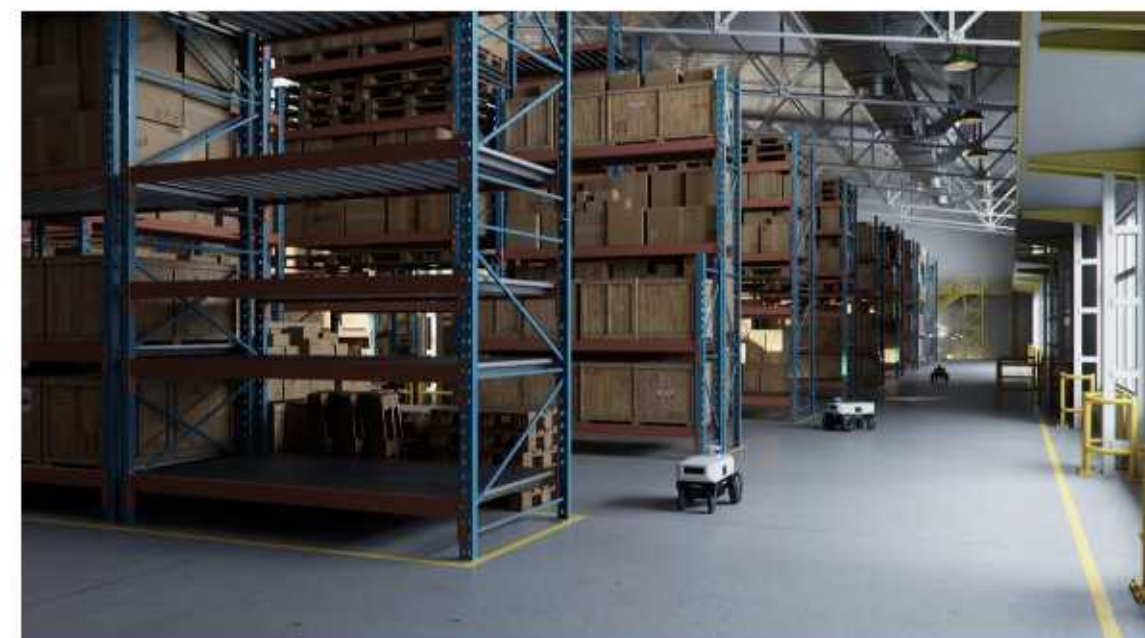
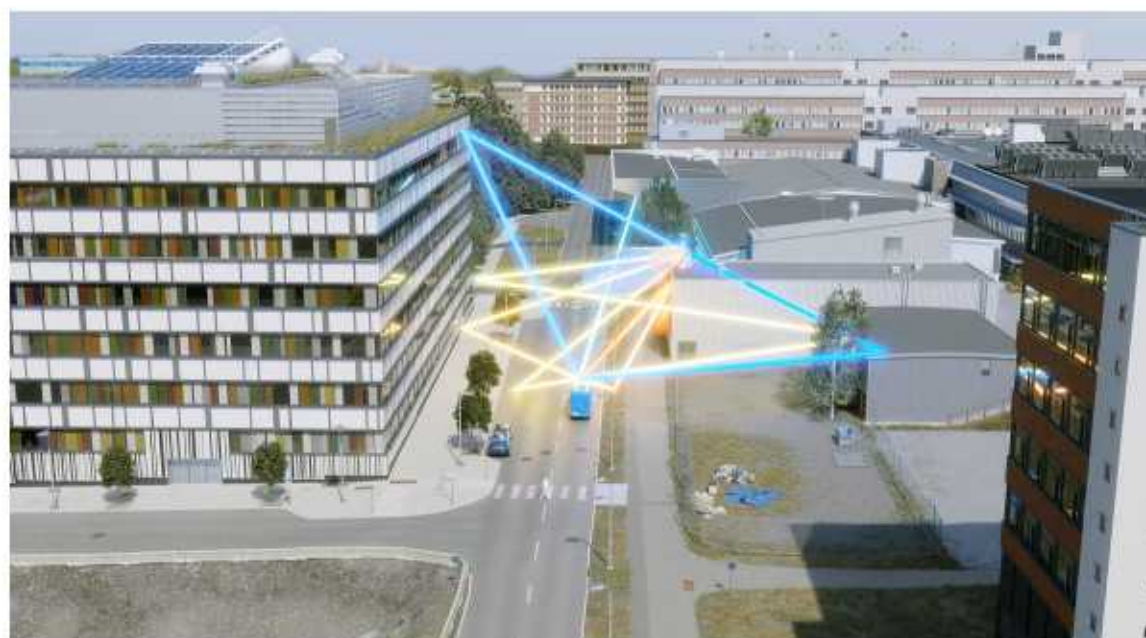


GPU Computing

Computer Graphics

Artificial Intelligence

VIRTUAL WORLDS ARE ESSENTIAL FOR THE NEXT ERA OF AI



THE BIG BANG OF OMNIVERSE

Confluence of Enabling Technologies

RTX TECHNOLOGY

Physically Accurate Simulation



DATA CENTER GPU COMPUTE

Scalable Simulation



USD

Powerful Asset Interchange



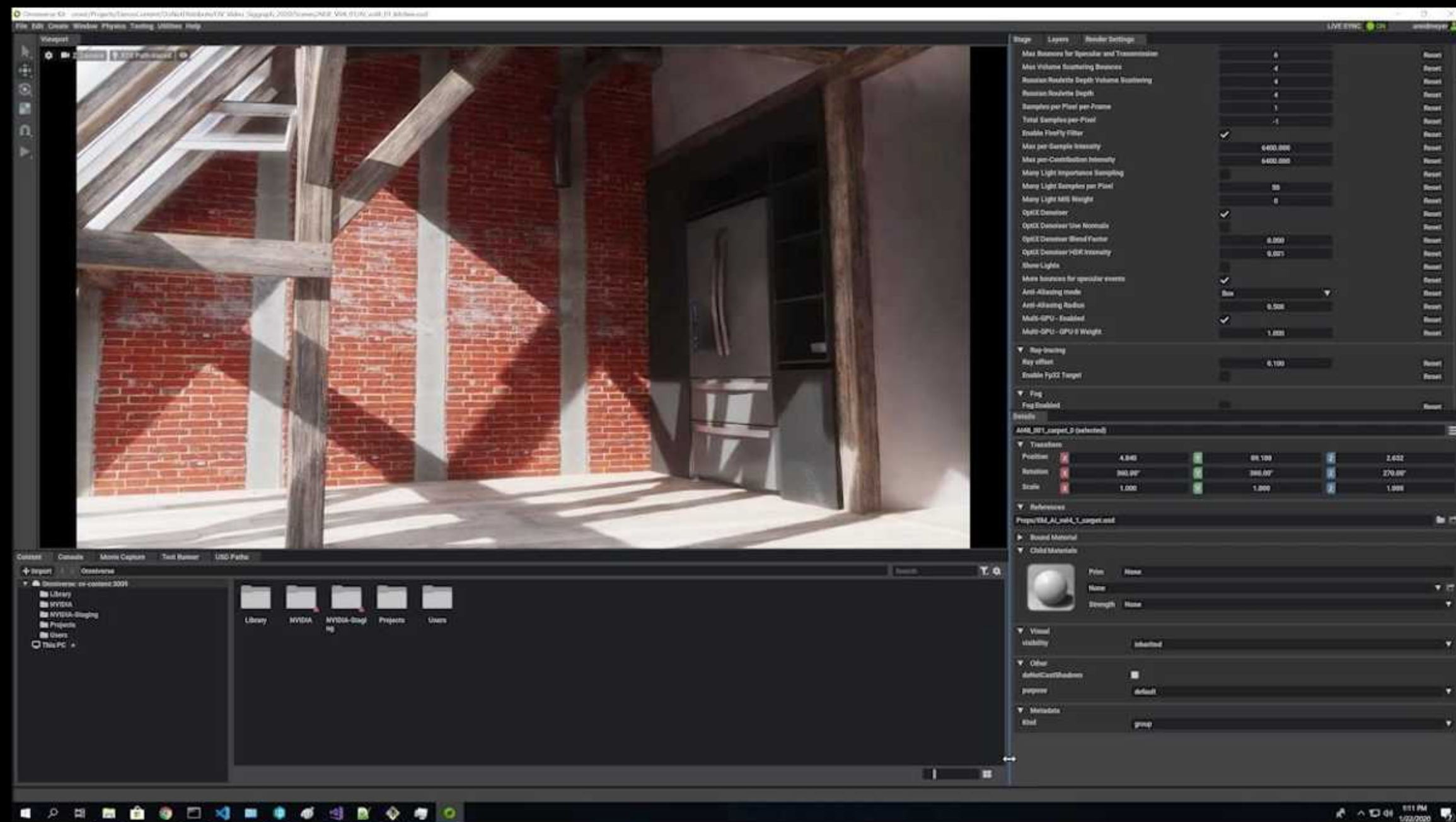
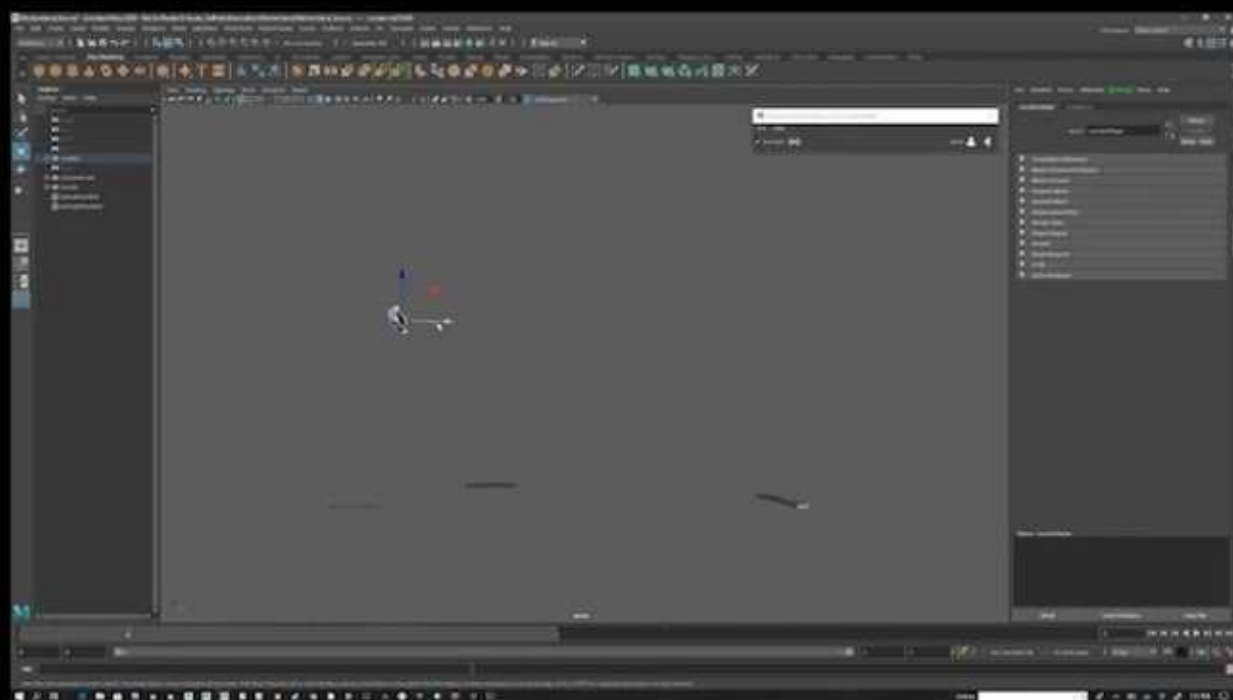
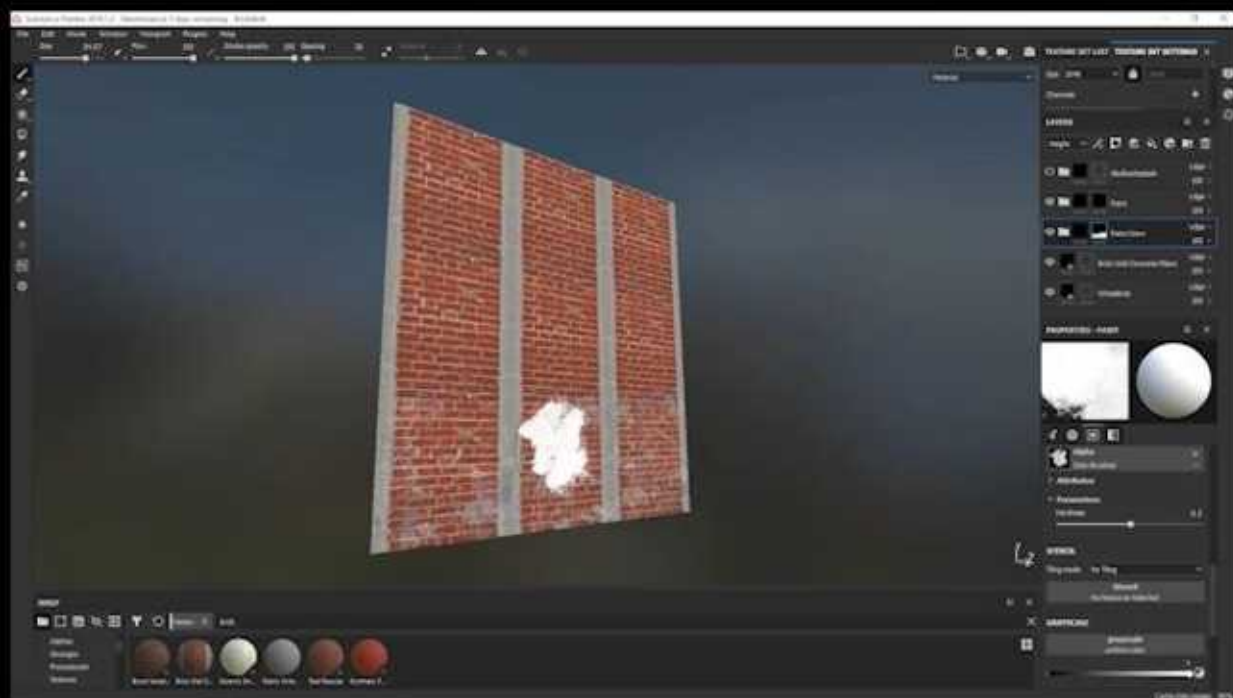
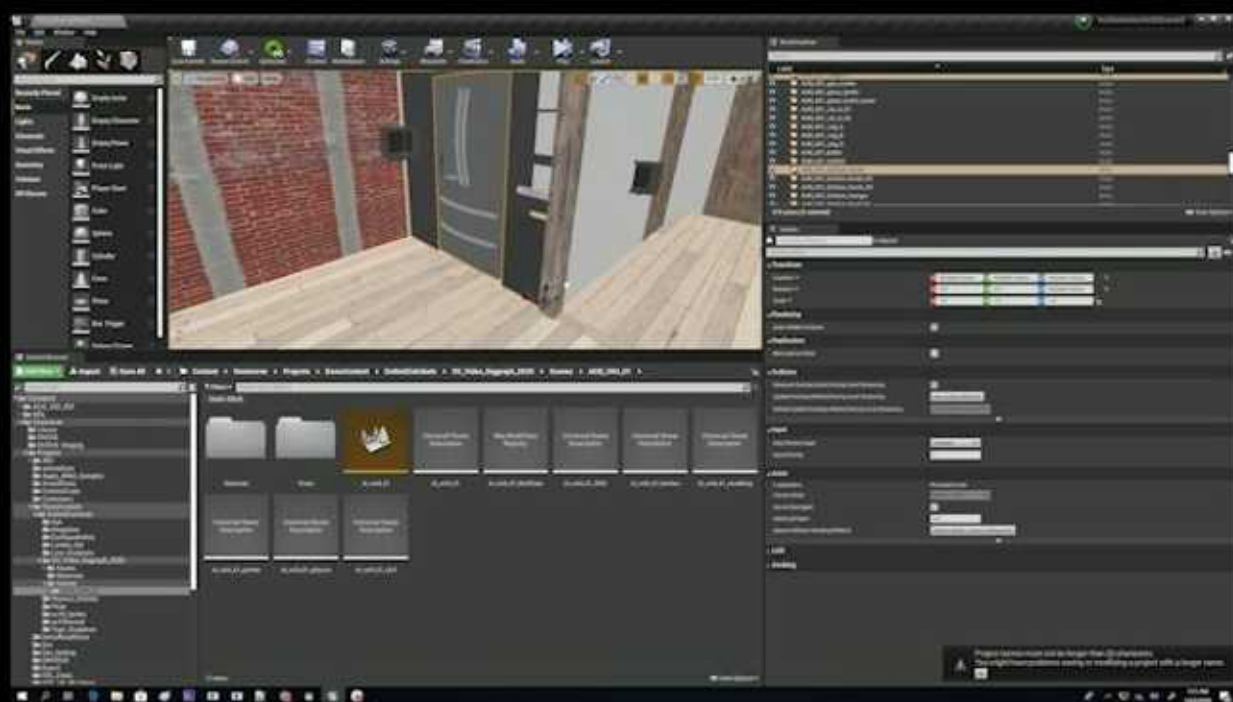
AI REVOLUTION

Demand for Simulation

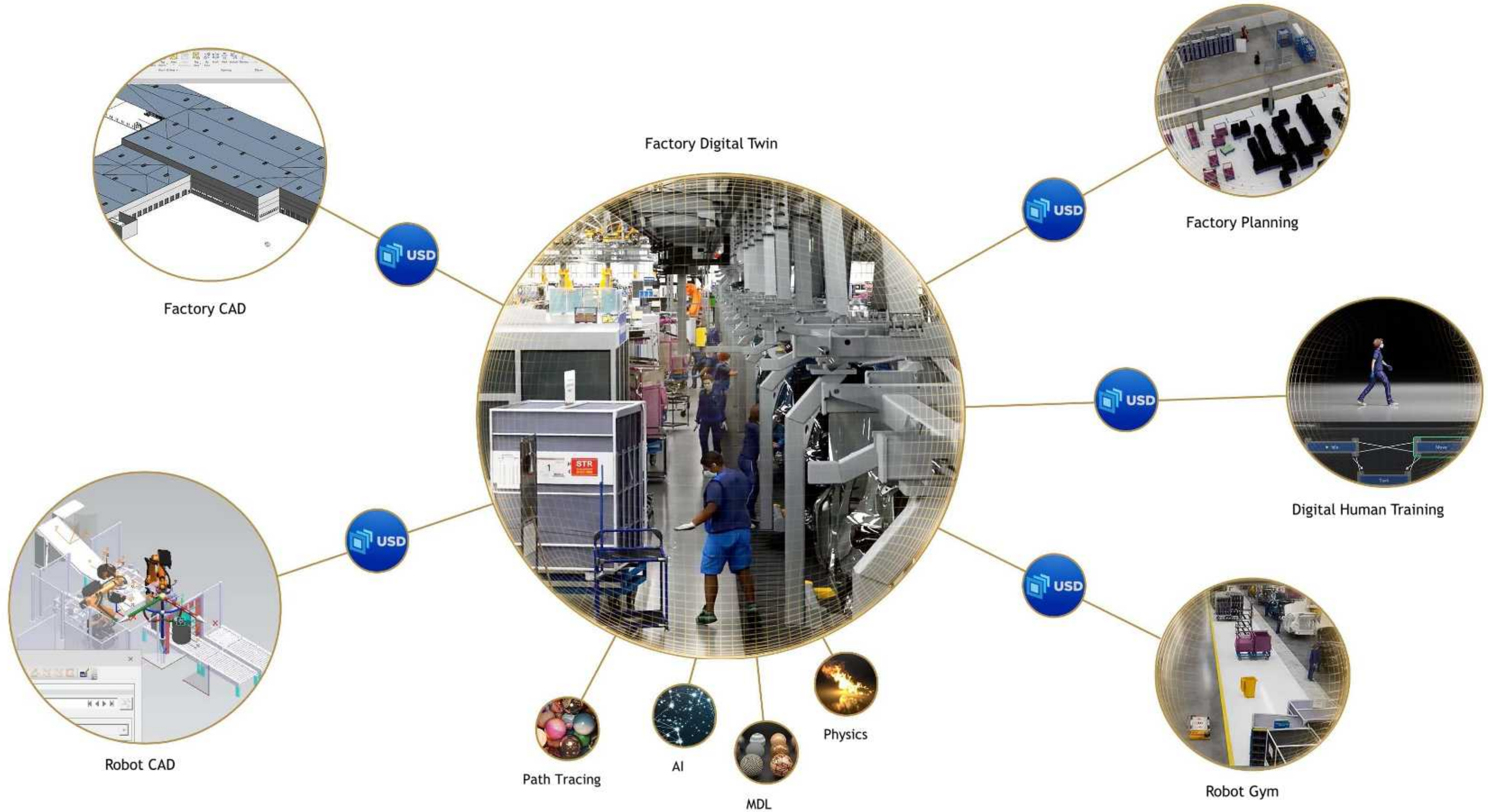


OMNIVERSE CONNECTS CREATORS & 3D DESIGN WORLDS





OMNIVERSE FOR DIGITAL TWINS



Digital twin - BMW Factory





REAL TIME PHYSICS SIMULATION IN OMNIVERSE

Advanced Libraries Providing Foundations for Accurate Virtual Worlds



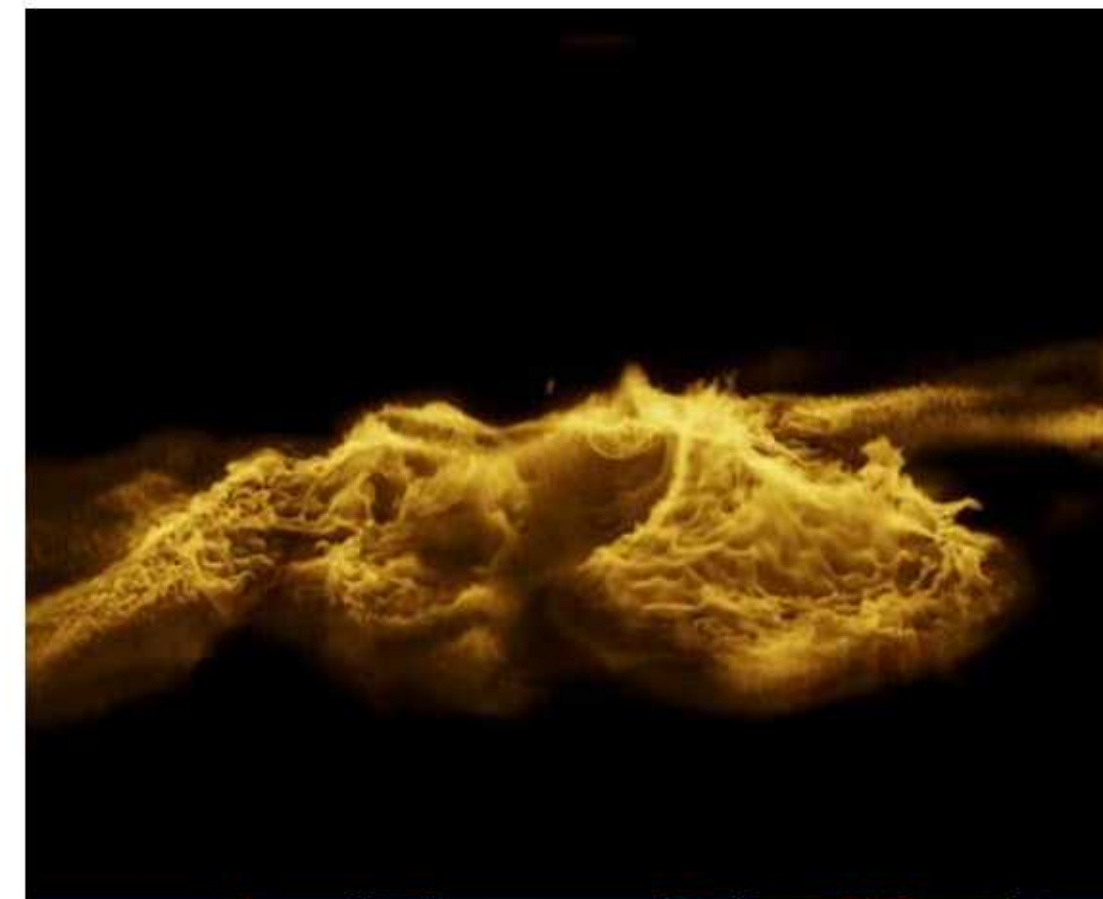
PhysX 5

Rigid, Soft Body, and Vehicle Dynamics



PhysX Blast

Fracture & Destruction



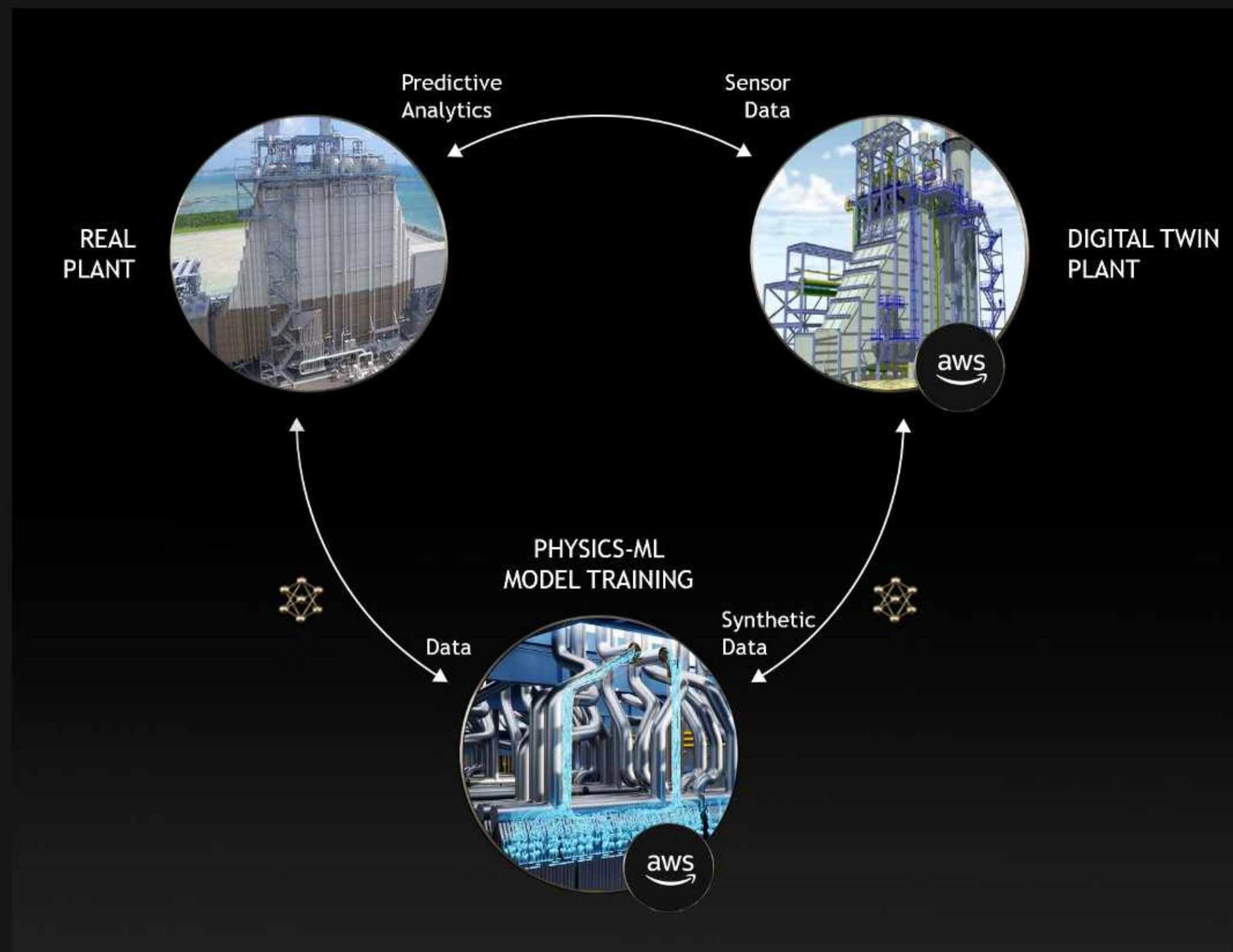
PhysX Flow

Combustible Fluids, Smoke, Fire

NVIDIA MODULUS

A Framework for Developing Physics-ML Models for Digital Twins

- Train Physics-ML Models Using Governing Physics, Simulation, and Observed Data
- Multi-GPU Multi-Node Training
- 1,000-100,000X Speed Models - Ideal for Digital Twins
- Available now



OMNIVERSE

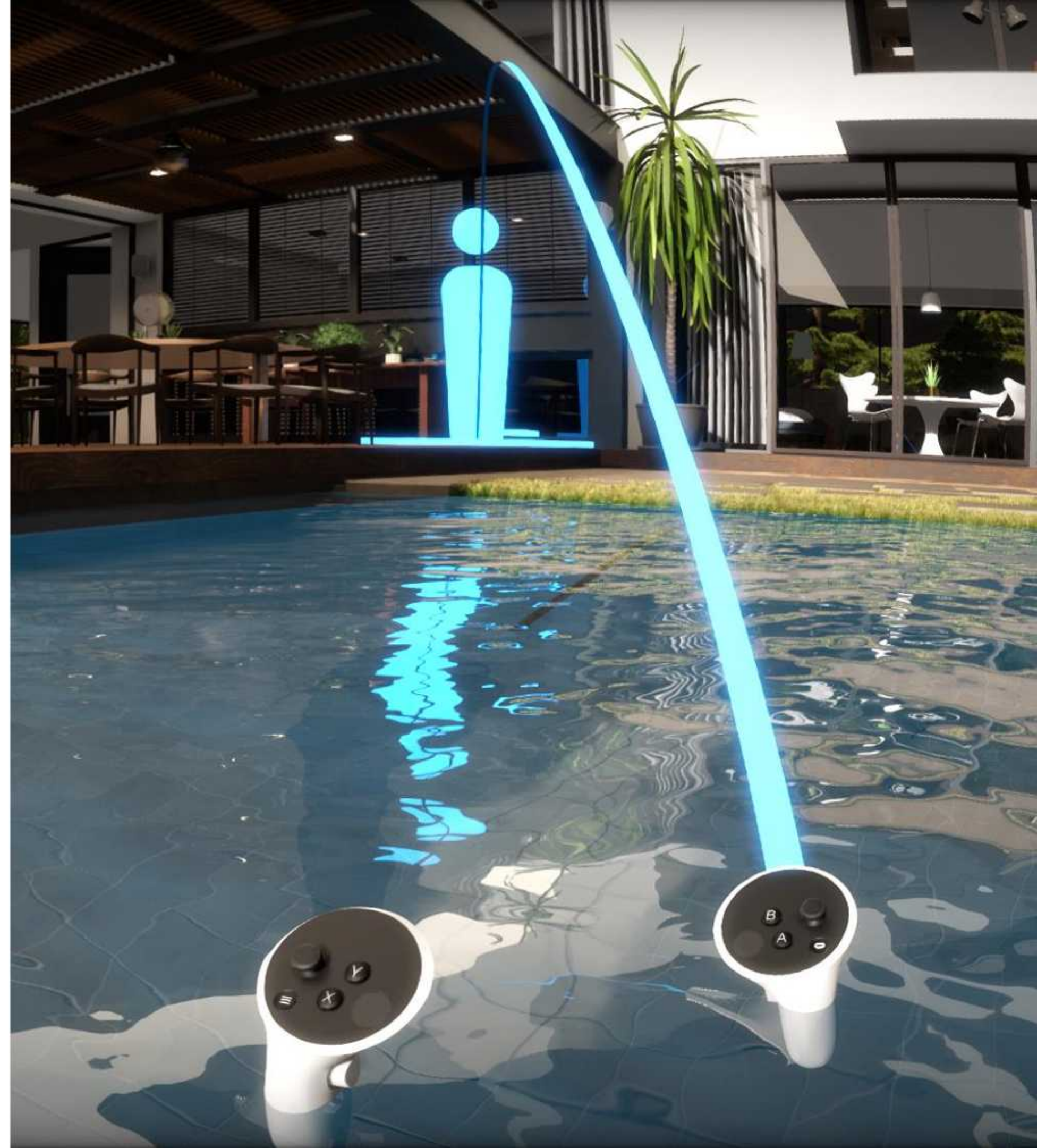
Siemens Energy HRSG Digital Twin Simulation Using NVIDIA Modulus and Omniverse



NEW OMNIVERSE XR APP **BETA**

Not Supported under NVIDIA Enterprise Support

- Omniverse XR App allows you to bring your 3D work into human scale and place them in photorealistic scenes.
- View, review and annotate Omniverse scenes in VR
- Control the lighting of the scene from within VR.
- Navigate through world-scale models with ease.
- Manipulate 3D objects in VR
- **Available April 5**





TORNADO VISUALIZATION

NanoVDB, IndeX, GPUDirect Storage, Iray, OmniVerse



<https://www.youtube.com/watch?v=SonfENaSesw>



THANKS

FOR YOUR ATTENTION

Paul Graham – Senior Solutions Architect, *NVIDIA*
(pgraham@nvidia.com)

Peter Wilsher - Junior Field Application Engineer, *Boston Ltd.*
(peter.wilsher@boston.co.uk)

Joshua Short – Sales Executive, *Boston Limited*
(joshua.short@boston.co.uk)

www.boston.co.uk | sales@boston.co.uk

All products and companies referred to herein are trademarks or registered trademarks of their respective companies or mark holders.

