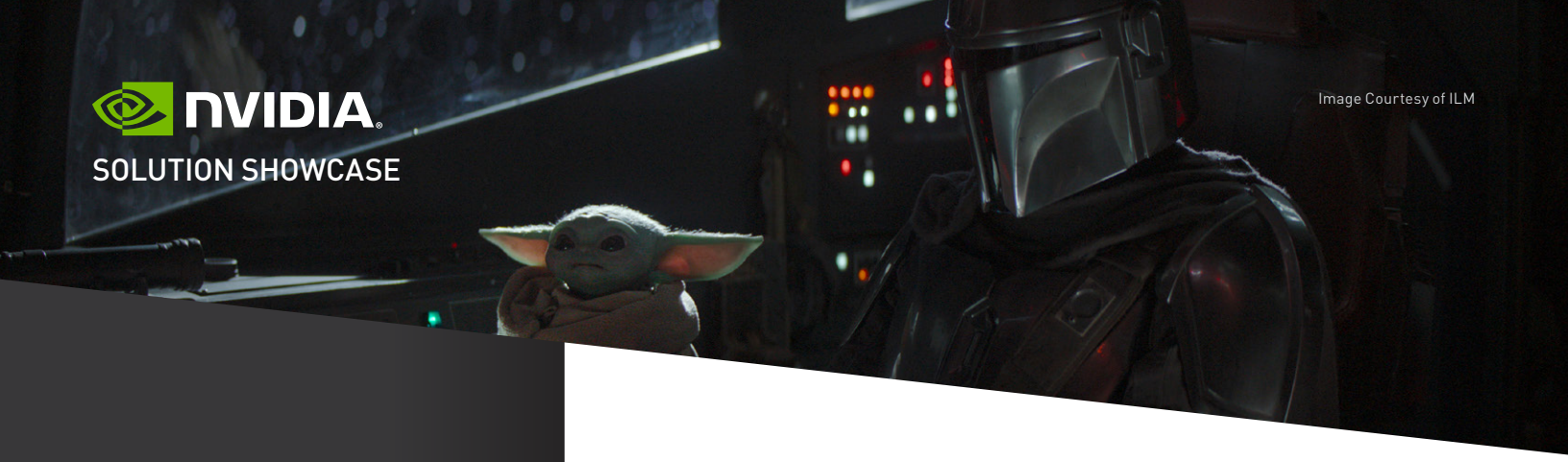


Image Courtesy of ILM

NVIDIA

SOLUTION SHOWCASE

NVIDIA Omniverse™ is a groundbreaking virtual platform built for collaboration and real-time photorealistic simulation. Studios can now maximize productivity, enhance communication, and boost creativity while collaborating on the same 3D scenes from anywhere.

Built For

- Concept Artists
- Modelers
- Animators
- Texture Artists
- Lighting or Look Development Artists
- VFX Artists
- Motion Designers
- Rendering Specialists

Platform Features

- Compatible with top industry design and visualization software
- Scalable, works on all NVIDIA RTX™ solutions, from the laptop to the data center
- Multi-GPU enabled
- Built on Pixar's Universal Scene Description (USD)
- Cloud-native

Compatible With

- Top industry software applications including Autodesk Maya, Substance Designer, Substance Painter, and Epic Games Unreal Engine 4, with many more to come such as Autodesk 3ds Max, Blender, SideFX Houdini, Autodesk MotionBuilder, and Pixologic ZBrush.

POWERING A NEW ERA OF COLLABORATION AND SIMULATION IN MEDIA AND ENTERTAINMENT

> *"NVIDIA continues to advance state-of-the-art graphics hardware, and Omniverse showcases what is possible with real-time ray tracing. The potential to improve the creative process through all stages of VFX and animation pipelines will be transformative."*
>
> — **Francois Chardavoine,** VP of Technology, Lucasfilm & Industrial Light & Magic

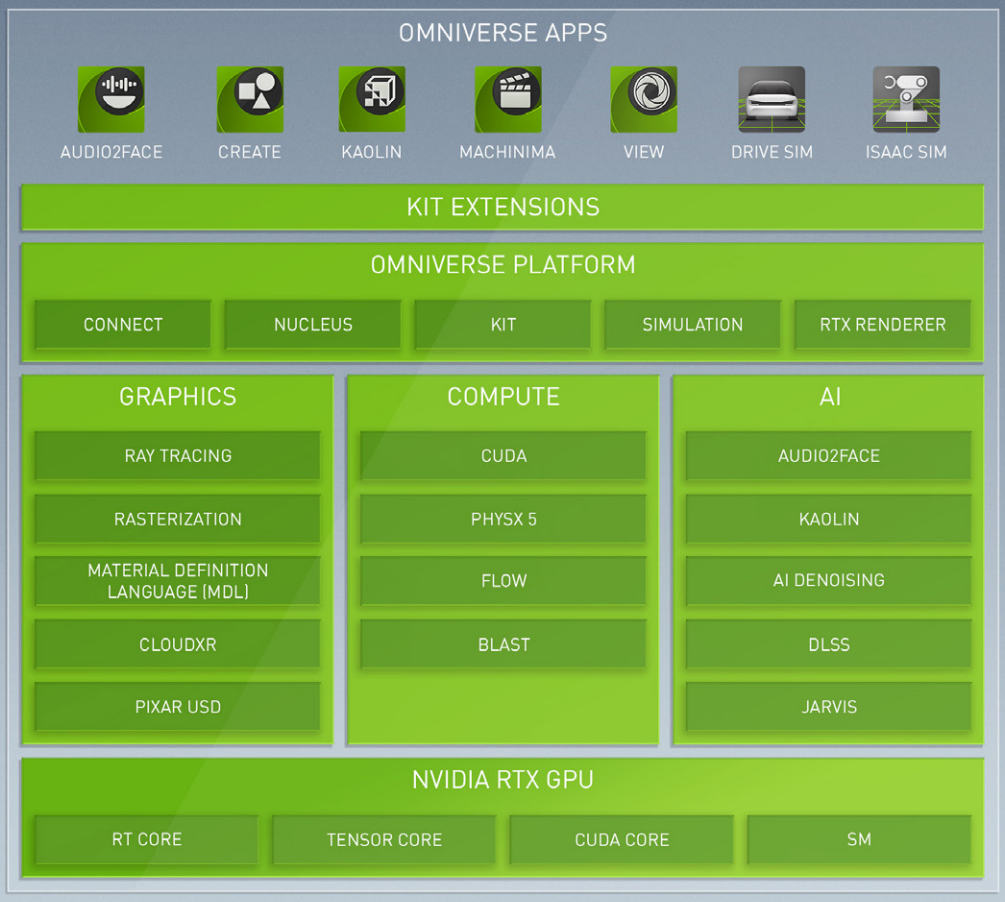
Challenges in the Media and Entertainment Industry

The Film, Television, and Broadcast industries are undergoing rapid change as new production pipelines are emerging to address the growing demand for high-quality content in a globally distributed workforce. Additionally, new streaming services are creating the need for constant releases and refreshes to satisfy a growing subscriber base.

NVIDIA Omniverse gives creative teams the ability to create, iterate, and collaborate on assets using a variety of creative applications to deliver real-time results. Artists can focus on maximum iterations with no opportunity cost or the need to wait for long render times to achieve high-quality results.

M&E Use Cases for Omniverse

- **Initial Concept Design** - Artists can quickly develop and refine conceptual ideas to bring the Director's vision to life.
- **Gaining a Competitive Edge** - Visual art departments can produce innovative ideas swifty, with infinite iterations at no opportunity cost, to meet bid deadlines, win new projects, and maximize profitability.
- **Real-Time Dailies** - Remote teams and supervisors can review beautiful, photoreal shots from almost any device. This lets them convey ideas effectively, reduce the number of review cycles, keep projects on track, and accelerate the path to approvals.
- **Global Collaboration** - Globally dispersed content teams with a broad range of disciplines can now collaborate and communicate easily, increasing creative flow across departments.
- **Virtual Production** - With the move to shooting visual effects in-camera on virtual production stages, virtual art departments can collaborate directly with the set and make directorial edits in real-time.



An Open Platform Built for the Future

NVIDIA Omniverse is an open, cloud-native, multi-GPU enabled platform for virtual collaboration and real-time photorealistic simulation. The full-stack platform based on NVIDIA RTX is a powerful culmination of NVIDIA's core graphics, compute, and AI technologies.

Pixar's Universal Scene Description (USD) is the foundation for Omniverse. The open-source 3D scene description and file format is easily extensible, originally developed to simplify content creation and the interchange of assets between different content creation tools.

With open standards from USD and leading-edge acceleration from NVIDIA RTX technology, the Omniverse platform harnesses both broad support for third-party software vendors across industries and the power of unique NVIDIA technologies.

These include ray tracing, simulation, and MDL—a library of physically based materials for photorealistic feature film-quality content.

The Omniverse stack is designed for maximum flexibility and scalability. The platform can scale at any organizational level, integrate with any IT infrastructure, and support the building of custom apps and extensions.

Platform Overview

The Omniverse platform consists of five key components:

CONNECT

Opens the portals that allow content creation tools to connect to the Omniverse platform and save USD and MDL content. With Omniverse, users continue to work with their preferred industry software applications.

NUCLEUS

Allows users to store, share, and collaborate on project data and provides the unique ability to collaborate live across multiple applications. Nucleus works on a local machine, on premise, or in the cloud.

KIT

The powerful toolkit for developers to create new Omniverse Apps and extensions. Kit Extensions are plug-ins to Omniverse Kit that extend its capabilities for developers to enhance their workflows and UI.

SIMULATION

Powered by core NVIDIA technologies that simulate the world including NVIDIA® PhysX®, Flow, Blast, and Rigid Body Dynamics.

RTX RENDERER

An advanced, multi-GPU renderer based on NVIDIA RTX that supports both real-time ray tracing and ultra-fast path tracing.

Accelerating Workloads at Any Scale

Efficient, Optimized Workflows

Enable seamless, real-time collaboration across locations, teams, and top industry software applications, and achieve a maximum number of creative iterations with faster time-to-market.

Real-Time, Multi-GPU Ray-Traced Viewport

Power real-time, feature-film quality, multi-GPU ray tracing, and path tracing on USD content with NVIDIA RTX.

Physically Accurate Simulation

Achieve high-performance simulation of complex, 3D, physically accurate worlds with minimal effort using the latest in NVIDIA simulation and AI technologies.

Omniverse Apps for Media and Entertainment

Omniverse Create is an app that accelerates advanced scene composition and allows users to interactively assemble, light, simulate, and render scenes in Pixar USD in real-time.

Create unifies the production and post-production pipeline. Artists can easily create complex, physically accurate, real-time animations, virtual sets, on-air graphics, or stunning in-camera visual effects shots while working simultaneously across different creative applications.

Omniverse Audio2Face is an AI-powered application that generates expressive facial animation from just an audio source.

Audio2Face simplifies animation of a 3D character to match any voice-over track, whether you're animating characters for a game, film, real-time digital assistants, or just for fun. You can use the app for interactive real-time applications or as a traditional facial animation authoring tool. Run the results live or bake them out, it's up to you.

Omniverse Connectors

Omniverse Connectors are plug-ins to top industry software applications and microservices. Today, Omniverse connects to top content creation applications, including Autodesk Maya, Adobe Photoshop, Substance Painter, Epic Games Unreal Engine, and many more to come.

Autodesk 3ds Max
Coming Soon

Blender
Coming Soon

SideFX Houdini
Coming Soon

Autodesk Maya

Autodesk MotionBuilder
Coming Soon

Adobe Photoshop

Substance Designer

Substance Painter

Epic Games
Unreal Engine 4

System Requirements

Element	Minimum Specifications
OS Supported	Windows 10 64-bit , Linux coming soon
CPU	Intel i7, AMD Ryzen
CPU Cores	4 or higher
RAM	16 GB or higher
Storage	500 GB SSD or higher
GPU	Any RTX GPU
VRAM	6 GB or higher
Min. Video Driver Version	455.28 (Linux), 456.71 (Windows)

Note: Omniverse is built to run on any RTX-powered machine. For ideal performance, we recommend using Quadro RTX™ 5000 or higher.
For latest drivers, visit here

DOWNLOAD OMNIVERSE

Learn more: **www.nvidia.com/omniverse**

NVIDIA