

Abstract Delivers InstaLOD 2026: Redefining Geometry Optimization for Real-Time 3D

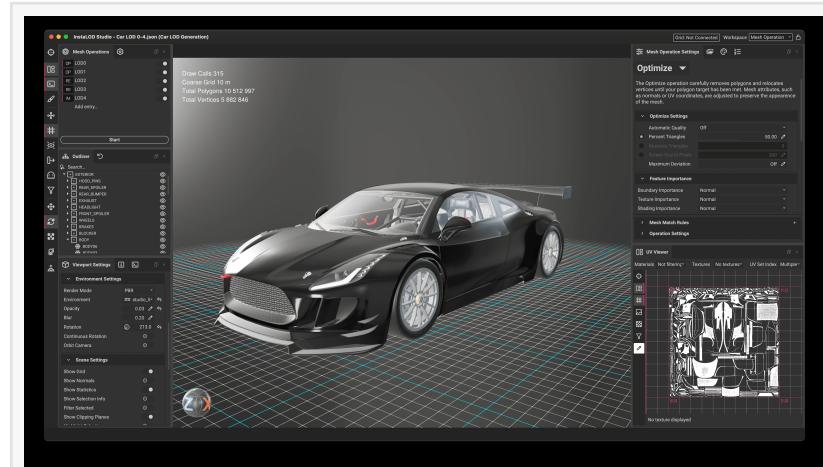
InstaLOD 2026 simplifies and scales 3D asset preparation, helping teams move from source data to production-ready content faster and more efficiently.

STUTTGART, GERMANY, February 11, 2026 /EINPresswire.com/ -- [Abstract](#), a deep-tech company pioneering cutting-edge 3D and AI technology solutions, launches [InstaLOD](#) 2026. The update focuses on improving visualization quality, workflow automation, and scalable optimization across modern 3D production pipelines. With new automated delivery optimization for VR, deeper Polyverse integration, new bakers, expanded animation and format support, raytraced shadows in the viewport, and expanded UV unwrapping toolkit, teams can process complex 3D data faster while achieving higher visual fidelity and more predictable results at scale.

“

We're focused on removing friction between raw source data and production-ready assets so teams can transform content into optimized results faster and at scale across every pipeline.”

Manfred M. Nerurkar, CEO of Abstract



Create scalable mesh processing workflows with InstaLOD Studio from CAD to 3D conversions, to automated LOD generation pipelines capable of processing thousands of assets.

Delivery Optimization now includes a dedicated VR target that automatically optimizes and prepares scenes for the performance requirements of immersive VR devices. InstaLOD intelligently balances polygon count, texture footprint, and draw calls to maintain smooth runtime performance while preserving visual fidelity. Instead of manually tuning each asset for different platforms, teams can simply choose a destination platform and allow InstaLOD to apply consistent optimization across entire scenes.

Automatic Optimization for VR and Target Platforms

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This scalable, destination-aware workflow simplifies deployment for VR, AR, and web

applications alike, reducing technical overhead and enabling teams to ship optimized content with predictable results across multiple platforms.

Seamless Asset Management with Polyverse

Deeper integration with Abstract Polyverse enables users to browse, download, and import assets directly into InstaLOD Studio through a built-in asset browser. Original source models and their automatically generated LODs are immediately accessible, allowing teams to move seamlessly from cloud-based asset management to local optimization and processing. Authentication improvements further streamline access, minimizing interruptions and keeping workflows fluid.

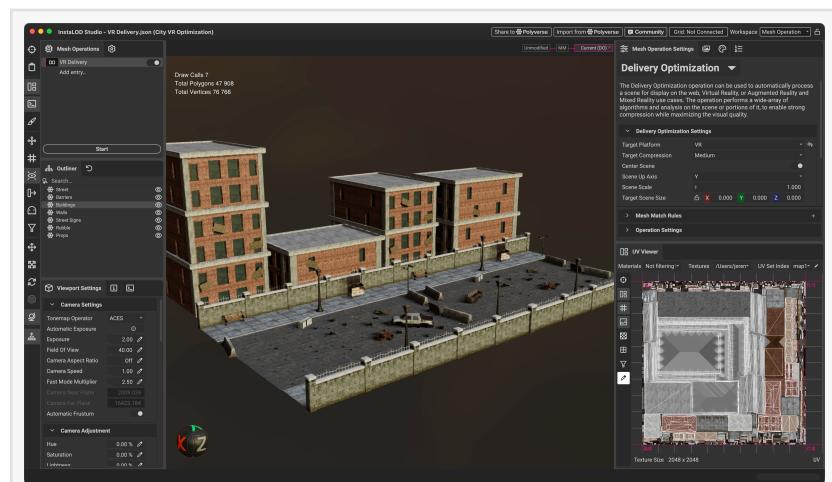
By shortening the path from asset discovery to optimization, this integration reduces manual file handling and helps distributed teams collaborate more efficiently across shared libraries and large content repositories.

Advanced Bakers for Higher-Quality Surface Detail

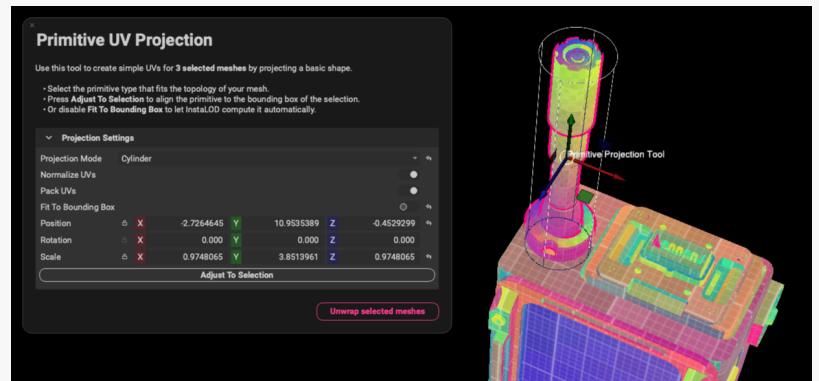
Two new bakers further strengthen InstaLOD's asset texture preparation workflows. A Disk Sampling Curvature baker produces more accurate and stable curvature maps across a wide range of use cases and art styles, while the Bevel Normals baker generates smooth, rounded edges in a normal map without adding extra subdivisions or geometry. These new bakers allow artists to enhance their texturing workflows while keeping meshes lightweight and efficient.

Production-Ready Animation and Broad Format Support

InstaLOD 2026 introduces comprehensive animation support across all major 3D formats. GLTF and USD workflows now include full support for skeletal meshes, blend shapes, and both skeletal and object-based animations, bringing these formats to parity with industry standards.



InstaLOD 2026's Delivery Optimization now supports VR, automatically optimizing polygon count, textures, and draw calls for smooth performance on VR devices.



InstaLOD extends its powerful UV unwrapping technology with 3D primitive projection functionality.

FBX workflows have been enhanced with improved compatibility across leading digital content creation tools, ensuring that skeletal data and animations transfer seamlessly between applications.

Additionally, new export options give users greater control over animation, skeleton, and blend shape data. Whether you're working with character rigs, blend shape animations, or complex skeletal hierarchies, InstaLOD now provides a unified, production-ready animation pipeline across FBX, GLTF, and USD formats.

Combined with expanded CAD compatibility, updated file format support, and synchronized improvements across Blender, Unreal Engine, Maya, 3ds Max, and VRED integrations, InstaLOD fits more seamlessly than ever into existing production pipelines across games, film, XR, and enterprise visualization.

Cinematic Visualization with Raytraced Viewport Rendering

InstaLOD Studio's physically accurate viewport now includes raytraced shadows, enabling artists and technical teams to evaluate assets under realistic lighting conditions while optimizing them. Improved translucency, bloom, and transparency rendering provide clearer depth and surface feedback, making it easier to assess materials, silhouettes, and shading directly inside the application.

By bringing high-fidelity previewing into the optimization workflow, teams can make faster decisions without constant round-tripping to external renderers, ensuring assets look correct while they are being processed.

Smarter, Scalable UV Workflows with Primitive Projection

UV unwrapping now features a powerful 3D primitive-based projection mode that allows layouts to be generated from planes, cylinders, spheres, and boxes. Projections can automatically fit selected geometry or adapt dynamically to bounding volumes, enabling consistent, repeatable results even when processing diverse or unpredictable datasets.

Whether applied interactively through the mesh menu, as part of a reusable InstaLOD profile with the UV Unwrap mesh operation, or as part of automated scene rules, the new system extends InstaLOD's powerful UV processing capabilities providing even more choice for artists and teams seeking scalable, flexible UV layout solutions across their production pipelines.

Expanded Mesh Toolkit for Cleaner, Production-Ready Geometry

The Mesh Toolkit has been expanded with new smoothing and winding order capabilities designed to address common issues found in CAD and scan-derived geometry. Uneven topology can now be smoothed into more consistent, unified surfaces, while an improved winding

algorithm automatically detects and corrects flipped or inconsistent face orientations. These enhancements help eliminate artifacts early in mesh processing pipelines and create more reliable inputs for optimization, baking, and rendering.

With stronger automated repair tools, teams can spend less time troubleshooting problematic meshes and more time focusing on optimization and delivery, resulting in faster and more predictable production outcomes

Built for Scale Across Every Pipeline

With raytraced viewport rendering, expanded UV and optimization workflows, enhanced mesh repair, and refined baking pipelines, InstaLOD 2026 transforms how large-scale 3D production is approached. By reducing manual intervention and streamlining asset production, it enables teams to process complex geometry with unprecedented speed and reliability. The update reinforces InstaLOD's role as a foundational tool in modern 3D pipelines, ensuring that projects can scale efficiently while maintaining consistent visual fidelity and technical integrity.

About Abstract

Abstract is a deep-tech company pioneering 3D and AI technology. Its products empower game developers, VFX and film, enterprise, XR, and metaverse industries to deliver efficiently with massive cost savings. InstaLOD converts CAD to 3D, optimizes geometry and automates 3D pipelines, InstaMAT introduces generative materials and scalable texturing, Polyverse enhances cloud-based asset management and 3D data processing as a service, while RSX Engine enables real-time collaboration and cloud synchronization when building 3D applications and games. Abstract is driving breakthrough innovation in 3D and AI across industries.

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