

Arvizio XR Platform Solution

Enterprise Mixed Reality Collaboration & Visualization

Key Features

- Optimize and manage large and complex 3D models
- 30+ spatial data formats supported including CAD, BIM/IFC, OBJ, FBX, STL, glTF, etc.
- Support of large LiDAR point cloud models (billions of points)
- Hybrid Rendering for high definition model visualization
- Metadata handling for structured models
- Dynamic LOD capabilities
- Real-time collaboration with local and remote participants
- Rapidly connect and sync headsets with QR Code
- Integrate with IoT data streams
- 1:1 scale interaction with holographic models including point clouds
- Automatically scale and align models with the physical world
- Accurate in-model and real-world measurement tool
- Real-time and persistent annotation capabilities
- Project data and document viewing and collaboration
- iOS and Android mobile device participation

Microsoft Partner | Mixed Reality



The Challenge & Solution

Digital transformation is rapidly growing in many industries including AEC, energy, mining and industrial design and manufacturing where organizations are increasingly seeking AR/MR solutions capable of multi-user complex 3D model visualization for collaborative design, planning and stakeholder review sessions. Many of these LiDAR scans and industrial and AEC 3D models are too complex to render on headset devices. Arvizio's enterprise XR Platform solves this by offering hybrid rendering and 3D model optimization to create multi-user shared AR/MR experiences with massive 3D BIM and CAD models, LiDAR point clouds and photogrammetry models.

These large 3D models are streamed to, and visualized on, spatial computing MR headsets and mobile devices using the Arvizio Immerse app. This offers users the ability to walk through designs at life size, align models with the real world for AR/MR digital twin scenarios, annotate, measure, zoom/rotate and conduct virtual design reviews with multiple participants sharing a synchronized view of virtual objects.

About Arvizio's XR Platform

The Arvizio XR Platform combines advanced 3D visualization, real-time sharing and data integration in a single comprehensive solution with these key components:

- **XR Director** – An extensible platform that manages the full MR experience including import, processing and hybrid rendering of complex 3D models optimized with automatic Level of Detail (LOD). Director also provides real-time, multi-user sharing, IoT data integration, document viewing and annotation capabilities.
- **Immerse MR** – A mixed reality application for complex 3D holographic model viewing and collaboration. Immerse provides a fully synchronized operation with XR Director and allows HoloLens, Magic Leap and VR users to load, rotate, zoom and manage models as well as view integrated real-time IoT data and associated documents.
- **Immerse Mobile AR** – Leverages XR Director in conjunction with ARCore & ARKit to visualize 3D models on mobile devices and tablets in augmented reality. Offers alignment, annotation, sharing and large model visualization capabilities with the ability to share in the experience via iOS or Android devices.



- 3D Model Optimization & Hybrid Rendering of BIM, CAD and Point Cloud 3D Models
- Multi-User Sharing Sessions with 3D Models, Annotations, Documents, Live IoT Data
- Director Stores All Model Data - Arvizio XR Services Securely Relay Data on Demand
- AR & MR Real World Alignment to Align Models On-Site

About Arvizio

Arvizio delivers enterprise solutions for augmented and mixed reality experiences utilizing Magic Leap 1, Microsoft HoloLens, virtual reality devices, tablets and smartphones. Our XR software platform brings new levels of efficiency with state-of-the-art 3D collaboration, visualization and real-time data integration capabilities, to a variety of industry verticals including AEC, industrial engineering, energy, mining, technical training and education.

Key Benefits of the Arvizio XR Platform

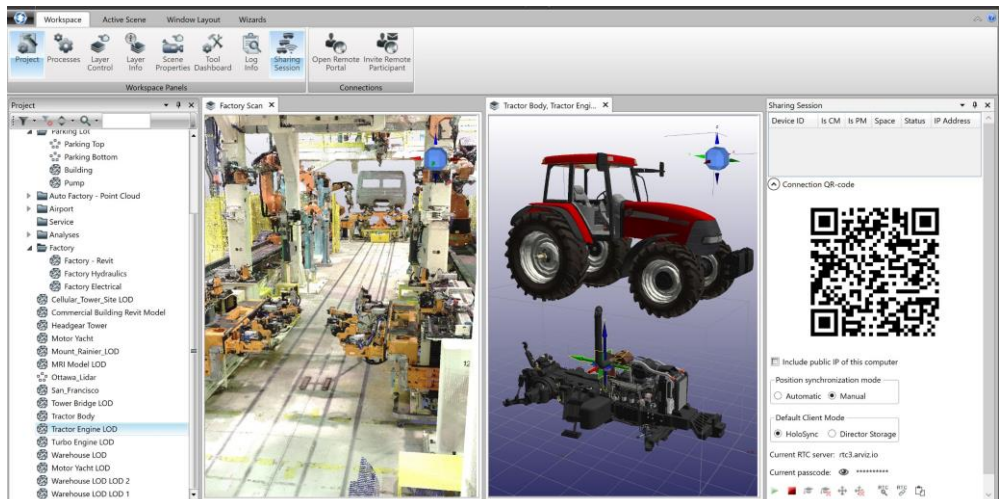
- **Extensible Import of CAD, BIM and Point Cloud Models**
 - Native support of 30+ spatial data formats
 - Seamless Integration with Autodesk BIM360/A360 cloud
- **Industry leading mesh and point cloud model optimization**
 - Advanced quality metrics for each individual object
 - Fully automated and guided modes
 - Efficient handling of complex models with 1000s of objects
- **Scalable Hybrid Rendering**
 - High quality dynamic visualization of massive LiDAR scans (1B+ points)
 - Large CAD & BIM model visualization (100M+ polygons)
- **Multi-user & multi-site shared experiences**
 - Local & Remote collaboration options
 - Cross-OS AR/MR/VR solution (LuminOS, UWP, iOS & Android)
 - Flexible role assignment, content & position masters
- **Easy to use & quick to deploy**
 - No programming required, GUI driven solution
 - The XR Platform can be installed and configured in less than 30 min

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