holo|one sphere

The Enterprise Standard for Mixed Reality Software

About us

Founded in November 2018

Developing the MR platform sphere

Located in USA Switzerland China

Flagship partner of Lenovo

Official supplier for GROUPE RENAULT ZF Micron

Current status of AR | MR Market

What kind of challenges & pain-points across multiple departments should be tackled using the MR technology?

What should be your expectations towards the MR technology?

What previous experiences within the field of AR | MR have we gained? Which hardware & software (standardized vs. custom) have been used and why?

sphere - 4 major use cases, 1 solution

Increasing productivity with a unified, standardized MR software.

Workflow Guidance

MR guided workflow and training.

Remote Assistance

Reach out to expert knowledge – anywhere, anytime.

Digital Workspace

Real-time collaboration in an MR workspace.

Life-Size Overlays

Automatically convert 3D/BIM models to MR and perform overlays.

Use Case 1 -
Workflow Guidance

Organizing SOP trainings for machine operators directly at the relevant equipment on-site utilizing context-aware information & content.

Using MR-powered step-by-step instructions during manufacturing and maintenance for paperless recording & batch documentation.

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Features:

- Generating or importing workflow procedures
- Handling of workflow templates & workorders
- Support for 9 different step types incl. branching to steps / workflows
- File attachments of all kinds
- Version control & approval functionality
- QR code triggering
- Networked tag-along & location-based workflow execution
- Indication for point-of-interest (marker & 3D model)
- Reporting functionality
- ...

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Deploying Sphere at Micron Technologies

Successfully using AR and automation to create **efficiencies**

Micron Technology invests in manufacturing and operational excellence to fuel product delivery today and innovation tomorrow. It starts with deep investment in manufacturing innovation to meet rising memory and storage demands, and then expands to a keen focus on operational excellence to navigate marketplace volatility.

The pandemic is transforming how factories operate — where remote operations enabled by smart manufacturing technologies have become the new normal for improved productivity and quality. With Lenovo ThinkReality and

Micron is an industry leader in innovative memory and storage solutions, transforming how the world uses information to enrich life for all. Founded in 1978 in the basement of a dental office, Micron has grown to become

1978 founded in the basement of a dental office

$27.7B USD annual revenue (2021)

> " We believe that AR/VR technology has a vital role to play in the future of manufacturing. With the Lenovo ThinkReality solution powered by holo|one software, engineers can work more efficiently to keep production facilities running smoothly, helping us to meet growing demand for our products."
>
> **Ning Khang Lee**, *Director of Smart Manufacturing & AI, Micron*

Use Case 2 -
Remote Assistance

Providing remote assistance between machine operators or maintenance technicians and the plant engineering team.

Connecting manufacturing sites with suppliers of machinery equipment.

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Features:

- Audio & video streaming service | conference calling
- Chat functionality
- Media sharing & manipulation
- Support for documents, pictures, videos, audio files, 3D models
- Live annotation & screenshot functionality
- Session recording
- Privacy feature
- Guest calling functionality
- Reporting functionality
- ...

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Use Case 3 -
Collaborating in MR for Design Reviews

Supporting layout discussions during various project phases (CD, BD, DD) – for procurement projects of new equipment as well as retrofits of existing installations.
Thereby, not only internal stakeholders but also external people (e.g. machine suppliers) can be involved for collaboration sessions.

Features:

- Automatic optimization and conversion of 3D models
- Support for 2D assets of all kinds
- Real-time synchronization of holograms
- Collaboration session within shared physical space
- Remote participants including audio streaming service
- Avatar visualization
- Session saving & loading
- …

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Use Case 4 -
Life-Size Overlays for Mock-up Studies

Supporting mock-up studies for equipment retrofits and new installations by means of holographically discussing the ideal configuration and challenging the layout during collaboration sessions among various disciplines.

Features:

- Automatic optimization and conversion of 3D models
- Support for 2D assets of all kinds
- Real-time synchronization of holograms
- Collaboration session within shared physical space
- Remote participants including audio streaming service
- Avatar visualization
- Session saving & loading
- Overlaying 3D models with the reality by means of reference points
- ...

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Unified platform

sphere covers all major enterprise use cases in a unified and standardized software product to ensure maximum flexibility and versatility for company-wide usage

Enterprise setup

sphere meets our customers' highest standards regarding data integrity and comes with several options to comply with common enterprise requirements regarding active directory integration, server hosting and white labeling
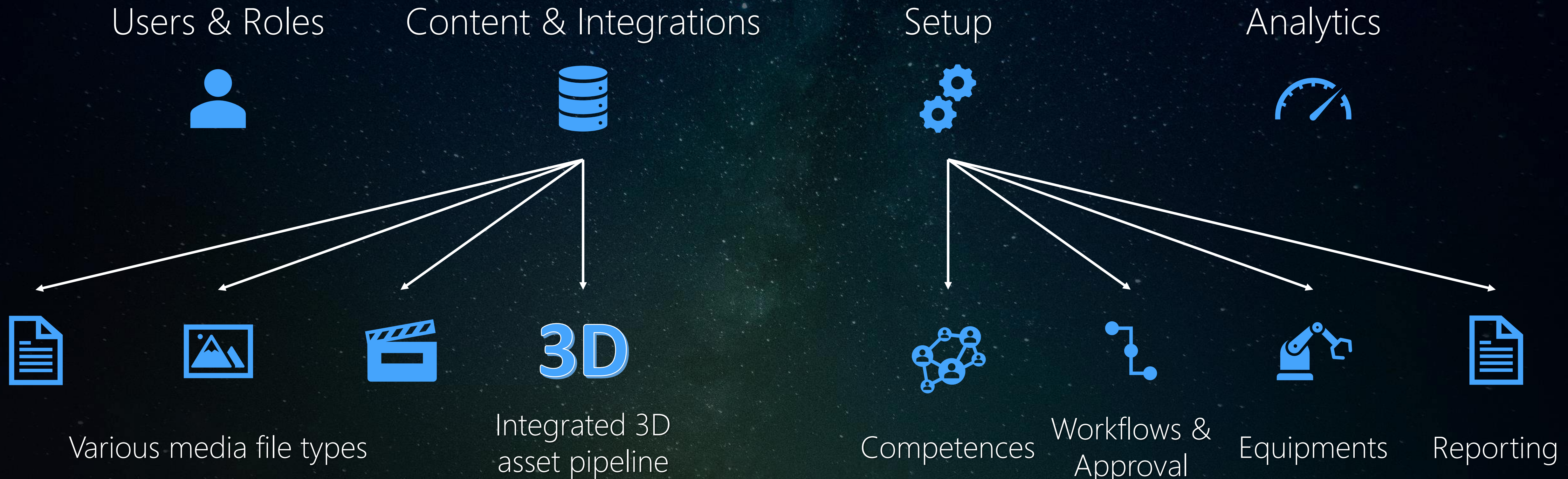
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Device agnostic

sphere runs on all major platforms leveraging Spatial Computing capabilities to ensure full flexibility when matching hardware characteristics to individual user requirements

Full integration

sphere is designed to be seamlessly integrated into an already existing software landscape through API interfaces with 3rd party applications such as ERP / CRM tools as well as IoT gateways for live machine data

Management Portal

Users & Roles

Content & Integrations

Setup

Analytics

Various media file types

Integrated 3D asset pipeline

Competences

Workflows & Approval

Equipments

Reporting

Web application:

https://core.holo-one.com/

3D asset pipeline

Arbitrary customer data
(CAD / 3D)

3D asset pipeline

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MR-Backend

MR-Frontend
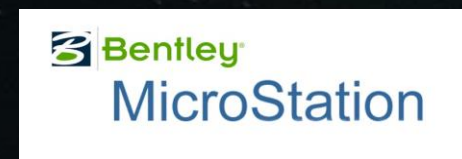
Model optimization

Parts extraction

Metadata extraction

Format conversion

holo|one sphere – the gateway to the world of MR for enterprises

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Standardized tools
covering all major use cases

Integrations
- Enterprise systems (CRM / ERP)
- Real-time data (IoT)

Open platform
- Implement more functionalities
- Serve niche use cases

Cross-usage
- Company-wide application
- Cross-company use

Data analytics
- Collect novel data
- Run data analytics for process optimization

Revolutionizing Industries