L3HARRIS®
FAST. FORWARD.

ORCHID® IX: INCREDIBLY ACCURATE 3D IMMERSION

Disruptive Display Technology for Full 3D Immersion

Imagine if there was a display environment that you could walk into with your colleagues and view an exact duplicate of your facility created digitally in 3D. So dimensionally and visually accurate that you and your colleagues believe you are there. No cumbersome headsets are required.

Not only do you have an exact visual replica right in front of you, but you can superimpose your other digital assets concerning the design of the facility; schematics, P&IDs, tech manuals, operation and maintenance procedures, etc. right on your 3D facility. You and your team can discuss, plan, design and train as if you are there; no confusion, misunderstandings or surprises. A true virtual world with unlimited depth perception, accuracy down to 0.039" (1 mm) and real world audio to complete the immersive experience. Welcome to Orchid® IX!

POTENTIAL USERS

> Architects

> Planners

> Engineers

> Project managers

> Owners/operators of power plants

> Innovation centers

> Training centers

> Experience centers

> Other interested stakeholders

BENEFITS

> Eliminates the vergence-accomodation conflict

> No motion sickness

> Providing a large viewing area for multiple users

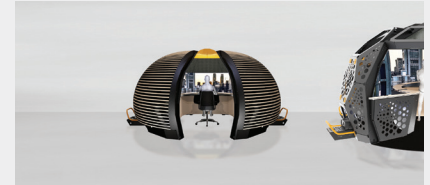> Leverage existing 3D content/data or we can develop it for you

POWER INDUSTRY APPLICATIONS

> Performing actions on and rapidly troubleshooting complex equipment

> Conceptualizing and designing New Builds, SMRs

> Plant walkthroughs

> Planning plant outages

> Training: Enhancing worker knowledge and team interactions

> Security operations centers

> Command centers

> Digital Twins

> Decommissioning end-of-life plants

> High impact visitor centers/public awareness

> Deep geologic repository planning
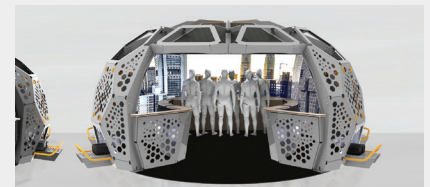
THREE FORMATS

Immersive Workstation

> Supports up to 2 users

> 16' (4.9 m) diameter

> 315 degrees horizontal field of view

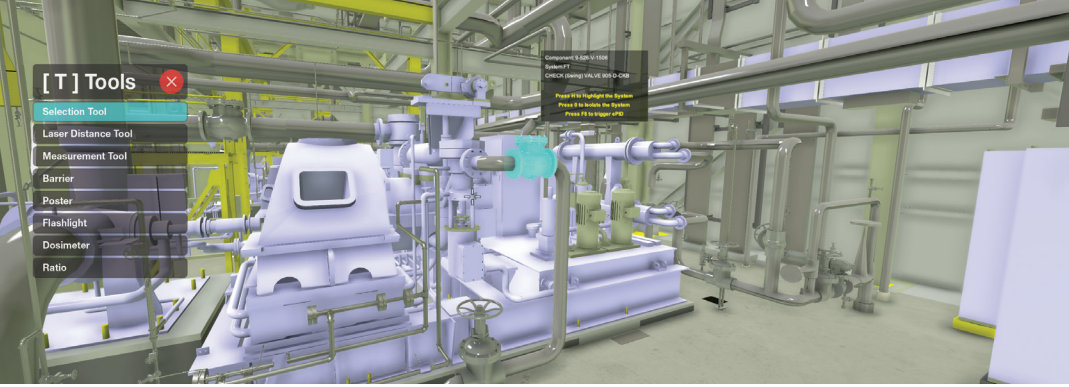> 17,920 X 1,600 (near-retinal resolution)

Immersive Theater

> Supports up to 6 users

> 24' (7.3 m) diameter

> 280 degrees horizontal field of view

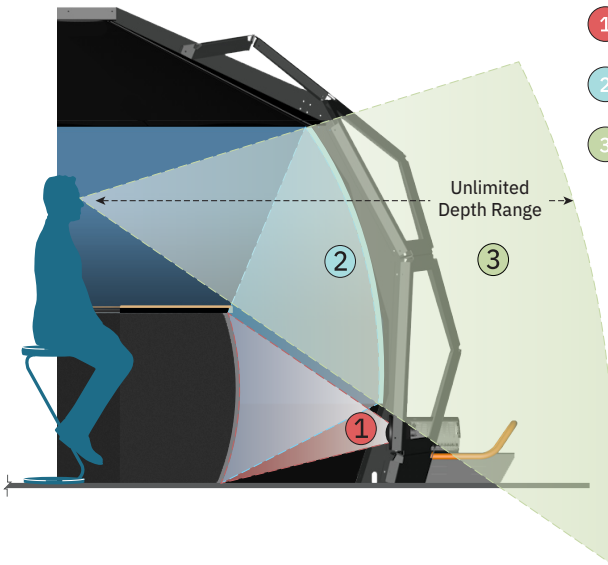> 17,920 X 1,600 (near-retinal resolution)

Immersive Auditorium

> Supports up to 15 users

> 29' (8.9 m) diameter

> 280 degrees horizontal field of view

> 17,920 X 1,600 (near-retinal resolution)

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REFLECTED REALITY

The Orchid® IX 3D world is fully interactive, complete with flyovers, walkthroughs, realistic access to confined spaces, high-risk or hazardous areas, dynamic links to plant engineering documents and even connection to your operator training simulator. With its proprietary Reflected Reality technology, users can experience high-fidelity 3D content in a user-friendly, interactive and headset-free environment.

HOW REFLECTED REALITY WORKS

1. Projectors project image on curved projection screen around interior desk
2. Curved mirrors reflect image on desk's curved projection screen
3. "Reflected Reality": Superior 3D image with true depth perception achieved

Unlimited Depth Range

3D CONTENT

Whether we convert your existing CAD files, 3D models, BIM content or other digital systems and add our Digital Twin Framework (DTF) or we efficiently develop the 3D world and DTF for you, you are sure to experience full 3D immersion in the virtual world like never before.

The 3D world is fully interactive, complete with flyovers, walkthroughs, realistic access to high-risk or hazardous areas, dynamic links to plant engineering documents and even connection to your full scope operator training simulator.
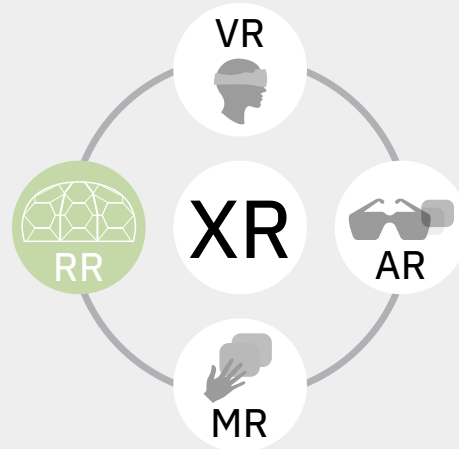
Extended Reality (XR)

Virtual Reality (VR): A digital environment replaces the user's physical environment. VR completely immerses individuals in the digital world, typically with head-mounted displays.

Augmented Reality (AR): Digital content overlays a real-world environment. An example of AR includes Snapchat's photo filters.

Mixed Reality (MR): MR is a blending of the real world with a digital world. Creates an environment in which technology and the physical world coexist and interact with each other. MR also requires headgear.

Reflected Reality (RR): Using curved mirrors and a curved projector screen, RR creates a virtual environment with an accurate sense of depth and three-dimensionality. We achieve this immersive experience in a headset-free environment. RR is unique to Orchid® IX.

SEE FOR YOURSELF

There is nothing else like Orchid® IX in the market. Be a believer. See it for yourself. For an appointment, please send us an email at immersive.experience@L3Harris.com.

ORCHID® IX: Incredibly Accurate 3D Immersion

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