

# PRODUCT BRIEF

NULITICS AR REMOTE EXPERT

HD4000 ENTERPRISE HEAD MOUNTED DISPLAY

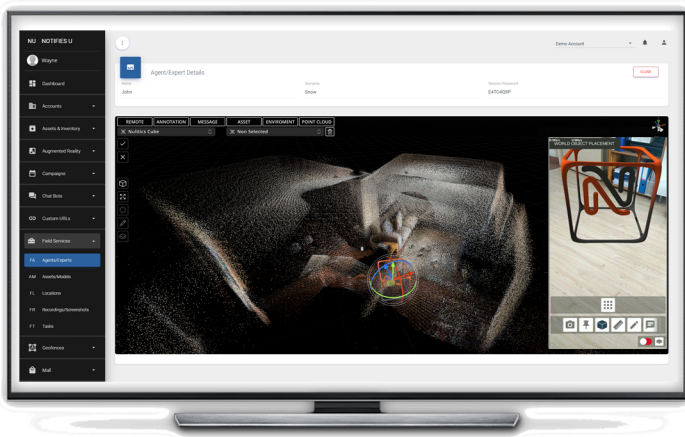


**Nulitics**

Where worlds meet



FIELD AGENT



REMOTE EXPERT

## IT'S HAPPENING NOW

AR is transforming the future of work. From utilities, mining and manufacturing to retail and entertainment, adoption will explode as industries realize enormous productivity gains the likes of which have not been seen for decades. As more companies seek to embrace the potential of AR, here are six ways that leading-edge companies are using AR today:

- Connecting remote workers
- Assisting workers in complex tasks
- Improving warehousing and logistics
- Enhancing training and supervision
- Shared understanding of a business operation
- Safety

## AUGMENTED REALITY ENABLES SMART, HANDS-FREE PRODUCTIVITY

Augmented reality technology, including smart glasses, connects employees to the digital world improving productivity, efficiency and safety in the workplace. This next-generation digital user experience is transforming the way workers accomplish complex tasks.

Combined with cloud-based services and mobile applications, the latest AR and wearable technology can give workers critical information as they perform operations and repairs totally hands-free, by using wearables with other next-generation technologies, AR delivers impressive capabilities.

With the first of its kind HD4000 Enterprise Head-Mounted Display, you can boost task efficiency and accuracy by overlaying the most relevant contextual information over your workers' real-time field of view. Now, hands and eyes are always free to focus on tasks. These devices are now practical work tools, robust enough to meet required safety standards and reliable enough for day-to-day use and they're fast being deployed in the field.

The result is a digitally connected workforce that is equipped to complete tasks more accurately, spend more time on the factory floor and keep production lines running with fewer interruptions. This means reduced downtime from equipment failures, lower operational costs for maintenance activities, and increased business efficiency.

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## BENEFITS

### Increase Productivity

30% faster problem resolution time. Instead of waiting for service staff to arrive, a service employee can call in and get to work right away.

- Improve accuracy and quality of work
- Reduce rework and scrap
- Minimize production outages
- Improve coordination and supervision

### Cost Effective an Efficient

Experts travel 80% less, low data requirements. Users are 20% more productive. Facilitates knowledge and skills transfer to contactors, new hires or cross skilling existng staff.

### Effectively Utilize People

AR training enable vastly more effective learning outcomes for workers who need to understand complex equipment or high-risk environments. Experts are able to mentor and assess a worker's capability, resulting in higher quality work with fewer mistakes.

- Tap into remote experts
- Provide targeted information as needed
- Reduce time spent traveling
- Train more effectively

### Hygienic Design Made for Sharing

The HD4000 mounts to commercial, off-the-shelf safety glasses, no tools required. So you can give each worker their own personal pair of glasses, improving hygiene and helping prevent the spread of germs.

### Improve Safety

Worker safety is the No. 1 concern for business, and it's no exaggeration to say AR devices will save lives. Organizations will be able to monitor workplaces in real time and significantly reduce the "near-miss" incidents that are so commonly linked to fatalities.

- Provide checklists, inspections and audits
- Log incidents and incident investigations
- Record activities in real time
- Reduce exposure to travel risks and Covid-19

## FEATURES

### 3D Objects

Place 3D objects that represent the real world product or equipment and view a virtual copy in their planned or existing real world position and size. Use annotations to "mark" key location where product, equipment or components must be installed, repaired or inspected. The placed 3D objects "stick" to the referenced real world location even when the camera moves.



### Cloud Sync 3D Models

Cloud platform allows for 3D models of products, equipment or components to be downloaded to the device, the model format is compatible with most 3D modelling software application. Downloaded models are stored locally on the device and any changes to the cloud version is synchronised to the device.



### Remote Expert

Via the live AR video streaming feature the remote expert can see what the field user is looking at through their Zebra HD4000 headset or the rear camera in the Zebra mobile computer or the rear camera in a mobile phone. The remote expert assisting the field user with tasks via a combination of audio, video and text messages as well as the ability to place, remove and adjust the position and rotation of 3D objects in the real world remotely as well as move these virtual 3D products, equipment or components remotely. A visual indicator is shown on the field user's display which is controlled by the remote expert. Annotations can be placed quickly for instant position indication.



### Image Recognition

Detect QR Codes or other image markers to allow quick identification of assets and the ability to retrieve their service history or other information via API integration into existing CRM or EDM applications.



### Recording and Screen Capture

Remote expert can record the session or capture screenshots remotely for training, quality assurance or security purpose. The field user can capture screenshots, share to other applications or transfer via messaging application.



### Secure

All remote sessions are encrypted end-to-end.



## FEATURES

### Display

Full Color OLED  
640x400 pixels

### Field of View

20.3 degrees diagonal

### Eye Box

7.5mm x 9mm

### Eye Relief

18mm

### Brightness

300 cd/m

### Camera

5 MegaPixel  
Fixed Focus

### Head Tracking

9 Axis sensor

### Weight

Less than 30g

### Rugged

IP67 Waterproof

### Drop Safe

Drop tested at 1 .5m on concrete

### Temperature

-20C to 50C