



# MANIFEST PRODUCT MISSION STATEMENT

# **Revolutionize the way knowledge is** captured and delivered to front line workers so that **EVERYONE IS AN EXPERT**

We want to revolutionize the way that tasks are taught, learned, and evolved using human knowledge, computer knowledge and real space. We want people who don't know how to fix engines to fix engines. We want the tribal body of knowledge to grow and evolve naturally without large technology implementation projects. We want to outfit manufacturers of equipment to deliver their manuals in mixed reality.



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# CORE FUNCTIONS OF MANIFEST

- Field Service Ops, Training and Inspection
- Hands-free Knowledge Capture
- 3D Placement of Task Steps
- Work Order Integration
- Full-cycle Inspection Workflow
- IoT Connectivity & Display
- 3D Map View of Work Progress
- Flexible Integration

# MANIFEST: INDUSTRIAL KNOWLEDGE CAPTURE

## **Editorial Process**

## Knowledge Capture

- •HMD / Mixed Reality
- •Industrial Cameras
- GoPro

Catalog

•Computer Vision

Codification

- •ML
- Steps
- Instructions
- Diagnostics



## Visualization

## Reexecution

# Validation / Inspection

- •Follow the steps
- Record evidence
- •Submit changes
- •Training
- Gamification

- •Validate the steps
- •Grade work
- •Submit problems / changes



## SKILLED EXPERTS CREATE JOB CHECKLISTS

Authors use 3D placement of markers to instruct specifically where, when and how to do complex work tasks. Manifest is powered predominantly through user-generated content stored in a secure cloud for each client.

Here a plant expert new to HoloLens, dons the headset to Author a job as she performs it. Using 3D step markers she builds a job template, complete with video and photo notes, that can be augmented over the panel and equipment to guide any Operator needing to perform the same task.







# **OPERATORS GET HANDS ON GUIDANCE** Whether an Operator is still training or just new to a specific task, any expert authored checklist is at their finger tips guiding them through a job as they perform it.

Here a new hire to the plant, follows the previously authored job template in Manifest and completes the same procedure as the expert simply by following the augmented steps and notes.



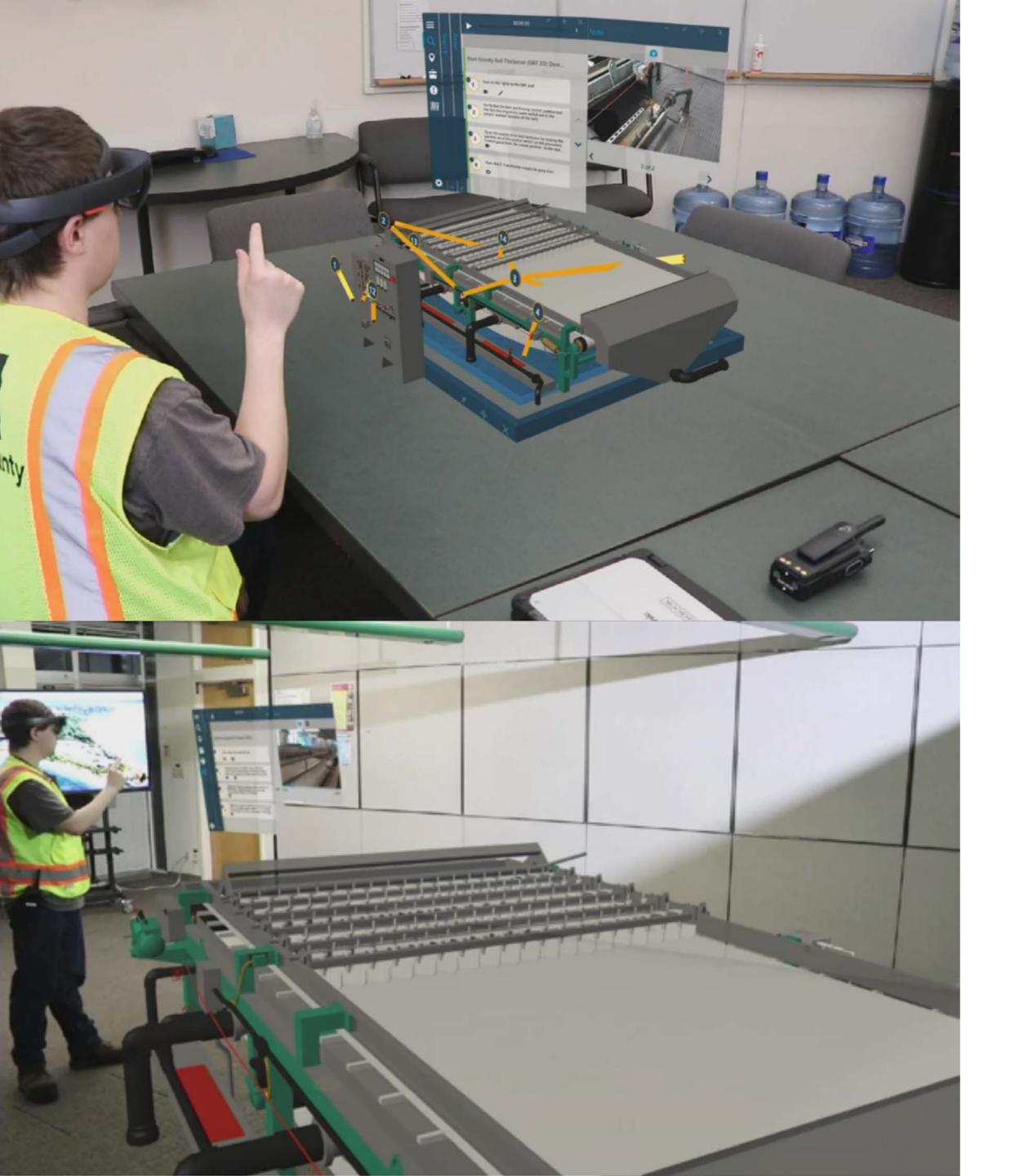


## **IOT DATA & ALERTS**

Manifest integrates directly with your IoT data displaying meters readings augmented over physical or virtual equipment.

Based on specified meter parameters, alerts are automatically generated empowering on-the-ground Operators to immediately take appropriate action.







## **DIGITAL TWIN OF ASSETS**

Render the digital twin of any asset to remotely

author job templates, train, or extend remote

assistance to on-the-ground Operators with a

representation of the same equipment.

3D model of a gravity belt thickener is rendered at fullscale, or small scale. The user can review steps and content to train or prepare in a safe, controlled environment before going to job site.





# EASILY TRANSFER KNOWLEDGE

### SIMPLICITY FOR AUTHOR

Rather than having an expert take additional time to create training materials using traditional methods, Manifest enables them to easily create these as job templates hands-free while performing the task.

### HANDS ON LEARNING. HANDS FREE.

Manifest enables users to learn by doing with step-by-step guidance augmented directly over the equipment they are working upon.

Whether your experienced workforce is aging out of your industry; or due to the location, cost, or availability of highly skilled resources is limiting your growth – your company needs a quicker and more reliable way to capture, transfer and retain knowledge. Here is how Manifest can help:

### EFFICIENCY FOR WORKFORCE

With Manifest, a highly skilled resource can author content making job templates instantly available for any employee to access and perform the same specialized and complex task – regardless of location or skill level.

### DEVELOP A SCALABLE KNOWLEDGE BASE

Develop a living knowledge base in a tool that becomes accessible to your entire workforce, making expert knowledge instantly available. 9

# INTEGRATE WITH YOUR SYSTEM OF RECORD

### **Cloud Connectivity**

All data stored in customer architecture, on site or cloud

Auto-scale as necessary

Compatible with Government Cloud

### DFARS COMPLIANT UPGRADE AVAILABLE

Compliance with Defense Regulations from cloud-backend to Use Manifest for data capture Share captured data with other traditional knowledge HoloLens user management systems.

### Manifest has a restful API for integrating with existing systems



### **IoT** Integration

Integrate with Azure IoT for seamless MR view of data panels and creation of alerts

Meters can be placed in 3D space over equipment where they

are contextually useful

Steps can be controlled and managed based on IoT readings

### KNOWLEDGE MANAGEMENT