AN OVERVIEW OF MANIFEST

# Knowledge when and where you need it

Manifest gives deskless workers access to step-by-step guidance and remote assistance from your most experienced technicians and trainers anywhere, anytime.

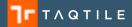
### **OVERVIEW**

By leveraging augmented reality, Taqtile's Manifest, an enterprise SaaS platform, improves operational workflows so that jobs get done more accurately and consistently. Using Manifest, deskless workers document maintenance and operational procedures, follow step-by-step instructions, remotely collaborate with experts, and analyze job performance and history.

>20% of workforce approaching retirement within 5 years



attrition rate among millennials within the first 3 years 23% unplanned manufacturing downtime results from human error \$260k average per hour cost of unplanned manufacturing downtime





Digital transformation of organizations' operations continues to accelerate but silos of excellence and expertise persist. Leveraging technologies such as AR, cloud computing, and LTE/5G networks, Manifest removes these silos with a single platform. Manifest enables flawless operational workflows everywhere and every time by aggregating these critical components of your operational systems so that jobs get done faster and better:

#### Procedures.

Experts document procedures. Workers execute them. Management evaluates results and performance leading to continuous improvement..

#### People.

Regardless of skill level and experience, institutional knowledge, expert assistance, and team collaboration is enabled and available – whenever it is needed.

#### Places.

Traditional physical barriers disappear. Work gets done consistently wherever the job is and on whatever devices you are already using – regardless of individual, team, or equipment locations.

#### Machines.

Workers interact with equipment and IoT sensor data in real-time and then data is integrated with enterprise wide systems for archiving and analysis.



Manifest unites four data domains to augment operations



### COMPREHENSIVE, END-TO-END, AR-ENABLED JOB PLATFORM

Manifest aggregates people, places, procedures, and machines to help complete jobs more consistently and error free.

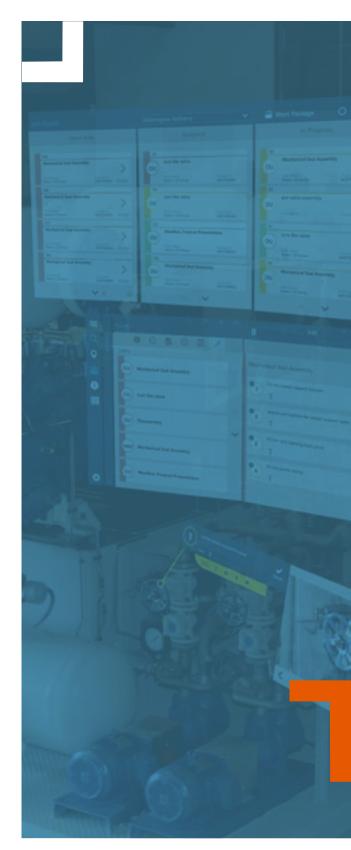
## Easily capture and harness the knowledge of your experts and most experienced employees

- Easy and fast start with minimal configuration
- No coding, development, CAD, or specialists needed
- On-the-job and in-situ authoring on many different devices
- Support for static and animated 3D models, digital twins and AR holograms

### Apply expert knowledge to help workers complete jobs and training more consistently and accurately

- Easy to follow step-by-step instructions augmented with AR, 3D models, videos, photos, digital documents, and real-time IoT sensor data
- Worker generated video, audio and text notes for evidence of job completion and accuracy
- Shared procedures with job assignments across multiple workers
- Complex branched, nonlinear workflow guidance

Complete fault reporting system for easily flagging, reviewing, resolving, and archiving operational and procedural faults for improving auditing and inspections







- Integrated connectivity and collaboration capabilities to enable video chats and file sharing
- "See-what-I-see" video streaming and sharing
- Remote direction and guidance with AR holograms and eye tracking
- Designed for low bandwidth

## Manage, coordinate, and track work and job performance

- Scheduling and assigning of jobs across teams and individuals, regardless of location
- Complete job performance history by equipment, location, worker and team and inclusive of IoT sensor data
- Integration with backend enterprise systems of record including MES, ERP, LMS, field service systems
- Ability to automatically trigger downstream workflows such as part ordering and technician scheduling

## Distribute your experts' knowledge where and how you want with platform flexibility

- Support for authoring and operating online or offline in secure, remote, and austere locations
- Multi-cloud, hybrid, on-premises, and 5G/MEC deployment options
- Broad device support including HoloLens, Magic Leap, RealWear, Android mobile devices, iPads, and Chrome browsers
- Enterprise grade, secure platform with encryption, back-up, and role-based security





Manifest helps individuals, teams and organizations get their jobs done more consistently, more accurately, and more safely. Use Manifest to:

Increase operational efficiencies Help deskless workers, regardless of skills and experience, complete their tasks consistently and more efficiently by providing on-the-job equipment familiarization and operation

Reduce errors and scrap Perform operational tasks more accurately and more consistently to increase quality and avoid mistakes that lead to scrapped product and more manufacturing runs

Minimize downtime Complete preventive or break-fix maintenance tasks more accurately to avoid costly errors that increase downtime and keep equipment and facilities in better shape

Decrease on-boarding and training times Provide hands-on, immersive training and instruction in the classroom, remotely or at the equipment to facilitate comprehension and increase knowledge retention

### FROM 3 WEEKS TO 3 DAYS

Manifest speeds up technician training leading to faster times to productivity and higher product quality. PBC Linear can get workers up to speed on complex procedures in three days, not their usual 3 weeks.



Increase safety Step-by-step instructions ensure that critical steps are not missed or skipped. AR headsets frees up hands to make for a safer way to work on equipment in many environments

Decrease support costs and travel Connect your experts to less experienced workers or your customers to provide augmented guidance and support regardless of location

Create a force multiplier By providing workers and teams instant access to knowledge and expertise, everyone becomes an expert and more is accomplished with less people

Drive continuous improvements Collect and integrate job performance data by equipment, location, teams and individuals to create a continuous feedback loop for process and procedural improvements

Accelerate troubleshooting and times to resolution Provide guidance for non-linear workflows to help technicians diagnose and resolve unplanned issues faster

Perform more accurate inspections and audits Structured guidance ensure that inspections are done consistently across individuals, teams, and locations and any issues found are captured, reported, and resolved

### FROM 92% ERROR RATE TO 0% ERROR RATE

Manifest decreases mistakes. New trainees with the US Airforce dropped their error rates on new equipment from 92% to 0% using Manifest versus traditional, user manual-based methods.



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