

MODERNIZING COLD STORAGE OPERATIONS WITH VOICE GUIDED WORK

Solution Brief



Honeywell

Managing labor effectively in cold storage environments is critical to maintaining throughput, safety, and product integrity. As demand for temperature-controlled logistics continues to rise, cold storage operators face increasing pressure to move product faster—without sacrificing accuracy, compliance, or worker safety.

SITUATION

Cold storage facilities operate under uniquely challenging conditions. Workers must perform picking, replenishment, and material movement while wearing gloves, navigating condensation, and transitioning between temperature zones—all while maintaining strict accuracy and food safety standards.

Traditional data-capture methods such as handheld scanners, keyboards, or paper processes are poorly suited for these environments. Screen interaction becomes slow and unreliable, manual input increases errors, and frequent device handling disrupts workflow momentum. Limited real-time visibility further forces operations to react to issues after productivity has already been lost.

In summary

- **Harsh Environmental Conditions**
Extreme cold, condensation, and temperature transitions impact device usability and worker efficiency.
- **Manual Processes**
Screen based data capture is cumbersome with gloves and slows execution in freezer environments.
- **Operational Complexity**
High SKU counts, lot tracking, catch-weight processing and FIFO inventory management requirements demand precise, repeatable execution.
- **Reactive Operations**
Limited real time insight into task progress makes it difficult to identify bottlenecks early.
- **Safety and Compliance Pressure**
Workers must stay alert and compliant while operating in physically demanding conditions

INCREASING COMPLEXITY

Cold storage operations face rising throughput demands, tighter customer

service windows, and expanding regulatory requirements—placing strain on legacy workflows not designed for freezer environments.

LIMITED VISIBILITY

Siloed systems and delayed reporting make it difficult to understand where time is lost across picking, replenishment, and staging activities in temperature controlled zones.

MODERN WORKFORCE EXPECTATIONS

Attracting and retaining workers in physically demanding environments requires intuitive tools that streamline execution, shorten training time, and support consistent performance from day one.

SOLUTION: VOICE IN COLD STORAGE

Voice directed work brings proven efficiency and reliability to cold storage environments by replacing screen based interaction with spoken instructions and confirmations—allowing workers to stay productive, focused, and safe.

WHY GUIDED-VOICE WORKFLOWS MATTER

Hands Free, Eyes Up Execution

Enable workers to perform tasks without relying on screens or keyboards—ideal for glove use, freezer conditions, and fast paced workflows.

Optimized Cold Storage Workflows

Voice directs and confirms tasks such as picking, replenishment, and put away with consistent, repeatable execution—reducing errors and rework.

Faster Training and Onboarding

Voice guides workers step by step, accelerating time to productivity for new, seasonal, or rotating labor.

Rugged, Cold Ready

Hardware Compatibility

Deploy voice on purpose built devices designed to withstand extreme cold, condensation, and temperature transitions.

Seamless System Integration

Integrate with warehouse management and execution systems to capture real time confirmations, inventory updates, and task progress.

BUILT FOR SCALABLE COLD STORAGE OPERATIONS

Voice directed work fits seamlessly into modern cold storage strategies—supporting scalable deployment across facilities while accommodating varying temperature zones, workflows, and labor models. Standardized voice workflows help ensure consistent execution regardless of site or worker experience.

VOICE FOR COLD STORAGE USE CASES

Task Use Cases

- Case and Each Picking
- Replenishment and Put Away
- Staging and Loading
- Directed Moves Between Temperature Zones
- Cycle Counting and Inventory Verification

Operational Impact Areas

- Improved productivity in freezer and refrigerated zones
- Higher accuracy with guided confirmations and lot tracking
- Enhanced worker safety through reduced distraction
- Reduced device handling and downtime in cold environments



LOOK TO THE FUTURE

As cold storage operations continue to expand in scale and complexity, voice directed work provides a foundation for smarter, more resilient execution. By enabling hands free interaction and real time visibility, voice helps organizations move from reactive firefighting to proactive operational improvement.

The future of cold storage work is hands-free, eyes-up, and voice-guided. Learn how Honeywell can help transform cold storage operations with voice directed solutions.

For more information

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Modernizing Cold Storage Operations with
Voice-Guided Work | Rev A | 06/26
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