



The Large-Format Dashboard Guide

How To Scale Insights from Screens to Spaces

Unlock the full potential of your operational data by transforming desktop dashboards into real-time, large-format displays. This guide explores best practices for optimizing visibility, enhancing efficiency, and driving data-driven decision-making across manufacturing, logistics, and warehousing environments.



SKYKIT HEADQUARTERS

6101 Baker Rd Suite 202,
Minnetonka, MN 55345

CONTACT US

sales@skykit.com
(855) 759-5481

LEARN MORE  skykit.com/dashboards

INTRODUCTION

Beyond the Desktop

If you're in the manufacturing, logistics, or warehousing industry, real-time operational visibility is a competitive necessity.

While desktop dashboards have become standard for management, truly optimized operations require information to be visible throughout your facility—and accessible to everyone from floor workers to shift supervisors.

This guide explores how to transform your existing data dashboards from a desktop tool into powerful, large-format digital displays that can drive productivity, quality, and efficiency across your operation.



“The right information, in the right place, at the right time, is worth more than all the dashboards in the world confined to management’s desktops.”



Benefit	Improvement
Production Efficiency	14-18%
Downtime Reduction	9-12%
Quality Incident Response Time	22-27%
Team Communication Effectiveness	31-37%
New Employee Onboarding Speed	21-25%



WAREHOUSING

Inventory levels, pick rates, order accuracy, dock utilization, labor allocation



MANUFACTURING

OEE (Overall Equipment Effectiveness), production counts, quality metrics, maintenance alerts



LOGISTICS

On-time delivery rates, load efficiency, route optimization, driver status

Critical Metrics To Display in Industrial Environments



The Digital Transformation Imperative

Why Large-Format Displays Matter in Industrial Settings

Manufacturing, logistics, and warehousing operations that leverage strategically placed digital signage for real-time metrics report:

Common Challenges

With Large-Format Displays

When organizations first attempt to display their operational dashboards on large screens, a few common issues they might encounter include:



The “Desktop View” Problem

What works at a desk rarely translates effectively to wall-mounted displays viewed from 10-30 feet away.

Typical Issues When Scaling to Large Formats:



Visual Readability Challenges

- ➡ Text becomes too small or illegible from a distance.
- ➡ Critical metrics get lost in cluttered interfaces.
- ➡ Color schemes that work on desktop fail on larger displays.



Navigation & Interaction Problems

- ➡ Menus + filters designed for mouse interaction become unusable.
- ➡ Hover states and tooltips don't function in view-only environments.
- ➡ Authentication prompts disrupt continuous display.



Refresh & Performance Issues

- ➡ Static screenshots quickly become outdated.
- ➡ Manual interaction requirements break automation.
- ➡ Authentication sessions expire, causing display failures.



Large-Format Dashboards

Content Optimization for Visibility

BEST PRACTICES

AaBb

Font Sizing & Hierarchy

Minimum 24pt font for primary metrics

Use font weight variation instead of size reduction for secondary information

Employ consistent font families across all displays

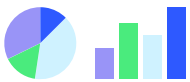


Color & Contrast Considerations

Implement high-contrast color schemes (minimum 4.5:1 ratio)

Use color coding consistently across all dashboards

Employ color psychology strategically (red for alerts, green for positive targets)



Data Visualization Best Practices

Limit charts to 3-5 key metrics per screen

Use appropriate chart types for different data relationships

Implement consistent scale ranges across similar metrics

“Simply projecting a desktop dashboard onto a large screen may create more problems than it solves. Purpose-built optimization is essential.”



↓ Layout Engineering for Impact

Grid-Based Design

- ✓ Organize content in consistent, logical groupings
- ✓ Maintain adequate white space between elements (minimum 10% of display)
- ✓ Create visual anchors for the most critical metrics

Responsive Considerations

- ✓ Design for display resolution, not screen size
- ✓ Plan for multiple aspect ratios across different facility locations
- ✓ Test visibility from typical viewing distances in your environment

Hierarchy Implementation

- ✓ Place highest priority information in the upper left quadrant
- ✓ Use size and color to reinforce important relationships
- ✓ Group related metrics to facilitate quick comprehension



Technical Configuration Essentials ↓

Authentication Management

- ✓ Implement secure but persistent authentication methods
- ✓ Plan for credential rotation without display disruption
- ✓ Establish fallback content for authentication failures

Refresh Rate Optimization

- ✓ Set refresh intervals appropriate to data change frequency
- ✓ Implement staggered refreshes to prevent system overload
- ✓ Establish monitoring for refresh failures

Performance Considerations

- ✓ Understand API rate limits of your dashboard platforms
- ✓ Plan for network bandwidth requirements, especially in multi-display environments
- ✓ Implement local caching where appropriate to reduce dependency on constant connectivity

SKYKIT CASE STUDY

Optimizing Grafana Dashboards for Security & Visibility



CHALLENGE

A leading manufacturer was struggling to balance their need for secure dashboard access with full-screen visibility.

They had implemented Grafana for operational metrics, **but faced significant limitations:**

- ◆ Public dashboards compromised sensitive production data.
- ◆ Grafana's "kiosk mode" still left navigation elements visible.
- ◆ Authenticated dashboards displayed distracting headers and sidebars.
- ◆ Manual refresh requirements disrupted continuous monitoring.

SOLUTION

Working with Skykit, the manufacturer established a secure, optimized dashboard strategy:

Security-First Approach

- ◆ Maintained authenticated access to protect proprietary production data.
- ◆ Implemented secure credential management without exposed information.

Automation Implementation

- ◆ Established automated refresh triggers that maintained real-time data.
- ◆ Created fallback content for rare network interruptions.
- ◆ Implemented scheduled rotation between different dashboard views.

Visual Optimization

- ◆ Removed all headers, sidebars, and nav elements.
- ◆ Created full-screen visualization of critical metrics.
- ◆ Customized displays for different production areas with relevant KPIs.

RESULTS

After implementation, the manufacturer reported:

- ◆ Improvement in production team responsiveness to quality variations.
- ◆ Reduction in between-shift communication errors.
- ◆ Elimination of authentication-related display interruptions.
- ◆ Improvement in overall equipment effectiveness after three months.

“What surprised us most wasn’t just the technical improvement in our dashboards, but how quickly our production teams incorporated the always-visible metrics into their workflow. We’ve seen cultural improvements in data-driven decision making that we didn’t anticipate.”

Implementation Roadmap ↘

PHASE 1 Assessment & Strategy

Current State Analysis

- ✓ Inventory existing dashboards and data sources.
- ✓ Document current visibility gaps and information bottlenecks.
- ✓ Assess network infrastructure and display locations.



Stakeholder Requirements

- ✓ Identify key metrics for different operational areas.
- ✓ Establish visibility priorities and refresh requirements.
- ✓ Document security and compliance considerations.

Technical Discovery

- ✓ Catalog authentication requirements for each data source.
- ✓ Document API limitations and refresh constraints.
- ✓ Assess network capacity and reliability in display locations.

PHASE 2 Visualization Optimization

Dashboard View Considerations

- ✓ Optimize layouts for large-format viewing.
- ✓ Ensure consistent visual language across all displays.
- ✓ Create area-specific views for targeted operational insights.

Technical Architecture

- ✓ Design authentication management approach.
- ✓ Establish refresh strategies appropriate to data change frequency.
- ✓ Develop fallback content for system interruptions.



Integration Planning

- ✓ Document required post-authentication actions.
- ✓ Plan for navigation element removal and view optimization.
- ✓ Establish monitoring and alerting for display health.



PHASE 3 Implementation & Continuous Improvement

Phased Deployment

- ✓ Begin with highest-impact operational areas.
- ✓ Implement feedback mechanisms for user experience optimization
- ✓ Document baseline metrics for ROI measurement.

Training & Adoption

- ✓ Educate team members on new information availability.
- ✓ Integrate dashboard visibility into standard work procedures.
- ✓ Develop quick-reference guides for data interpretation.

Optimization Cycle

- ✓ Establish regular review cadence for dashboard effectiveness.
- ✓ Implement iterative improvements based on user feedback.
- ✓ Expand implementation to additional operational areas.



ROI Considerations

Quantifying the Value of Operational Visibility

When evaluating investment in large-format dashboard displays, consider these primary value drivers:

Direct Efficiency Improvements

- ✔ Reduction in manual data collection and distribution time.
- ✔ Decreased delay in problem identification and response.
- ✔ Improved resource allocation through real-time visibility.

Indirect Productivity Gains

- ✔ Enhanced team alignment around key metrics.
- ✔ Improved accountability through transparent performance tracking.
- ✔ Accelerated onboarding and training through visual reinforcement.

Quality & Compliance Benefits

- ✔ Reduction in quality incidents through earlier intervention.
- ✔ Improved compliance documentation and monitoring.
- ✔ Enhanced customer satisfaction through consistent performance.

Calculating Your Expected Return

Value Category	Calculation Approach	Typical Annual Value Range
Direct Labor Savings	(Hours spent distributing reports × Average labor cost × Frequency)	\$15,000 - \$42,000
Downtime Reduction	(Average downtime hours × Cost per hour × Expected % improvement)	\$35,000 - \$120,000
Quality Improvement	(Quality incident cost × Annual incidents × Expected % reduction)	\$28,000 - \$85,000
Training Efficiency	(Training hours × Number of new employees × % improvement × Labor cost)	\$9,000 - \$32,000

“The most significant ROI often comes not from the most obvious sources, but from the cumulative effect of small improvements across multiple operational dimensions.”



Skykit's Dashboard Connection Advantage

While many digital signage solutions can display basic dashboards, Skykit's Dashboard Connections technology was specifically engineered for industrial environments where reliability, security, and visibility are mission-critical.

Key Differentiators

Post-Authentication Optimization

- Continuous validation of authentication flows
- Intelligent element removal for distraction-free viewing
- Custom cropping for focus on essential metrics

Security-First Architecture

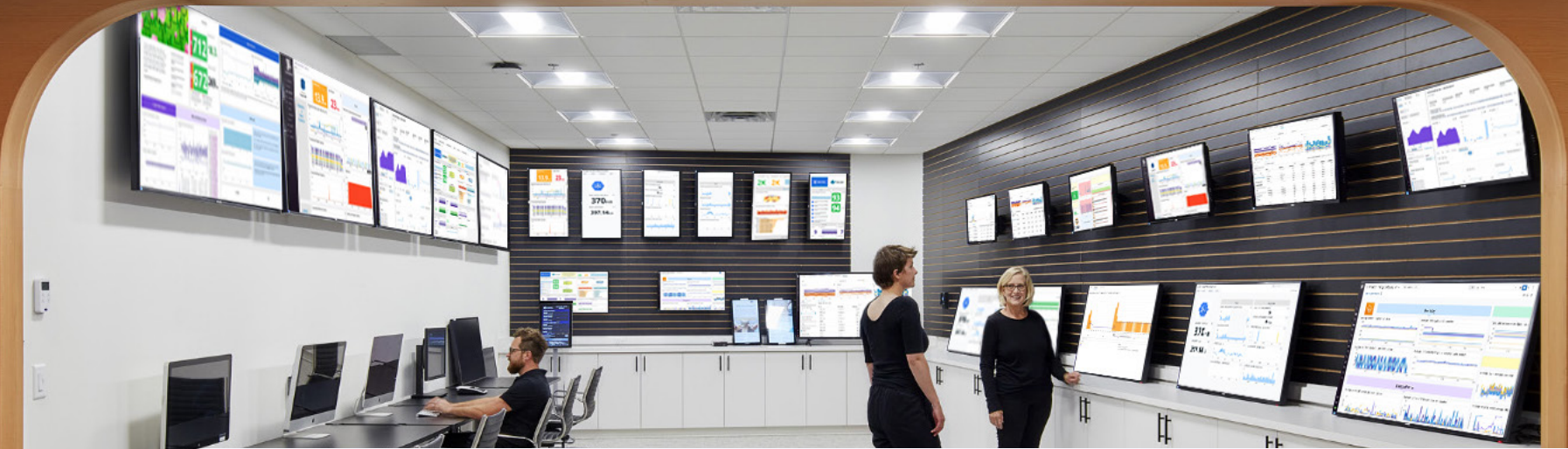
- Secure credential management without exposed information
- Compliance-friendly authentication approaches
- Role-based visibility controls for sensitive metrics

Industrial-Grade Reliability

- Automated refresh triggers for consistent real-time views
- Intelligent session management to prevent authentication failures
- Fallback content strategy for network interruptions

Implementation Excellence

- Dashboard optimization workshops for maximum impact
- Continuous monitoring and improvement recommendations
- Regular maintenance of authentication workflows



COMPARISON

Standard Digital Signage vs. Skykit Dashboard Connections

Capability	Standard Digital Signage	Standard Dashboard Connections
Authentication handling	Basic or manual refresh	Persistent, automated
Visual optimization	Displays standard web view	Removes distractions, custom cropping
Refresh reliability	Static screenshots or basic timing	Intelligent triggers, session management
Implementation support	Basic setup assistance	Full optimization support
Ongoing maintenance	Customer responsibility	Fully managed authentication flows
Security approach	Often requires public dashboards with screenshots in the cloud	Secure, private dashboard viewing on the player

NEXT STEPS

Evaluating Your Dashboard Strategy

Implementing large-format dashboards isn't just about displaying data—it's about ensuring the right people see the right information at the right time. By optimizing visibility, streamlining authentication, and enhancing refresh reliability, you can turn your operational metrics into a powerful tool for efficiency, accountability, and continuous improvement.

With the right strategy in place, your dashboards can move beyond management's desktops and become a driving force for real-time decision-making across your entire operation. Now, it's time to assess your readiness and take the next step toward smarter, more connected industrial displays.

Self-Assessment Checklist

- ☐ We have identified the 3-5 most critical operational metrics for each area.
- ☐ We understand where information bottlenecks are occurring in our current process.
- ☐ We have mapped potential digital display locations throughout our facility.
- ☐ We have cataloged our existing dashboard platforms and authentication requirements.
- ☐ We have considered network infrastructure requirements for display locations.
- ☐ We have reviewed access and permissions required for displaying dashboards
- ☐ We have established KPIs to measure the impact of improved operational visibility.

ABOUT SKYKIT

Skykit is the leading provider of digital signage solutions designed specifically for industrial and operational environments.

Our Dashboard Connections technology bridges the gap between your critical operational data and the teams who need to see it, ensuring that the right information is always visible, always accurate, and always driving improvement.

SKYKIT HEADQUARTERS

6101 Baker Rd Suite 202,
Minnetonka, MN 55345

NEXT STEPS

sales@skykit.com
(855) 759-5481

TO LEARN
MORE VISIT



skykit.com/dashboards

