

SAP Work Manager

# Get Your Maintenance Workforce Mobile To Optimize Your Assets' Performance



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# Asset-Intensive Enterprises Have Unique Challenges

With more than 50 billion known industrial machines in the world, and infinitely more assets in infrastructure, it is safe to say that there simply are not enough skilled workers to maintain them. Yet the world turns on these assets. The trains need to keep running and traffic on the roads needs to keep flowing so that the mills and factories can keep shipping the goods they produce.

Mobile apps from SAP can help asset-intensive enterprises face the unique challenges in maintaining their mission-critical assets – which are typically geographically distributed and often remotely located and exposed to the elements. The people who service and operate them are distributed, mobile, and work in hazardous environments, whether at the mine face, in the plant, or atop a high-voltage line in a rural area. Access is essential, safety is paramount, and productivity is critical.

The SAP® Work Manager mobile app empowers maintenance technicians to work more safely, productively, and independently, whether installing new equipment or maintaining, inspecting, and repairing existing assets. With SAP Work Manager, maintenance workers are empowered with intelligence to identify and prevent failures and outages before they occur. These enterprises face unique challenges further straining their infrastructure and their workforce. They have to dig deeper and go farther and, in doing so, have to work with very limited labor pools, rely on increasingly heavy and complex equipment, and work in environmentally, politically, and socially complex areas. Even in modern metropolitan areas, these enterprises face increasing regulatory pressures, rising costs, and aging workforces and infrastructures that have to do more and more to keep up with demand. The most well-run maintenance organizations cannot keep up.



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# Five Pillars of Success

## SAFETY

Every effective maintenance organization recognizes that it must do five things equally well to keep workers protected, assets online, and production uninterrupted: safety, visibility, compliance, governance, and productivity.

SAP Work Manager builds “safety first” principles into every step. Work permits and tag outs are essential in every company. No asset can be brought down and no machine can restart without ensuring that it can be done safely without incident to the workforce, environment, and assets themselves. Yet these processes are often inconsistently executed or result in avoidable delays because of manual reviews and approvals. SAP Work Manager, together with a comprehensive implementation that includes mobile approvals, can enforce these practices and communications in real time. Safety steps, procedures, and personal risk assessments can be built into every work order.

But this approach is not complete without ensuring that the mobile device is intrinsically safe and that the combined solution is easy to use in harsh environments. The device and the apps must be intuitive and useful for the mobile worker, rather than distracting and time-consuming. Built on SAP Mobile Platform, SAP Work Manager is device agnostic and can be deployed on the optimal device for your particular environment and use.

SAP Work Manager can leverage the native global positioning system (GPS) and geographic information system (GIS) features of the devices, your network, and workforce scheduling and tracking solutions to guide workers safely to their job sites. In addition, this functionality provides management the visibility they need to keep workers out of harm’s way.

## VISIBILITY

SAP Work Manager can interact with the device’s functionality to track the worker’s location in real time and automatically records the individual’s work status and progress. This information is invaluable in helping dispatchers, supervisors, and other crews work safely and productively. Deployed as part of a complete solution, it can be used by workers to see other jobs, activities, workers, and live machines around them. And they can be seen when they are straying into unauthorized geofenced areas.

SAP Work Manager collects all the data on the worker, the asset, and the work status required by management to analyze their operations in real time, accelerating and improving their decision making. Among these data points are time and location stamps, measurement readings, photos, attachments, notes, and observations. Accurate and timely electronic data input eliminates the overhead costs associated with the paperwork and administrative staff necessary without a mobile asset management solution.

## COMPLIANCE

By working safely, the maintenance worker can avoid incidents that would result in regulatory fines. Making work permits and tag outs mobile is key. By using SAP Work Manager to perform inspections, workers can detect potential problems and correct them before they occur. Together with the SAP Rounds Manager mobile app, SAP Work Manager enables them to keep an eye out for, and report, any potential environmental, safety, health, fire, and compliance issues.

## GOVERNANCE

Maintenance organizations are highly dependent on the years of experience inherent in their workforce. However, these workers are aging and retiring, and their knowledge will leave when they do. Even in organizations not facing this issue, that knowledge is inconsistently applied in daily work. Working to standards is difficult to implement without reliable data from the field, and without enforcing processes in the field. SAP Work Manager utilizes guided workflows and intelligence on the device to help ensure that maintenance crews work according to standard procedures. It provides workers all the asset information and history they require to install, inspect, maintain, and repair assets safely, consistently, effectively, and efficiently. In addition, it records and reports the necessary location-, time-, and behavior-based data required to generate alerts and reports.

## PRODUCTIVITY

All of these capabilities come together to support workforce productivity at the point of maintenance and provide management the real-time and historical data it needs to optimally distribute the workload and implement its chosen asset-optimization



Successful maintenance organizations can harness the power of enterprise mobility to virtualize, accelerate, and **transform their business.**

model. SAP Work Manager is a single mobile solution that encompasses all the tools and data required for individual maintenance engineers to work better. Without the time spent on paperwork, communicating with dispatchers, excessive travel, or hunting for information at the job site, field employees can spend more time doing actual work.

Furthermore, the mobile app can be deployed to crews and crew leaders to support multiple individuals. More important, it is a componentized and configurable solution with available options and add-ons to deliver the specific solution your organization needs and integrated with applications that take productivity to the highest level. Among these is the SAP Visual Enterprise Viewer mobile app, an interactive 3-D viewer for assets and parts that is useful, not only for pinpointing and visualizing components, but initiating and automating steps to reduce data entry, strokes, and steps.

### **REAL, MEASURABLE, AND IMMEDIATE RESULTS**

The maintenance organization has the single most direct and immediate impact on the enterprise's ability to produce and deliver service. By deploying SAP Work Manager, you can realize discrete, immediate, measurable benefits including the following.

#### **Workforce:**

- Incidents reduced to near zero – an achievable goal
- Increase in work capacity
- Increase in labor productivity
- Reduction in idle time and overtime
- Reduced rework

#### **Assets:**

- Reduced downtime and production delays
- Reduction in preventable failures
- Reduced maintenance backlog
- Reduced inventory carrying costs

But the biggest benefit is in the broader benefit directly attributable to safer and more productive maintenance workers and more reliable and well-performing assets:

- Increased production and service levels
- Avoidance of lost workdays and related legal and insurance costs

- Potential to save millions by avoiding fines and contractual penalties
- Avoidance of negative press and impact on share price
- Improved ability to renegotiate third-party service contracts
- Ability to expand capacity with the same maintenance workforce
- Reduced maintenance costs
- Deferment of capital expenditures for prolonging operational life safely

SAP Work Manager can deliver immediate benefits but, when combined with other SAP solutions such as SAP Enterprise Asset Management and deployed as part of a comprehensive enterprise-wide mobility strategy, can transform the entire value chain and, ultimately, the entire business and its ecosystem. Too often, enterprises don't know where to start this transformation. They often begin with a single app that provides some level of productivity but does not provide the level of immediate compelling benefit necessary to develop the momentum required for real change. With SAP Work Manager, you can start with a single application that can provide this benefit in a significant yet controlled way.

### **REAP THE BENEFITS OF IMPROVED MAINTENANCE**

By using SAP Work Manager, you realize a number of advantages. Anytime, anywhere access to all needed information and tools increases safety and productivity in the plant and in the field. This in turn raises performance and reliability across your plants, fleets, networks, and infrastructure by helping you implement your asset optimization strategies. Moreover, by increasing the utilization of your maintenance organization without sacrificing safety, you can lower the overall cost of maintenance.

Leverage SAP Work Manager, together with analytics solutions from SAP and the SAP HANA® platform, to handle the "Big Data" typical in a fully mobile maintenance organization that supports hundreds of thousands of individual assets and components. Tapping into SAP Mobile Platform enables your organization to support mobile devices through a proven, scalable platform that includes built-in support for enterprise-class security. This platform makes it easier to deploy, support, and manage multiple mobile devices and apps, allowing you to future proof your mobile strategy.

# Quick Facts

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## Summary

To meet the demands and constraints of a rapidly changing world, you must make sure your assets and infrastructure can ensure optimal production levels and deliver uninterrupted service. Achieving the highest levels of workforce safety and productivity to effectively install, maintain, inspect, and repair your mission-critical assets is essential. The SAP® Work Manager mobile app can empower your workers to help prolong the life of your assets and improve their reliability and performance.

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## Objectives

- Respond to increasing market demand and globalization
- Go farther and deeper for natural resources
- Respond to increasing regulatory, social, and environmental pressure
- Counteract the effects of an aging workforce and infrastructure
- Service increasingly complex assets
- Manage increasingly complex reliance on third parties

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## Solution

- Receive and update work orders
- Get directions with GIS and GPS
- View installed-base listings and access equipment, details, dependencies, and maintenance history
- View interactive part schematics (with the SAP Visual Enterprise Viewer mobile app)
- Follow guided workflows, steps, and instructions
- Install and geotag equipment
- Perform maintenance, inspections, and repairs
- Track and automatically report status, progress, and location
- Capture readings, measurements, and photos
- Record problems, actions, time, parts, and materials
- Create work orders and notifications on the spot

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## Benefits

- Extend and improve asset life and reliability
- Increase plant, fleet, and equipment performance
- Improve workforce safety and productivity
- Reduce accidents, failures, and outages
- Reduce unplanned downtime and maintenance backlog
- Improve first-time resolution rates

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## Learn More

Call your SAP representative, or visit us online at [www.sap.com/mobile](http://www.sap.com/mobile).

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