



EM
Worker Software

IM
Integrated Management Software

Connects the work site and the management site to support proper operation of procedure manuals. It saves labor in work performance recording, procedure creation, and management flow, and improves safety, quality, and productivity.

There are procedure manuals and quality records, but they are paper-based... there is concern about whether work is being performed in accordance with the latest procedure manuals.

Quality improvement Reduction of man-hours

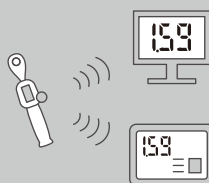
Electronic data of procedure manuals facilitates management and distribution of the latest version. Since procedure manuals and work records are linked and managed, the efficiency and reliability of quality record creation is increased.



There are concerns about the reliability of work records that rely on workers.

Quality Improvement Reduction of man-hours

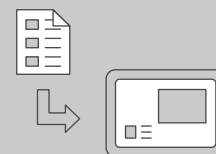
Linked with IoT tools, measurement results are automatically saved. Prevents recording errors due to transcription and input, improving reliability and work efficiency.



Work procedures and work records are difficult to communicate by text alone.

Safe and Reliable Quality Improvement

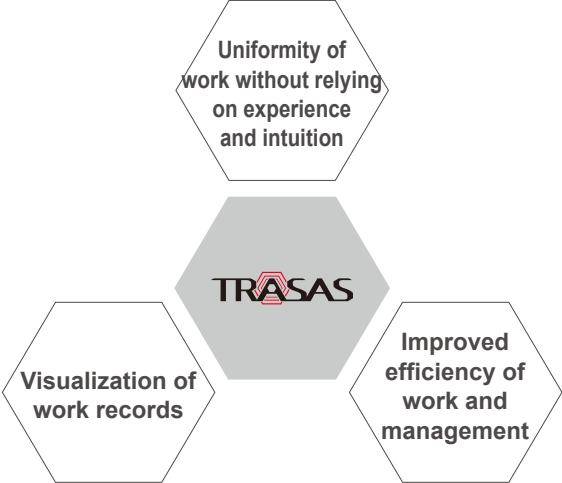
Work procedure manuals provide easy-to-understand work instructions with videos and audio in addition to text and photos. In addition to automatic input of measured values, work records can also be recorded with photos, videos, and audio, which greatly contributes to confirming and reducing work errors and variations.



TRASAS quickly incorporate "work traceability" into processes to ensure safety, quality, and productivity.

TRASAS is a next-generation work traceability system that combines our expertise as a tool manufacturer with IoT technology.

By recording and managing work data obtained from tools, TRASAS guarantees not only the safety of final products, but also the safety of workers and work sites, as well as the quality of the entire company, thereby enhancing corporate value.



KTC's 3-step introduction study process is a shortcut to problem-solving.

TRASAS Smart Fitting

STEP 01 **On-site Confirmation and Recommendation**

We visit the work site and observe the work process and operations. We investigate and confirm from various angles, and organize issues and proposed measures to solve problems, improve productivity, and introduce work traceability.

Verification items Safety and usefulness of tools including custom-made tools and labor saving, operability/work quality/productivity of work records

STEP 02 **Fitting**

For issues and proposed countermeasures identified onsite, optimal work tools, points for improvement in work procedures, and operational policies for work traceability will be examined.

Verification items Optimal tool selection / Trial evaluation using existing tools and software / Experience of management operations after work improvement

STEP 03 **Economic evaluation/ Implementation plan**

After evaluating the risks and costs of the items considered in the fitting process, a plan for smooth introduction is formulated.

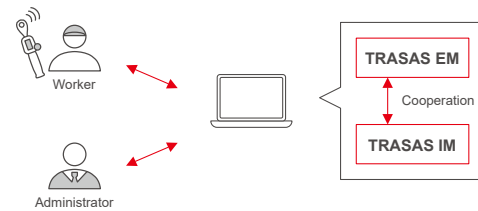
Verification items Confirmation of problem-solving plan / Cost effectiveness / Integration with existing system / Service introduction steps / Post-introduction support system

System Configuration Image

Ideal for offline environments

- Stand-alone configuration -

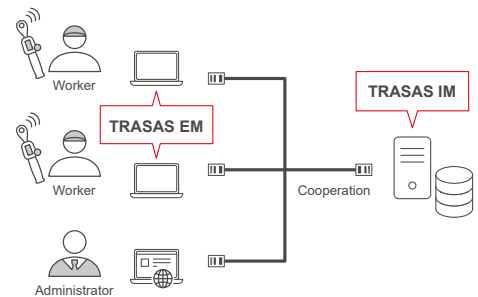
System for administrator and worker are built into a single terminal. Can be used in environments where network connection is difficult, such as work at high locations. This plan is the fastest to introduce.



Ideal for in-house and in-plant management

- On-premise server configuration -

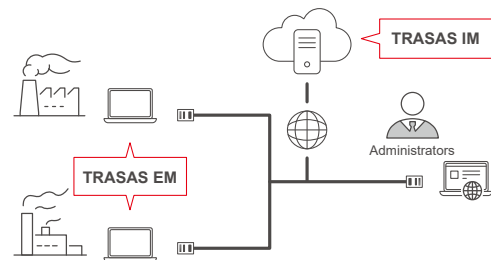
A physical server dedicated to Integrated Management Software (IM) and multiple work/management terminals are connected via a local area network. Since this configuration does not go through the Internet, it is recommended for those who wish to prioritize data leakage risk avoidance and safety assurance.



Ideal for managing multiple domestic/overseas offices

- Cloud server configuration -

Integrated Management Software (IM) is installed on a cloud server. The IM is connected via a global network, making it possible to manage multiple domestic/overseas locations. We provide support for everything from new server contracts to backup system construction and server maintenance.



Customer Testimonials



Large transportation equipment manufacturer

There are hundreds of fastening operations, which may cause work errors.

Reduced man-hours for double-checking.

Standard time is set, and safety and quality were dramatically improved.

Double-checking hinders work efficiency

A single loose screw can lead directly to a serious accident. Double-checking with safety as the top priority increased lead time and manpower costs.



Automated recording reduces costs and improves quality

Automatic recording of tightening torque measurement values prevents work omissions. Double-checking of measured values became unnecessary, reducing production costs. Furthermore, setting standard times in the work procedures led to stabilization of work quality.



Medical device manufacturer

Although they are required to improve the quality level, many tasks rely on skilled workers.

By implementing procedure management, quality levels were enhanced and a checking mechanism established, effectively resolving personnel shortages

Checking and handwritten entries cause manpower shortage.

Handwritten records are being kept to maintain quality. Skilled workers are required to check records, and the workload is concentrated on a single person, resulting in a shortage of personnel.



Uniform work quality. Realization of multi-skilled workers

Automatic storage of work records eliminates the need for checking, thereby solving the traceability problem. This has reduced man-hours and costs. In addition, the unification of work procedures has made it possible for anyone to work at the same level as skilled workers, and has also realized a shift to multi-skilled workers.

**Linking work procedures and work records,
TRASAS IM manages them as structured data.
It eliminates the problems of paper-based management
and supports the operation of work traceability.**



Correctly manage work procedures with master data

Master data for each operation, procedure, and process is created in advance. Combine and operate masters according to the contents of orders. Just by updating the master data, all instructions can be reflected, so work can always be performed according to the latest procedures.



Monitoring function to grasp the status

Real-time monitoring of work, procedures, and process progress. The occurrence of irregular work is immediately reflected, making it possible to take early confirmation measures.



Setting up work according to qualifications

On the qualification master page, the skills of each worker can be registered, enabling a list of workers' skills. Furthermore, tasks can be assigned according to the skills of each worker, preventing work errors.



Control work and reduce wasteful work

Unless work procedures are issued as a process order, workers cannot check the procedures and cannot start work. This system prevents wasteful or illegal work and ensures accurate work in accordance with planned procedures.



Edit record settings for improved quality assurance

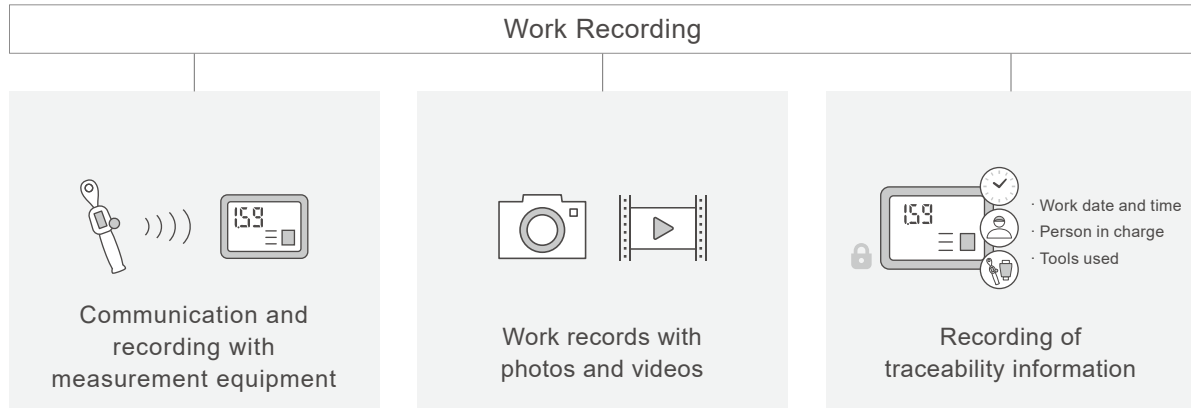
All operations, including re-measurements, manual numerical corrections, and tool information, are automatically saved with time stamps. By recording the work location and other information as well, you can firmly prove your company's quality assurance and evidence.



Centralized management of necessary tools

The database can register calibration deadlines for jigs and tools, as well as usage deadlines for auxiliary materials and consumables, enabling centralized management of tools. This streamlines management operations and supports the safe use of tools.

Thorough management with work procedures created on the IM side. Compliance with work procedures and record of work allows for error-free and standardized work.



Supports accurate work according to procedure manuals

During work, the contents of the procedure manual registered on the device are displayed to support error-free work. If work is not completed as specified, the next process is not displayed, ensuring reliable work.



Real-time display of measurement status

Measurement values and levels are displayed on the screen in real time. By visualizing information, work can be performed accurately without relying on experience or intuition. Audible warnings/appropriate alerts also prevent work errors.



Visual supplementary information can also be captured

Work procedures and work records can also include photos and videos, making it possible to create visually clear expressions and records.



Displays standard working hours to provide a sense of work rhythm.

By quantifying the work status of skilled workers, the standard work time for each task is set. By displaying this information in the work procedures, it helps to improve the skills of the workers and to make their skills more uniform.



Error prevention with Poka-Yoke function

Measurement results are determined based on pre-set targets/higher/lower limits. If the measurement result does not meet the passing condition, it can be set not to proceed to the next process.



Preventing mistakes by displaying precautions

Pre-registered precautions are displayed before work on error-prone tasks. Work cannot be started without confirmation, thus preventing mistakes before they occur.



Automatic storage of work results

Various information is automatically saved, including measurement results, work date and time, time spent, and workers. This eliminates the need for time-consuming record keeping and automatically creates highly reliable work record data.



Centralized management of measurement records and individual tool information

In addition to measurement records, individual information such as tool serial numbers and designations can be recorded at the same time. This contributes to improved traceability.

TRASAS IM Integrated Management Software

Operating Environment

TRASAS IM
Varies depending on system configuration. Please contact us for details.

TRASAS EM Worker Software

Operating Environment

TRASAS EM OS: Windows 10 Pro
Framework: .NetFramework 4.8
Wireless communication: Bluetooth ver. 4.1

*Internet connection is required for software download and environment construction.

*Confirmed operation on our Windows 10 Pro (version 1809). Even when using the above environment, the software may not operate sufficiently depending on the customer's device or environment. Please understand this in advance.

Software Linkage IoT Tool

TORQUE

Easy and accurate torque measurement by simply attaching to the tool.



Software must be installed on a smartphone, tablet device, or PC to display and report torque values (some software is available for a fee).

DIGITAL RACHET [MEMORQ]

Sound and light enable torque measurement without individual differences.



TIRE DEPTH GAUGE

Compact size for measurement even in the tire house.



BRAKE PAD GAUGE

Easy measurement of brake pad thickness.



Related Software

IoT Tool Measurement Recording Software

TRASAS Admin PRO



Real-time display and automatic storage of measured values of IoT tools linked to the software. Visualization of work accuracy using digital data improves management that is left to the worker.

Measurement Result Real-time Linked Output Option

TRASAS Admin PRO AO



Values measured with TRASAS Admin PRO can be automatically recorded directly on your forms. This reduces input/entry errors and improves the reliability of information.

Inspection Record Book Application

e-Seibi



Linking inspection and maintenance logbooks for automobiles with IoT tools, measurement values are automatically saved. This helps win customer trust by guaranteeing error-free inspections and maintenance.

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- All sizes on this leaflet are indicated as millimeter unless mentioned.
- There might be size differences between those mentioned on this leaflet and the actual products for the product tolerance.
- Product design might be changed for the improvement without the notifications.

