PEGASUS IoT System PEGASUS

Operation management, Traceability, Carbon neutral

Solve all problems on site. IoT system PEGASUS is a system that improves operational efficiency and maximizes customer profits.

Scan here to download detailed materials

It can be used as an IoT system at manufacturing sites. By collecting on-site information, it is possible to collect traceability data such as equipment operation information, abnormal signals, NG factors, and measured values. In addition to operation management, by installing various sensors, it is possible to manage various information such as power consumption management, temperature and humidity management, flow rate / water pressure management. PEGASUS IoT system visualizes the on-site situation and visualizes the "Black box".

Visualization — Real-time situational awareness

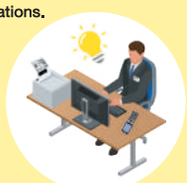
- It is possible to collect data such as operating time, stop time, idle time, setup time, number of "OK", number of "NG", stop factor, etc.
- When an abnormality occurs, it is possible to rush to the site immediately, so equipment downtime can be shortened.

Productivity improvement — Gain productivity by finding bottlenecks

- By collecting data on the entire process, bottlenecks can be discovered, and by improving the target process,productivity can be expected to improve.
- Factors that should be improved, such as NG factors and stoppage factors, can be quickly fed back to the site.

Cost reduction — Realize cost reduction by improving operating rate

- Since data can be collected automatically from the site, workers can save the trouble of recording, and can use the extra time to analyze operations.
- By reducing downtime, it is possible to increase the operating rate.



System configuration

The information of each facility is stored in the database via the "Collection unit". The stored data can be checked in real time using the dashboard tool.

Various data collection methods

Collection method ❶ PLC linkage

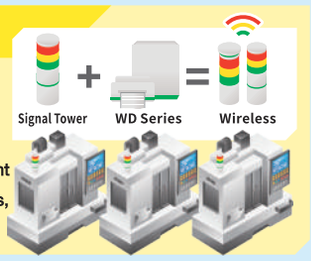
Information can be collected by linking the supervising PLC and the facility PLC. It's possible to obtain detailed information such as equipment information, operation signals,stop signals, production quantities, and error signals.

Collection method ❷ Electric signal linkage

A minicomputer is used to obtain information from the electrical signals of the facility. Information such as operation signals, stop signals, and production quantities can be collected. By combining with a tablet system, detailed information such as error details can be collected.

Collection method ❸ PATLITE linkage

By using PALITE's signal lights, operation management can be easily achieved. By attaching an information gathering unit to the existing signal light,It can get signal light information. Because of the simple settings, the system can be used immediately.



Collection method ❹ Device linkage

Operation status can be visualized by linking with devices such as handy terminals. By scanning the item slip in each process, it is possible to manage work time, IN/OUT time, and cycle time.

IoT system PEGASUS can be linked with a notification system using smart watches and LINE.

By linking with the operation information of equipment (machine tools, robots, PLC, etc.), it is possible to catch signals such as momentary stoppages and send notifications to the person in charge. It is possible to realize "Reduction of rush loss" and "Visualization and analysis of on-site work". Since it can be linked with devices such as handy terminals, tablets, and smartphones, we can provide solutions that match on-site issues.

Smart watch system

Responders, on-site arrivals, and response times can be measured.

LINE notification system

Image data can be sent at the same time as notification.

Introducing customer's voice

Case study

▲ From left, Mr. Nozaki from Tomas Tech, Mr. Iijima from Ueda Plasticst

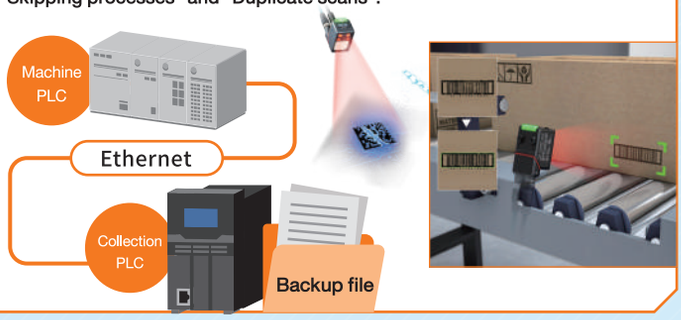
UEDA PLASTIC (THAILAND) CO.,LTD.

Introduction solution / PEGASUS IoT system (Smart watch system, Operation management system), Stock management system

A Thai subsidiary of Ueda Plastic Co., Ltd. (Headquartered in Ueda City,Nagano Prefecture).Established in 2013. Injection molding of thermoplastic resin / Decoration of resin products (Printing, Painting,Laser marking) /Assembly (Mainly for automobiles,Motorcycles, Office equipment and industrial equipment)

Traceability

Based on the workpiece S/N scanned by the barcode reader, the processing, inspection, and assembly results are collected from each facility. The acquired data is reflected and stored on the DB side in real time. Since backup data can be stored on an SD card by the collection PLC, data integrity can be ensured even in the event of a server failure or network failure between the collection PLC and the server. By making inquiries to the DB each time, careless mistakes can be prevented by shaking hands with the equipment side, such as "Skipping processes" and "Duplicate scans".



Carbon neutral

This is a carbon neutral proposal that utilizes IoT. In a factory that consumes a large amount of electricity, prioritizing measures to save energy is essential to increasing the return on investment. By using IoT technology to "visualize" the flow of energy in the factory, it is possible to find out which equipment is consuming a large amount of energy and where improvements should be prioritized.

System installation schedule Smart watch system PEGASUS can be used in a minimum of 1 month.

Current situation analysis (Within sales)	Requirement definition (1-4 weeks)	Design (1-3 weeks)	Development / Test (1-20 weeks)	Introduction support (1 week)

Minimum 4 weeks (1 month) ～ Maximum 28 weeks

Hardware configuration

Server type can be selected from cloud version and on-premise version

#	Item	Recommended specs/Model
1	PC Server	Cloud version/On-premise version OS: Windows Server 2019R2 Standard or higher Memory: 8 GB or higher Hard disk: Free space of 50 GB or higher Display: Resolution 1366 x 768 or higher Browser: Google Chrome (latest version) *Server machine with recommended model specs or higher
2	Client PC	OS: Windows7/8.1/10/11 Memory: 4GB or more Display: Resolution 1366×768 or more Browser: Google Chrome (Latest version) * PC machine with recommended model specifications or higher
3	Various IoT devices	Guidance each time

Request a free demonstration

◎ Orders and inquiriest

IoT system PEGASUS can be demonstrated free of charge. It can use our IoT equipment to collect information and check the dashboard screen. To request a demonstration, please contact us.

TOMAS TECH

Development company：TOMAS TECH CO., LTD.
7/1 (3C)Udomsuk 46 Alley, Khwaeng Bang Na Nuea, Khet Bang Na, Bangkok 10260 Thailand
Tel: +66-98-271-9741 E-mail: info@tomastc.com Website: www.tomastc.com