POB System
(Worker Access & Safety Management)

POB Microsite_
http://persononboard.com/

Is your work-site safe enough? Do you wonder about allocation of workers aboard a vessel? We have experience of building and operating IoT(Inter of Things)-technology applied a total on-board worker management system, called POB (Person on Board) system. Through the system, various information related to safety and allocation status of the workers is automatically organized and provided in real-time.

Improve Personnel Management

Information of allocated workers sorted by vessel, partner-company, job, and gender is available to real-time check. Also, the unauthorized such as safety-training uncompleted worker or suspicious person are interrupted to access workplace.

Set Safety First Culture

POB system only allows safety-training completed workers to access work-areas in the vessel. The restriction not only develops the safety first work-environment, but also arouse workers' safety consciousness and awareness.

Advance Emergency Response

In emergency such as fire or physical accidents, POB system alerts and shares details of the accident to all workers and relevant department through emergency alarm system and message transmission. Also, it keep checking the left behind workers in danger in real-time.

Utilize Big Data in Management

Data processing for valuable information is commonly one of big challenges in management due to size and variety. POB system arranges data from the collection step and supports user to utilize the big data in various fields.

Expectable effects with POB System

Emergency Alert System

In the event of emergency situation such as fire, explosion, and other safety incidents, the system enables the user to notify evacuation alerts to all of people on the vessel at once. The evacuation status is informed visually by the system, and it also identifies the left behind workers in danger rapidly. In addition, it interworks with the emergency bell system (Optional extension) for better efficiency.

Aboard Worker Safety Management

POB system is available to interwork with mobile devices and other safety supervision system in order to manage safeness of workers on board in real-time. If the emergency bell system (Optional extension) is connected with POB system, alarming emergency and transmitting urgent evacuation alert at once.

Real-time Monitoring

POB system organizes status of on-board people for enabling user to check the real-time info per vessel, per partner-company, per job, and per gender. With TV, monitor, or LED display, the info displayed at all time.

No an Unauthorized Person

To prevent unauthorized access which is critical potential risk on workplaces, boom barrier gate is powerful option. Authorized person, of course, able to pass the gate without any interruption, but the unauthorized.

Access Info Management

By POB system, info of people aboard vessel and the vessel access records are managed, and the collected info and records can be converted to various type of visual information as chart and graph.

Applications of Big Data

The collected big data on POB system is able to dynamically interwork and utilized with the various expansion solutions (extensions).

POB System provides various type of report.

- POB system dashboard enables real-time monitoring the state of on-boarding personnel per vessel. With the real-time info update, it enables better situation understanding and more flexibly action.

- Real-time check of personnel on-boarding/disembark information is available, and productivity is measured by application of the data. Also, the system provides functions to search previous records and to calculate relevant statistics.

Access Control and Worker Management System on Secure Area

Our company has own access control and surveillance solution for critical security control. Not only supplying speed-gate facilities, but also providing all-in-one total solution including software and suggesting fully customized system depending on your field environment and access types (individual or vehicles).

Establish customized access control system for each client

We build-up fully customized access control system by client consultation and detailed site investigation. We suggest the most suitable access control system, depending on all type of access such as vehicle, motorbike, and walk.

An integration of field infrastructure and operation S/W

We are capable to suggest an integrated system of field infrastructure and operation S/W. An integration with client own human resource management system is also available.

High expandability

High expandability of our solution enables connecting with client's CCTV, employee attendance management system, meal quantity management system, and etc.

Why is access control system necessary?

Cost saving by efficient management of personnel access comparing to plan.

Secure valuable confidential documents and patent information against industrial spy by our advanced security.

Utilize big data of human and material resources management

Expandable to various system.

Integrated Welding Machine Management System

A great quantity of welding machines is used in metal manufacturing industry. Data from the welding machines and current usage are collected in real-time. Job-order become digitalized. With analyzing the collected data and utilizing information in many fields, it realizes smart factory

Difficulty in checking work progress

It is not easy job to check a current progress and quality of welding work. Integrated welding management system collects data from all of client's welding machines and digitalizes the information in order to supports the quality and progress checks.

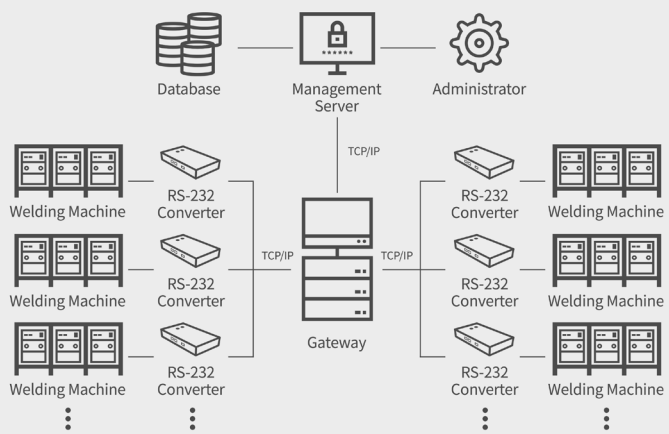
Systemized management of welding machines is required

Managing each hundreds of thousands of welding machines is big challenge. Our integrated welding management system provides interfaces to monitor welding machine details such as the remaining welding coil, voltage status, maintenance records, fault history.

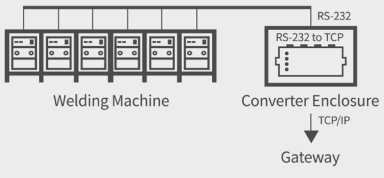
Computerization of welding work process

All of machines are connected to network. So, it is available to issue job-order, to store work results as data, and to check various info including machine operator, current work progress. The information extracted from the data is applied to improve productivity purpose.

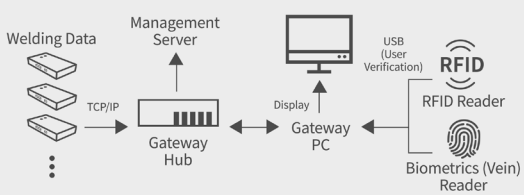
System Structure



Welding Machine Network Structure



Gateway Network Structure



Real-time Steel-Plate Inventory Management System

All processes in steel-plate inventory yard, such as steel-plate receiving, stock, delivery, forwarding, and unstoring, etc., can be automatically and accurately controlled. Also, steel-plate location and inventory balance become easy to manage by collected information. Experience new standard of steel-plate management.

Real-time steel-plate management system is **an essential for improving work efficiency of steel-plate management .**

Accurate steel inventory management

We build-up fully customized access control system by client consultation and detailed site investigation. We suggest the most suitable access control system, depending on all type of access such as vehicle, motorbike, and walk.

Connect ground work and crane operation

Ground worker with PDA (Tablet) and Crane operator with PC can communicate in real-time for smoothly work connection.

Raise work efficiency significantly

WIth the system, crane movement is done by simple control, and relevant area information automatically displayed in order to raise work efficiency dramatically.

Prevent work accidents

The system measures distance between cranes in real-time, so it prevents work accidents such as crane collision in advance.

How does real-time steel-plate inventory management system work?

1. A staff should **proceed "Receive" step by PDA or tablet PC** when steel-plate received from vehicle or vessel.

2. When the "Receive" step is on progress, the system server checks current steel-plate inventory and **indicates a place where does the received steel-plate go to.**

3. After "Receive" process, job-order is sent to a standby crane, and **the crane moves for the job. Crane location is traced by laser sensor in real-time.**

4. Crane lifts the designated steel-plate. **It automatically measures the weight and displays relevant information on computer.**

5. The crane moves to a place to unload while lifting the steel-plate. **When it arrives to the place, the area number of the place is displayed on computer. After confirmation, steel-plate is unloded.**

6. **Ref number of steel-plate, a place where it is unloaded, and order of the unloaded are automatically recorded.** The records can be checked at anytime.

Our solution is applicable to not only steel-plate inventory yard but also workshop managing materials by fixed crane like an assembly factory and material warehousing, etc.

Integrated Spool and Pallet Mangement System

Spool pipes for ship-building is mostly manufactured by sub-contractors, and it is loaded on pallet and delivered to client's company together. After then, its are not immediately consumed and become await to be used until an appropriate ship-building step starts. In the process as above, a great quantity of spool pipes and pallets become lost due to lack of attention. Our integrated spool and pallet management system provides spool stock management, traces it's real-time location, and minimizes the relevant loss.

Prevent asset loss

Spool pipe delivery needs pallet. Production of pallet also requires expenses, but loss risk of the pallet in the process of delivery and storing. To minimize the loss, it is necessary to trace the delivery route and asset management of pallet.

Need to trace location of ship-building materials

Spool pipe is one of important key component in ship-building. Several reasons such as delay of prior process or mis-prediction of consume date frequently cause that spool-pipe stays on yard for long time. In this case, the location management is essential to prevent loss of it.

Need procedure for job-order

Methodical management of each processes is required from spool pipe production to installation on the vessel.

We aid in management of your valuable assets

We aid in managing any assets which is exposed to high loss risk. It enables real-time monitoring all status related to spool pipe and pallet including spool production, delivery, yard storing.

The most suitable tag suggestion after thorough analysis of spool production

Spool pipes go through various processes in production step. Spool tag also goes through all the processes with spool. We suggest heavy duty spool tag which operates properly under rough circumstances like blasting, rust removing by hydrochloric acid, painting,. etc. Furthermore, we have an automatic RFID tag issuing system which prints the spool tag.

Aerial-Lift Vehicle Operator Verification and Location Tracing System

Potential safety risks caused by unqualified aerial-lift operator frequently become issue in various industries. Also, finding managelessly dispersed aerial-lift vehicle in wide workplace is a big challenge. With this system, eligibility of the vehicle operation can be managed. Tracing location of the vehicle, checking usage history, and monitoring work progress become easier at anytime in anywhere.

With real-time aerial-lift vehicle operator verification and location tracing device, it achieves effective process management by improved security, maintenance expense saving, and minimizing time wasting for tracing the vehicle.

Expectable Effect

- Improve work safety by restraint on unqualified operation
- Real-time monitor location and operation information of the vehicle
- Collect data from relevant work and utilize the big data for better efficiency
- Achieve integrated industrial vehicle safety management system by connecting to the existing safety system

Why is aerial-lift vehicle operator verification and location tracing system necessary?

1. In many industry, it is practically difficult to implement extra qualification or education for aerial-lift operation on particular field.
2. More operation by ineligible operator increases safety accident risk.
3. More operation by unqualified operator causes more mis-operation and increase maintenance expense.
4. Finding managelessly dispersed industrial vehicles in wide work field like ship-building yard is time wasteful.
5. Operation log with operator record is hardly written. It causes big trouble on process management.
6. Safety administrator or process supervisor need methods to check current status of the vehiclein the field.