WELLTEC

iSee 4.0
Intelligent Management Cloud Platform

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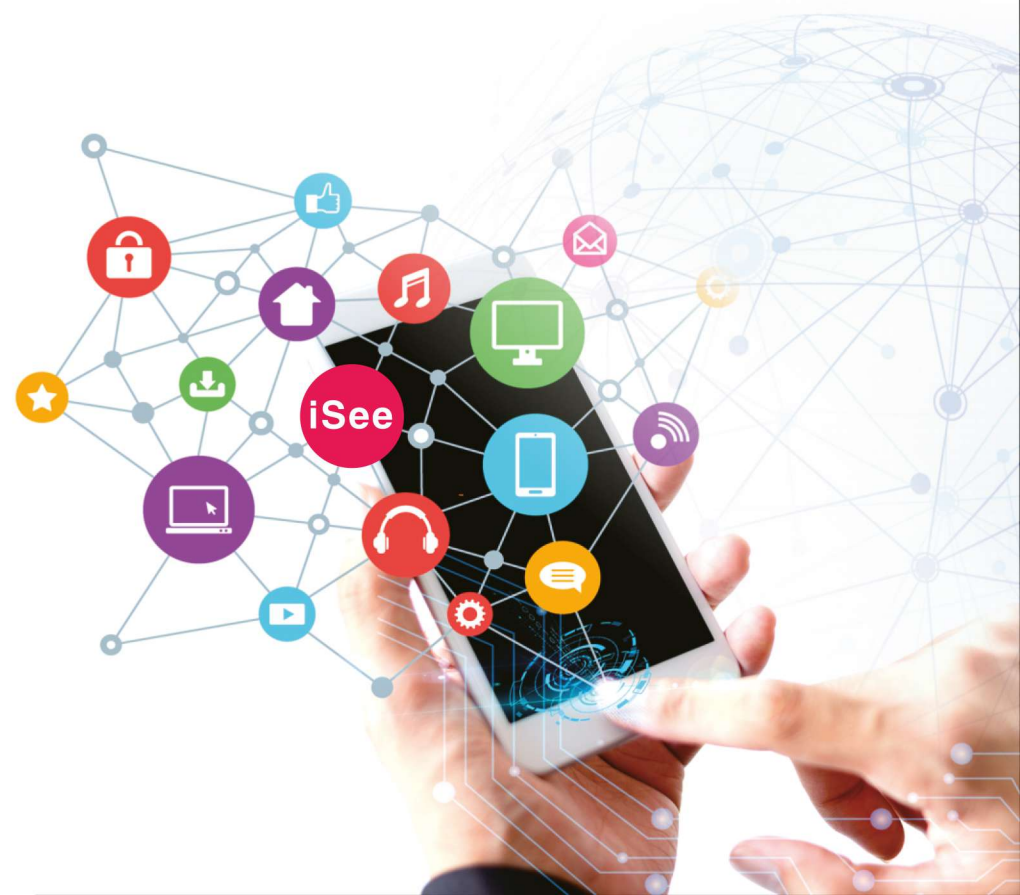
iSee

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Contents

Industry 4.0

Situation Analysis of Plastic Industry under Industry 4.0

Industry 4.0 is one of the ten future projects initiated by the German government under the High–Tech Strategy 2020. It refers to the use of the IOT information system to digitize data and intelligently provide the production supply, manufacturing and sales information to achieve a fast, effective and customization in product supply.

"Made in China 2025" proposes the policy of "Innovation–driven, quality first, green development, structural optimization, talent oriented."

With the rapid development of new technologies, such as cloud computing, big data, mobile Internet, Internet of Things and artificial intelligence, the traditional model of manufacturing has been greatly challenged. And the innovation of new business model becomes possible.

Industry Status

1

Incomplete Data Recording

Manual data input leads to error and loss.

2

Low level of information integration

Unable to master the production schedule and orders completion dates leading to difficulties in orders management.

3

Inadequate equipment monitoring

Frequent manual monitoring is required owing to absence of automatic warning signal.

4

Outdated management model

Independent operation of equipment without integration with ERP and MES leads to unproductive resources.

5

Unintegrated function modules

No integration of auxiliary machines, barcodes, warehousing, feeding, robotic hands, conveyor belts and visual identification, etc.

6

Lack of market insight

Lack of technology and experience to accelerate the fourth Industrial Revolution

What's iSee

iSee is an intelligent management cloud platform based on building the IOT for industrial plastic equipment integrating the advantages of cloud computing and big data. It can improve the controllability of the production process, reduce manual intervention on the production line, and make reasonable schedule.

It is to build an efficient, energy–saving, environmentally friendly and humanized factory to help enterprises achieve Industry 4.0.

i for IMM and Intelligent

S for Surveillance and Supervisory control
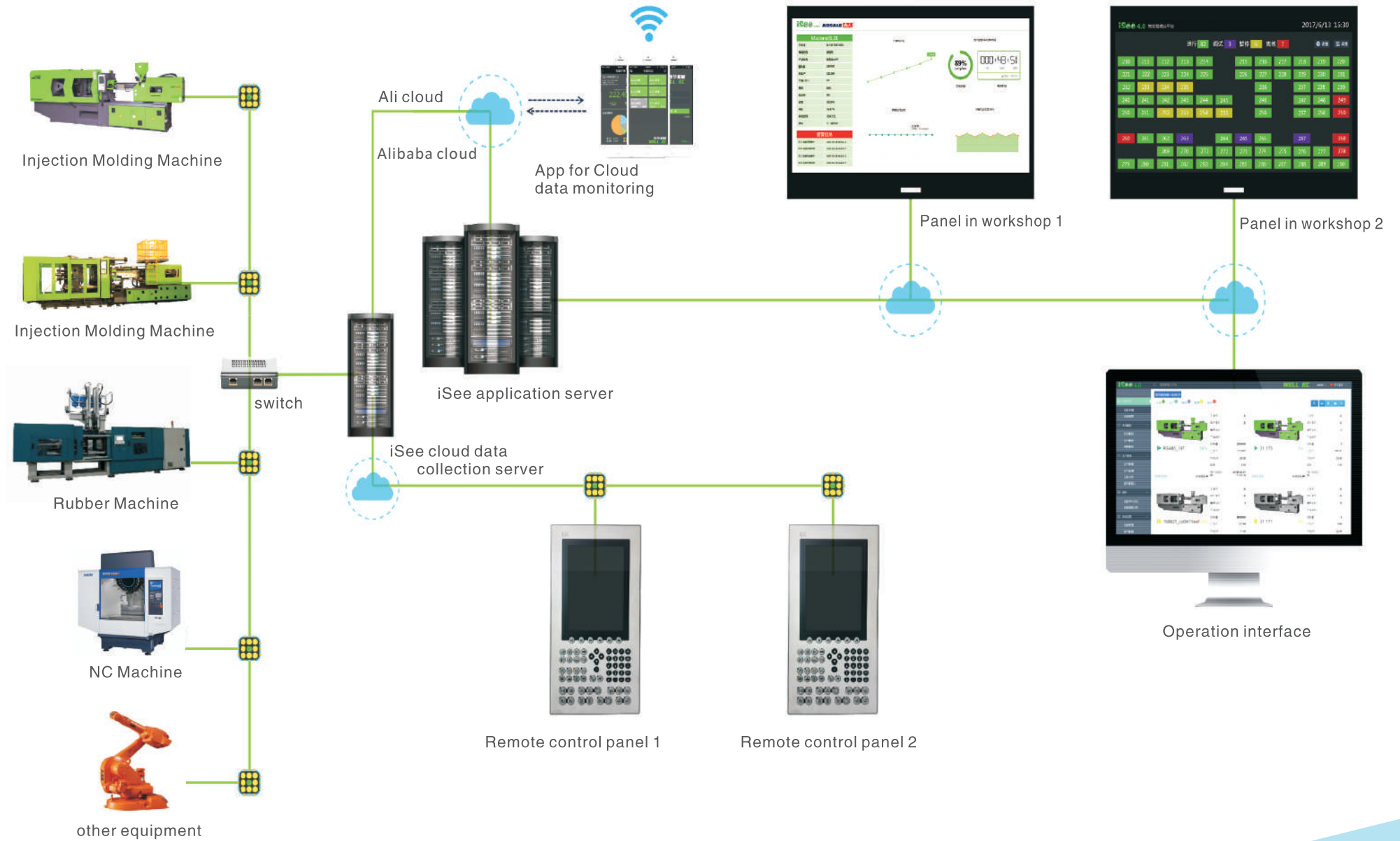
e for Electronic

e for Environment

Intelligent　　**S**urveillance　　**E**lectronic　　**E**nvironment

Main function

- To achieve objectives of quality, efficient and low–consumption production through a wise analysis and application of the collected data.
- Intelligent push notification immediately transmits the production plan and alarm information to the terminal equipment.
- iSee is working towards Lean Production and standardized assessment through a management of productivity of machines and workers.

Network Architecture Diagram

Hardware device diagram

Injection Molding Machine

Injection Molding Machine

Rubber Machine

NC Machine

other equipment

switch

Ali cloud

Alibaba cloud

App for Cloud
data monitoring

iSee application server

iSee cloud data
collection server

Panel in workshop 1

Panel in workshop 2

Operation interface

Remote control panel 1

Remote control panel 2

Function Module in your PC

iSee in your app

Device monitoring

Device analysis: Name and status of device, production progress, parameters, utilization rates, completion rates and status of the auxiliary machines, etc.

Panel display for real-time monitoring

Comprehensive panel, SPC panel, NC panel, status panel, production panel

Production management

Order importing, production scheduling and tracking, production process data, basic data

Production analysis

Device name, status, orders, mold usage, products, target quantity, completion rates, expected completion time, etc.

Analysis report

Reports of SPC comparison, energy consumption analysis, scheduling, equipment utilization, failure rate, capacity and defective products, etc.

On duty

Operators scan the QR code to record the working hours, output and quantity of defective products. One person can operate one or multiple machines.

Monitor

Operators can monitor machine status, output, alarm information and orders details on the mobile phones. Authorized users can be in control and make proper decisions in a timely manner.

Alarm

Operators can notify the person in charge by a scan of QR code when machines are not working properly. A speedy maintenance can be done.

Loading

When it comes to the time for loading raw materials, Operators can notify the person in charge by a scan of QR code for immediate action.

iSee

07/08

Service Advantages

Users of i See can choose to use the cloud server. The machines can be connected to the cloud platform just by one cable, which largely saves the investment cost of building a network infrastructure in the early stage and the subsequent maintenance cost.

iSee

Security

Cloud servers can prevent attacks on app and MAC spoofing. Data is regularly backed up.

Reliability

With the use of server farms, it leads to a high performance with low failure rate.

Intelligence

The system can monitor the status of the machine and the use of components. A timely warning of abnormalities is possible.

Stability

Automatic data migration: Data will be automatically migrated to other cloud servers when a fault is detected.

iSee

Informationization of the production workshop is attained through iSee platform that enables a range of data collection, statistics and analysis, etc.

The production progress, expected completion date and production schedule of orders can be checked through the terminal device. A better arrangement of resources becomes possible.

The smart push function instantly transmits the 'to– do list' to the designated terminal equipment (PC, iPad, iPhone, Android, etc.) attaining real–time monitoring.

iSee platform helps upgrade the entire workshop. It enables equipment health prediction and remote diagnosis. In–depth analysis of equipment data facilitates process improvement, equipment utilization and indicates the level of production capacity.

Investment Benefit Analysis of iSee

Successful Cases

61%

Reduce paperwork for shifts,

24%

Reduce semi-finished products,

45%

Reduce manufacturing cycle time,

18%

Reduce product defects

According to the research by the International MESA Association, the value brought by MES is considerable compared to any other manufacturing software.

Haier

SKOFM

CT

APLASE

ERA

KaShui 1980

B

KARMAY
PLASTIC PRODUCTS

DONGLI

JIAN QI

Future Plan of iSee

Create a Smart Factory

Cloud computing and big data
Collect big data for professional processing. We turn data to insights and lay a solid foundation for artificial intelligence.

Improve service quality
Establish a management system for customers. Customer can monitor the use of equipment through cloud computing.

Smart factory
The perfect combination of Internet of things and informationization of IMM achieves automatic collection of production data and real-time analysis of equipment to attain intelligent production.

Awards

Trademark & Awards

National computer software production right

"Hong Kong Awards of Industries— CERTIFICATE OF MERIT FOR MACHINERY AND MACHINE TOOLS DESIGN"