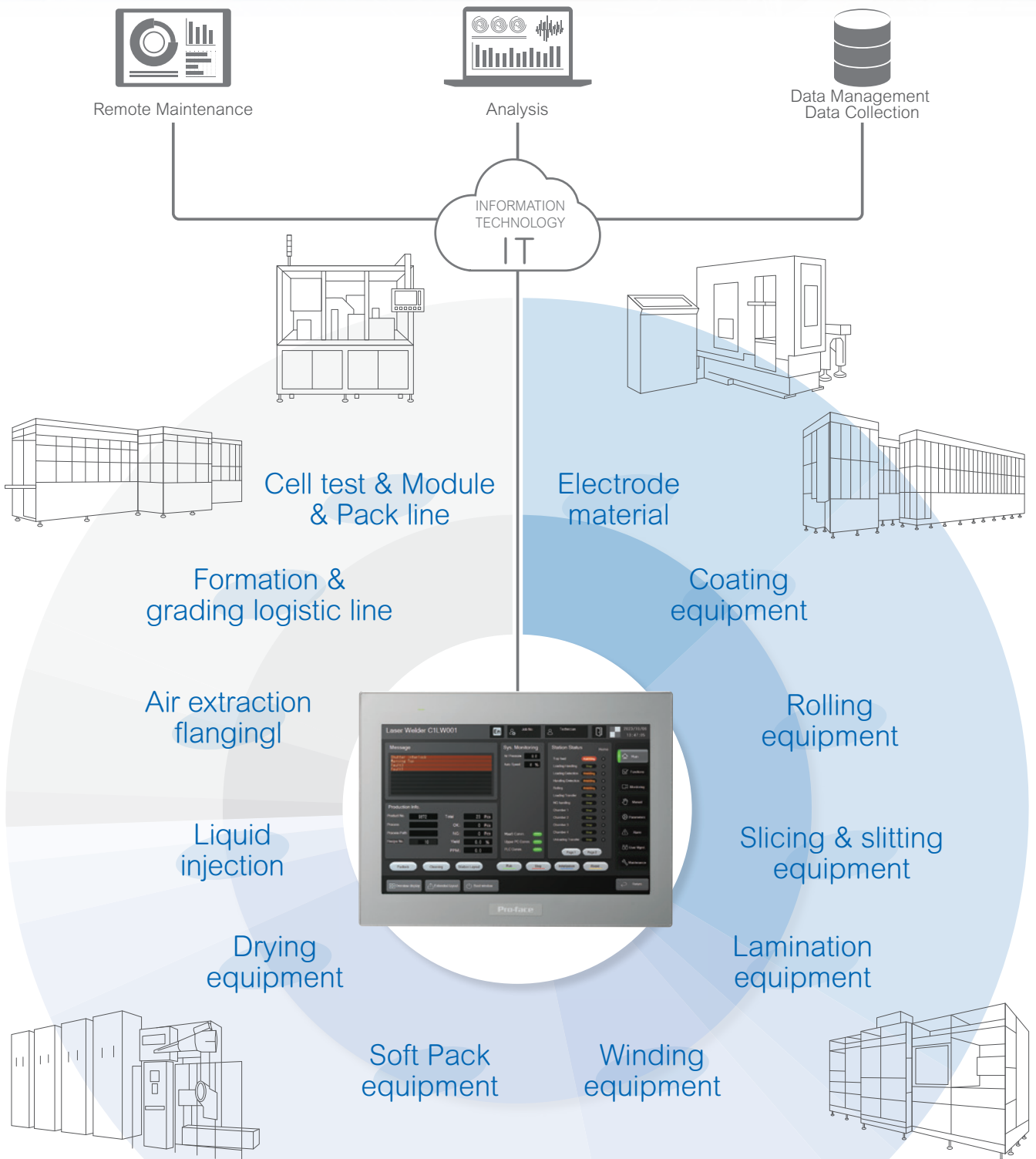Electric vehicle battery

Value Engineering HMI Solution

Pro-face™

by **Schneider** Electric

Pro-face HMI improves machine performance and increases productivity in EV Battery Production.

Remote Maintenance

Analysis

Data Management
Data Collection

INFORMATION
TECHNOLOGY
IT

Cell test & Module
& Pack line

Electrode
material

Formation &
grading logistic line

Coating
equipment

Air extraction
flangingl

Rolling
equipment

Liquid
injection

Slicing & slitting
equipment

Drying
equipment

Lamination
equipment

Soft Pack
equipment

Winding
equipment

Discover the power of our meticulously designed templates,

which offer not just visually stunning displays
but also empower operators
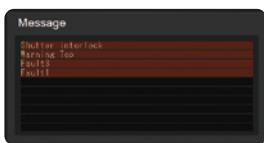with unparalleled situation awareness and effective Operation.

Situation Awareness

Benefit from Pro-face's extensive expertise as an HMI Specialist, where years of experience and knowledge are infused into every aspect of our screen creation. Elevate your operations with HMI screens that redefine clarity and usability.
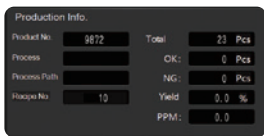
Effective Operation

We've fine-tuned operations such as the operation log to ensure a seamless user experience, reduce the steps needed to access vital information, and empower operators to achieve more in less time.
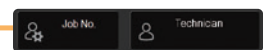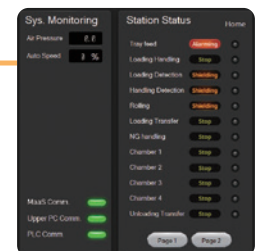
Main Screen

Check alarm information

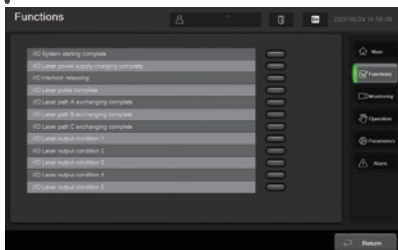Production information at a glance

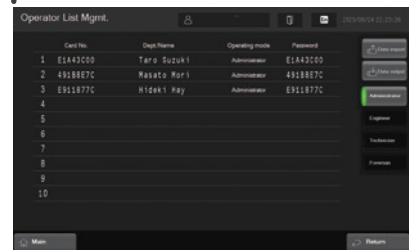Permission settings by user

Clear display of equipment status

Functions Screen

Monitoring Screen
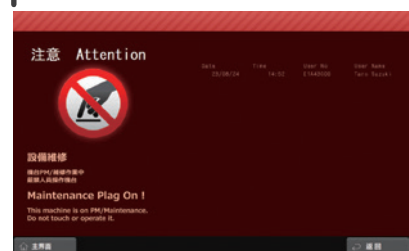

User Management Screen

Manual Screen

Parameters setting Screen

Maintenance Screen

Value Engineering with Pro-face HMIs

Case 01

Building a secure network to utilize data from various devices is complicated and difficult.

Simply build a secure network with Pro-face HMI mounted with 2 Ethernet ports.

All devices on the production line can be partitioned and networked for BIG data analysis and sharing.All ethernet-based controllers pass the data and information on people management, alarm, recipes, etc... to the MES system with a secure network.
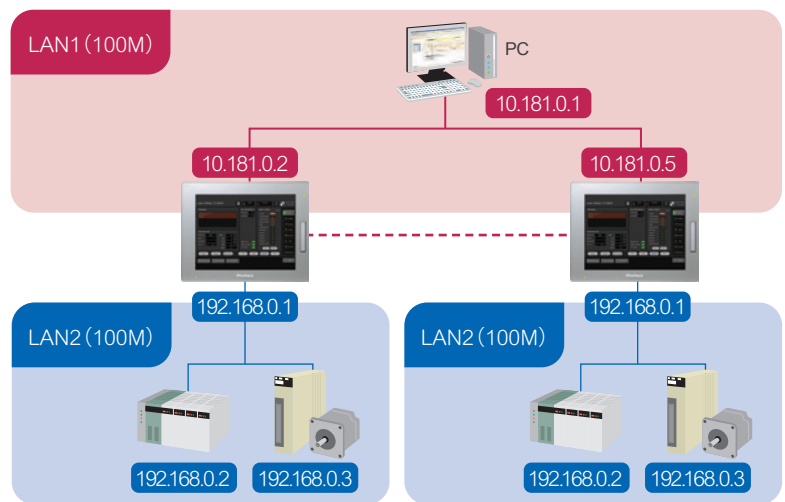
01
Distinguishing different network segments at the physical level by means of the HMI's built-in dual network ports, making it easy to establish a secure network system.

02
Eliminating the need to reconfigure the IP address on the device side, simplifying cooperation with IT departments, reducing system configuration time and routing costs.

03
IT/OT convergence, i.e., edge control, can realize effective data sharing and storage.
It also supports webcams and other related network application devices.

LAN1 (100M)
PC
10.181.0.1
10.181.0.2
10.181.0.5
192.168.0.1
192.168.0.1
LAN2 (100M)
LAN2 (100M)
192.168.0.2
192.168.0.3
192.168.0.2
192.168.0.3

Case 02

When importing a large number of variables, the import time is too long and the HMI tends to lag when running.

Utilize all the necessary data with the high-performance Pro-face HMI

Efficient import and export
Importing 60,000 variables can be done basically in 30 seconds and can run /switch a large number of screens (400~500) smoothly.

Highly efficient tag communication
Support 400+communication protocols, special CODESYS protocol has more mature applications in production sites.

Support more data types
64-bit data address can be used directly, and the XML generated by CODESYS can be imported directly, which can be used after importing with the tags.

Case 03

Password-based permission settings are less secure due to the difficulty of managing passwords, and there is no way to check history.

Realize enhanced security by HMI directly connecting the ID card reader.

Security measures can be easily implemented by utilizing HMI + ID card reader to manage equipment and facilities operated by multiple operators or processes.

01

Each employee has a staff ID card, and by reading the ID card through the card reader, the staff level and name will be automatically identified. All information on the staff operation will be recorded under the staff's name.
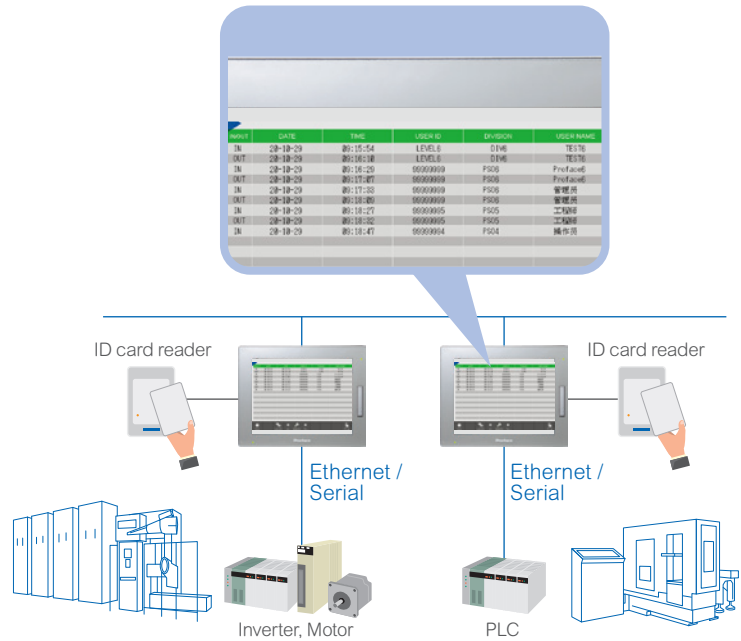
02

All the information about the employee's operation will be recorded under the employee's name, which brings convenience and high security for the subsequent failure analysis and tracing.

03

Avoid human error operation by utilization of data from the operation record.

04

Using commonly used USB/serial ID card readers can enhance security at a lower cost.

ID card reader

ID card reader

Ethernet / Serial

Ethernet / Serial

Inverter, Motor

PLC

Case 04

Cell test & Module & Pack Line and Slicing & slitting equipment are complex workstations.

Pro-face HMI supports various device protocols, making it easy to configure multiple controllers.

OMRON Corporation

- CS/CJ Series Ethernet
  (CS Series, CJ1 Series, CJ2 Series, CP1 Series)
- CS/CJ/NJ Series EtherNet/IP
  (CS1 Series, CJ2 Series, NJ Series)

Mitsubishi Electric Corporation

- A Series Ethernet
  (MELSEC A Series)
- Q/QnA Series Ethernet
  (MELSEC Q Series, MELSEC iQ-R Series, MELSEC iQ-F Series)
- Q Series QnU CPU Ethernet
  (MELSEC-Q Series)

Siemens AG

- SIMATIC S7 Ethernet
  (SIMATIC S7-200 Series, SIMATIC S7-300 Series, SIMATIC S7-400 Series, SIMATIC S7-1200 Series, SIMATIC S7-1500 Series, LOGO! Series)
- TIA Portal Ethernet
  (SIMATIC S7-1500 Series, SIMATIC S7-1200 Series)

CoDeSys Automation Alliance

- CoDeSys V3 Ethernet Driver
  (3S-Smart Software Solutions GmbH CODESYS Control Win V3, Hitachi Industrial Equipment Systems Co., Ltd. EHV+, Lenze Vertrieb GmbH Controller 3200C, Schneider Electric SA Modicon M241, Modicon M251, Modicon M262)
- CoDeSys V3 Ethernet Driver
  (BOSCH Rexroth, WAGO, ELAU, 3S SoftPLC, KEB, Bachmann MX200 Series)

Feature

Data Access & Connectivity

Pro-face HMIs connect with CoDeSys, many others, and a wide range of devices. They connect with robots, inverters, motion controllers, and PLCs. Over 1,200 device protocols are compatible, and the number keeps growing. Compatibility with major open networks will also allow connections with nearly unlimited devices.

Connectable Devices

Go to WEB

It is possible to store data and import alarm sampling data to PC periodically.The Pro-face HMI uses NAND storage for saving alarm, sampling, and log data, and can also be set up via FTP to upload this data to the PC on a regular basis.

International Industrial Control Certification / Global Support & Services

Certification to define our offer made for the Automation Control application

【UL / CE / ATEX】

Industrial Resistive Type Touch Screen

Pro-face HMI supports input via pressing two points to support operations such as use of interlock to prevent on-site operator errors.

Enhance Security

It is possible to store data and import alarm sampling data to PC periodically.The Pro-face HMI uses NAND storage for saving alarm, sampling, and log data, and can also be set up via FTP to upload this data to the PC on a regular basis.

HMI line up

Advanced HMI for extensive use of information

SP5000 Series

How can you fully utilize only the information you need from scattered big data? SP5000 Series provides Smart Portal, a window that optimally displays information in response to a demand for increasingly sophisticated information utilization as a new solution.

Go to WEB

【Size】 19" Wide | 15" Wide | 15 | 12 | 12" Wide | 10 | 10" Wide | 7Wide
【I/F】 COM | LAN | USB | SD | CFast | DVI-D

Achieve a high level of visualization with the Basic HMI

ST6000 Series

The ST6000 series brings a new level of visualization to the Basic HMI market, which no other basic product has accomplished. We have achieved a superior quality display that improves operability and is unmatched by any other basic product. Optimize operations and machine information.

Go to WEB

【Size】 15" Wide | 12" Wide | 10" Wide | 7" Wide | 4" Wide | 10.4" | 5.7"
【I/F】 COM | LAN | USB | SD

Better Visualization and More Information with Entry HMI

ET6000 Series

ET6000 Series has cost-effective and just enough functionality. Enhance your machine with features and good performance from HMI Centric concept. And easy migration with software and hardware compatibility.

Go to WEB

【Size】 15" Wide | 12" Wide | 10" Wide | 7" Wide
【I/F】 COM | LAN | USB

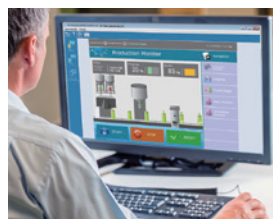# Software line up

Screen editor software
GP-Pro EX

Go to WEB

User friendly, yet powerful

Enables HMI screen and logic programming for all.Screen creation can be performed with ease due to many functions that promote compatibility with legacy applications and reduce development time.

Remote MonitoringSoftware
Remote HMI Client for Win / GP-Viewer EX

Go to WEB

Effective maintenance

Pro-face Remote HMI Client for Win is a Windows Desktop application of the Pro-face Remote HMI app. It enables Remote viewing of multiple HMI RT screens from one PC.

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