One Cloud to Multi-Screens and Multi-Clouds to One Screen

Cloud Human Machine Interface architecture

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The architecture of conventional HMI is a "One Machine to One HMI" architecture, although the network connects all the HMI together, the operators still need to go through each individual machine and check status from each individual HMI on the machine. WEINTEK Cloud Human Machine Interface, CloudHMI offers an innovated solution for this application.

The conventional HMI is equipped with the resistive touch panel which responds to pressure on its surface. However, the resistive touch panel is easily cracked by over-hitting its surface even with a sharp object. The cMT-iV5 display panel of Cloud HMI is equipped with the projective capacitive touch panel. The projective capacitive touch panel is widely used in iPad and smart phone now. The advantage of the projective touch panel is that it is more sensitive to the finger touch by detecting the change of electrical current without pressing the surface. Due to the way of touching the projective touch panel differs from the resistive touch panel, the cMT-iV5 can avoid the damage by over-hitting its surface from operators.

The CloudHMI is a "One Cloud to Multi-Screens" and "Multi-Clouds to One Screen" architecture. Breaking through the operating limitation of "One Machine to One Screen" architecture, operators can remotely monitor the operational status of each machine anywhere via Internet. "Cloud" is the Cloud Human Machine Server, cMT-SVR without a LCD display and a touch panel. Not only the cMT-SVR can efficiently perform complicated arithmetic operations and provide stable communications, but also it can be a data processing center with high reliability. "Screen" is a wireless iPad or a wired Cloud Human Machine touch panel, cMT-iV5. Both of them can connect to the cMT-SVR then display the instant and historical data or operate the machine.

■ One Cloud to Multi-Screens architecture

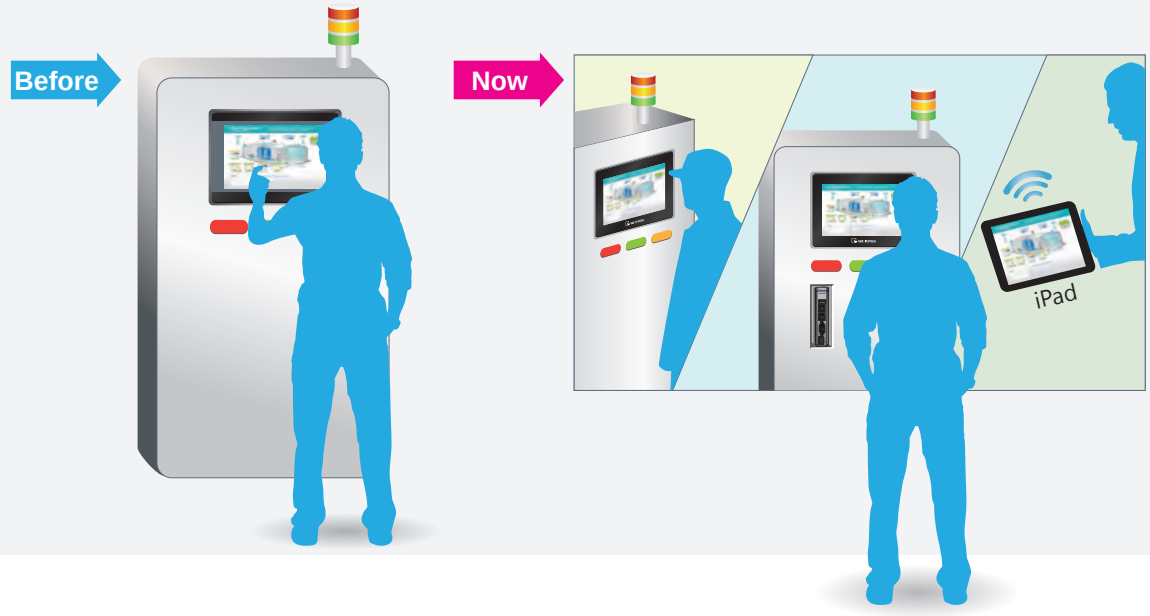
Feature：
Up to three iPads / cMT-iV5s can monitor one cMT-SVR anywhere at the same time.

Advantages：

1. Simultaneously view the same event log or historical data

Before Only one operator can view the information in front of the HMI at one time.

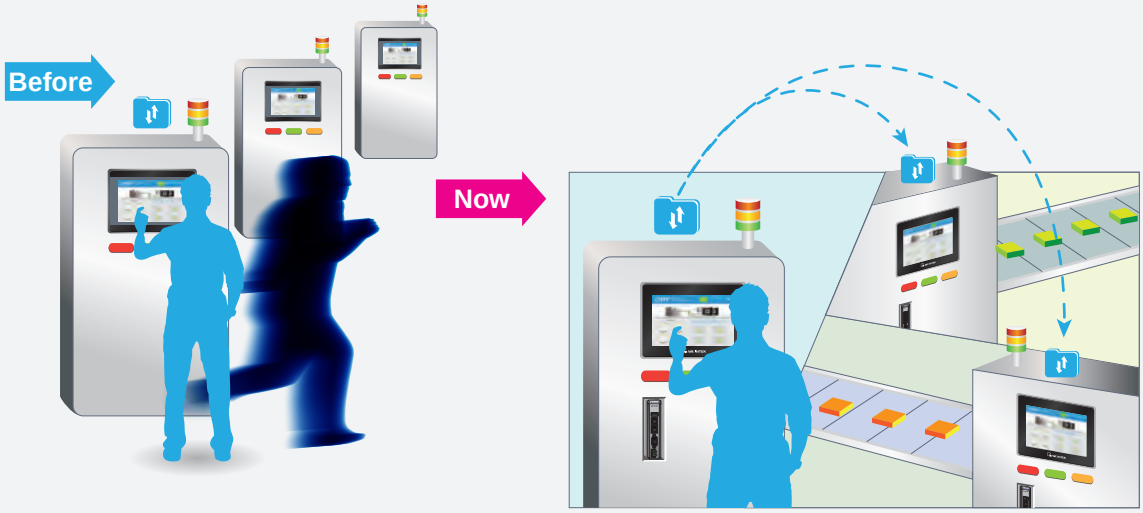
Now Up to three operators can simultaneously view the same event log or historical data by using different iPad / cMT-iV5 anywhere at the same time.



2. Efficiently update recipe data

Before The failure rates of operations are increasing because operators must spend so much time going to each HMI and updating the PLC's recipe data.

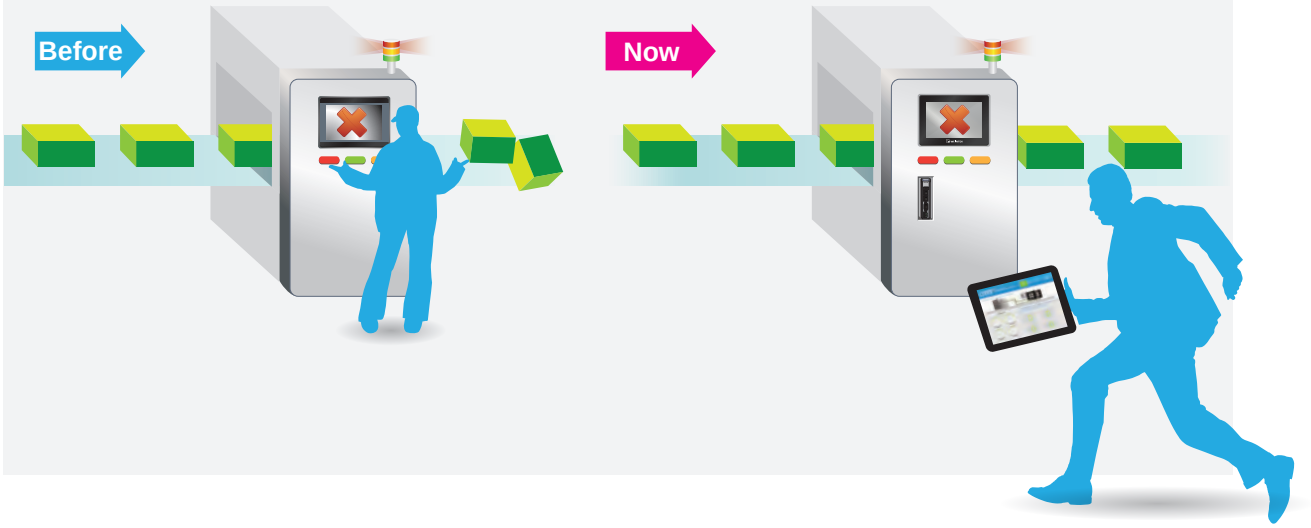
Now Operators can easily update the recipe database of one host cMT-SVR anywhere then transfer those updated recipe data to all PLCs.



3. Perfect Redundant system

Before In a product line, it requires multiple HMIs operating at the same time. If any of the HMIs stops working, the whole product line will be out of service.

Now If one of the iPads / cMT-iV5s is out of service, the cMT-SVR still remains its communication with PLC, Inverter, or Server without any interruption. Then, the operator can just easily use the other iPad / cMT-iV5 to take over the operation of cMT-SVR instantly.



■ Multi-Clouds to One Screen architecture

Feature：
One iPad / cMT-iV5 can monitor up to three cMT-SVRs anywhere at the same time.

Advantages：

• **Easily monitor the operational status of each machine**
Operators can easily monitor the operational status from different cMT-SVRs by using iPad / cMT-iV5. Furthermore, when the errors of machine occur during the operation, the cMT-SVR will send an alarm message to the iPad / cMT-iV5 to remind operators for troubleshooting.

• **Mobility**
Breaking through the operating limitation, the operator can use the wireless device, iPad to monitor the operational status of each machine anywhere.