

Professionals in Human Machine Interface

TEL: +886-2-22286770 FAX: +886-2-22286771 9F., 910 Zhongzheng Rd., Zhonghe Dist., New Taipei City 23586, Taiwan



cMT solution meets all your needs Jan 16, 2015

Professionals in Human Machine Interface **8**

Introduction

The ever-increasing demand to increase operation efficiency in industrial automation enables traditional HMI evolve to play not only an operator interface but also the data exchange and process center. All data in the factory floor must be synchronized and centralized. The retrieve of factory data must be fast and easy. Furthermore, as the mobile device changes the business model in every industry field, it has also gradually changed in industrial automation field. This leads the industrial automation trend for improving plant visibility and mobility, accessing information in real time, and allowing operational failure events to be resolved before downtime occurs.

Weintek is dedicated to develop leading edge HMI products for 20 years. The cMT product develops a new concept which provides complete solutions for data centralization, multiple platforms support, wireless access, Modbus communication gateway, modular HMI with flexible combinations and remote access.

What is cMT?

The cMT product splits the conventional all-in-one HMI into the server device and the display device. The server device, cMT-SVR performs the same task as conventional HMI does. It connects with the PLC, Inverter, Motion controller, and many more controllers to perform protocol conversion, event logging, recipe database maintenance, macro commands execution, and many more. The visualization of cMT-SVR can be shown on a variety of different platform display devices, e.g. PC, Panel PC, cMT-iV5, iPad, or Android tablets. Thus, system integrators can implement a flexible combination of cMT-SVRs and different display devices according to their applications. This innovative architecture leverages the use of HMI in many industrial automation applications such as Marine, Oil & Gas, Metals, Smart home, and many more.



cMT product architecture

weintek

Solution 1: Support multiple platforms

The cMT-SVR provides the most essential capabilities: communication driver support and data process that enable the cMT-SVR to easily connect to machines and access data. The visual interface of cMT-SVR – cMT Viewer can run on different platform devices including PC(Windows OS), Panel PC(Windows OS), cMT-iV5, iPad, or Android tablets(ARM or x86).

Modular HMI with flexible combinations

The cMT product is a flexible architecture with a combination of flexible numbers of cMT-SVRs and display devices. Furthermore, Panel PC is particularly suitable for data collection/analysis, performance evaluation/optimization, and executing other data integration tasks. Operators not only use the cMT Viewer and install other tools on a variety of different Panel PCs to efficiently perform data integration and monitoring machines status, but also benefit from easily referring to user manuals or troubleshooting guides on Panel PC without carrying an extra laptop.

Multiple monitoring screens improve monitoring efficiency

Under the conventional HMI architecture, operators must operate the HMI in front of the machine, and only one operator can access one HMI at one time. This way is very inefficient. Now, the cMT's distributed architecture greatly improves the monitoring efficiency on the plant floor. The cMT can be flexibly designed for multiple levels of operators (system engineer, plant manager remote technician, and etc.) to access the needed information anywhere in the plant floor at the same time.



Solution 1: Support multiple platforms

weintek

Solution 2: Wireless access

The use of wireless tablets like iPad or Android tablets in industrial automation applications has been gradually spread out. Most iPad or Android tablets are equipped with fast processor speed and high resolution display that not only deliver great performance and visibility, but also enable operators remotely monitor operational status of machines anywhere on the plant floor.

Wireless HMI with high mobility

Traditionally, operators are on the move in process areas or on the manufacturing floor to monitor operational status of machines. They move back and forth from machinery to the control room or workstation for recording operational data into SCADA system. This working style wastes a lot of time. Now, wireless access changes everything. The cMT supports iPad and Android tablets to monitor the operational status of machines and assess machinery performance. With those wireless tablets, information is literally in the palm of operator's hands. Therefore, operators benefit from connecting to machines anywhere on the plant floor, with immediate access to real-time information, alarms, and events.

Reduce down time risks by immediate troubleshooting

With the wireless control solution, operators can monitor real-time operational status of machines and immediately perform troubleshooting anywhere on the plant floor. This way greatly reduces the unplanned downtime risks.



Solution 2: Wireless access

WE!NTEK

Solution 3: Modbus communication gateway

Modbus is the most widely used communication protocol in industrial automation applications and most SCADA system supports this protocol. With Modbus communication protocol, SCADA system can easily communicate with serial devices on the Internet.

Direct communication between SCADA system and controllers

In industrial automation applications, there are many kinds of controllers in the plant. When establishing factories, most companies did not consider the integration of those controller data with ERP or SCADA system. Every controller requires its own communication driver to access data. This results in the difficulty of developing an integration of production information system.

The cMT-SVR offers an easy and feasible solution for the integration demand. With the capability of supporting more than 300 communication drivers to connect to most of controllers on the market, the Modbus communication gateway of cMT-SVR enables the ERP system or the SCADA system of the host computer simply uses one communication protocol, Modbus to connect with more than 300 different kinds of controllers. The cMT-SVR communication gateway features in setting up the address mapping between the Modbus TCP/IP and the controller that allows the SCADA system to directly read or modify controller data through the cMT-SVR.



Solution 3: Modbus communication gateway

Solution 4: Remote access

Because of the growing labor cost in recent years, this leads the trend towards human resources cost reduction in industrial automation field. For example: Operators can remotely diagnose the operational status of machines without presenting on site.

Increased access is increased productivity

In response to remote diagnosis requirement, Weintek offers a remote access service, EasyAccess 2.0, which is intended for make a secure connection with remote devices. With EasyAccess 2.0, the cMT-SVR and its connected devices can be accessed over the Internet. Not only cMT-SVR's event log backup, firmware upgrade, and many more system configurations can be managed remotely, but also operators can remotely control the PLC by using the original PLC programming software and pass-through to the PLC via the cMT-SVR. This way significantly reduces time maintenance and the loss of machine failures.

CMT Viewer+ EasyAccess2.0 perfect solution for remote diagnosis

The combination of cMT-SVR and EasyAccess 2.0 becomes a new cost-effective remote diagnosis solution to industrial automation applications. Operators not only monitor the real-time visual displays showing on the cMT Viewer, but also perform initiation of the best action for problem solving based on the automated alert notifications.



Solution 4: Remote access

cMT-SVR OS download	
20140715 or later versions Download	
Application download	
cMT Viewer APP	iOS : <u>Download</u> Andorid : <u>Download</u> Andorid-x86 : <u>Download</u> Windows : Please download EasyBuilder Pro, cMT Viewer is included
EasyBuilder Pro	V5.00.01 or later versions Download
EasyAccess 2.0	V20101 or later versions Download
User manual download	
EasyAccess 2.0	Download
cMT Viewer	Download