MT4000 series features

- ➤ 10M/100M Ethernet interface, supports Ethernet communication based on CS structure, could be used for the setting of system parameters and online simulation of project configuration, multiple HMIs could be linked via Ethernet, could communicate with PC and PLC via Ethernet interface, could exchange data with controller which supports Ethernet communication via OPC software (only applicable to MT4000E series);
- ➤ 65536 true color TFT LCD, supports the import multiple windows image formats, such as BMP, JPG, GIF; supports all fonts of windows platform, supports 4 languages of interface display;
- ➤ 32-bit, 400MHz RISC CPU;
- ➤ 8M FLASH ROM + 16M SDRAM, larger storage space;
- ➤ Compatible with major PLCs and controllers, could provide customer-made communication drive program rapidly;
- ➤ 256KB recipe memory, could record data easily, convenient for user to inquire;
- ➤ Supports the timing of a minimum of 100ms, configured with multiple functions such as timing data transfer, value accumulation, decrease and macro instruction;
- ➤ Real-time clock, could reserve time for more than 2 years at power-off state;
- ➤ 3 COM ports, supports simultaneous communications with controllers of 3 different protocols, supports RS232/RS422/RS485 mode;
- ➤ 1 USB SLAVE port, greatly accelerates the download speed of user configuration;
- ➤ One DB15/DB25 printer port;
- ➤ Powerful configuration software-EV5000 supports macro commands and provides rich drawing library.
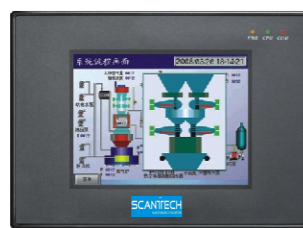
MT4000 Series
Technical Specifications

MT4200T

MT4201T

Model	MT4200T	MT4201T
Performance specification		
Display	4.3" TFT (95×53.9mm)	
Resolution	480×272 pixels	
Color	65536 colors	
Backlight	LED	
Brightness	165cd/m^2	
Backlight life	50000 hr.	
Touch Panel	4-wire precision resistance network	
Processor	32-bit RISC CPU 400MHz	
Memory	8M FLASH, 16M SDRAM	
Recipe memory & RTC	256KB & RTC	
Printer port	Serial port	
Ethernet	None	
Functional keys	None	8 user defined function keys
Program download	1 USB SLAVE port	
COM port	COM0:RS232/RS485-2/RS485-4, COM1:RS232/RS485-2/RS485-4, COM2:RS232	
Electrical specification		
Rated power	4.8 W	
Rated voltage	DC24V	
Input range	DC21~DC28V	
Power down allowed	<5ms	
Insulation resistance	Greater than 50MΩ@500V DC	
Dielectric strength test	500V AC 1 minute	
Structure specification		
Shell color	Black	
Shell material	ABS	
Dimensions(mm)	151.8×86.8×52.3	
Cutout size(mm)	145×81	
Weight	0.4kg	
Environment specification		
Operating temperature	-20~55℃	
Operating humidity	10~90% non-condensing	
Storage temperature	-25~60℃	
Storage humidity	10~90% non-condensing	
Shockproof test	10~25Hz (X, Y, Z direction, 2G, 30 minutes)	
Cooling method	Natural air cooling	
Certification		
Degree of protection	IP65 (front panel)	
CE certification	EN61000-6-2:2005 and EN61000-6-4:2007	
FCC compatibility	Complies with FCC Class A	

MT4000 Series
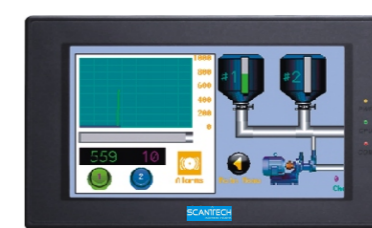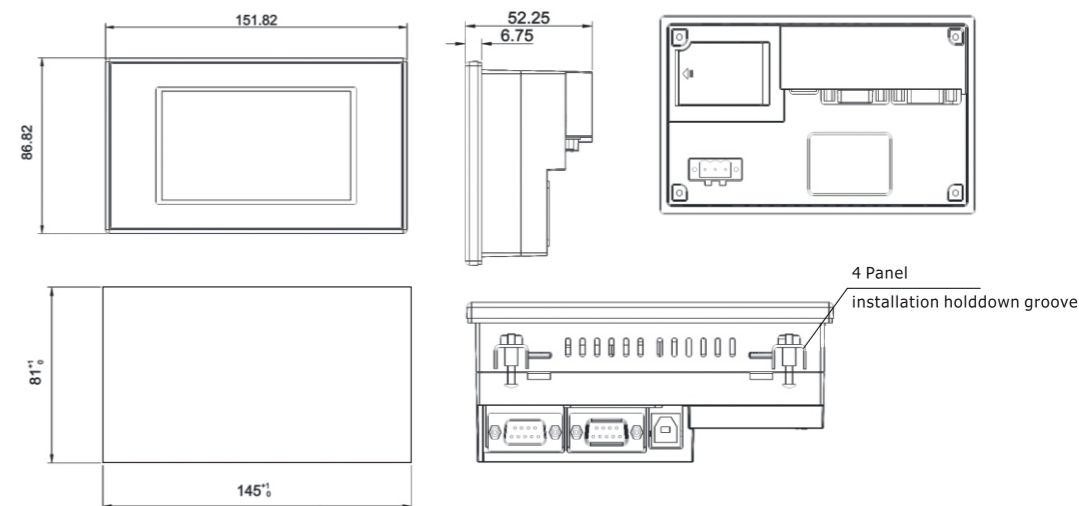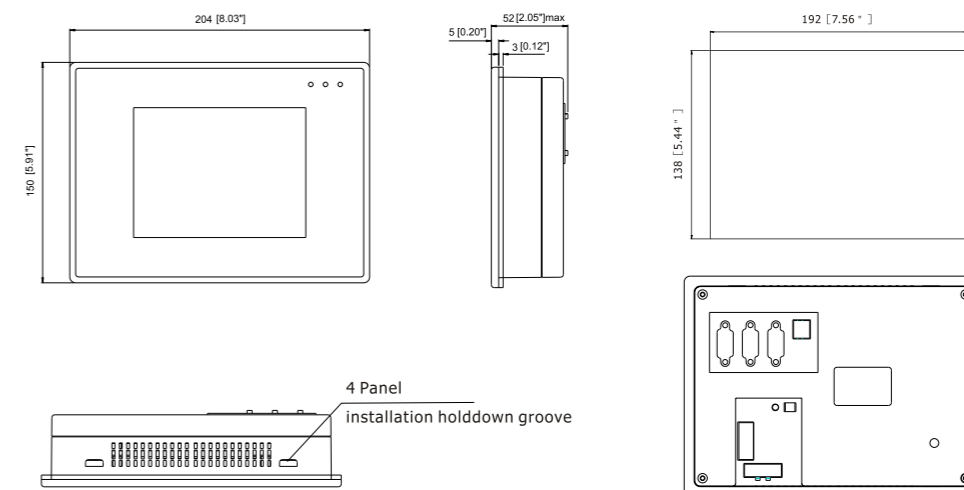## Technical Specifications

MT4300C/MT4300CE

MT4300T/MT4300TE

Model	MT4300C	MT4300CE	MT4300T	MT4300TE
Performance specification				
Display	5.6" TFT (113.3×84.7mm)		5.7" TFT (115.2×86.4mm)	
Resolution	320×234 pixels		320×240 pixels	
Color	65536 colors			
Backlight	LED		1CCFL	
Brightness	300cd/m^2		500cd/m^2	
Backlight life	50000 hr.			
Touch Panel	4-wire precision resistance network			
Processor	32-bit RISC CPU 400MHz			
Memory	8M FLASH, 16M SDRAM			
Recipe memory & RTC	256KB & RTC			
Printer port	DB15/Serial port			
Ethernet	No	Support	No	Support
Program download	1 USB SLAVE port			
COM port	COM0:RS232/RS485-2/RS485-4, COM1:RS232/RS485-2/RS485-4, COM2:RS232			
Electrical specification				
Rated power	9.6 W			
Rated voltage	DC24V			
Input range	DC21~DC28V			
Power down allowed	<5ms			
Insulation resistance	Greater than 50MΩ @ 500V DC			
Dielectric strength test	500V AC 1 minute			
Structure specification				
Shell color	Black			
Shell material	ABS			
Dimensions(mm)	204×150×52			
Cutout size(mm)	192×138			
Weight	0.85kg			
Environment specification				
Operating temperature	0~45℃		-10~70℃	
Operating humidity	10~90% non-condensing			
Storage temperature	-10~60℃		-20~75℃	
Storage humidity	10~90% non-condensing			
Shockproof test	10~25Hz (X, Y, Z direction, 2G, 30 minutes)			
Cooling method	Natural air cooling			
Certification				
Degree of protection	IP65 (front panel)			
CE certification	EN61000-6-2:2005 and EN61000-6-4:2007			
FCC compatibility	Complies with FCC Class A			

MT4000 Series
Technical Specifications

MT4404T/TE / MT4424T/TE

MT4403T/MT4403TE

Model	MT4404T	MT4404TE	MT4424T	MT4424TE	MT4403T	MT4403TE
Performance specification						
Display	7" 16:9 TFT (152. 4×91. 4mm)				8" TFT (162.2×121.5mm)	
Resolution	800×480 pixels				800×600 pixels	
Color	65536 colors					
Backlight	LED					
Brightness	300cd/m^2		300cd/m^2		250cd/m^2	
Backlight life	50000 hr.					
Touch Panel	4-wire precision resistance network					
Processor	32-bit RISC CPU 400MHz		32-bit RISC CPU 624MHz		32-bit RISC CPU 400MHz	
Memory	8M FLASH, 16M SDRAM		128M FLASH, 64M Mobile DDR		8M FLASH, 32M SDRAM	
Recipe memory & RTC	256KB & RTC		128KB & RTC		256KB & RTC	
Printer port	Serial port		USB/Serial port		DB25/Serial port	
Ethernet	No	Support	No	Support	No	Support
Program download	1 USB SLAVE port					
COM port	COM0:RS232/RS485-2/RS485-4,COM1:RS232/RS485-2/RS485-4, COM2:RS232					
Electrical specification						
Rated power	8W					
Rated voltage	DC24V					
Input range	DC12~DC28V					
Power down allowed	<5ms					
Insulation resistance	Greater than 50MΩ @ 500V DC					
Dielectric strength test	500V AC 1 minute					
Structure specification						
Shell color	Black					
Shell material	ABS					
Dimensions(mm)	206.8×124.2×45.1				235×172×53	
Cutout size(mm)	193.5×112.5				224×161	
Weight	0.8kg				1.3kg	
Environment specification						
Operating temperature	0~45℃		0~45℃		-10~45℃	
Operating humidity	10~90% non-condensing					
Storage temperature	-10~60℃		-20~70℃		-20~60℃	
Storage humidity	10~90% non-condensing					
Shockproof test	10~25Hz (X, Y, Z direction, 2G, 30 minutes)					
Cooling method	Natural air cooling					
Certification						
Degree of protection	IP65 (front panel)					
CE certification	EN61000-6-2:2005 and EN61000-6-4:2007					
FCC compatibility	Complies with FCC Class A					

MT4000 Series
Technical Specifications

MT4522T/TE   MT4500T/MT4500TE   MT4523T/TE

Model	MT4522T	MT4522TE	MT4500T	MT4500TE	MT4523T	MT4523TE
Performance specification						
Display	10.1" 16:9 TFT		10.4" TFT (211.2×158.4mm)		10.4" 16:9 TFT	
Resolution	800×480 pixels		640×480 pixels		800×600 pixels	
Color	65536 colors		65536 colors		65536 colors	
Backlight	LED		2CCFL		LED	
Brightness	320cd/m^2		400cd/m^2		300cd/m^2	
Backlight life	50000 hr.					
Touch Panel	4-wire precision resistance network					
Processor	32-bit RISC CPU 400MHz		32-bit RISC CPU 400MHz		32-bit RISC CPU 520MHz	
Memory	16M FLASH, 32M SDRAM		8M FLASH, 16M SDRAM		16M FLASH, 32M SDRAM	
Recipe memory & RTC	256KB & RTC					
Printer port	USB/Serial port		D25/Serial port		USB/Serial port	
Ethernet	No	Support	No	Support	No	Support
Program download	1 USB SLAVE port					
COM port	COM0:RS232/RS485-2/RS485-4,COM1:RS232/RS485-2/RS485-4, COM2:RS232					
Electrical specification						
Rated power	12 W		10.8 W		12 W	
Rated voltage	DC24V		DC24V		DC24V	
Input range	DC12~DC28V		DC21~DC28V		DC12~DC28V	
Power down allowed	<5ms					
Insulation resistance	Greater than 50MΩ @ 500V DC					
Dielectric strength test	500V AC 1 minute					
Structure specification						
Shell color	Black		Deep gray		Black	
Shell material	ABS		ABS		ABS	
Dimensions(mm)	310×230×58		310×230×55		310×230×55	
Cutout size(mm)	298×218		298×218		298×218	
Weight	2kg		1.67kg		2kg	
Environment specification						
Operating temperature	0~45℃		0~45℃		-10~45℃	
Operating humidity	10~90% non-condensing					
Storage temperature	-10~60℃					
Storage humidity	10~90% non-condensing					
Shockproof test	10~25Hz (X, Y, Z direction, 2G, 30 minutes)					
Cooling method	Natural air cooling					
Certification						
Degree of protection	IP65 (front panel)					
CE certification	EN61000-6-2:2005 and EN61000-6-4:2007					
FCC compatibility	Complies with FCC Class A					

Dimensions (Unit:mm)

4 Panel
installation holddown groove

MT4200

4 Panel
installation holddown groove

MT4300

4 Panel
installation holddown groove
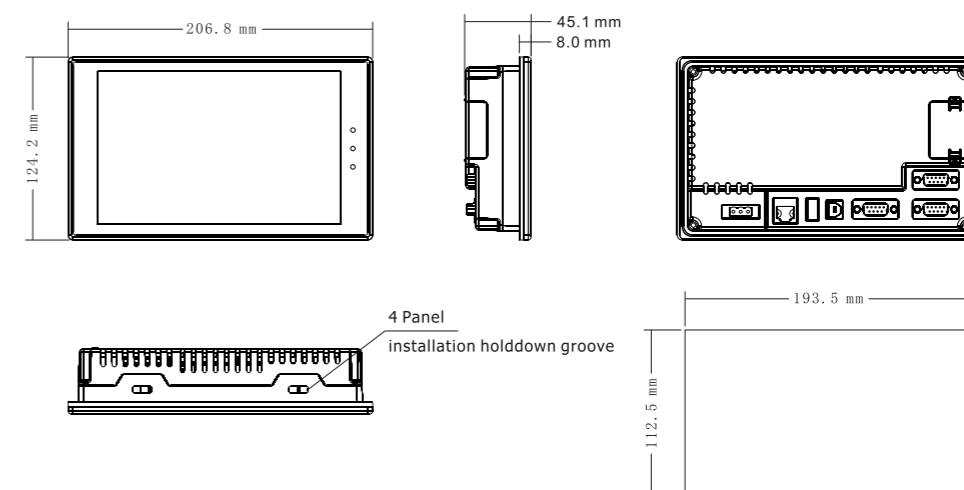
MT4404/MT4424

Dimensions (Unit:mm)

235 [9.25"]

172 [6.77"]

53 [2.09"] MAX
6 [0.24"] 3 [0.12"]

224 [8.82"]

161 [6.34"]

4 Panel
installation holddown groove

MT4403

310 [12.21"]

230 [9.06"]

54 [2.13"] MAX
8 [0.32"] 26.2[1.04"]

298 [11.74"]

218 [8.59"]

6 Panel
installation holddown groove
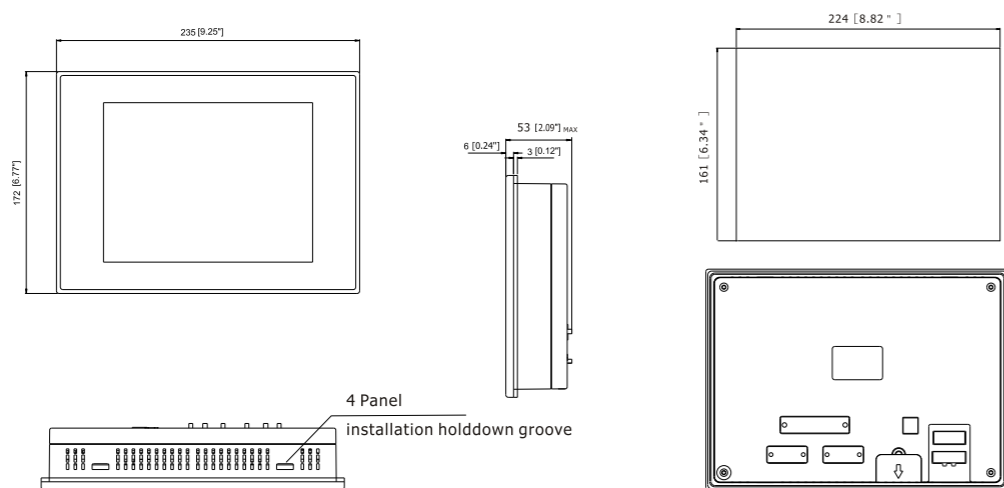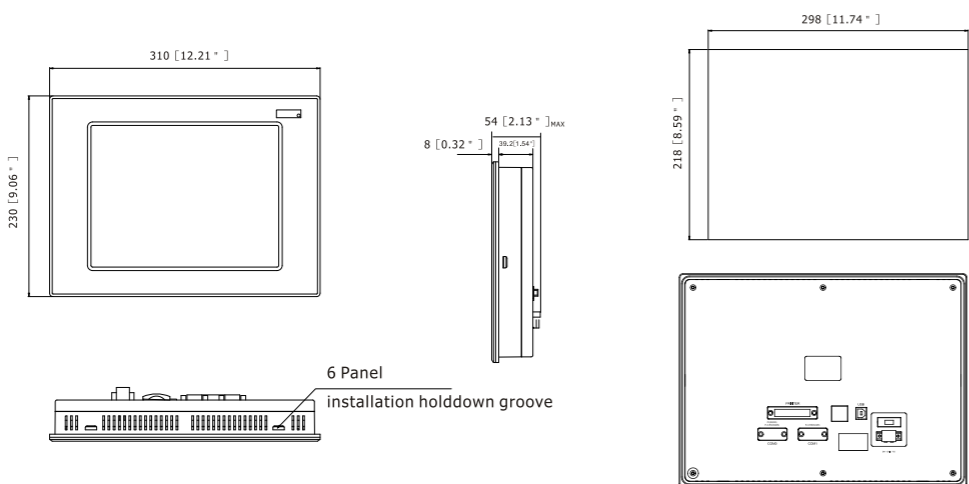
MT4522/MT4500/MT4523

Software **D**escription

Operation window:

**A simple and practical platform
for project design and editing**

· Completing all functions from editing components
  library and simulation compilation, to download;
· Browse various project information and make better
  adjustment in time.

Project file window

Facilitate in modifying components library

· Click an image library file, and the user can
  browse and edit the file;
· Visual understanding of the HMI quantity used.
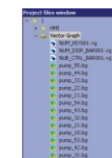
All windows can be dragged freely,
and a user can create individualized operation
interfaces according to his/her own habits.

Menu bar:

**True color icon, visual
and convenient navigation**

· Familiar icon style for most
  users,easy to use;
· Simple and visual function.

**Compilation
information
window**

**Display compilation
progress**

After compilation display,
the user can download files.
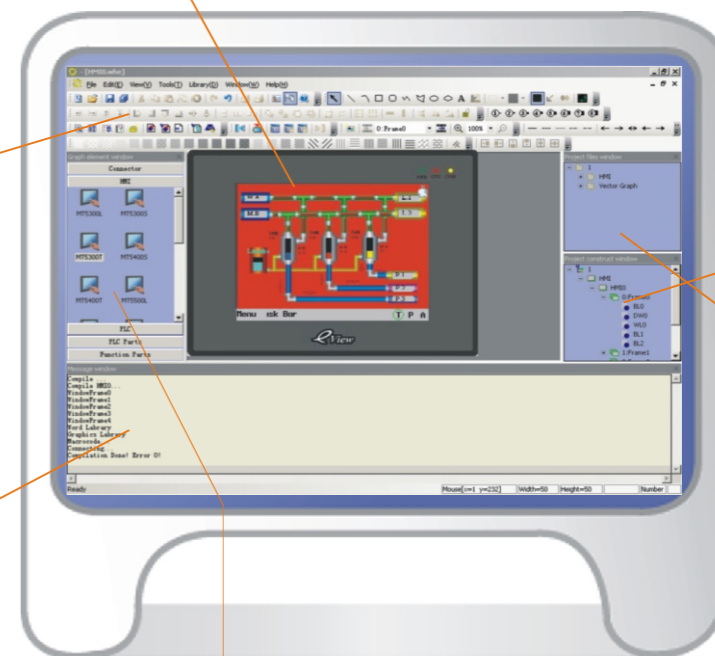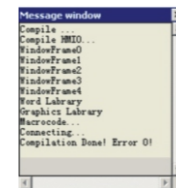
**Project
structure
window**

**Master the conditions
of the entire project**

Master the HMI,
HMI components and PLC
type used for the entire project.

Components library window

Five components libraries, meeting design requirements
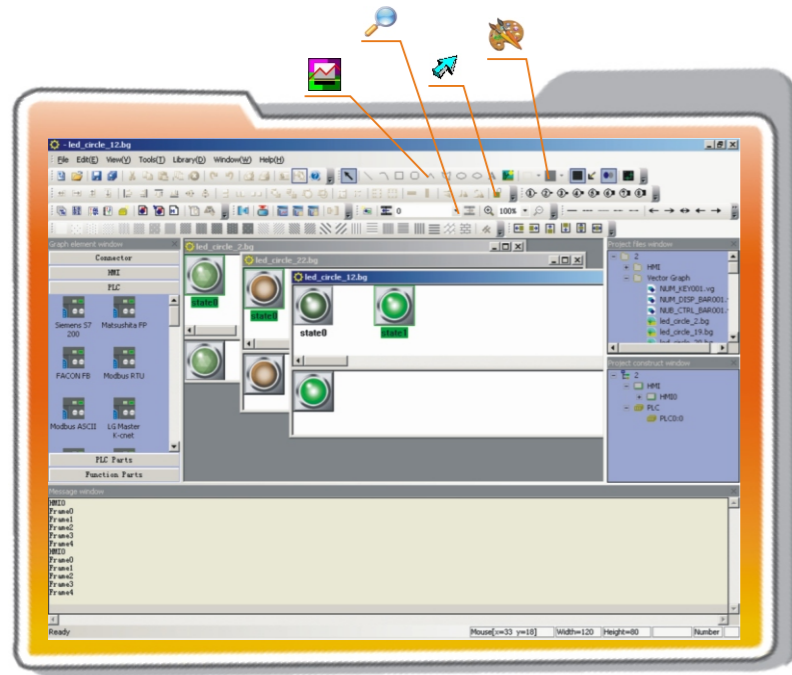
Communication
connection   Touch screen   PLC   PLC components   Functional components

Software Description

Powerful vector graphic function, supporting drawing of arcs, sectors, scales and pointers at any angle

Eight line width options

Three-level zoom-in/zoom-out display

Supporting drawing of various vector-based image

User-defined color filling in multiple modes

Password protection

Three different authority levels, authorized operators can execute necessary setting and operations according to their authority level. The security performance of the system is greatly enhanced.

Multi-language application environment

Any language supported by Windows can be displayed on the panel. The user can use up to 4 languages within a project, which makes it possible for global users to share their wisdom with their clients worldwide.

Completely support contrast and brightness adjustment

The contrast and brightness of the LCD can be adjusted online through setting special register without the need to adjust them by means of jumper switch or potentiometer.

Rich components library resources
Facilitate in making beautiful configuration interfaces

The original components libraries of the EV5000 can meet design requirements in most cases. If a customer has special requirement, he can build own graph library with the drawing tools of EV5000 software. EV5000 has a huge number of 3D effect components which facilitate in making mobile 3D graphics and animation.

Digital photos/Corporate logo import

The EV5000 supports the import of multiple Windows image formats, such as JPEG, GIF and BMP. The user can import their own logo or other images as initial screen.

Supporting all fonts of the Windows platform

In graphic mode, static text can be displayed in any fonts supported by the windows system on the configuration interface. The user has more choice for fonts now.
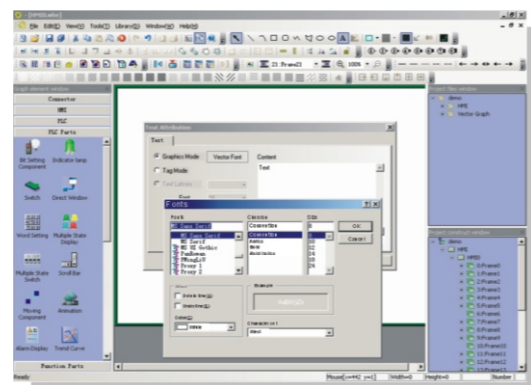
Recipe editing function

Providing 256K Words recipe memory, without any loss upon power failure, facilitating the setting and modification of initial values of the equipment, capable of providing multiple different recipes for the controller.

Perfect event log function

It can store records of events occurred during production, without any loss upon power failure, facilitating invocation anytime; if necessary, this function can be used to learn the operational history of the equipment and improve the design of the process flow.

Bitmap image   Vector graph

Software Description

**Learn compiling macro commands in ten minutes**
Macro codes compatible with standard C language can be triggered in multiple methods, featuring powerful function and flexible use.

In the past
Most HMIs in the market use respectively defined script languages, lack of versatility, which are hard to learn since there is no sufficient reference resources, and furthermore they cannot be implanted into other HMI panels.

Present
The EV5000 provides unique macro instruction compilation fully compatible with the standard C language.If you are familiar with the C language, you can learn how to code macro instructions in ten minutes.The rich reference documents, powerful function,and easy portability greatly enhance the macro command function of the EV5000.
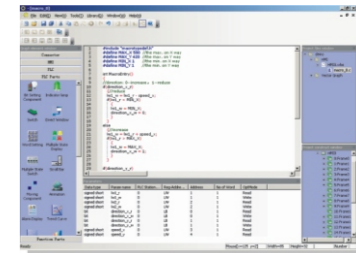
Powerful online networking and synchronous communication function and rapid processing speed have simplified the complicated process flow design.

Powerful timer function

¡The timer of MT5000 can implement the timing of a minimum of 100 ms, featuring accurate timing;
¡Configured with multiple functions such as timed data transfer, value settings,accumulation, decrease, and timed macro instruction;
¡Multiple trigger modes such as register trigger and initialization trigger, to facilitate users in implementing flexible configuration programming.

Customizable startup LOGO window

Different from other HMIs which do not have any screen display upon startup,the MT5000 can immediately display a user-defined LOGO upon power-on until the configuration window finishes startup, lasting about five seconds. The user can freely edit and modify the startup window.

Decrease

Accumulation

Value settings

Timing data transmission
Timer macro instruction

EV5000 configuration software   Other configuration software