

Operation Manual of KingView

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Part I



Cermate Software Inc.

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Start Up

Reminding of this operation manual

This manual is about the apperent easy to use and convenient interface of the HMI operation software, KingView. There are three kinds of notes you may see in this manual, see figures shown as following. These notes will help you a lot in your applications. Meanwhile, you can use them to have further descriptions for the unfamiliar functions. Below are meanings of the three notes.



Warn

This icon reminds you to be aware of the description aside. The descriptions will help you using these functions correctly. It's very important to read carefully before using the functions.

Warn !00n



Notice?

This icon reminds you how to operate the KingView quickly. It let you operate proficiently without any difficulty.

Notice ?00n



Example#

This icon means that there is an example in this manual for your reference.

Example#00n

Features

A project manages many Panels.
 Supports 90-degree angles screen function to work out Vertical Panels.
 Supports wisdom debug guiding while compiling.
 Supports objects enable/prohibit and visible/invisible control.
 Supports project / macro program protected by password.
 Supports object properties settings can be saved as initial settings.
 Supports daylight-saving time adjustment.
 Supports control block/ static block mode.
 Supports HMI/WIN CE/IPC crossover hardware platforms.
 Supports multi-languages versions. Can switch languages easily.
 Easy to arrange the toolbar, icons and text effects in the operating software.

Language / Text management :

Supports any size of text for in Windows XP system.
 Size Minimize 6x8.
 Use Unicode text code system, supports online switching.
 Allows maximize 10 languages online switching.
 The text formats in objects can be individual assigned for separate languages.

Graphic/ Screen management:

Supports ten-key design.

Enable / disable screens. Supports new function objects, for example, slide analog switch.
Supports graphic, Bmp/JPG/Gif dynamic graphic.
Supports tag function, provides assigning read and write addresses in objects.
Supports 16 grays / 256 colors / 65535 colors
Preview the objects after setting.
Data management:
Multi-block multi-bits/ words Alarm management. (Maximize 16 blocks)
Multi-block Recipe management. (Maximize 16 blocks)
Multi-block Historic data sampling. (Maximize 16 blocks)
Supports projects files and macro programs protection.
Import/Export management.
Supports data download and upload.
Supports trigger data recording, saving and chasing.

Communication advantages:
Supports multi-driver communication.
Supports intelligent auto-downloading. Auto detects download communication port.
Supports off-line simulation / on-line simulation. PC transparent communicates with PLC is possible.
Supports Touch / Key for different applications need.

Hardware equipment

Before installing KingView, please check whether your computer hardwares meet with the following requirements.

At least Pentium CPU III

At least 100MB space available in the hard drive.

At least 64MB in available system memory.

Serial port or LAN port Use for communication between PanelVisa's HMI and downloading files from PC

A KingView installing CD or you can download from [FTP://mail.cermate.com](ftp://mail.cermate.com).

OS System Windows 2000/XP (For using Unicode text system)

Installation

1. Close all the application programs in the computer before installing.
2. Double clicks KingView => setup.exe, and run setup program.
3. Install according to the pop up instructions.
4. File C:\Program Files\KingView It's the KingView default directory.

5. Icons/executing file The installation will build a desk icon and an executing file.



Notice ?001

You can download KingView from [FTP://mail.cermate.com](ftp://mail.cermate.com) or ask the regional agent for Installaion CD. A correct ID number is needed when install the KingView. Please apply it from the local agents or sign up in our website <http://www.cermate.com> to get it for free.



Notice ?002

"A small installation bug". If the the installation PM is put in a file named by Simplify Chinese, it' s impossible to install in a computer with a traditional Chinese Win XP OS. And PM put in a named in traditional Chinese file can not install to a computer with a simplify Chinese OS, likewise. So, please name the file in English to avoid the problems.

Simple screen edit methods There are three steps shown as below, please operate them in coordinate with tool bar.

1. Clicks the icons from the tool bar.
2. Moves objects to the assigned places in screens. Adjust frame sizes.
3. Chooses frame styles from the dialog boxes, fill in labels, addresses and functions.

Features of KingView:

The multi-drivers function allows two or more different drivers to be used at the same time in one panel.

You can import and export language files. Simply export the user texts, to translate them and then import them back into the same project. This function makes it easy to translate the application text language for multilingual projects.

Several I/Os can be changed at one time with the replace function. It enables the change of I/O addresses to a consecutive range of new I/O addresses.

HMI's drivers can be added or updates from internet or disk files.

Up to ten languages are available.

The PanelVisa touch panel supports most of the drivers, for example, PLCs Inverters and Temperature Controllers. The drivers of these controllers can be chosen in the Link Properties dialogue from the KingView operation software. While downloading the complied screen file to HMI, the KingView will automatically transfer specified drivers to the HMI.

Chapter 1. Starting the program

To start the KingView, double clicks the KingView icon or the PM.EXE.

Start-up information

Most of the tool bar and icons are disable to be clicked and the background is empty when first start up the KingView.

Now, please open an exist project or build a new project to enable most of the tool bar and icons.



When executing the KingView at the second time, it will show the project you have opened last time.
On the top of the title tool bar displays the file name and directory of the project.

Notice ?003

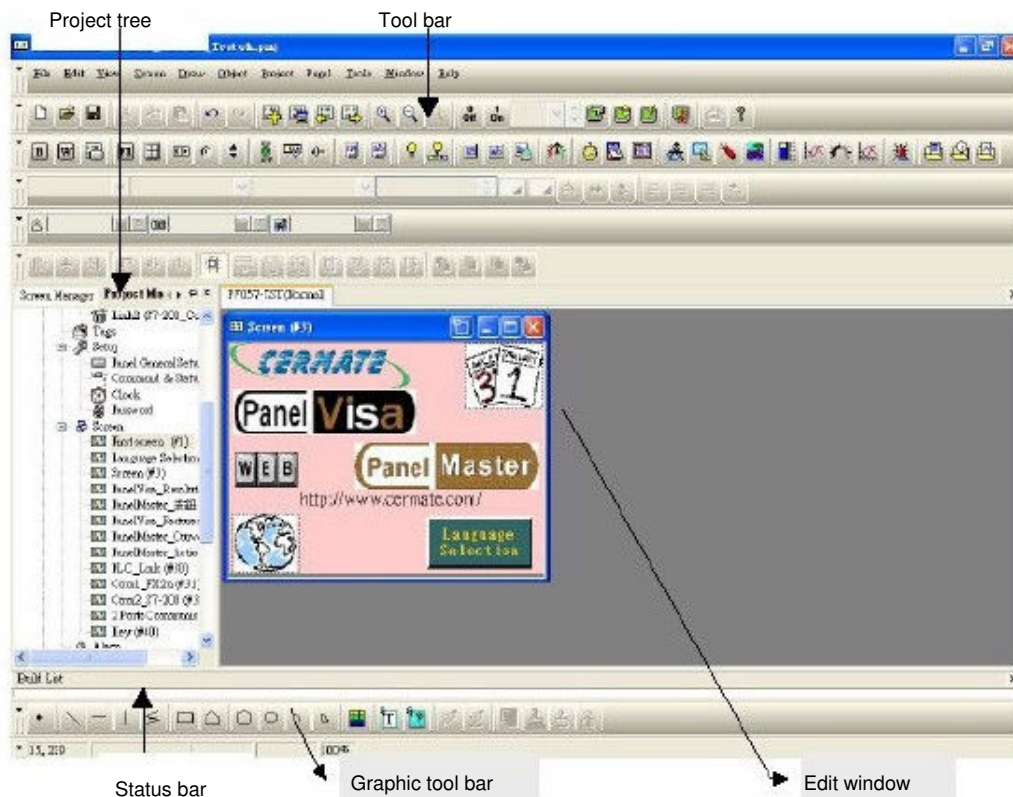
1-1. Program structure and operation of KingView

Open a new project. The screen shows a working area as below. There are two management areas in the screen.

There are 11 function menus in the menu list, which are

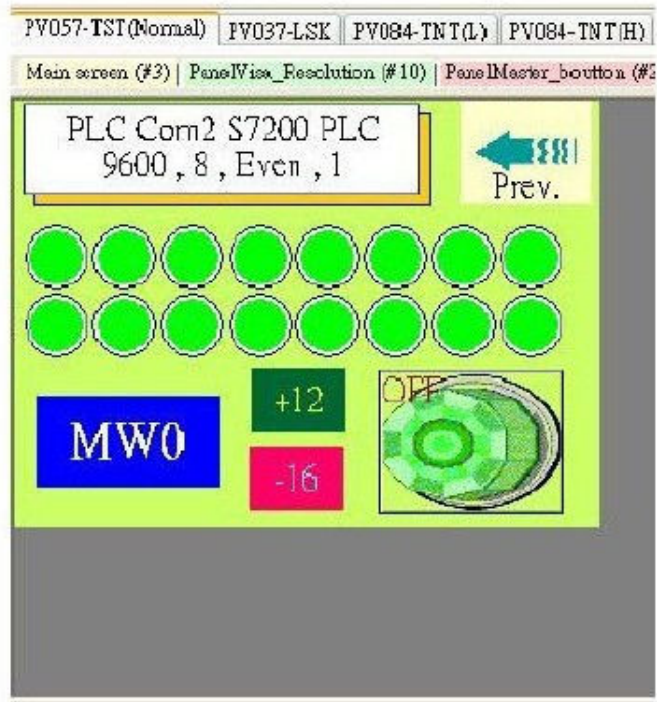
"File" "Edit" "View" "Screen" "Draw" "Object" "Project" "Panel" "Tool" "Windows" "Help".

The function menus provide a lot of items for your panel designs. We will introduce the function menus and the items from drop down menus in details here after.



The project manager and screen manager tree are on the left side of the program screen. This area is for quick setting of the main functions and for overview.

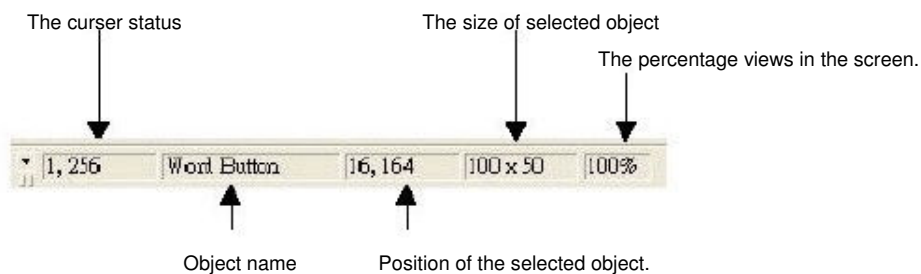
The edit window is a larger area on the right side. It's for texts, objects, screens and macro designing. You can edit different functions and screens on this area. The screens are of different sizes according to panel models that you choose, which are actual sizes when shown in HMIs.



In edit window, the top line shows Panel_1(PV057 Demo_Vertical); Panel_2(PV037 Demo);Panel_3(PV057 Demo_horizontal);Panel_4 (PV057T Vertical). That means this application has created four panels in one project and they are all opened.

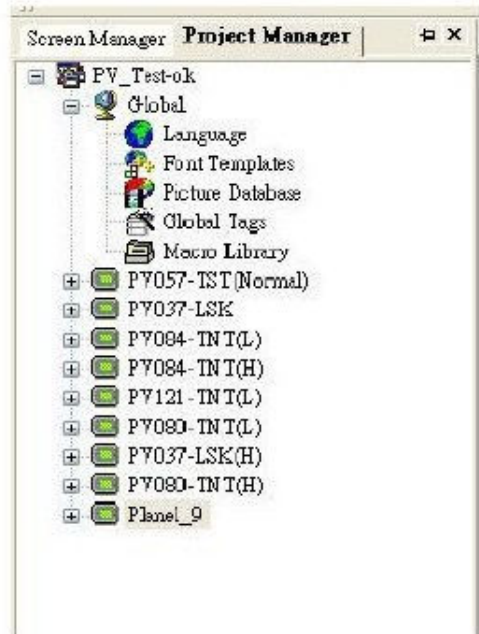
The second line shows the Meter&Bar_Chart(#1)~Buttons(#3) of Panel_4.

The status bar at the bottom of screen is shown below. From here displays the x-y-coordination of the cursor and basic information of the selected object.



1-2. Features of KingView

We can set up many panel settings and global settings from the project manager tree.



The Language Font templates Picture Database Global Tags and Marco Library settings can be used in the same project. The individual panel settings are located below the project manager tree. There are communication links no#1-999 programmable screens settings for panel display size panel control mode command and status block settings real time clock settings operator password levels alarm settings recipe settings data logger and operation logging settings. All of the data can be set for individual touch panel.

1-2-1. Global

Language The KingView provides maximum 10 languages for online switching. Using multi-language switching, we can show messages in objects screens or display many languages in one panel, for example, Chinese Japanese English Korean or Thai...etc.

Font Templates The KingView supports all fonts installed in the Windows® OS, moreover, it supports 10 languages and sets their respective fonts font styles and font sizes. The KingView also provides Unicode text standards, so the designers can key in many languages for example, , Chinese Japanese English Korean Thai...etc. , in a text label or an object.

Picture Database The KingView accepts BMP JPG and GIF files. All pictures must be imported before using.

Global Tags The KingView supports a Global Tag for one project which's settings can apply to every panel in the project. The assigned settings in the Global Tag used for the internal registers of panel in this project only. Please don't be confused the panel internal registers with PLC registers. The Global Tags settings cannot cover all PLCs in a project. On the other hand, a Local Tag sets the internal registers of a specified panel and the PLC memory devices, which the panel can communicate with.

Global Macro Library Every project in KingView provides a Global Macro Library and what is more, a panel can have its Local Macro Library. The Global Macro Library can be used for all panels in the same project while the Local Macro Library used only in a specified panel. To edit a macro just give a name and edit macro programs for the Global/Local Macro Library to call this macro in every object designed in this project.

1-2-2. Panels

Touch Panel(Panel_1)

Screen Manager	Project Manager	
	Link Assign the devices the panel communicates to. There are Internal Memory PLC IO or PLC data registers. KingView supports Multi-link function that is the panel's serial ports link with different kinds of PLC. Tags Sets the tag name as PLC device name. Setup It's necessary to set parameters for a panel to execute assignments and to run synchronism with linked PLC. For example, clock, command block and status block. Screen A panel can design max. 999 screens. The screen can be assigned for normal screen window screen or menu screen. Window Screen The window screen is a screen which overlapping on the normal screen. The display area must smaller than the normal screen. Menu Screen The menu screen is a screen which overlapping on the normal screen. The menu screen behaves like a pop-up tool sub-screen.	

Alarm Provides 16 bite alarm blocks and 16 word alarm bolcks.

Recipe Provides 16 recipe blocks.

Data logger Provides 16 Data Loggers



Notice ?004

Each project manages many Touch Panels. It's convenience for customers to maintain designed panels at one time. Designers can put all applications together for the same customer or put different panels in a multi-link project. It's easy to maintain and sort out files. Reduce regrets caused by incorrect deleted or overwritten project files.



Notice ?005

KingView provides a global settings and local settings in a project. There are global macro library and local macro library. The local macro library is set for specified panels. Every macro programmed locally can be used in the panel only. However, different panels designed in the same project can use the global macro. The password protection is the most distinctive feature when regarding the intellectual property protection.



Every Panel can have up to 999 screens, 10 online languages and multi-link design. The users can design a complicated application in lower hardware cost without difficulties.

Notice ?006



To use Japanese characters, install Japanese language input procedure in Windows® XP system to get supported of the Japanese characters in KingView. If you need other new languages supported, do above method likewise.

Notice ?007



Each project supports at most 16 recipe blocks, 16 data loggers, 16 bit alarm blocks and 16 word alarm blocks. It easy and efficiency to accomplish all applications.

Notice ?008

1-3. KingView operation method

You can use mouse or specified keys to operate the KingView. There are pop up screens in some functions for more settings.

If you are familiar with the Windows® operation system, it's easier for you to understand.

Express keys and Key control

Same as others software, click objects and right click mouse to get pop up screens for quick settings. For quick operating, press Ctrl or Shift and click objects to select more objects for duplication or moving.

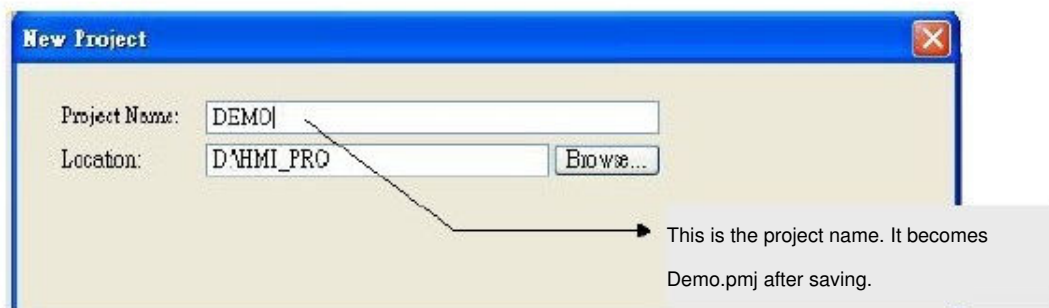
Practice step by step to explain the KingView functions by designing an example.

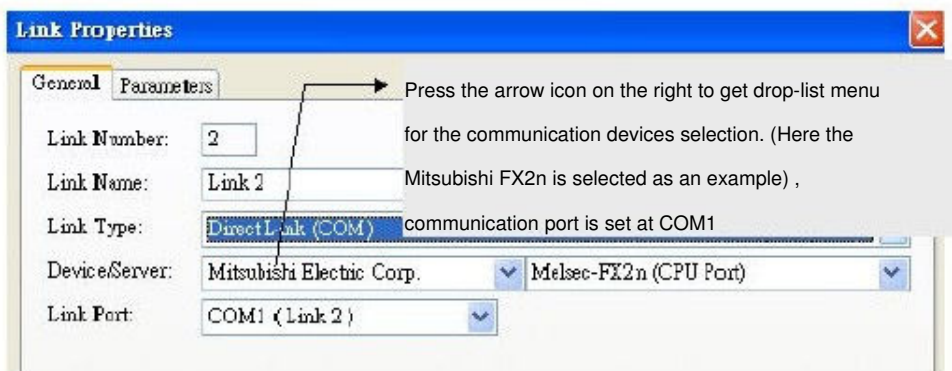
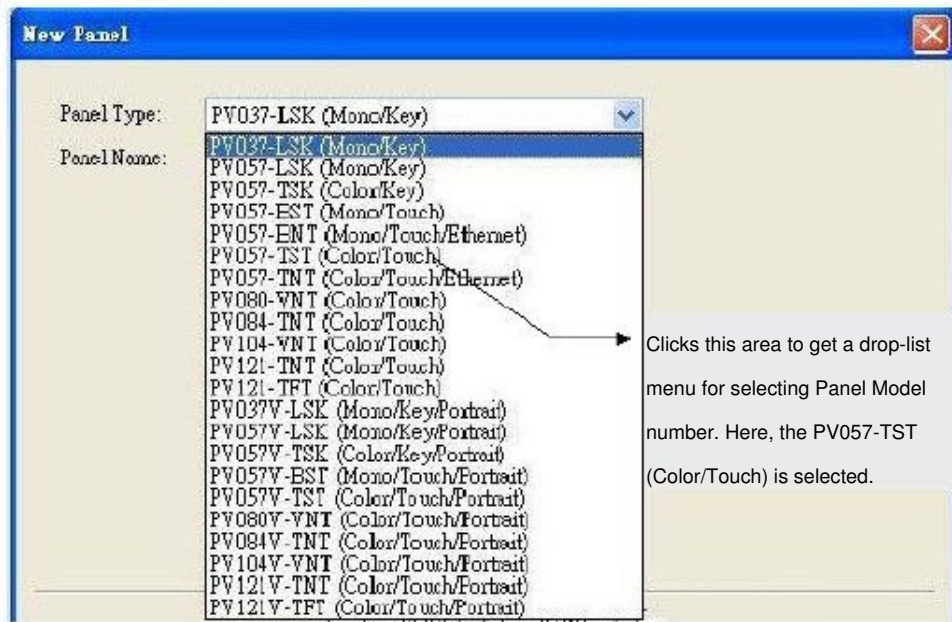
Here, we are going to demonstrate an example. It includes some typical object settings. It's quick with details showing how to communicate with PLCs and related parameter settings for starters to complete screen editions. This example explains how PV057 TFT communicates with one PLC Mitsubishi FX2n and Siemens S7-200 PPI.

1-3-1. Create a new project (File->New)

There are two ways to open a new file. Clicks "New" from File drop down menu or double

clicks the  icon to get a dialogue shown in Figure 1-1.





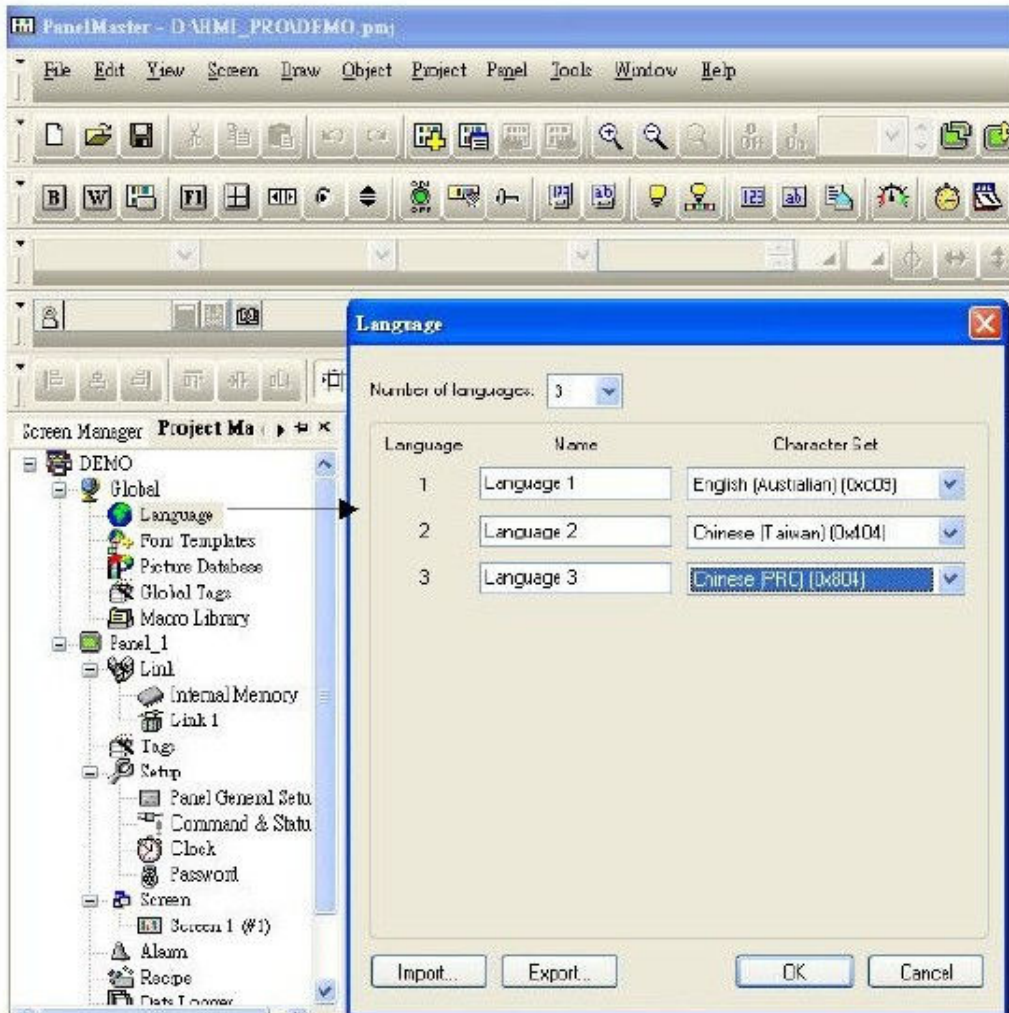
Link Name Link1_FX2n, when there is a communication error, the name of Link will show on the communication error screen.

Link Type Link means the HMI serial port COM1 link to the PLC. Some applications use direct link, such as the example, Panel_1 links to PLC FX2n through COM1, needs to set as a direct link.

Link Port Defines the ports of panel according to the HMI hardware. Some panels support LAN and RS232/422/485, some are equipped with three ports and some only have one port.

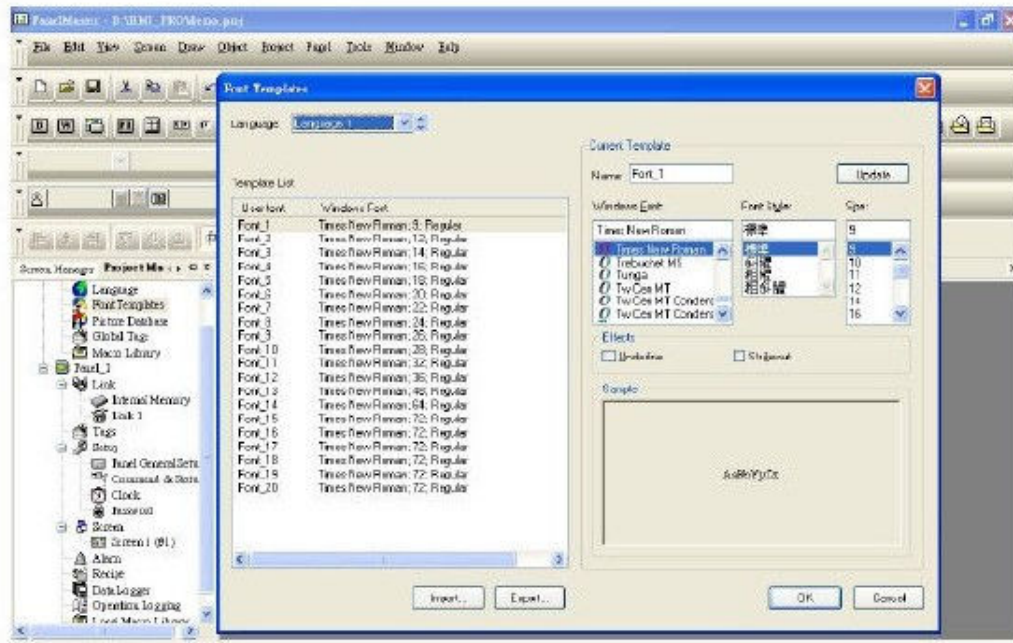
1-3-2. Multi-language (Project -> Language ..)

To add languages, please follow three steps shown as below



Double click Language from Global under Project_Demo or right click the mouse, then press properties to get a Language setting dialogue. It supports maximize 10 languages, rename and assign the Unicode in the dialogue. Here we add 3 languages.

1-3-3. Font Templates (Project -> Font Templates ..)



Double click Font Templates from the Global under Project Demo or right click the mouse then press Properties to get a Font Templates setting dialogue. Adjust Font styles and sizes for each language in the dialogue. Each language can have up to 20 user fonts. You can rename the font names for easy recognition and switching in KingView.



To export to my favorites After setting, you can export fonts to your favorite library and import them from this library in other projects.

Notice ?009

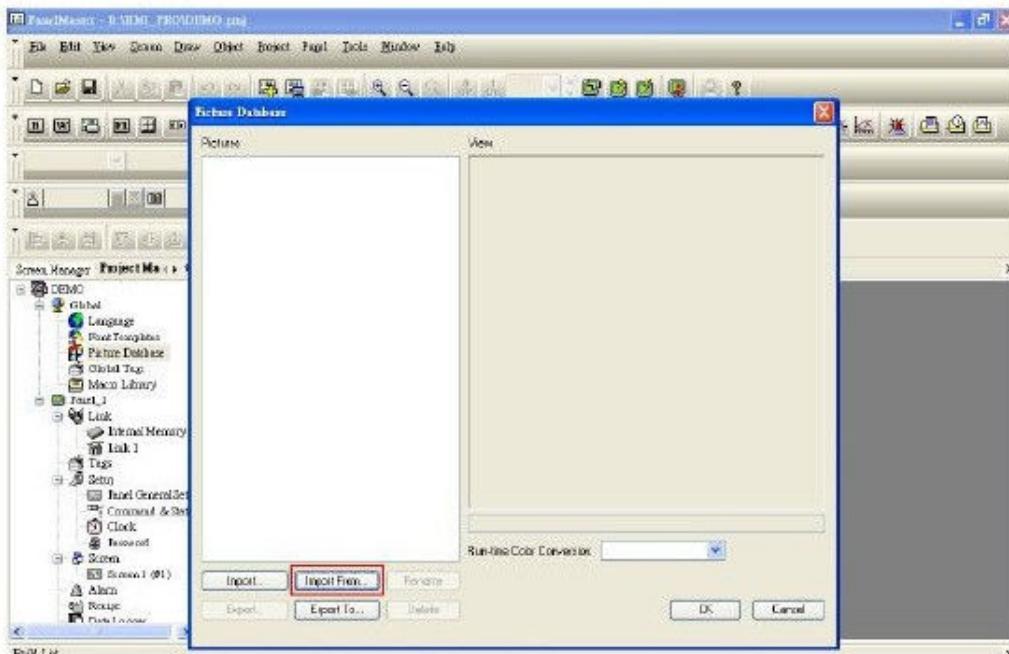


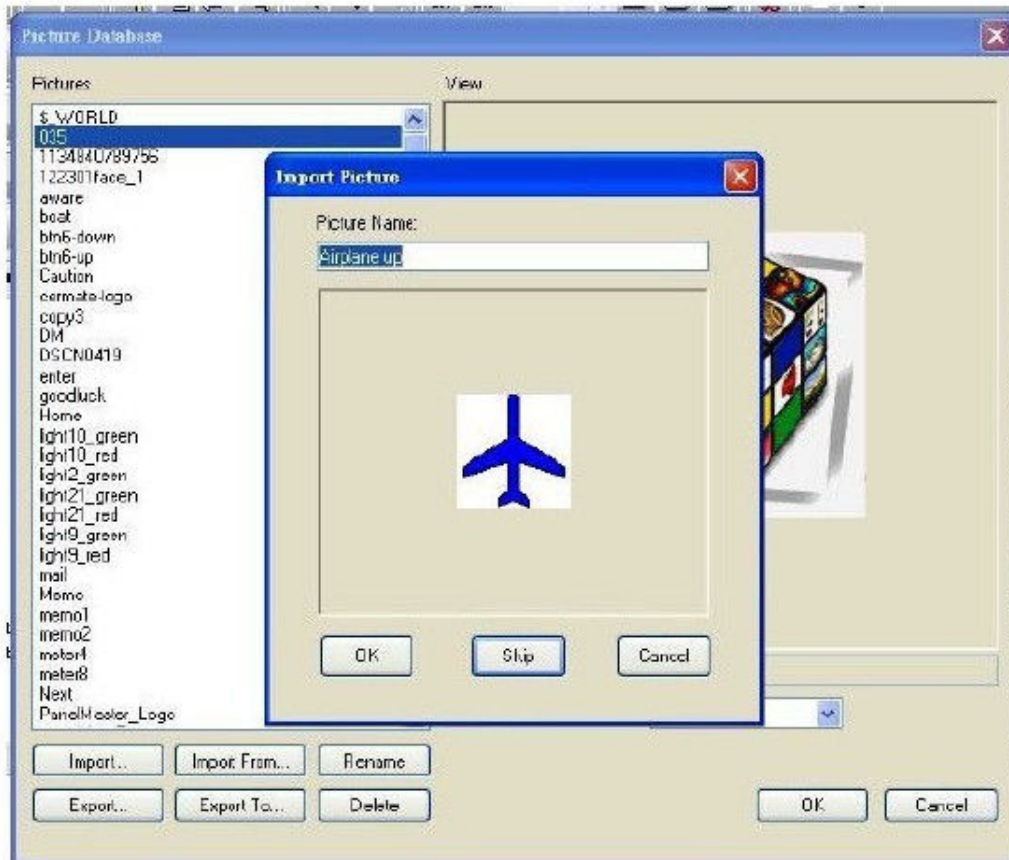
Font templates Assign each font separately for each language. For example, Font_1: Arial, Size 10 for language_1. Font_1, Arial, size 9 for language_2. Font_1, Times New Roman, size 12, for language_3.

Notice ?010

1-3-4. Picture Database (Project -> Picture Database ..)

Double click Picture Database from Global under Project_Demo or right click the mouse then press Properties to get a Picture Database setting dialogue. Be sure to import the pictures to the Picture Database before these pictures being used. KingView provides some basic pictures, which can be selected from this database. You can also import other designed pictures. The BMP JPG and GIF formats are all acceptable.





Import from

Import the supported pictures from the picture database (*.PDB)

Export to

Export the *.BMP and save to the picture database as (*.PDB)

Import

Import designed pictures from other drawing software, such as Painter, PhotoImpact which's image formats are Bitmap Images(*.BMP), GIF and JPG files.

Export

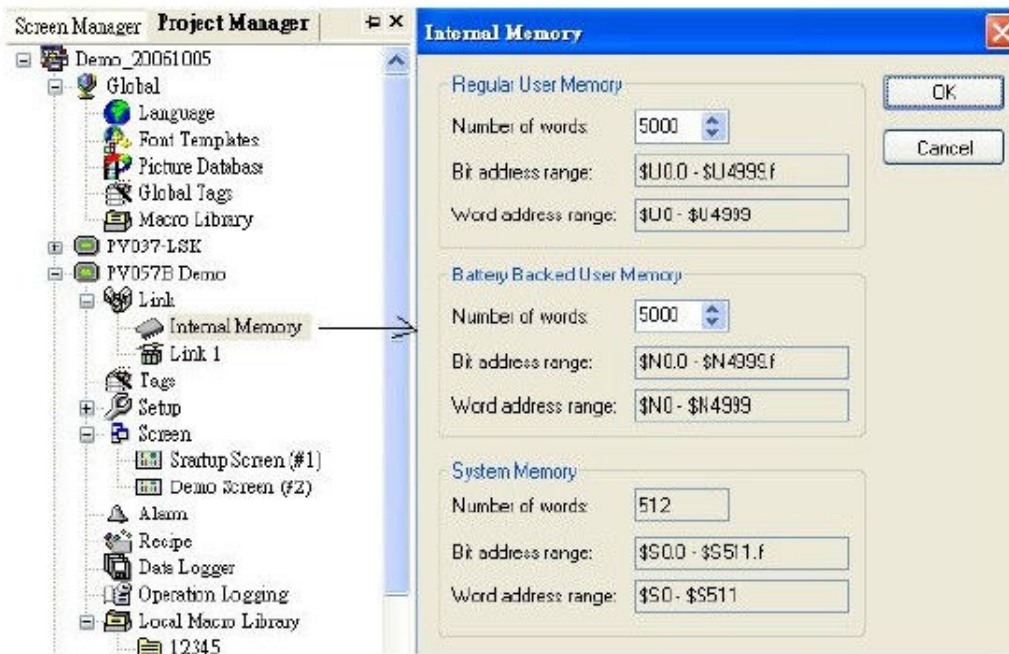
Export the pictures as *.BMP files.

1-4. Panel Setup

1-4-1. Panel Internal Memory (Panel -> Link -> User Memory)

Panel supports general user memory battery backup user memory and system memory.

These internal memories can be used as macro instruction memory, HMI system command block or status block.



Using the battery backup user memory should in accordance with HMI hardwares. If the battery backup user memory function is not supported by HMI, the function is not able to be used at all.

Notice ?011

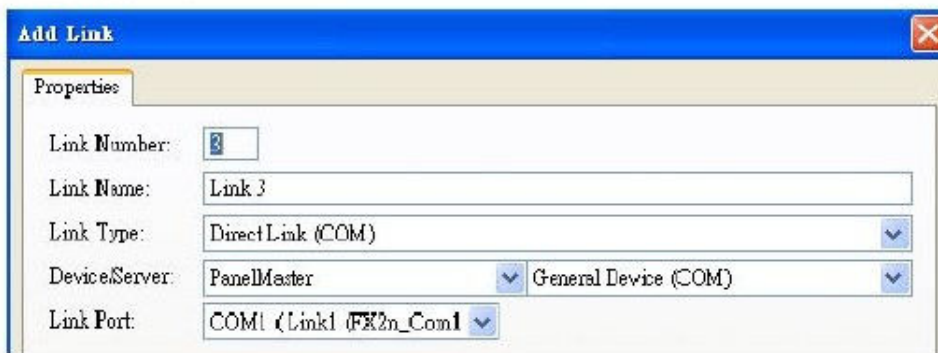
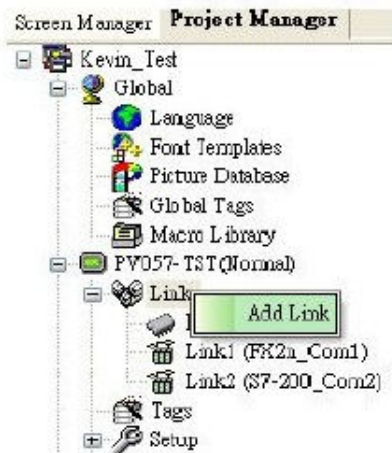
1-4-2. Link (Link ..)

Add links to set the properties of communicated devices. PLC brand name, specifications and parameters. KingView supports panels communicate with multi-devices at a time. For your convenience, KingView provides some popular PLC drivers for applications use. Some other special drivers development could also be arranged under the assistance of users.

Add Link (Add Link ..)

Add the second communication device as following

Click Link from the Panel_1, right click the mouse to add link from the add link dialogue. Add a link, select S7-200, set COM2 as communication port. Be aware that COM2 should not be used. If the panel supports only 2 serial ports that means you can add two communication devices.



Warn !001

If the HMI supports 2 serial ports, but you add more than 2 communication devices, the KingView will also accept it, however, the panel can not run normally. If you set the same serial port to two devices, KingView will accept it, too, but the HMI can not work actually.



Warn !002

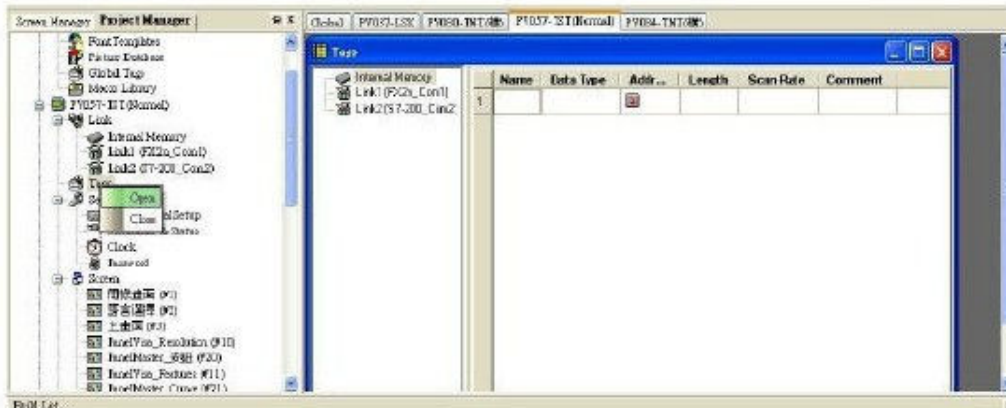
It is important to set the correct linking devices and PLC brands for panels to work correctly. To meet the related parameters with panels and PLC devices for successful communications. To read and write correctly between panels and PLCs to stabilize the communication. For example, Mitsubishi Fx2n has communication parameters as 9600bps 7 even 1 stop bit RS422 PLC station No.=0 Panel station No.=0-255 any. The panel serial port can link to one FX2n PLC. Arrange the 2nd FX2n by linking to the other serial port of panel to make a multi-link application.

1-4-3 Tags (Add Tags)

Edit objects with familiar tags. For example, a push button object address q0.0 can be labeled as Input_Motro_1_start. The users can change device numbers for different controller addresses. You can change q0.0 to q0.6 from Tags for all projects instead of changing one by

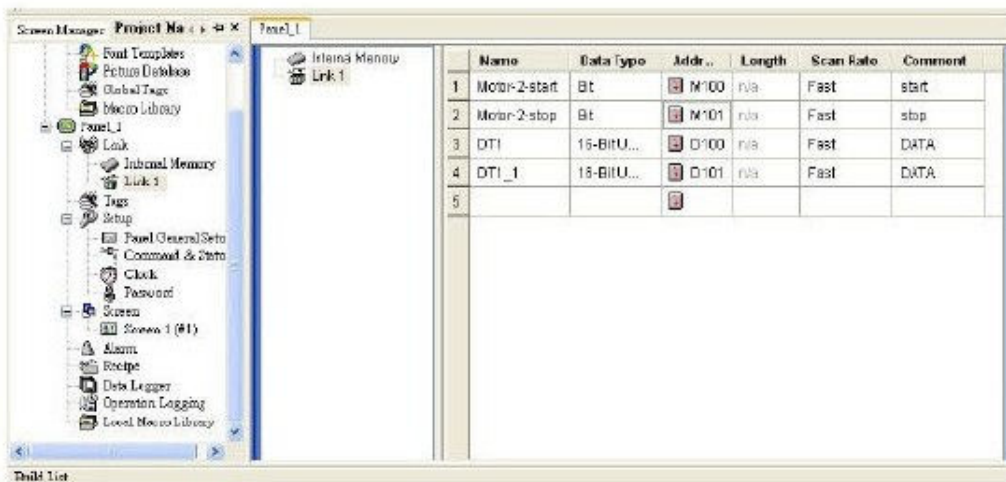
one. It's very convenient especially when users need to change PLC models. The designers can easily list the used controllers and rearrange the new read/write addresses by using Tags. The advantages for using Tags is changing the tags addresses form one to another for all objects in the same project.

Set the Tags uses the following steps.



Click Tags from the Panel_1, right click mouse then press Open to get a Tags adding dialogue.

Be aware that the Tags name must be exclusive. Using characters, numbers and multi-languages to name Tags. Do not use numbers in the prefix or ':' '/' ';'...etc. or space in between. For example, "2-Motot-Start" is not acceptable while " Motor-2-Start" is fine.



Name Use Chinese or English, length 22 Bytes. Do not use numbers on the front or symbols like "?!=+-....". Blanks in between is not acceptable, neither.

Address Internal data registers of PLC controllers or panel's internal memory.

Comment Descriptions for the Tags. 128 Bytes of the length.

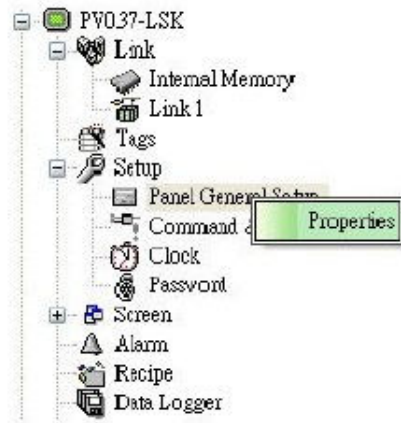


Warn !003

If a Tag is named the same as a PLC device name, KingView will consider the name as the PLC device name. For example, if Timer20 is a tag name of read data and also the PLC device name, KingView will think the Timer20 as PLC device. It may result in abnormal working or different display effects which are far from original designs.

1-4-4. General Setup (Panel -> General Setup ..)

KingView supports each panel can have its own general setup including startup settings, panel models, control block, status block, real time clock, user levels and password settings.



These settings are used when communicating with control devices. Actually, every setting should be set according to each application and device the HMI communicate to. And for the best performance, the settings should be set correctly. About the settings, please refer to local agents or our website for further information.

To set Panel General Setup of Panel_1 as following

Click Panel General Setup from Panel_1. Right click the mouse to get the properties dialogue.

A general setup of the parameters is necessary for a panel. It's for executing every assigned procedures and convenient to work with the communicated devices at the same time.



Warn !004

It's necessary to make a general setup for every panel. For the detail settings or further information, please refer to local agent or our website:
<http://www.cermate.com/>.

1-4-4-1. Panel General Setup

There are some items to be set in the properties:

Panel Name and model No.

Set the Panel name, choose the Panel Model No., select a normal display or portrait display.

Start up

Set the working parameters including start up screen, delay time, display countdown, user level, default language, screen saver time, buzzer sounding time and Marcos.

Start up screen The first screen shown after power on.

Delay time The delay time to show the first screen after power on.

Display countdown To show countdown when set a start up delay time.

Language Assign the default language when multi-language used.

Login required ClickLogin required to have password protection when turns on the panel.

Default user level Un-Click login required to start the panel with assigned user level.

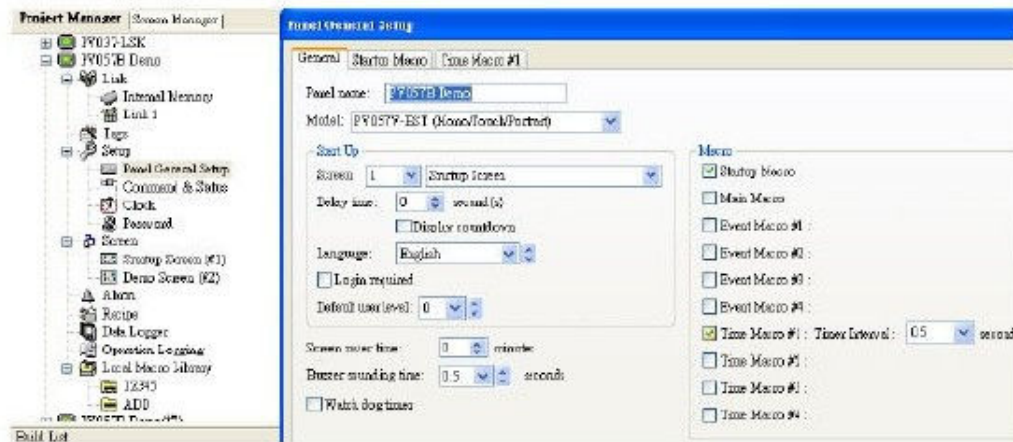
Screen saver time Set 10 minutes to shut down the screen backlight when no one operate the Panel, no alarms or no screen changing.

When sets the Screen saver time to 0 minute, then the backlight will always keep ON. That means no screen saver function.

Notice!! Strongly recommend to set screen saver time to lengthen the life screen.

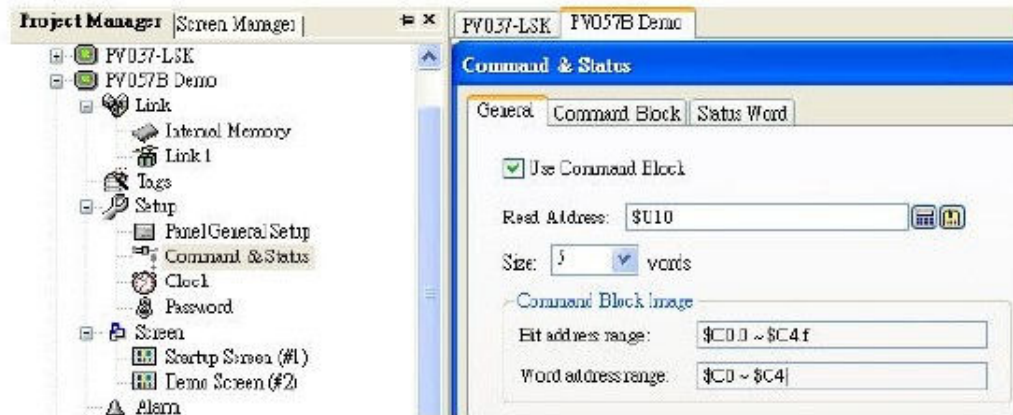
Buzzer sounding time The buzzer sounding time when touch the screen.

Macro Startup Macro Main Macro Event Macro Time Macro.



1-4-4-2. Panel Command & Status

Set Controllers Command and Panel Status.



Command Block

Command block allows designer set command to HMI through PLC. For recipe function command block should be set at least 4 Words. Command block usually refers to PLC data registers and HMI internal registers. It is a continuous data block from 0 words to 32 words. Of course, for the simple application, it's not necessary to use command block. The HMI can control by itself to get better communication. Using command block makes the HMI coordinate with the communicated devices to accomplish better effects. The HMI helps PLC managing complicate programs to enable the PLC working precisely and effectively.

Command block function provides using data registers in PLCs or HMIs to control HMIs.

The screen changing data register can be used to change HMI screens by PLCs.

Screen changing data register A kind of data register which control HMI screen changing by PLCs. The data register is 16 bits Unsigned Binary.

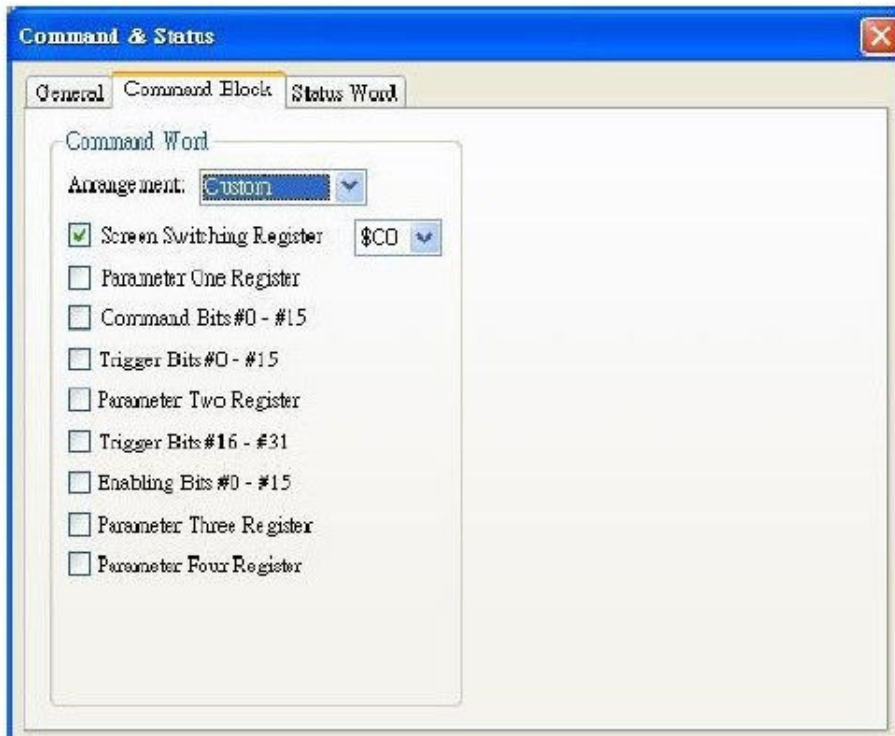


Warn !005

Using the HMI command block to control switches from a PLC, when many commands set on at the same time, the HMI executes one command a time from the lower byte. To repeat the executions, set the commands in the HMI to off than to on. To let the HMI read the ON/OFF differences from the PLC data registers and execute command correctly, be sure to set the bit on at least 0.5 second or the HMI may not response correctly each time. We suggest that if there are miss-actions or abnormal situations of the HMI, please check the PLC program first.

For examples, when set the command block at 5 words, the command block acts as following

1. Word_\$C0 as the screen changing data register The data are used for Screens switching Register(No. 1-7999), which need not coordinate with command block.
2. Word_\$C1 as the Parameters One Register The parameters are used for languages switching (1-10) or recipe data transfer (No. 1-65535). The parameters need to coordinate with the command bits.
3. Word_\$C2 as the Command Bits The Command Bits are controlled by commands set from the PLC. To satisfy most applications, KingView uses different parameters set in the PLC data registers to reach the ideal effects. For example, set the command bit #7, the buzzer sounding command bit, to 0-3 to show the internal models as a long sound, interval short sounds, rapid short sounds, interval long and short sounds.
4. Word_\$C3 as Trigger Bits The trigger commands execute Macro instructions and curve painting, and trigger clock adding on 1 hr. or deducting from 1 hr..
5. Word_\$C4 as Enabling Bits The enabling bits enable and disable historic sampling commands.



Warn !006

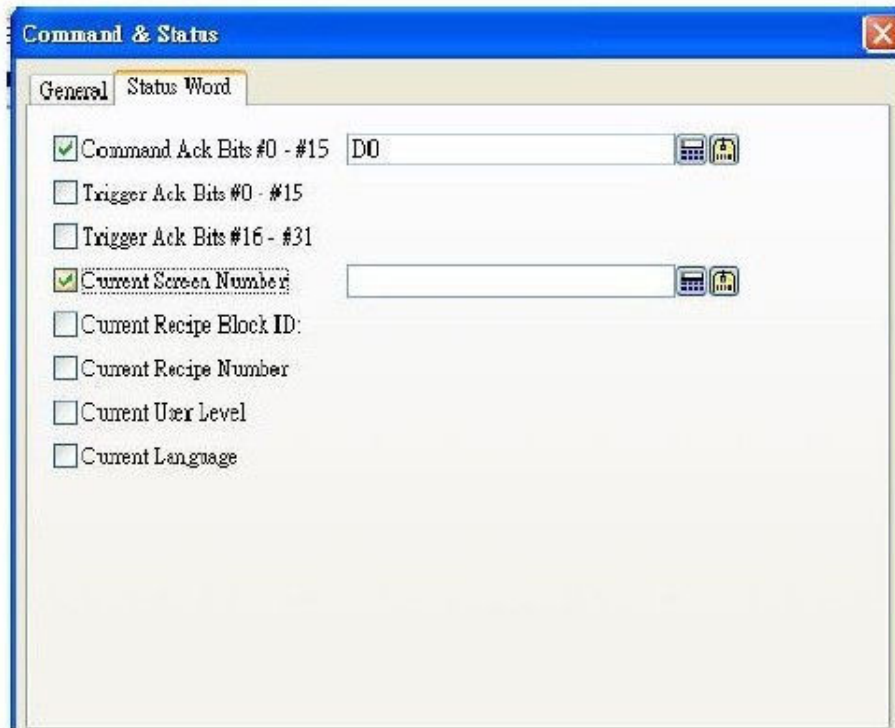
To reach the best effects, reasonable command block settings and definitions are absolutely necessary when the panel communicates with PLC. Otherwise the Panel may not coordinate with control devices displaying or operation. If you have any request in adding new command blocks of your special applications, please send your requests to service@cermate.com or call the distributors for further help.

Status Word

Command Response After operating the screen changing by users, would it necessary to write the command variable to screen changing bits? Thus, the PLC or devices will aware that whether the screens have been changed by users or not.

1. Numeral 0 write to screen changing register or controllers reference command block registers.
2. The current screen No. re-write to Screen changing registers, notify the PLC or devices whether users have changed the screens or not. The PLC will aware which screen the HMI changed to.

Status words is a setting for feedback automatically from Panels to PLC's registers. The length is different according to the feedback functions. It may not be a continuous data block. The addresses can be assigned at will.



1. Command Bits #0-#15(\$C1.0-\$C1.f)

Designers can control HMIs from PLC program using command bits. For example, Switching Language, printing, screen hardcopy, Sounding buzzer, backlight ON/OFF control, summer time saving control, and recipe transferring. The command length will be different according to different functions.

1-1. Command Ack Bits #0-#15

Command Ack Bits allows to write to PLC data registers or HMI internal register after the HMI executes command Bits asked from PLC. Thus, the PLC can make sure the HMI executes the commands. For example, screen switching status bits, printing status bits, hardcopy status bits. Buzzer sounding status bits, backlight on/off status bits, summer time saver adjusting status bits and recipe transfer status bits.

2. Trigger Bits #0-#15(\$C2.0-\$C2.f)

Trigger Bits controls the HMI triggers by using PLC commands. Trigger to read curves, delete curves, startup the macro, write the real time clock data to PLC or write the PLC real time clock

data to HMI and other requests for triggers. To satisfy different applications, we can increase trigger bits from #16 to #31.

2-1. Trigger Ack Bits #0-#15

Trigger Ack Bits allows writing to PLC data registers or HMI internal register after the HMI execute Trigger Bits asked from PLC. Thus, the PLC can make sure the HMI executes the commands. For example, trigger to read curves, delete curves, startup the macro, write the HMI real time clock data to PLC or write the PLC real time clock data to HMI and other requests for triggers. To satisfy different applications, we can increase trigger bits from #16 to #31. Set the Trigger Bits and Trigger Ack Bits to the same PLC data registers or HMI internal registers to let PLC feedbacks after completing motion cycles without setting the triggered bits to OFF at next trigger.

3. Enabling Bits #0-#15(\$C3.0-\$C3.f)

Enabling Bits lets the PLC enable and disable motions of HMIs. For example, enables the PLC data logger prepared for data correction. Enables the HMI to execute the trigger sampling or sampling regularly. To sum up, the Enabling Bits is the control center of the Trigger Bits. To satisfy different applications, we can increase Enabling Bits from #16 to #31.

4. Current Screen Number of the Normal Screen The HMI will send the current screen number to the communicated device.

5. Current Screen Number of the Window Screen The HMI will send the current window screen Number to the communicated device.

6. Current Recipe Number, RCPNo=1-65535 The HMI will send the current Recipe Number to the communicated device.

7. Current Recipe Block Number, RCPID=0-15 The HMI will send the current Recipe Block number to the communicated device.

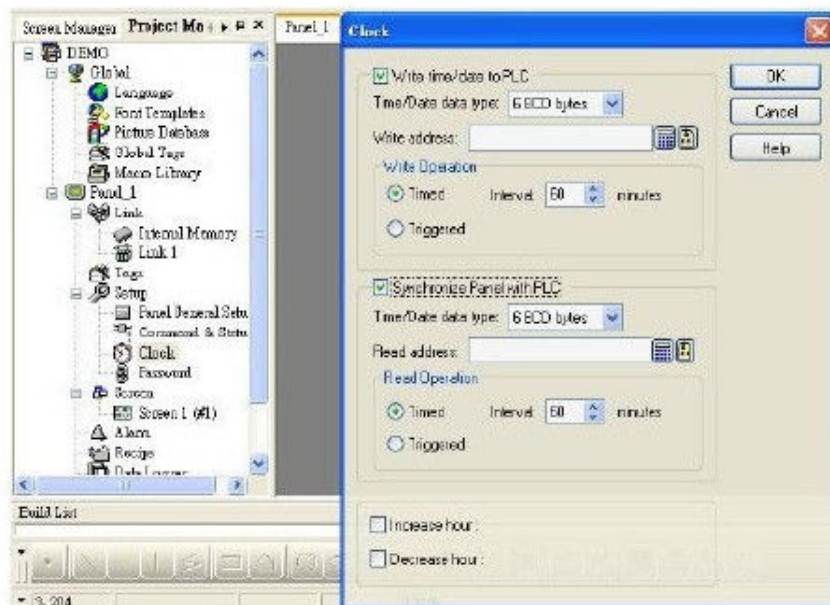
8. Current User Level, User Level=0-8 The HMI will send the current user level to the communicated device.

9. Current Language, Language=1-10 The HMI will send the current user level to the communicated device.

1-4-4-3. Real Time Clock

There is a build-in real time clock in the HMI. Users can write the real time clock data to PLC which the real time clock is not supported. Sometimes, in order to have simultaneous time between Panels and PLCs, even the PLC supports real time clock, we use Trigger Bits regularly to synchronize the real time of Panels and PLCs. Write the internal clock to PLCs to

execute a sequence of controls. We also can synchronize the time of PLCs with the Panels to make sure whether they are simultaneously.



Every word(\$C0-n) of the real time clock data has different meaning as following

To write time/date to PLC address D100, the referent data type information defined as below.

There are two formats of time/date type, 6 Bytes(3 Words) and 8 Bytes(4 Words).

The 6 Bytes formats are:

Hr.:	word#0 high-byte is for 0-23 Min.: word#0 low-byte is for 0-59		
Month:	word#1 high-byte is for 1-12 Date: word#1 low-byte is for 1-31		
Week:	word#2 high-byte is for 0-6	Year: word#2 low-byte is for 00-99	

The 8 Bytes formats are :

Hr.:	word#0 high-byte is for 0-23 Min.: word#0 low-byte is for 0-59		
Month:	word#1 high-byte is for 1-12 Date: word#1 low-byte is for 1-31		
Week:	word#2 high-byte is for 0-6	Year: word#2 low-byte is for 00-99	
	reserved	Sec.: word#3 low-byte is for 0-59	

Selects the increase hour for summer time saver. Triggers this trigger bits to increase 1hr. or

Selects the decrease hour to decrease 1hr.

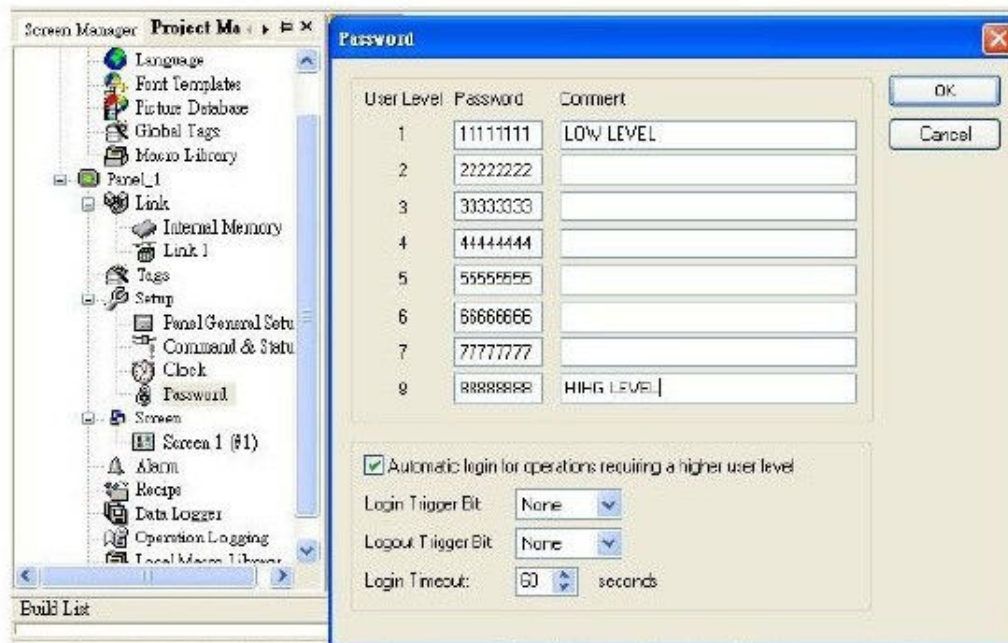
Remarks week days are set to 0,1-6. BCD format.

Register 0	Second Counter	0~59
Register 1	Minute Counter	0~59
Register 2	Hour Counter	0~23
Register 3	Day of Month Counter	1~31
Register 4	Month Counter and Century Bit	1~12
Register 5	Year Counter	0~99
Register 6	Day of week Counter	0~6

1-4-4-4. Set the User levels

There are 8 user levels. You may have 8 set of passwords with entering remarks. It also provides the Automatic Login Feature. The PLC program can enable or disable the password login function directly. The password table was put in the command block parameter II register(\$Cn) and command block parameter III register(\$Cm)

The password settings here means the user level password settings(the highest level is 8). KingView divides user levels to 9 levels (0-8), the 0 level is the lowest level which needs not set the password. If sets the object requesting user level for 0, that means all levels can operate this application.





Warn !007

When sets password login possible the HMI requests a set of correct password to login which registered in above table and turns on the default screen. If entering the wrong password, the HMI can not be operated. On the other hand, the HMI accepts the developer's password.(9 numbers) which level is the same as the highest user level 8.

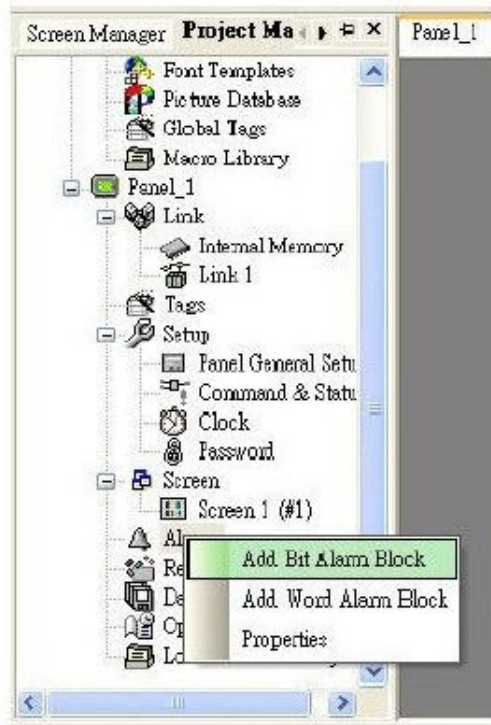
1-4-4-5. Screen (Panel -> Screen)

Screen A panel can design max. 7999 screens. The screen can be assigned for normal screen window screen or menu screen.

Window Screen The window screen is a screen which overlapping on the normal screen. The display area must smaller than the normal screen.

Menu Screen The menu screen is a screen which overlapping on the normal screen. The menu screen behaves like a pop-up tool sub-screen.

1-4-4-6. Bit Alarm Block (Panel -> Bit Alarm Block ..)

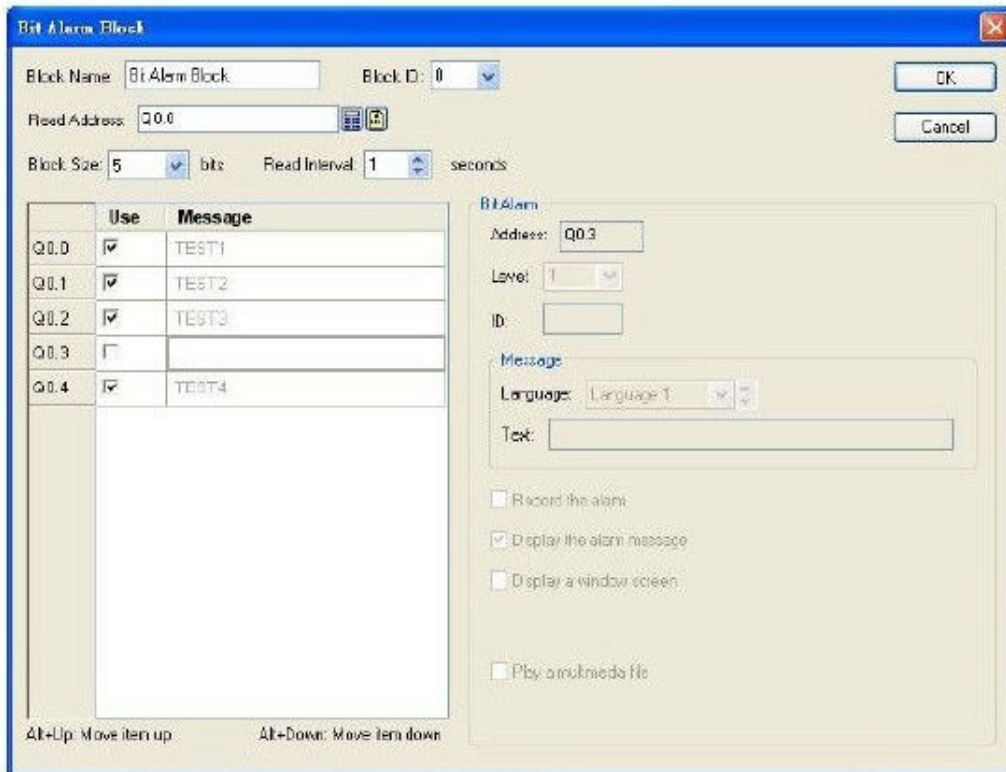


Set the Bit Alarm block before using Display the alarm message function. There are 16 blocks for setting. Please see below for your reference.

Alarm block address is the address in PLC the HMI watches and samplings. Use LSB.

Read Interval is the time HMI reads from the PLC. The unit is second.

Record the Alarm The messages amount recorded in an alarm block. Here we set 100. That means when the 101 Alarm happened, the first alarm record will be removed.



1-4-4-7. Word Alarm Block (Panel -> Word Alarm Block ..)

Set the Bit Alarm block before using Display the alarm message function. There are 16 blocks for setting. Please see below for your reference.

Alarm block address is the address in PLC the HMI watches and samplings. Use Word.

Read Interval is the time HMI reads from the PLC. The unit is second.

Record the Alarm The messages amount recorded in an alarm block. Here we set 100. That means when the 101 Alarm happened, the first alarm record will be removed.

Every word can be set to four kinds of address; they are low low, low, high and high high, for address, Limit, Level and Text.



Word Alarm Block

Block Name: Word Alarm Block Block ID: 64

Read Address: DBW0

Block Size: 1 word Read Interval: 1 seconds

Use	Message
☒ Low Low	LOW FLOW ALARM
☒ Low	LOW FLOW
☒ High	HIGH FLOW
☒ High High	HIGH FLOW ALARM

Alt+Up: Move item up Alt+Down: Move item down

Word Alarm

Address: DBW0 Type: High

Data Type: 16 Bit Unsigned Int

Limit: 0 Hysteresis: 0 %

Level: 1 ID:

Message

Language: Language 1

Text: HIGHFLOW

☐ Record the alarm

☒ Display the alarm message

☐ Display a window screen

☐ Play a multimedia file

1-4-4-8. Recipe Block



Set the Recipe Block before using recipe function. There are 16 blocks can be set.

The recipe function is described as following.

Recipe general setting.

Recipe

General Data Item

Name: DEMO Recipe ID: 0

Recipe size: 1 words Number of recipes: 1

Memory required: 1 words

☒ Write Recipe To PLC

Write Address: DED200

☒ Read Recipe From PLC ☒ Read Address Identical To Write Address

Read Address: DED200

Recipe Memory

Bit address range: \$R0:0.0 - \$R0:0.f

Word address range: \$R0:0 - \$R0:0

Current Recipe

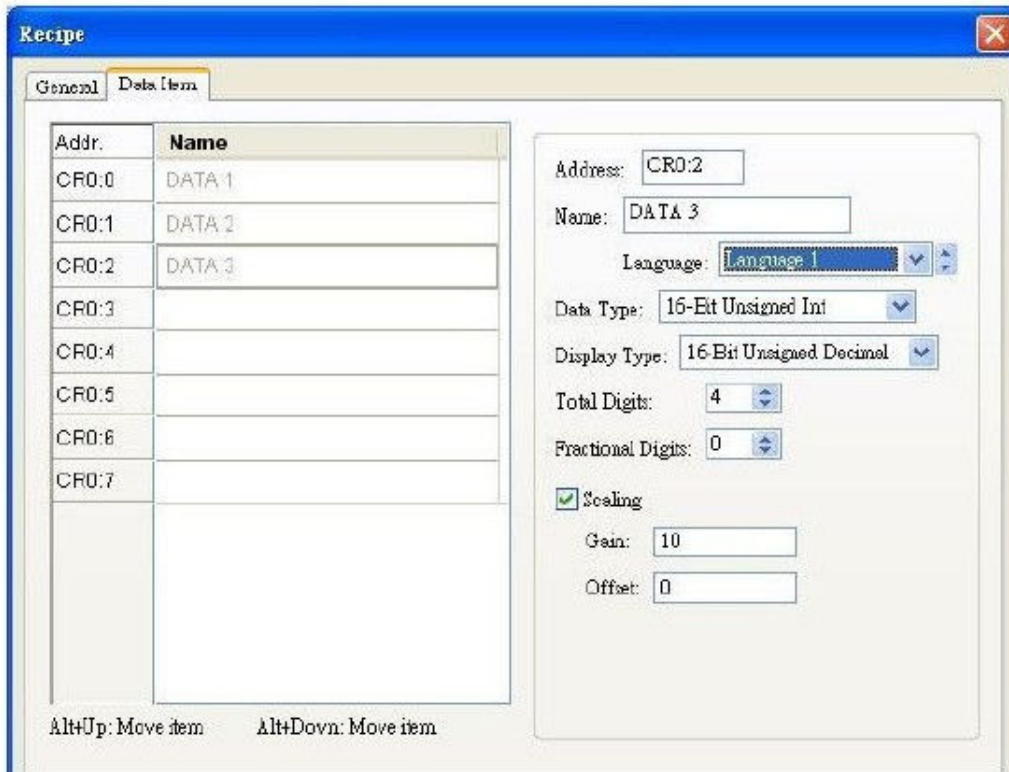
Bit address range: \$CR0:0.0 - \$CR0:0.f

Word address range: \$CR0:0 - \$CR0:0

Current Recipe Number Register: \$RN0

Recipe data item setting:

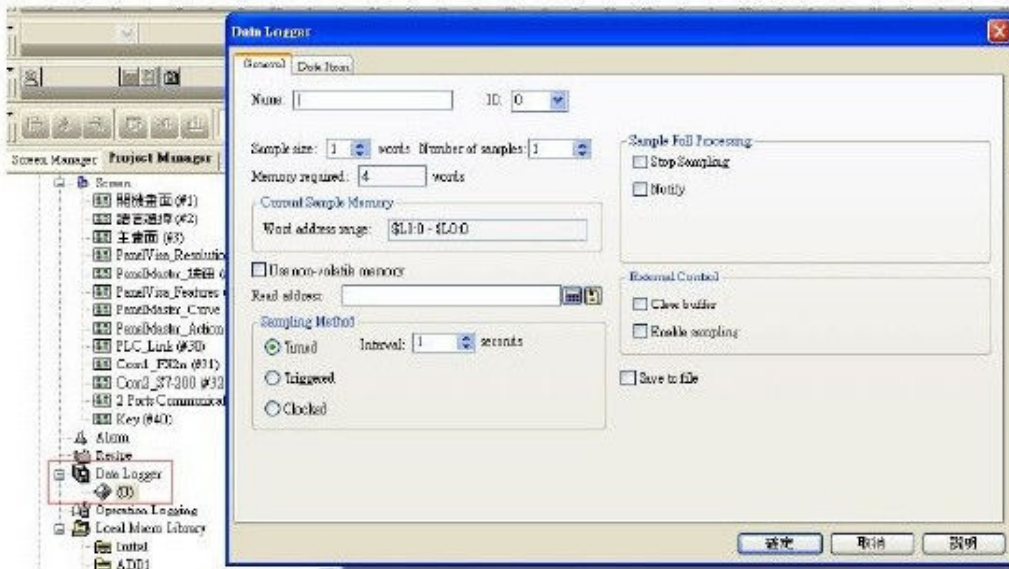
There are 16 recipe blocks can be set. You can select Scaling to set the gain and offset number for calculating the recipe data.



1-4-4-9. Data Logger

Set the Data Logger to use historic data display. There are 16 Data Logger blocks to be set.

The sampling methods are Timed, Triggered and Clocked. Users can set the sampling methods according to the applications.



Chapter 2. Operating Menu Bar of the KingView

2-1. File

File menu is the file management system of the KingView. See Figure 2-1.

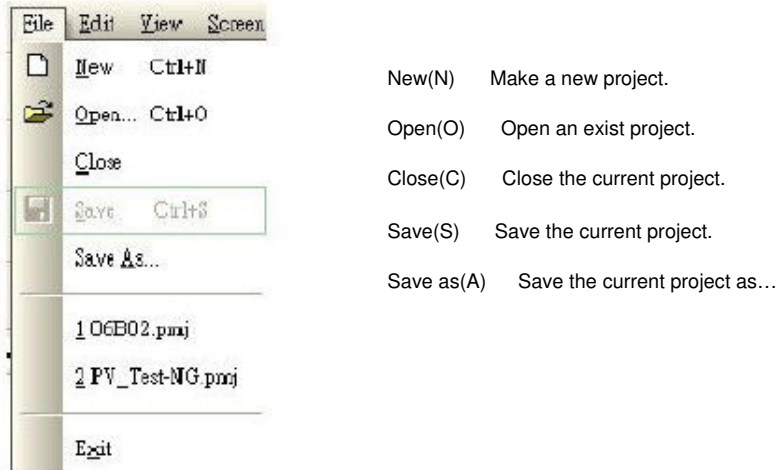
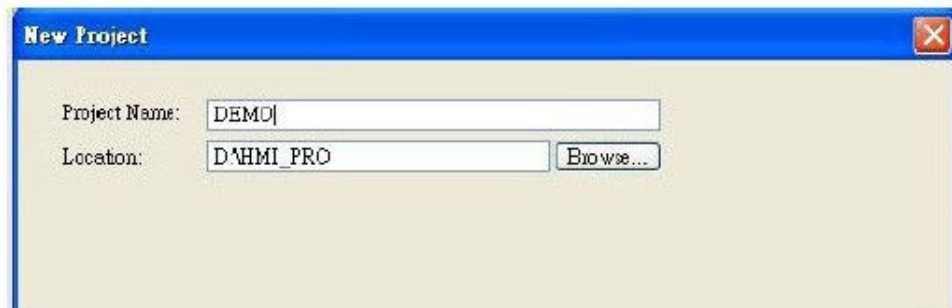


Figure 2-1 File drop down menu

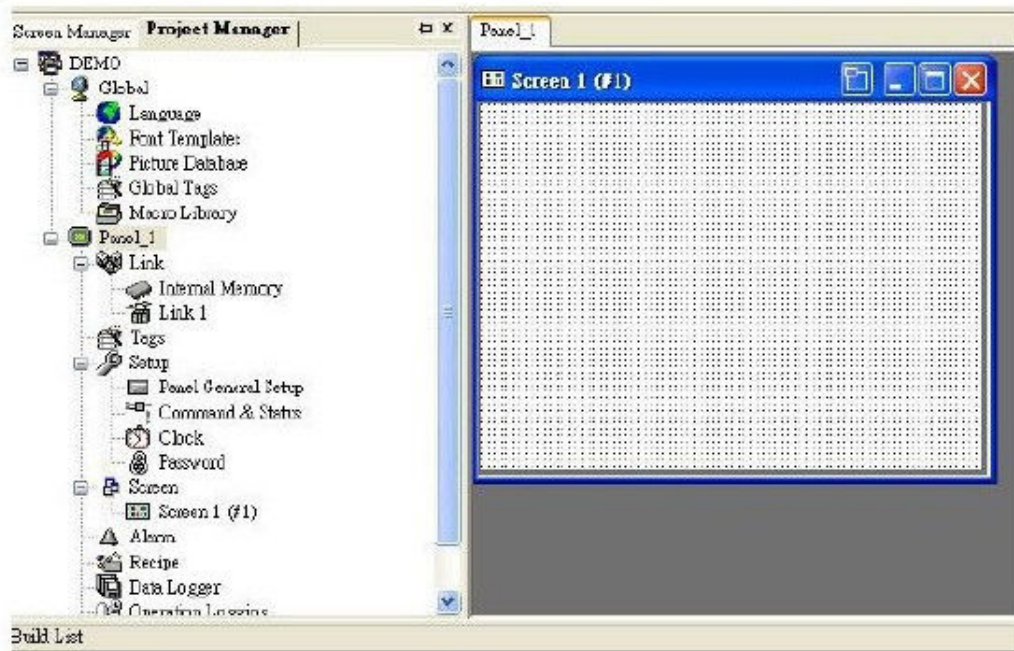
New

Clicks file to new a project or clicks  from Toolbar. Selects a saving position then enters a name for a new project. We should enter referent information to New a project.



Selects a saving position, enters a project name then clicks Next button to set the Panel Type , Panel name and Link type.

After setting, the left side of the screen shows the project tree and right side shows the editable area.



Open...

To open an exist project, clicks Open form File drop down menu or clicks



form Toolbar.

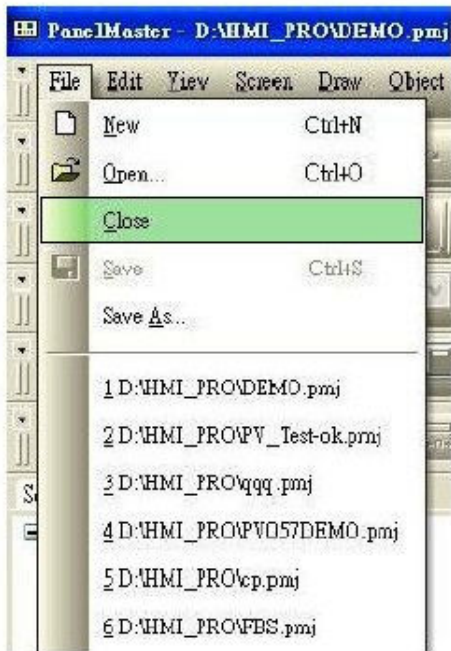
The Project Files window is shown as following:

Selects an exist project xx.pmj, Clicks Open to open it.



Close

Closes the current project design.



Save

Saves the project according to the opening directory.



Warn !009

Right clicks the Panel name to see the export Panel button. Clicks the export Panel button and saves the set information for the Panel as a file. You can import this file for other projects. If you want to save the whole project, clicks



from the toolbar or selects save from File drop down menu.

Save As....

Saves the current project as xxx.pmj format of different names.

2-2 Edit

Edits drop down manu including copy/delete, Align/make same size, Layer, set order and Languages management. When the items in the Edit drop down menu turn gray it means that they can not be used.



Figure 2-2 Edit drop down menu

Undo

Cancels this execution back to previous step.

Redo

Cancels last Undo, Back to previous setp before last Undo.

Cut

Cuts the selected objects.

Copy

Copies the selected objects

Paste

Pastes the cut or copied objects to any working area.



Press SHIFT and the mouse left key to select many objects.

Press CTRL and selected objects then drag them to any position in the working

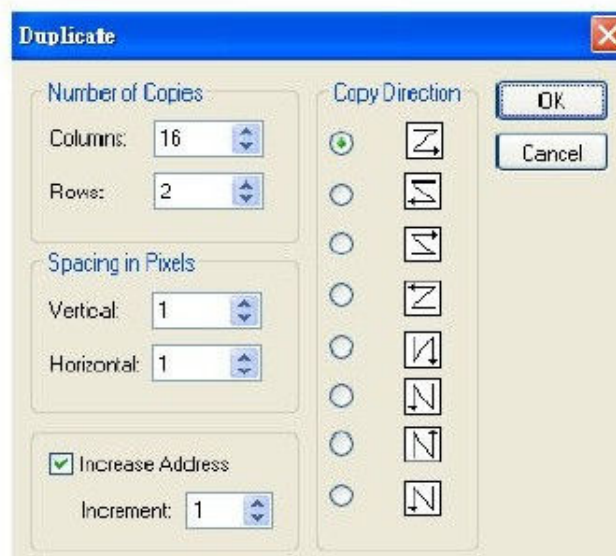
Notice ?012 area to execute duplication.

Delete

Deletes the selected objects.

Duplicate

Duplicates the selected objects, for example, numerical settings and buttons. Modifies the variable, arrangement and Spacing in Pixels automatically. See Figure below.



Find and Replace

Finds and replaces texts.

Show Grid

Shows grids on the editable area. Clicks Show Grid to show grids. Clicks again to disable.

Snap to Grid

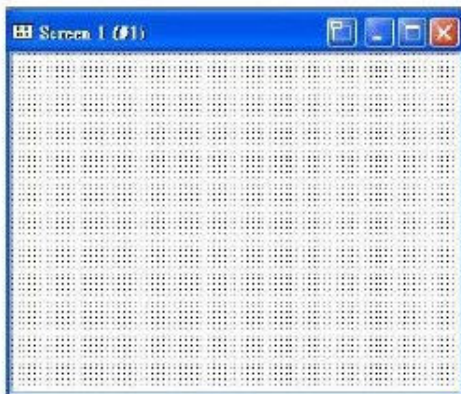
Snaps selected objects to the grids. You can click this function.



from the toolbar to execute

Grid Settings...

Clicks Grid settings to get the dialogue as below.



Show Grid Selects the item to show Grid on the editable area.

Snap to Grid Selects this item to execute Snap to Grid.

Grid Color Selects Grid color from this button



Grid Spacing Sets the grid spacing here. X axis 4 dots space and Y axis 4 dots space.

Group

Selects objects as a group for easy moving and duplicating.

Ungroup

Ungroups the grouped objects.

Align Tool

Aligns selected objects as Align left



center



center



Make Same Size

Makes the selected objects the same width



, same height



, same width and same

height



to adjust the spaces of selected objects.

Nudge

Uses the toolbar to nudge the selected objects to the left



,to the right



,to the top



,to

the bottom



in the working area.

Layer

Adjusts the layers of overlapping objects



Bring to Front

the selected objects to the front of others(the objects are totally visible).

Bring Forward

the selected objects one layer forward.

Send Backward

the selected objects one layer backward.

Send to Back

Moves the selected object to the back of objects.

Set Orders (This function uses for Panel with key models)

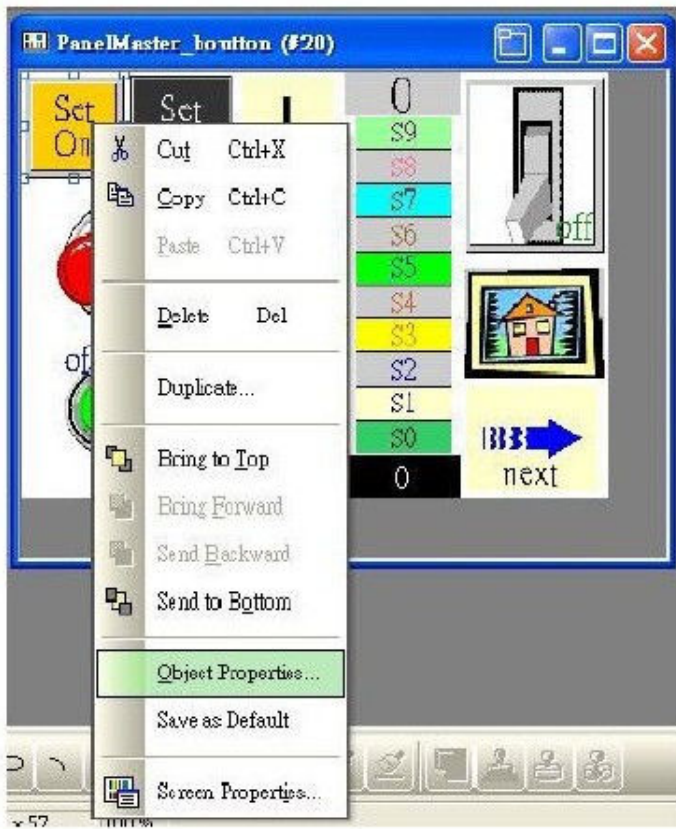
Sets the 1-6 buttons as shown in the following figure. Presses PV037 arrow keys will show the situations as below.

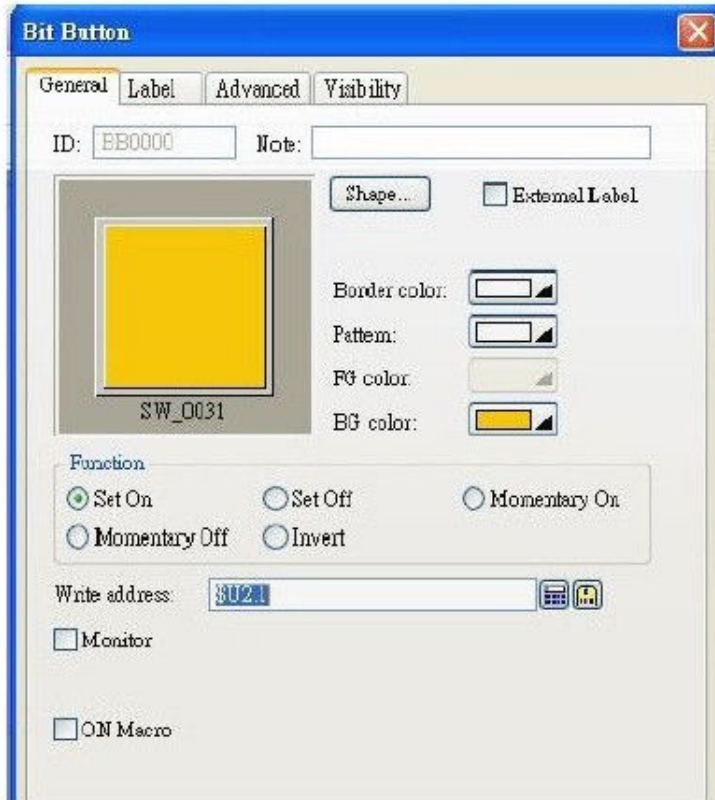
Presses up or down key at the first time to show the cursor on the left first button. Presses down key to jump the cursor to the second button position, and so forth. On the contrary, presses up key to move the cursor to forward button according the set sequence.

The Right, Left keys in PV037 have the same functions as Up, Down keys.

2-2-1 Object Properties

Clicks object properties from Edit drop down menu or double clicks the object to get the object properties dialogue.





Save the Objects properties as default settings

Sets all objects from pop up menu when clicking the right key of the mouse. Presses Save as Default to save the parameters of the selected objects as default except PLC variables.

2-3 View

To view the working area enlarged or shrunk, multi-language management, toolbar visible or invisible or objects import/export management. It's impossible to click the items in the drop down menu when they are gray. See Figure 2-3.

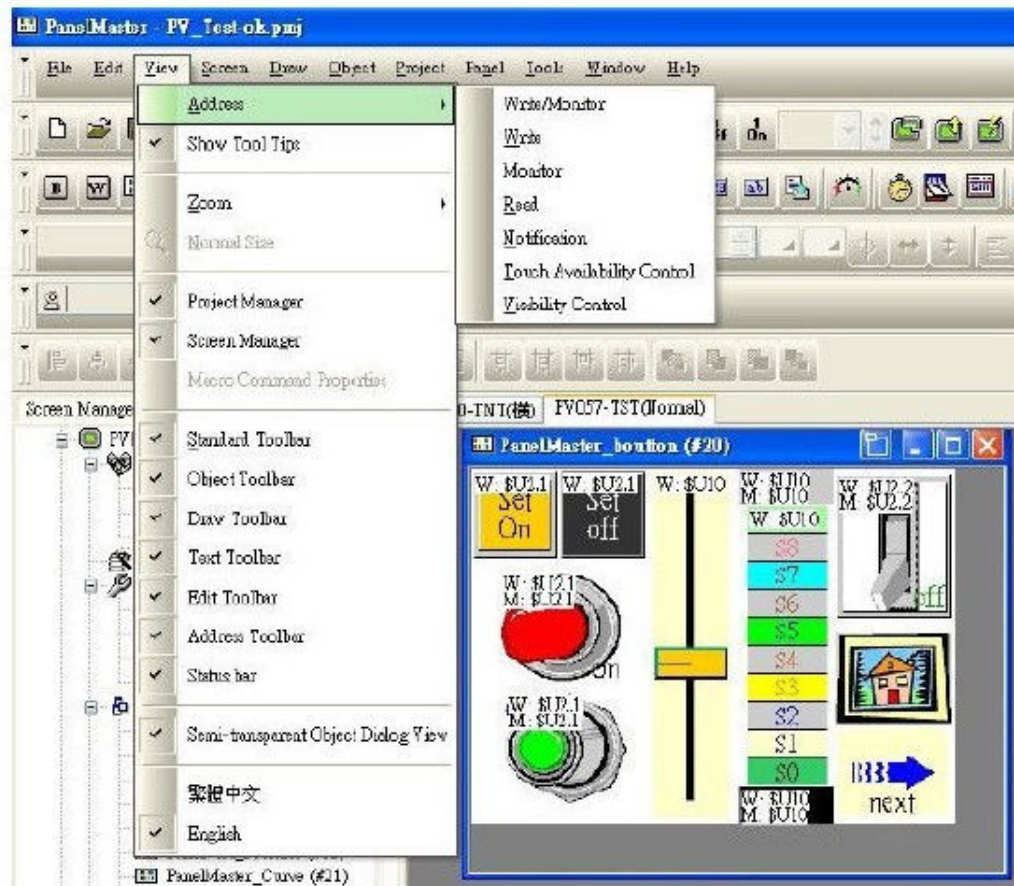
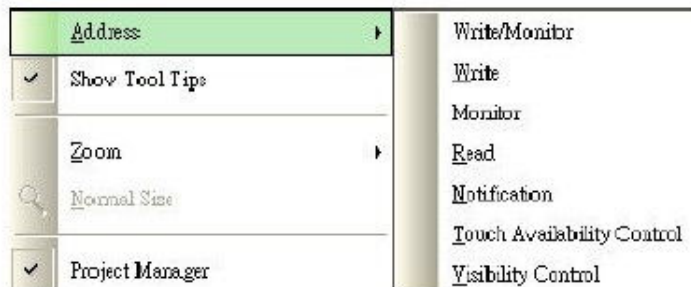


Figure2-3 View drop down menu

Address

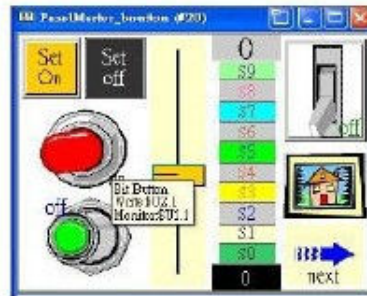
Views the I/O and data registers, which have been used.



Show Tool Tips

The pop up tool tips allows to view the read/write definitions of the pointed object.

Moves and stops the cursor to any enterable area for a while to get a pop up tool tips for your further information.



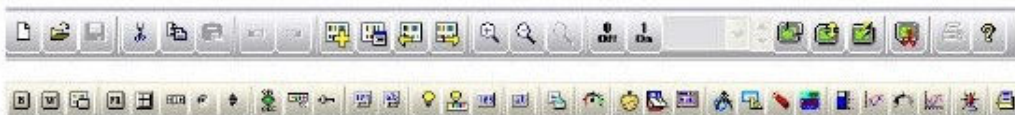
Zoom ; Normal Size

Zoom in and out percentage allows to view the screen size.



Active Tool bar

Provides many tools to be selected.



Transparent display dialogue (Language 1-10)

Provides to select object dialogue boxes as transparent mode.

Language 1-10

Provides to view and switching language 1-10.

2-4 Screen

To new screens, open exist screens, copy screen and screen properties management.

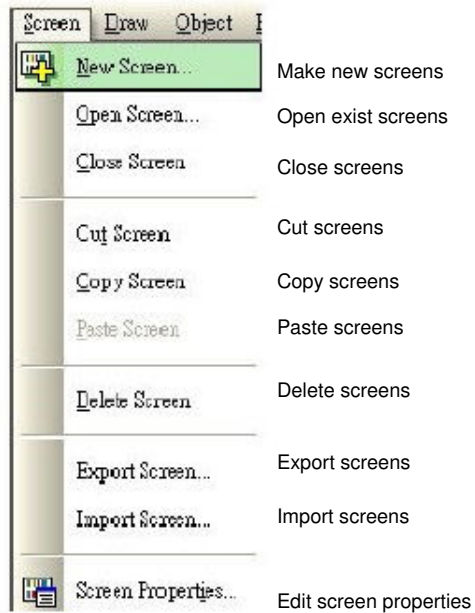


Figure2-4 Screen drop down menu

New Screen

from toolbar to make a new screen. Defines the screen name and screen number. The screen number can be set from 1 to 7999.

Open Screen Opens exist screens.

Close Screen Closes screens.

Cut Screen Cuts screens.

Copy Screen Copys screens.

Paste Screen Pastes screens.

Delete Screen Deletes screens.

Export Screens Exports an exist screen as any name xxx.snf for next application.



Import Screens

Imports exported screens.



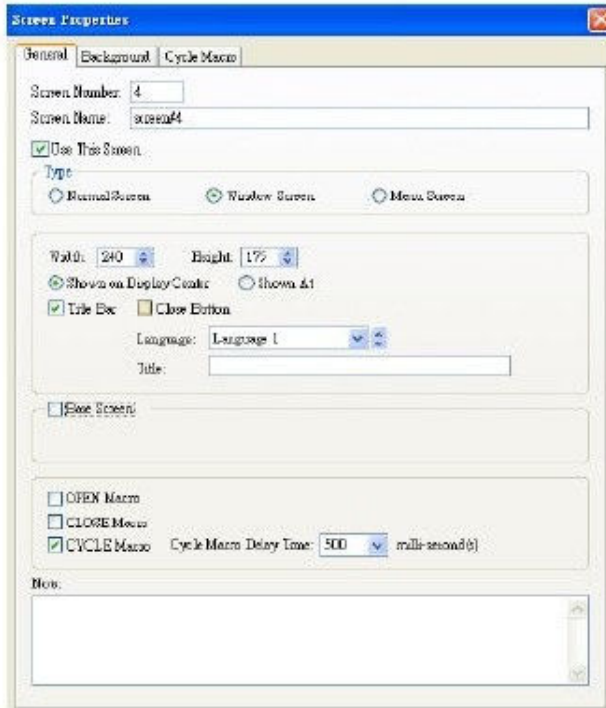
Screen Properties...

Selects Screen Properties or click



from toolbar to get a screen properties dialogue

box. Here you can plan the screen by modifying the name, screen number,static,whether a basic screen needed, window screen settings, menu screen settings, screen background settings, keys(for key models) and macro open/close/cycle. See Figure below.



Clicks "+" besides the Screens from project tree to get screens list of the project. To open a screen, double clicks any screen you need from the list.

2-5 Draw

KingView provides a drawing tool bar. For example, symbol line horizontal line vertical line connected line rectangle circle ellipse arc pie polygon text and picture. Select a function, move cursor to any position you like on the working area to draw an object. Click the object to get a properties dialogues box. You can set the line/frame color width BG/FG color Pattern types and color through the dialogue.



Figure 2-5 Draw drop down menu



Symbol

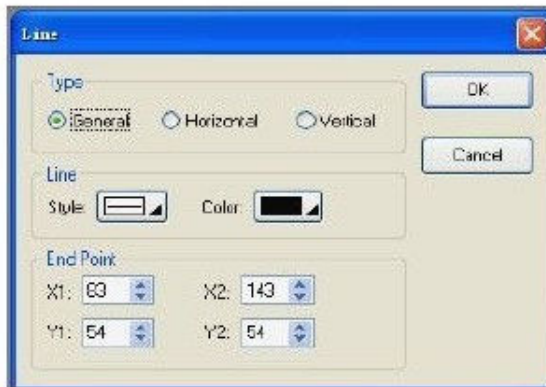
Selects and moves objects.



Line

Click this button to draw lines.

Click the button to draw a line, move the cursor to the working area then click the left button of the mouse to draw a line. After drawing a line, double click left of the mouse to design the line.



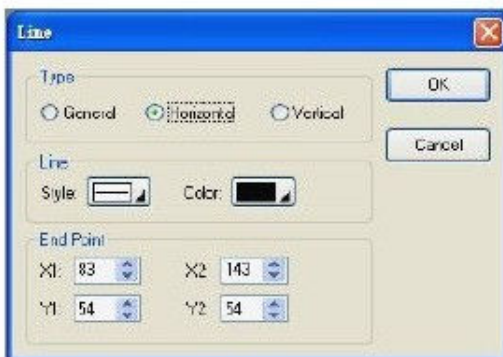
To change the length or the position of the lines, click the target line to see two checks at the ends of the line, move the cursor on the checks. After the cursor turns to a cross arrow, press the left button of the mouse and drag the line to any position you like on the working area.

Select a line, double click the line to open a properties dialogue. Modify the type and end point. Line color



Click the button to draw a horizontal line.

Click horizontal line button from the Tool bar, move the cursor to the the working area then click the left button of the mouse to draw a line. After drawing a line, double click left of the mouse to design the line.



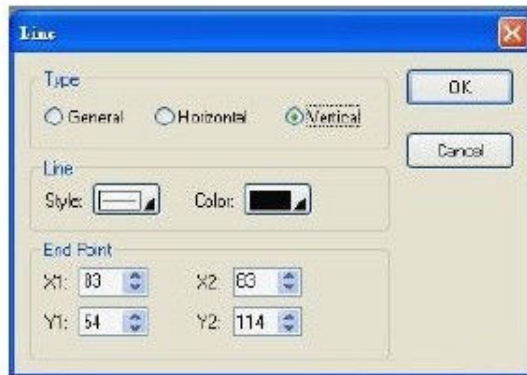
To change the length or the position of the horizontal lines, click the target line to see two checks at the ends of the line, move the cursor on the checks. After the cursor turns to a cross arrow, press the left button of the mouse and drag the line to any position you like on the working area.

Select a line, double click the line to open a properties dialogue. Modify the type Line color and end point.



Click the button to draw a Vertical line.

Click horizontal line button from the Tool bar, move the cursor to the the working area then click the left button of the mouse to draw a Vertical line. After drawing a line, double click left of the mouse to design the line.

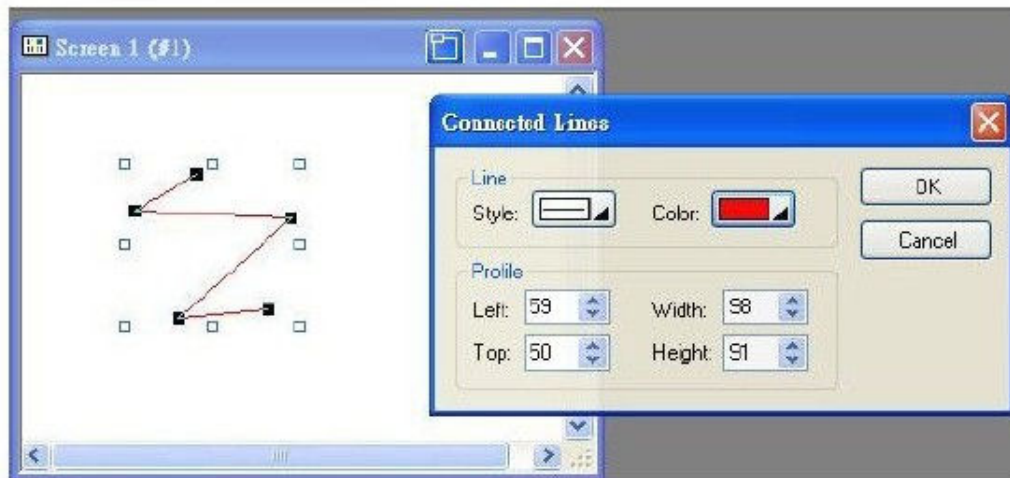


To change the length or the position of the Vertical lines, click the target line to see two checks at the ends of the line, move the cursor on the checks. After the cursor turns to a cross arrow, press the left button of the mouse and drag the line to any position you like on the working area.

Select a Vertical line, double click the line to open a properties dialogue. Modify the type Line color and end point.



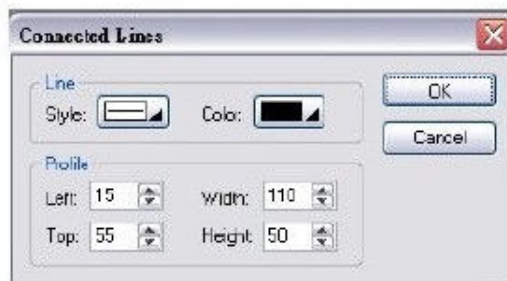
Click the button to draw a Connected line.



Click connected line button from the Tool bar, move the cursor to the the working area then click the left button of the mouse to draw the first point of a connected line. Move cursor to next point and so forth. After drawing a connected line, double click left of the mouse to design the line.

To change the length or the position of the capstones of the connected lines, click the target line to see two filled checks on the ends of the line, move the cursor on the filled checks. After the cursor turns to a cross arrow, press the left button of the mouse and drag the line to any position you like on the working area.

Select a connected line, double click the line to open a properties dialogue. Modify the type Line color and profile.



Rectangle

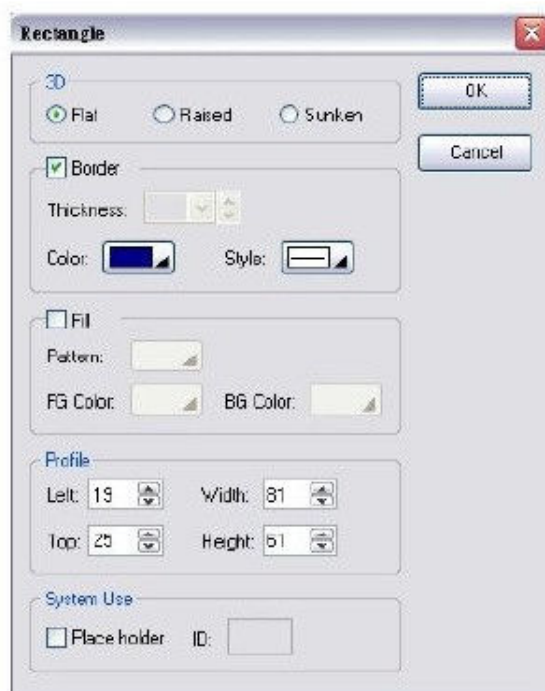
Click the button to draw a rectangle.

Click rectangle button from the Tool bar, move the cursor to the working area then click the left button of the mouse to draw a rectangle. After drawing a rectangle, double click left of the mouse to design the rectangle.

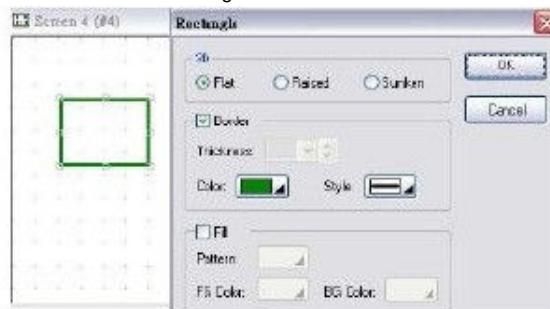
To move a rectangle, click the rectangle, press the left button of the mouse and drag the rectangle to any position you like on the working area.

To change the size of the rectangle, click the target rectangle. It shows eight checks on the rectangle. Move the cursor on the check at the ends of the rectangle. After the cursor turns to a cross arrow, press the left button of the mouse and drag the rectangle to any position you like on the working area.

Select a rectangle, double click the rectangle to open a properties dialogue. Modify the type border color and style.



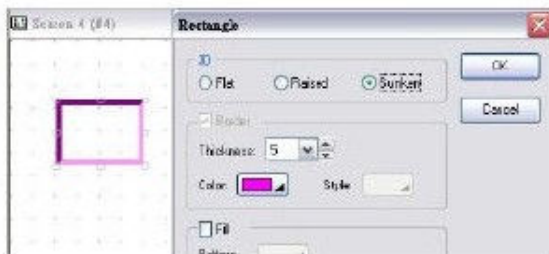
Outline color of a rectangle



Click "Flat" to select Border color and style. The Border Thickness is not selectable.

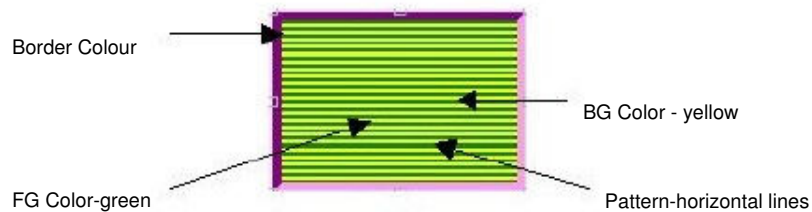
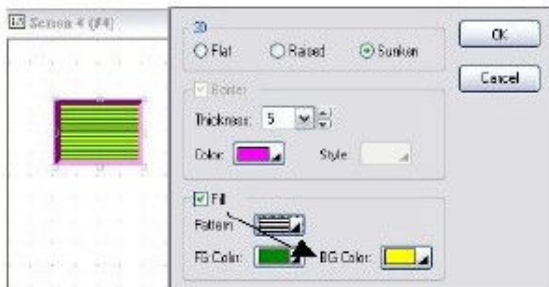


Click Raised to select Thickness and Color. The Border is not selectable. When a color is chosen, KingView shows default coordinated dark color on the right and bottom of the rectangle.



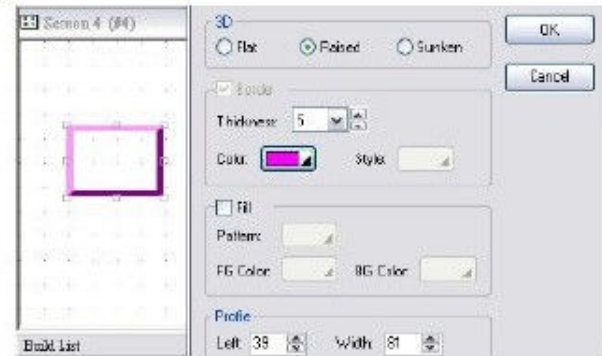
Click Sunken to select Thickness and Color. The Border is not selectable. When a color is chosen, KingView shows default coordinated dark color on the left and top of the rectangle.

A filled rectangle



A not filled rectangle

Please refer to the settings of filled rectangles.



Set the profile

Left The Pixels of the rectangle to the left border of the working area. The less the number is the close to the border of the working area this rectangle will be.

Top The Pixels of the rectangle to the top border of the working area. The less the number is the close to the border of the working area this rectangle will be.

Width Set the width of the rectangle. Fixes left side of the rectangle; the rectangle extends to the right according to the entered number.

Height Set the height of the rectangle. Fixes top of the rectangle, the rectangle extends down according to the entered number.

System Use



Circle

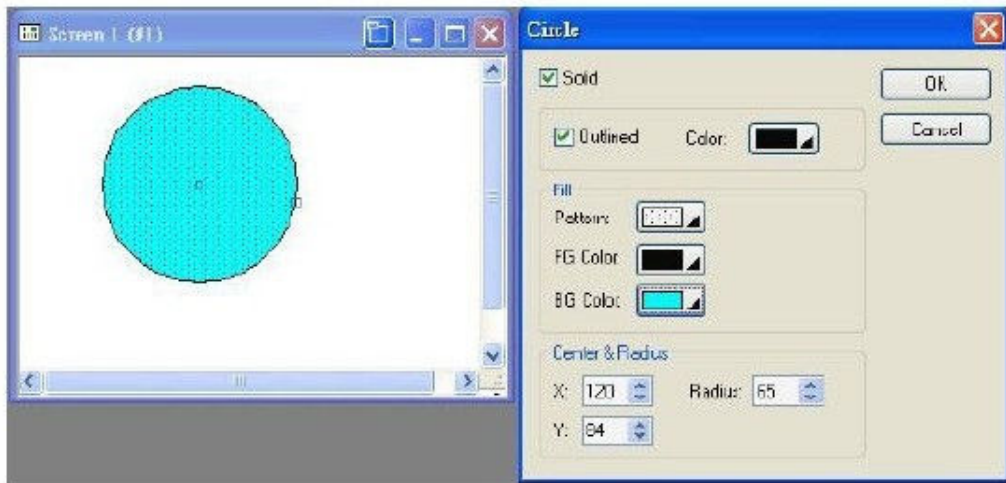
Click the button to draw a Circle.

Click Circle button from the Tool bar, move the curser to the working area then click the left button of the mouse to draw a circle. After drawing a circle, double click left of the mouse to design the circle.

To move a circle, click the circle, press the left button of the mouse and drag the circle to any position you like on the working area.

To change the size of the circle, click the target circle. It shows two checks on the circle. Move the cursor on the checks. After the cursor turns to a cross arrow, press the left button of the mouse and drag it to change the size.

Click a circle, double click the circle to open a properties dialogue.



To set the properties, please refer to the settings of rectangle.



Ellipse

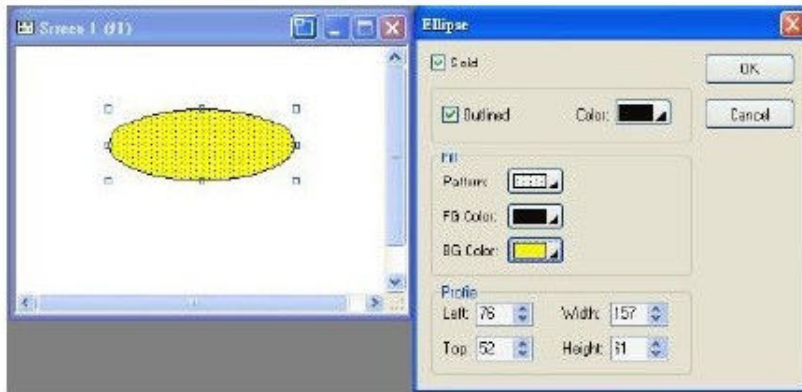
Click the button to draw an ellipse.

Click the ellipse button from the Tool bar, move the cursor to the working area then click the left button of the mouse to draw an ellipse. After drawing an ellipse, double click left of the mouse to design the ellipse.

To move an ellipse, click the ellipse, press the left button of the mouse and drag the line to any position you like on the working area.

To change the size of the ellipse, click an ellipse to see eight checks on the ellipse. Move the cursor on the checks, after the cursor turns to a cross arrow, press the left button of the mouse and drag it to change the size.

Click an ellipse, double click the ellipse to open a properties dialogue.



To set the properties, please refer to the settings of rectangle.



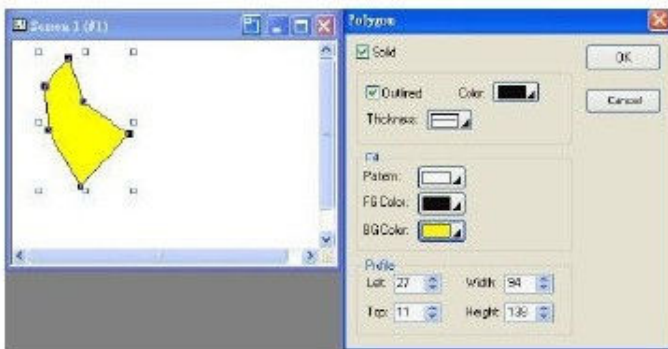
Polygon

Click the button to draw a polygon.

Click polygon button from the Tool bar, move the cursor to the working area then click the left button of the mouse to draw a polygon. After drawing a polygon, double click left of the mouse to design the polygon.

To move a polygon, click the polygon, press the left button of the mouse and drag the line to any position you like on the working area.

To change the length or the ends of polygons, click the target polygon to see checks on the polygon, move the cursor on the checks. After the cursor turns to a cross arrow, press the left button of the mouse and drag it to change the size.



To set the properties please refer to the settings of Line.



Arc

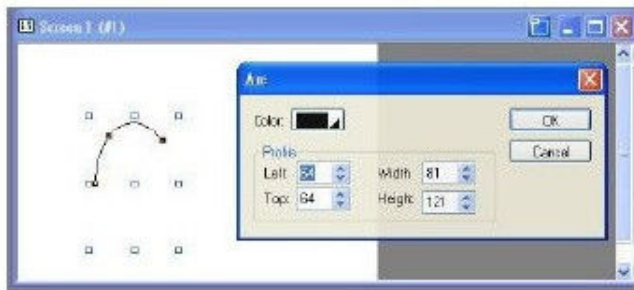
Click the button to draw an Arc.

Click the Arc button from the Tool bar, move the cursor from the working area then click the left button of the mouse to draw an Arc. After drawing an Arc, double click left of the mouse to design the Arc.

To move an Arc, click the Arc, press the left button of the mouse and drag the Arc to any position you like on the working area.

To change the size of the Arc, click an Arc to see five checks on the Arc. Move the cursor on the checks, after the cursor turns to a cross arrow, press the left button of the mouse and drag it to change the size.

Click an Arc, double click the Arc to open a properties dialogue.



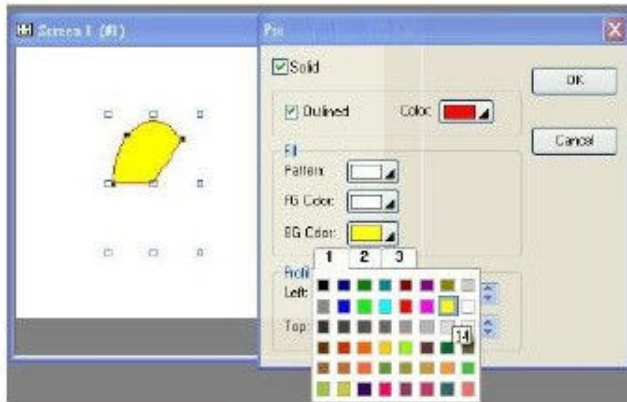
Pie

Click the Pie button from the Tool bar, move the cursor to the working area then click the left button of the mouse to draw a Pie. After drawing a Pie, double click left of the mouse to design the Pie.

To move a Pie, click the Pie, press the left button of the mouse and drag the Pie to any position you like on the working area.

To change the size of a Pie, click a Pie to see eight checks on the Pie. Move the cursor on the checks, after the cursor turns to a cross arrow, press the left button of the mouse and drag it to change the size.

Click a Pie, double click the Pie to open a properties dialogue.



The settings of a Pie are the same as a rectangle.



Text

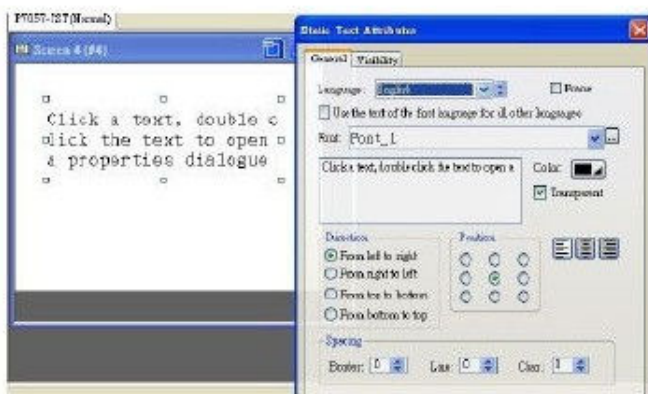
Click text from draw drop down menu to make a text button.

Click the text button from the Tool bar, move the cursor to the working area then click the left button of the mouse to draw a text button. Enter text in the text button then click left of the mouse to complete the text.

To move a text, put the cursor till it turns to a cross arrow. Press the left button of the mouse and drag the text to any position you like on the working area.

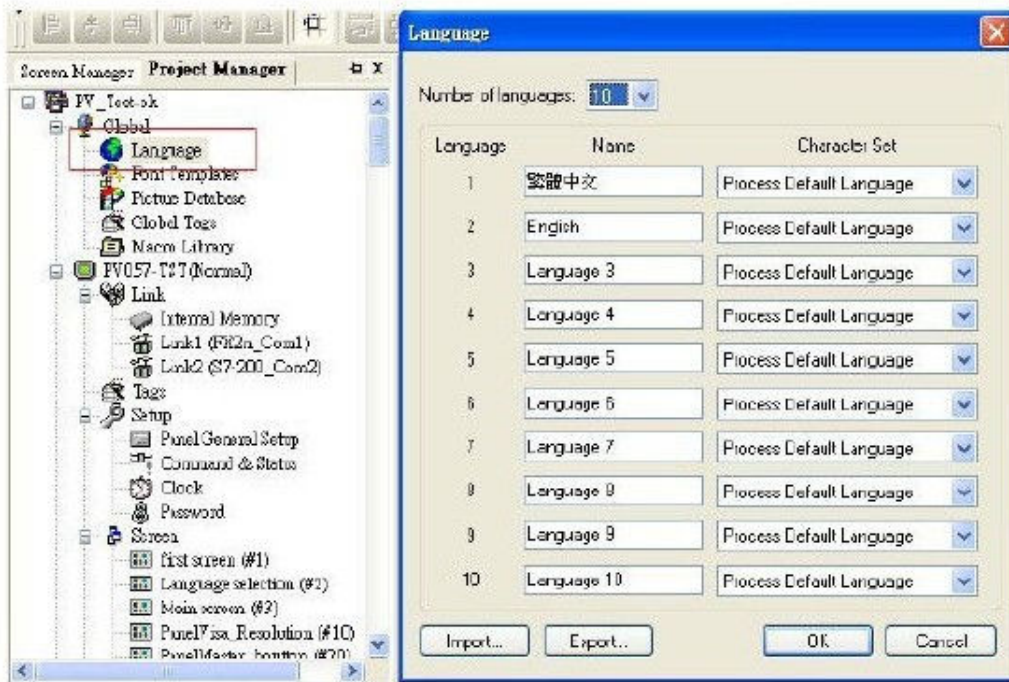
To change the size of a text, click a text to see eight checks on the text. Move the cursor on the checks, after the cursor turns to a cross arrow, press the left button of the mouse and drag it to change the size.

Click a text, double click the text to open a properties dialogue.

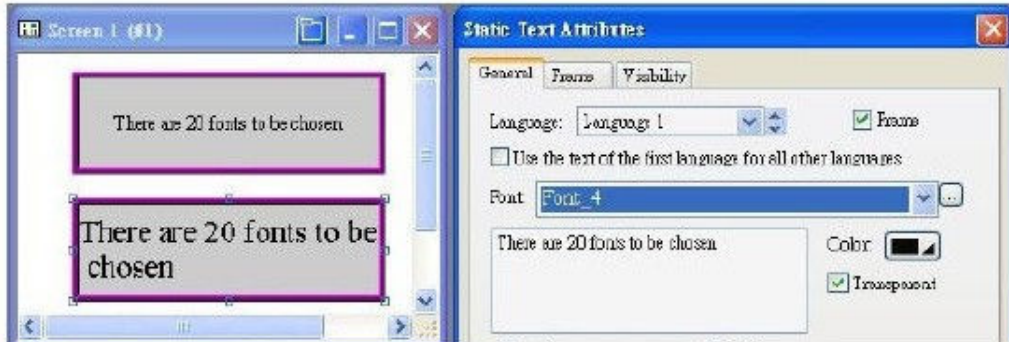


Select languages

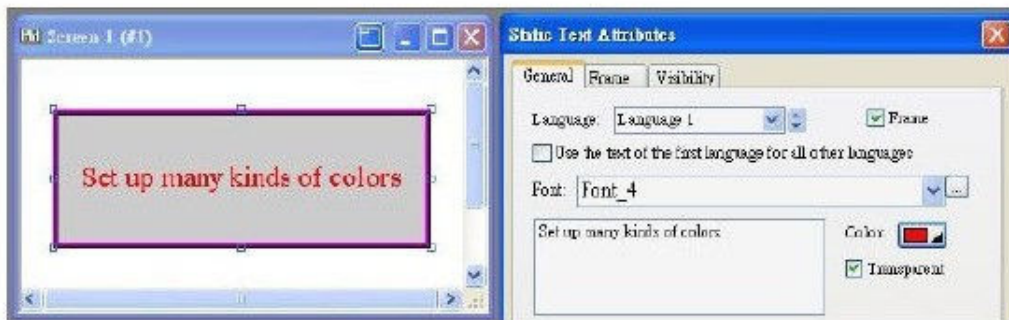
Set the languages in the Global languages before selecting them from the text properties dialogue. There are 10 kinds of languages to be chosen.



Language fonts and colors



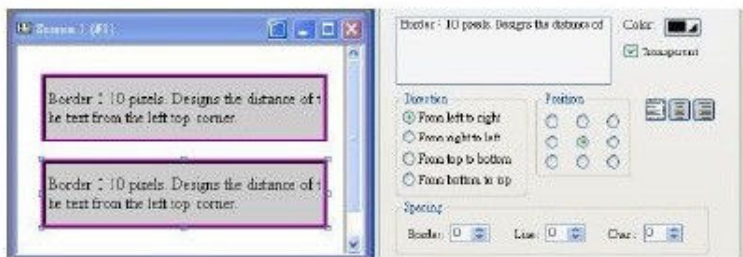
There are 20 fonts to be chosen.



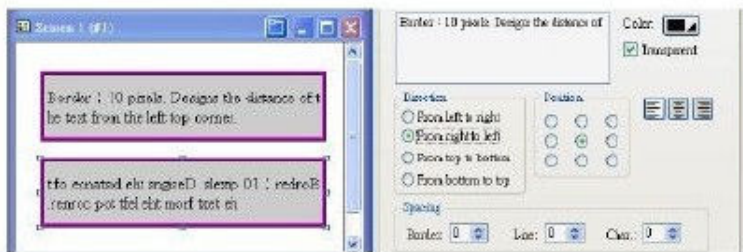
Set up many kinds of colors

Text direction

From left to right



From right to left



From top to bottom

From bottom to top

Position

Direction From left to right. The text starts from the left.

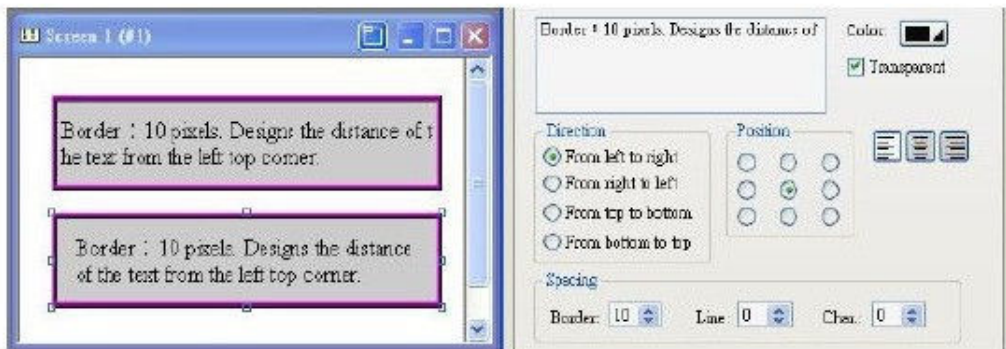
Position From left top corner. The text aligns to the left top corner.

Spacing

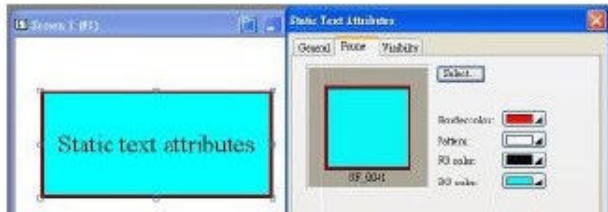
Border 10 pixels. Designs the distance of the text from the left top corner.

Line 0 pixels. The space between the lines in the text.

Char 0 pixels. The space between the characters in the text.



Frames settings



Visibility

The visibility can be controlled by bit or by user level. See below Figure. The text is controlled by bit. Click the visibility to see the doalogue box. Enter the internal data register then press ok to complete the setting.



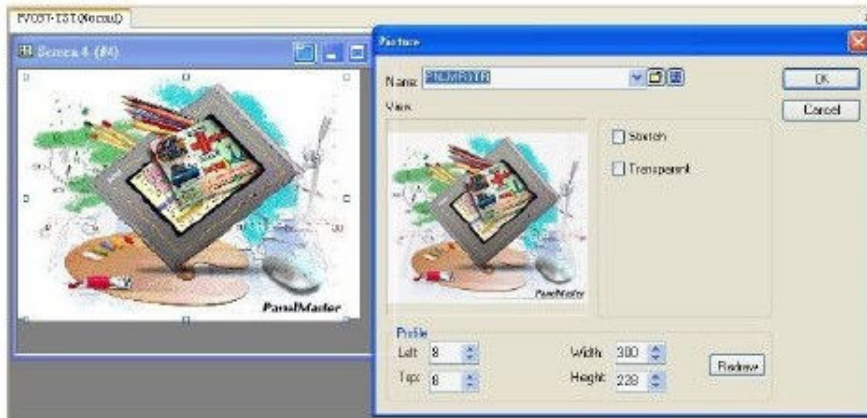
The text can be controlled by user level, too. There are 8 user levels. Click visibility to see the dialogue. Enter user level to complete the setting. In some applications, when the text contents should not be operated by users, set the text controlled by user level to protect texts. The higher user level can see the text by entering password.





Graphic

KingView supports graphics made by any kind of drawing software (like photoimpact..) and imported as xx.bmp file. After imported in graphic library the pictures can be selected by any project.



Click import from the icon  beside the name to get a import dialogue. Select files then click import to import any picture you like.

Click  from picture dialogue to view the imported pictures. Select pictures to use in the application.

