

## Part 1 The installation and maintenance of XC-PLC edit tool


### I System Requirement:

**CPU:** Pentium 133 or higher; Interior memory: Not lower than 16M; Disk space: Not less than 10M;

**Operating system:** Run under any version of Microsoft Windows, including Windows95/98, Windows ME, Windows NT, Windows2000, Windows XP etc.

### I Installation:



Double click  Icon (Setup.exe) with your mouse, click “Next”--“Yes”—Input the serial number (ThingetXCP)—“Next”—“Next”—“Next”—“Next”—“Finish”. After this, please check

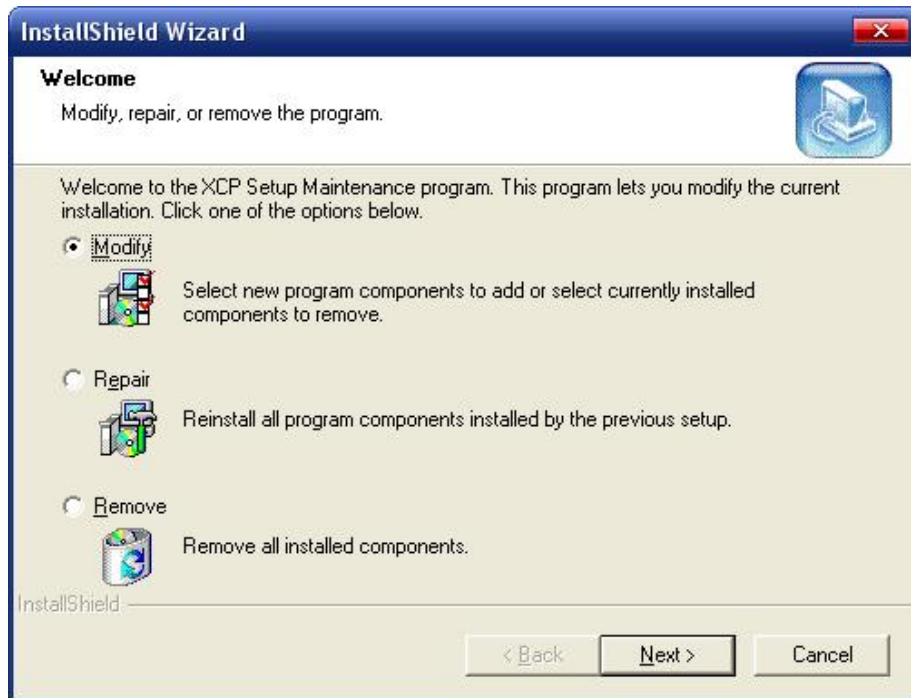


your desktop, there will be a  icon on your desktop!

A screenshot of the InstallShield Wizard dialog box. The title bar reads 'InstallShield Wizard'. The main area is titled 'Customer Information' and contains the instruction 'Please enter your information.' Below this, there are three text input fields: 'User Name:' with 'Fiona' entered, 'Company Name:' with 'Xinje' entered, and 'Serial Number:' which is empty. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The 'Next >' button is highlighted.

### I Maintenance:

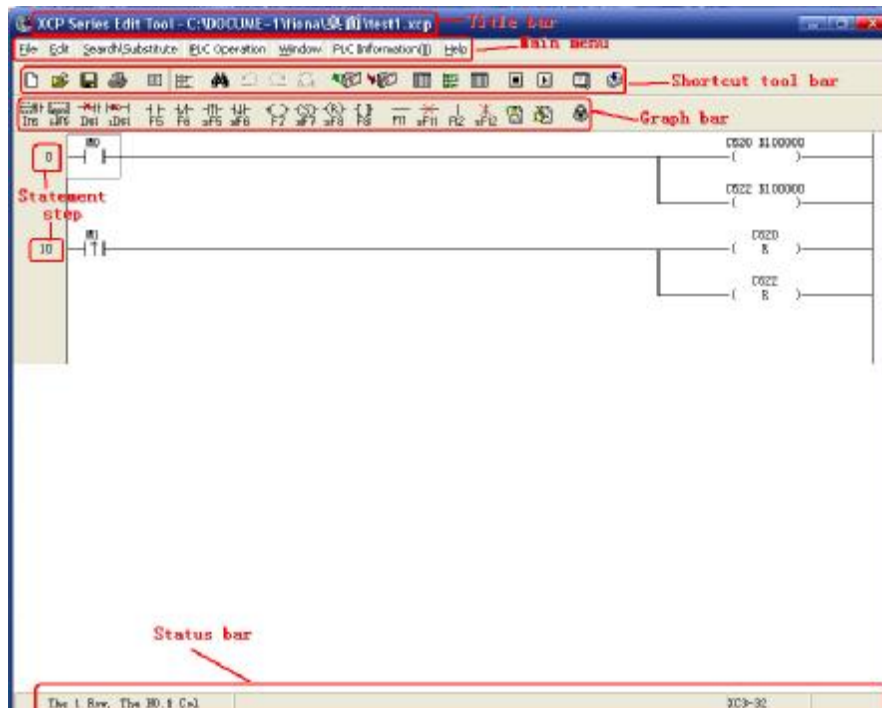
If you want to modify, repair or remove XCP edit tool, please choose Windows “Start—Setting—Control panel—Add/Delete XCP edit tool”, choose the item you want! (When you want to install a new version software, we suggest you remove the old version, not modify).



## Part 2 Edit environment of XCP edit tool

### I Edit environment:

The edit environment of XCP edit tool adopt the common edit environment, it has advantages of brief, high efficiency etc. The user could use it easily!



## I Introduction of edit environment:

### 1. Title Bar:

Show the current edit file name and its path

### 2. Main Menu:

All the operation statements are placed by type in the five menus, via pull-down menu, you can choose the statement operation

### 3. Shortcut Tool Bar

Offer 19 shortcut function keys to simplify the operation

### 4. Graph Bar

Offer the tools required when compile the file

### 5. Statement Step













Show the current statement step








### 6. Status Bar

Show the current operation status

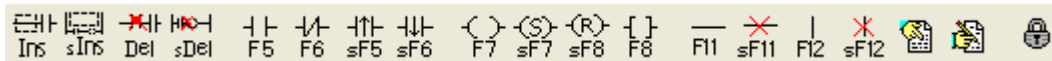
## I Function keys











Function Keys	Usage
 (New)	New Create a Ladder program
 (Open)	Open an edited (saved) file
 (Save)	Save the modified or new created file
 (Printer)	Print the current file
 (Display List)	Show the current program with statement
 (Display Ladder)	Show the current program with ladder
 (Search)	Search the statement or string
 (Search Prev.)	Search the previous statement (be active in statement format)
 (Search Next)	Search the next statement (be active in statement format)
 (Search)	Replace the statement
 (Upload)	Upload the PLC program to the computer
 (Download)	Download the PLC program to the computer

 (Data Monitor)	Monitor PLC register or coil
 (Ladder Monitor)	Monitor PLC register or coil with Ladder format
 (Free Monitor)	Monitor the data you are interested in
 (Stop PLC)	Stop PLC
 (Run PLC)	Run PLC
 (Close/Open node comment)	Check the node comment
 (Convert)	Convert to be the computer language (Not available at present)

## I Graph Tools

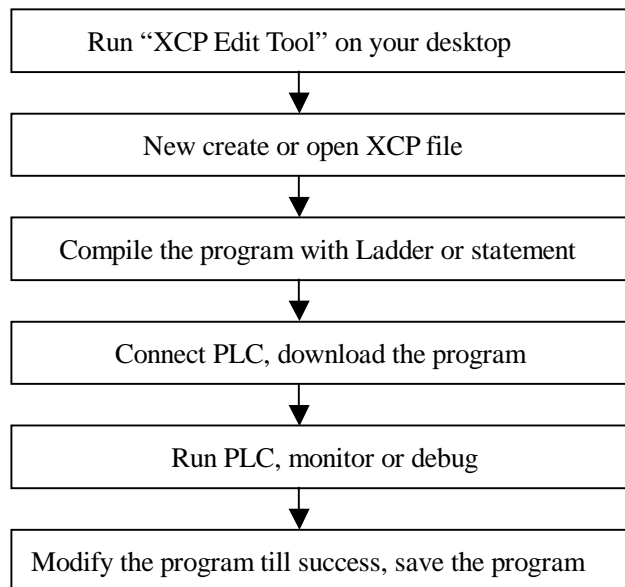


Tool	Function	Shortcut Keys
 Irs	Insert a Node	Insert
 sIrs	Insert a Rung	Shift + Insert
 Del	Delete a Node	Delete
 sDel	Delete a Rung	Shift + Delete
 F5	Normally Open Node	F5
 F6	Normally Closed Node	F6
 sF5	Rising Edge Pulse	Shift + F5
 sF6	Falling Edge Pulse	Shift + F6
 F7	Out	F7
 sF7	Set	Shift + F7
 sF8	Reset	Shift + F8

	Other Commands	F8
	Horizontal Line	F11
	Delete Horizontal Line	Shift + F11
	Vertical Line	F12
	Delete Vertical Line	Shift + F12
	Ladder Comment	
	Node Comment	
	Lock Ladder Edit	

### Part 3: XCP edit tool Using

Edit Flow:



## Part 4: Program Example of XCP Edit Tool

### Summary:

Via compile a simple program, we will tell you how to use XCP edit tool in details!

### Example Program:

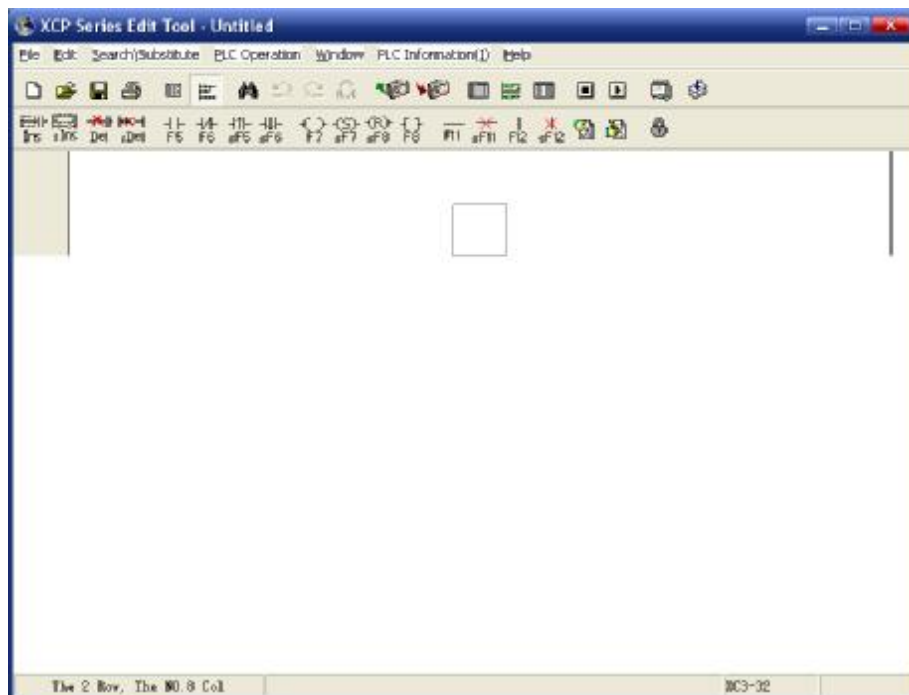
- I Record the active times of X0 with counter C0, when the count value reaches 10, output Y0, X1 is used as the reset signal of C0.
- I Data register D21 automatically add 3 with the cycle of 2 seconds, use timer T0 as the time clock.

### Ladder Program:


Statement program is more suitable for engineers who are familiar with PLC and logic program, while ladder program is chosen by operators who are starters. Here we use Ladder to realize our functions! Via XCP edit tool, simple program can be established by the edit tool which is similar with electric connection graph!

#### I Step 1:

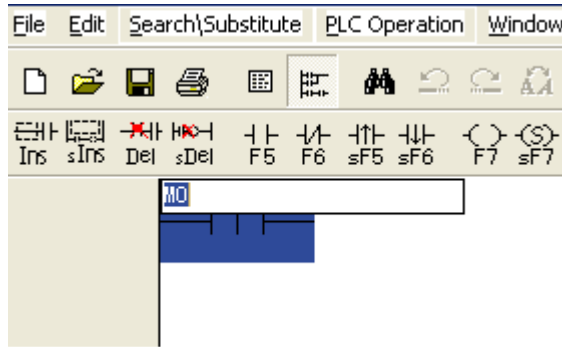
Open XCP edit tool, choose the model you want (here we choose model XC3-32, the defaulted edit mode is Ladder)



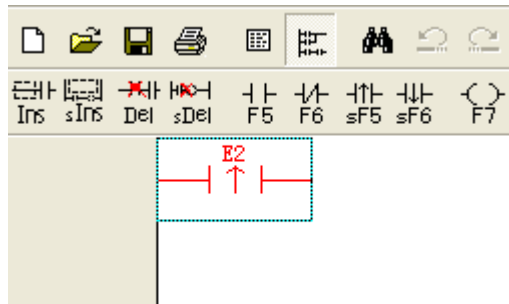
The dashed frame shows the current edit area.

First, click  key (or press Shift + F5), the edit area displays in the inverse color (the defaulted input is M0), input X0. If input error, then this contact displays in red. Double click this

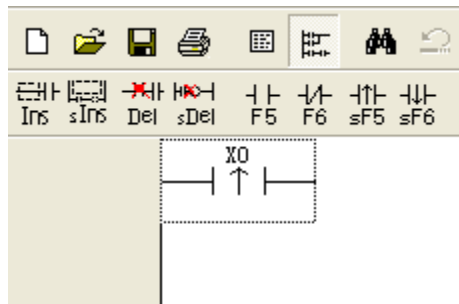
contact, input this operand again.



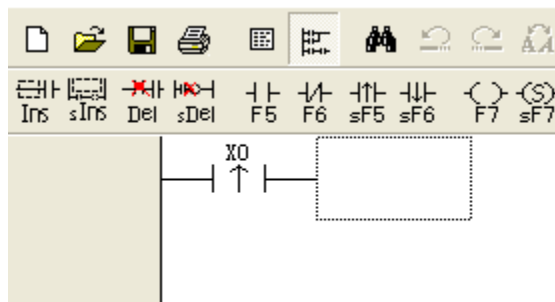
**Waiting to input**




**Error input**

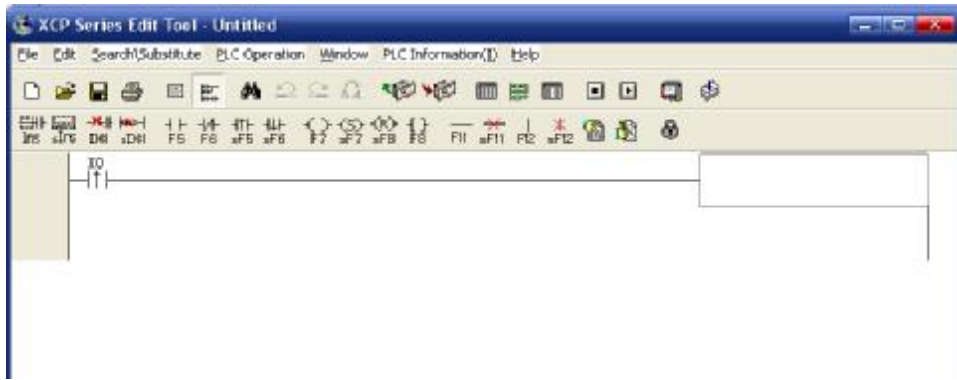


**Correct input**




**The edit tool shift right**

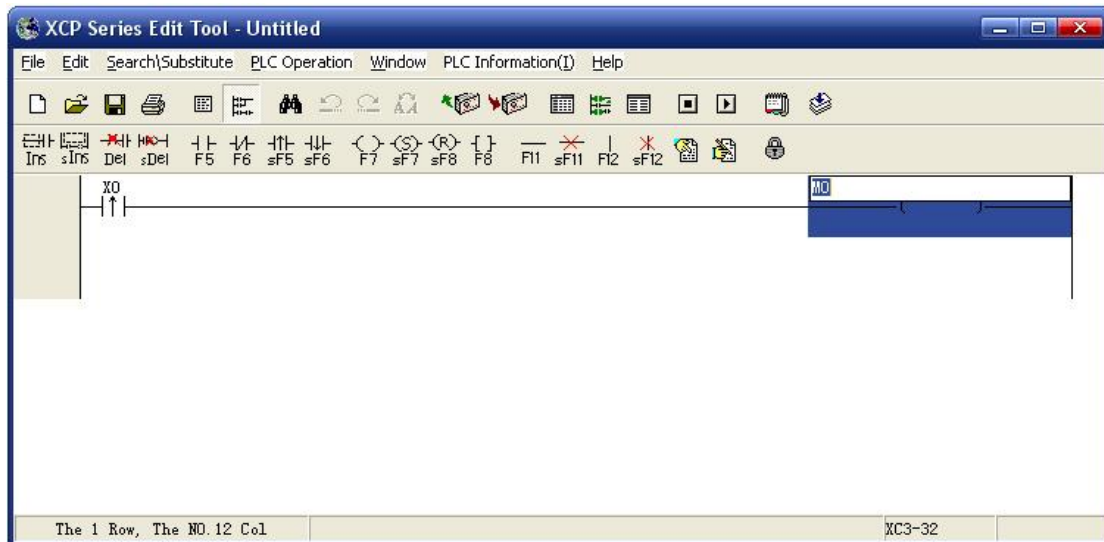
Then the dashed frame right shift, keep on click  icon (or click F11 key), the output contact will extend to the output terminal.



Or right shift the edit area, then click output key, the program will automatic connection.

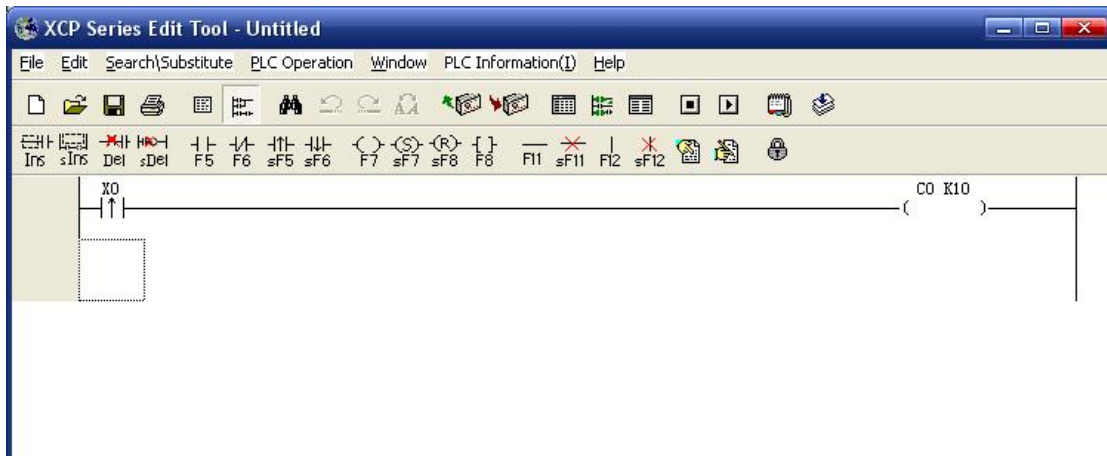


Click  icon (or press F7)




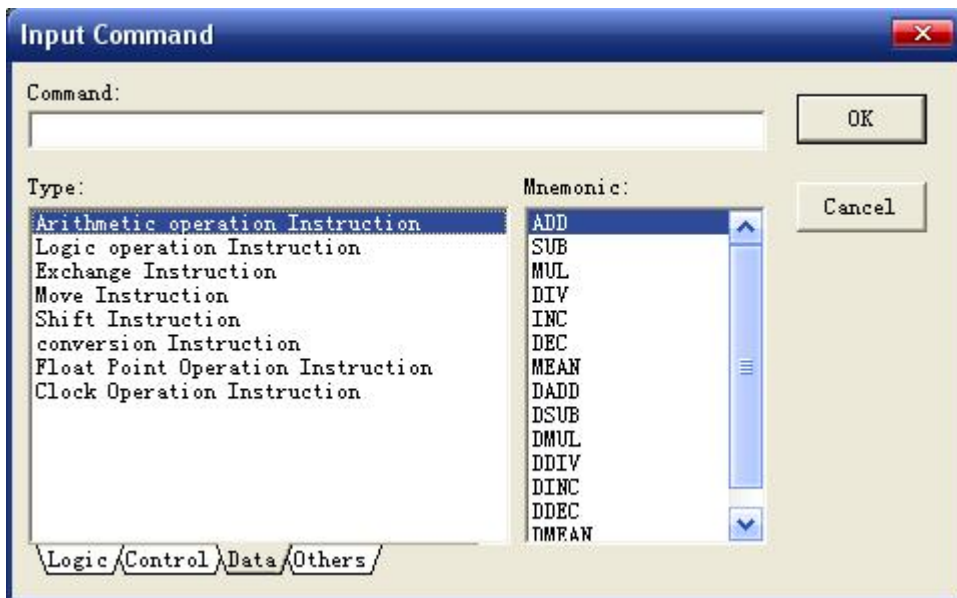
Input "C0 K10".



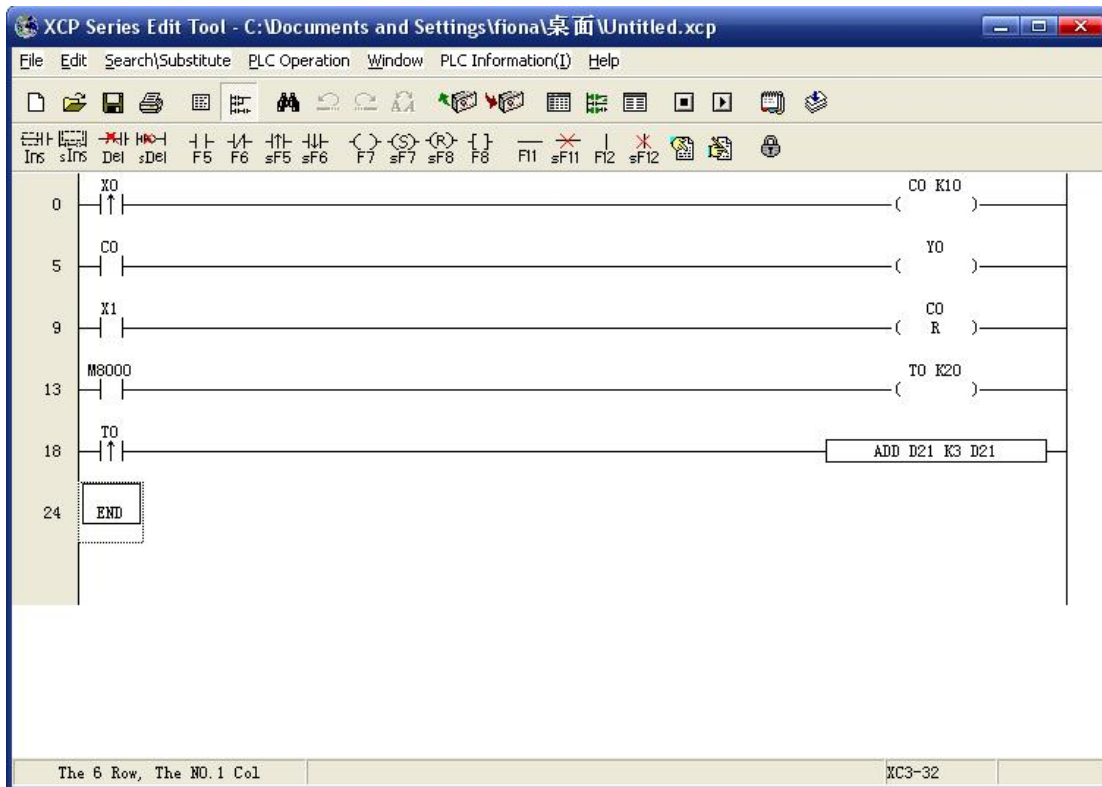


### Input other statements:

Click  (Or press F8)



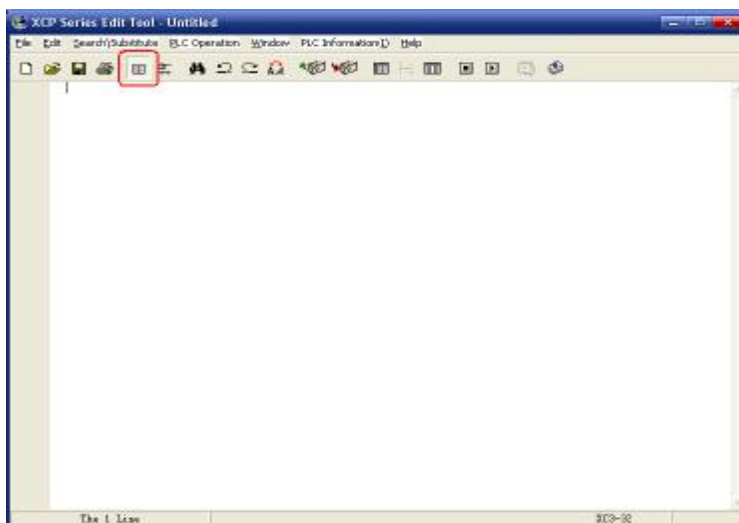
Choose the statement you need



Check the program, download to the PLC after you confirm the correction.

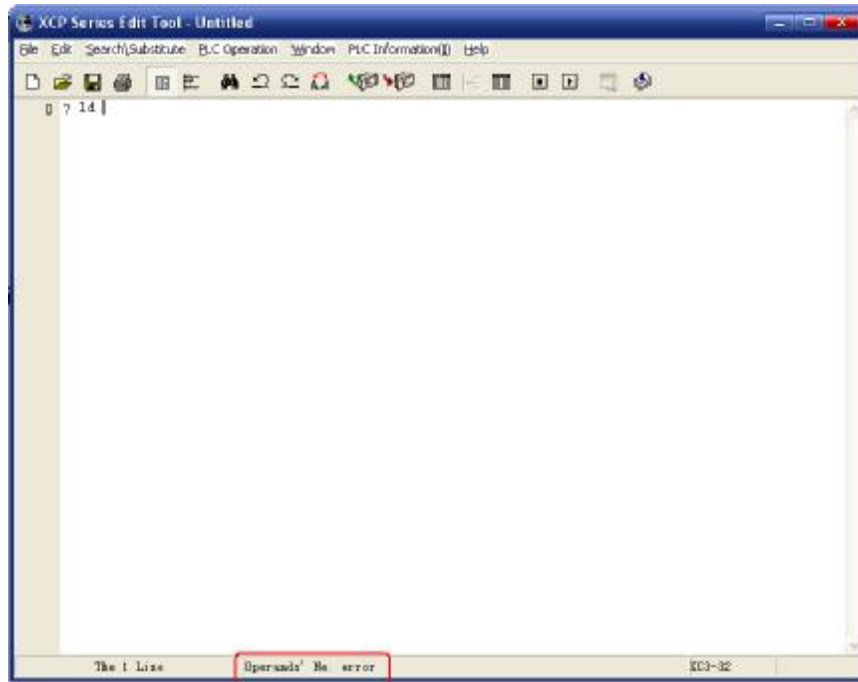
**Note:**  
**The input format of statement is: “statement” + “space” + “operand”**  
**If the contact is in red, it means the contact is wrong**  
**Make sure the connection without any break lines**

## I Statement Program

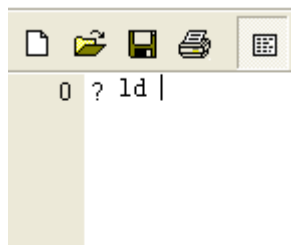


First, input statement "LDP X0"

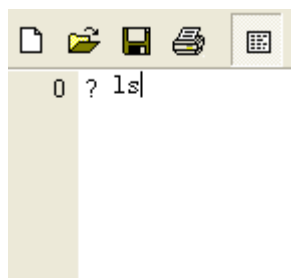
When input the statement, there will be "?" in the left, it means the statement is not whole. At the same time in the status bar, there will be correspond clue.



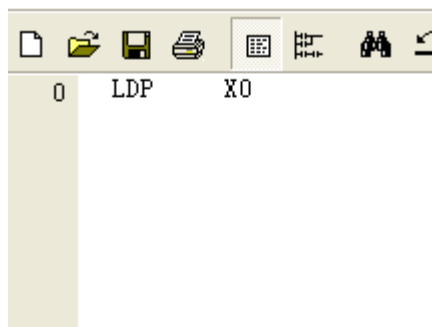
Input "LDP" + "space" + "X0"



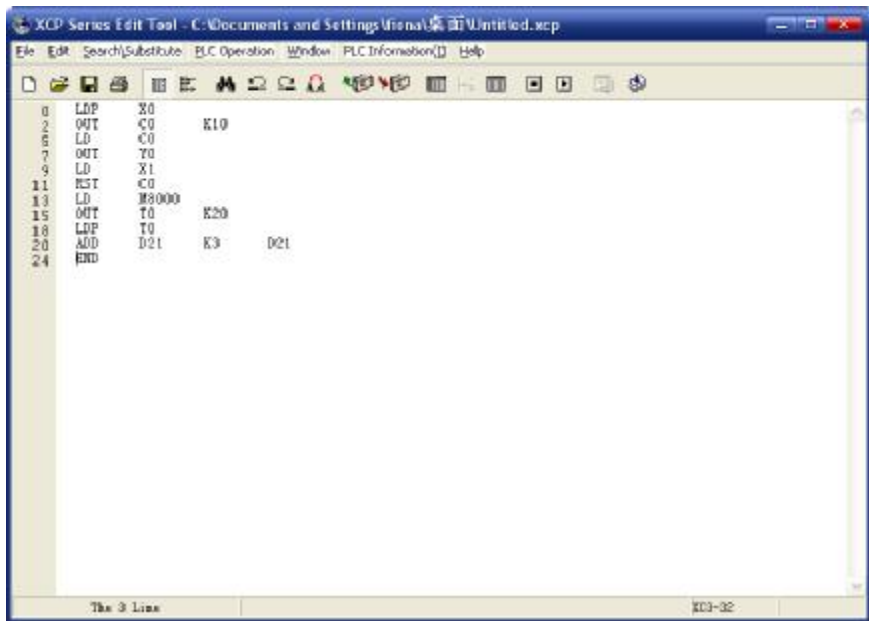
Short of operand




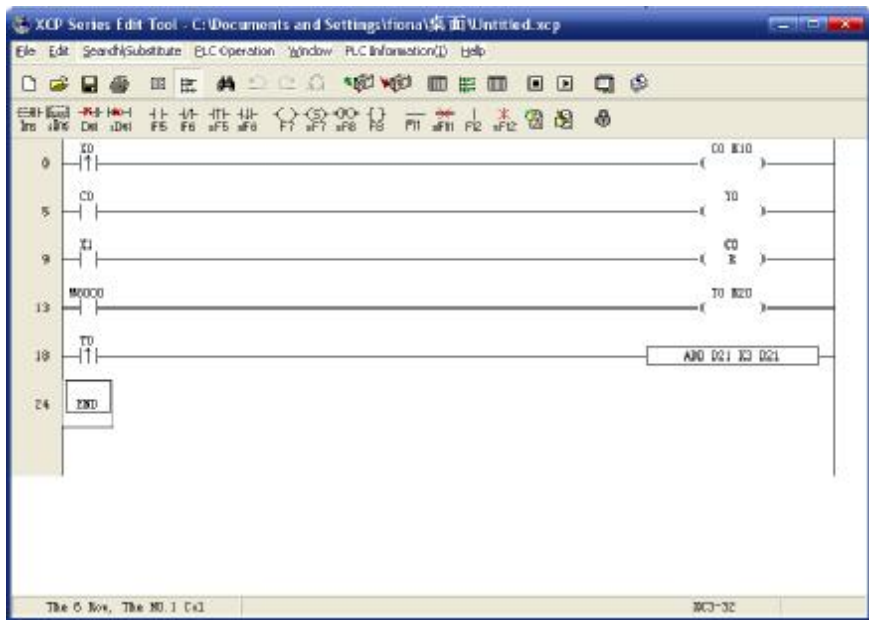
Statement error



Statement correct



Click , convert to Ladder format.

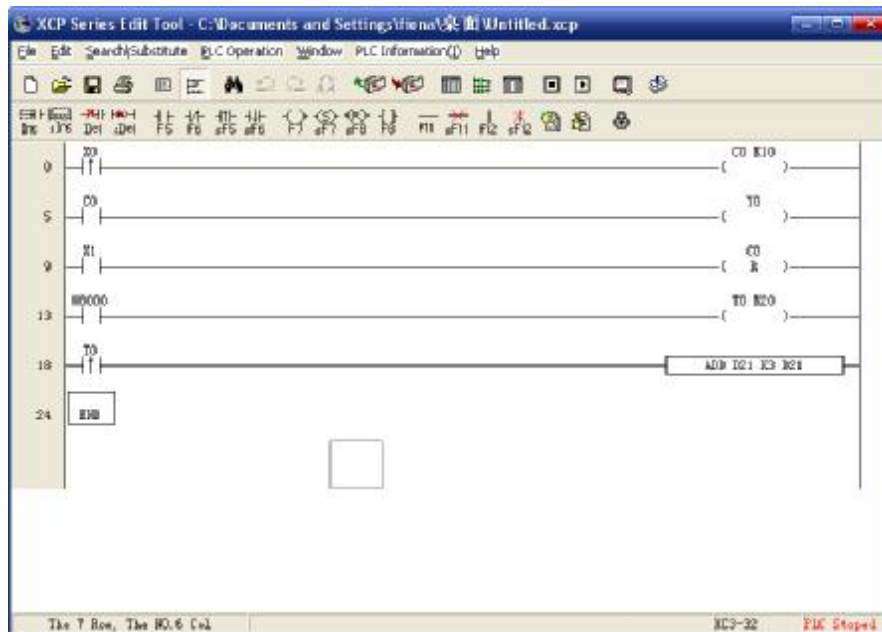


Check and make sure if the program is correct, download into the PLC.


## Part 5: Downloading of the Program

### Online Communication:

After confirm the correction of the program, connect the PLC and the computer with the cable, give PLC power. If your connection is correct, the gray icons in the edit tool will be active, it means the model is online, you could download the program and monitor.

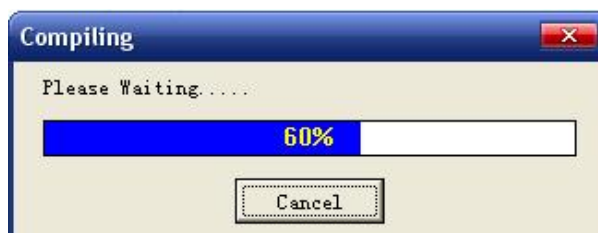



### Download the Program:

Click  key, download the program to the PLC. If PLC is running, there will come out a dialog box shown below:



Choose "Yes", PLC will stop running, download the new program.



After finish downloading, click  to run PLC.

## Part 6: Monitor and debug of XCP program

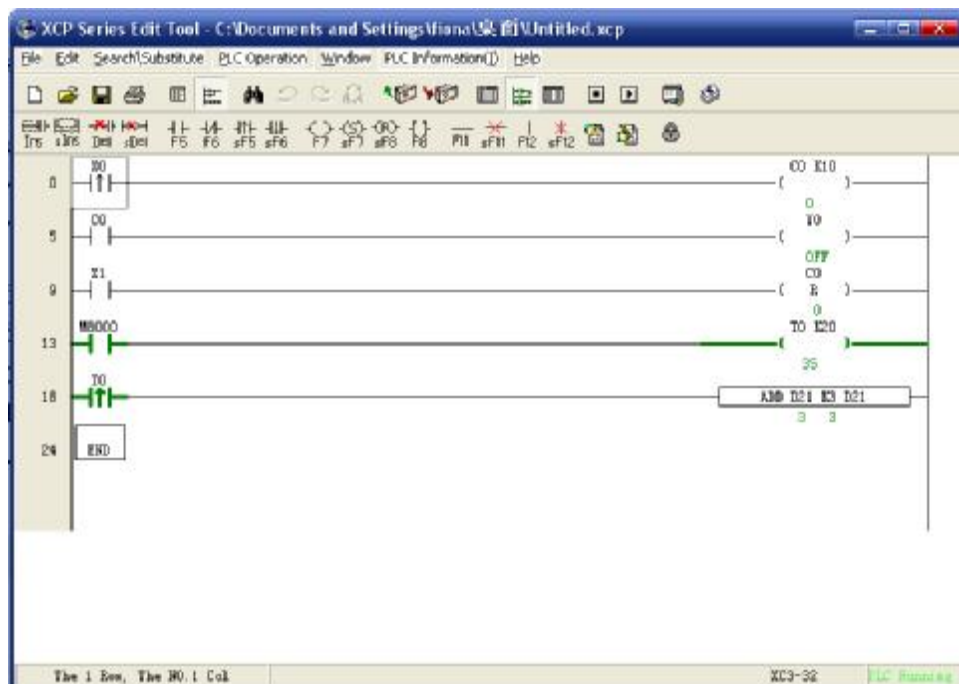
### Summary:

XCP edit tool offer online monitor function, you could check the program correct or not. There are three types of monitor: ladder monitor, data monitor and free monitor.

#### I Ladder Monitor:

- I Ladder monitor is used to monitor the changing of coil and data register directly on the ladder.
- I If coil's color turns to be green, the line turns to be thick, it means active; If the color is still black, it means break
- I Data register's value, counter's count value, timer's time value are directly shown below the statement

Click  icon, monitor the running status of program.

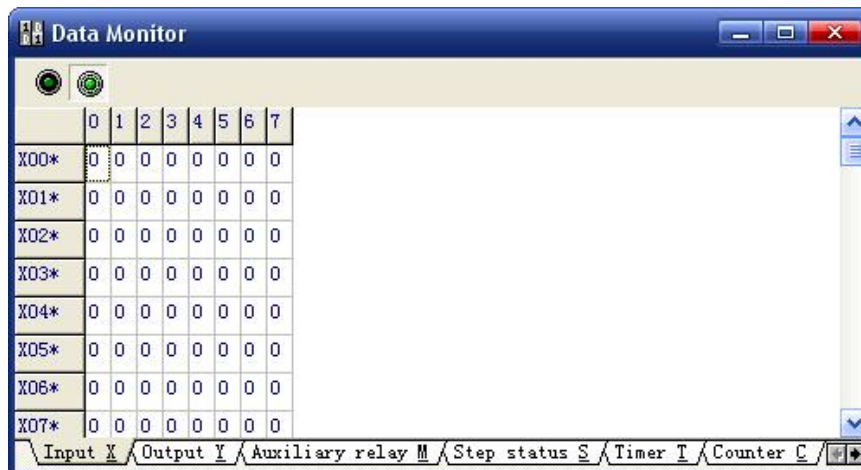


In the preceding graph, TO, M8000 are active, CO is 0, YO is OFF.

## I Data Monitor:

With data monitor, you can monitor coil's status, data register's value with table format. You can also modify register's value or change coil's status directly. As the monitor objects are centralized, data monitor fits the monitoring of large scale registers, coils etc.

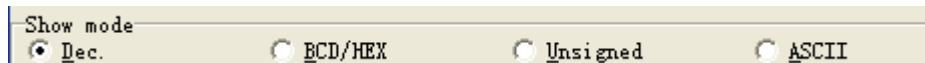
Click  icon, open data monitor table:



There are two buttons in the left top, you can start/stop monitor.

According to different type, you could choose “Input X”, “Output Y”, “Auxiliary relay M”, “Step status S”, “Timer Y”, “Count C”, “Interior register D”, “FlashROM register FD”, “Special coil M8000”, “Special register D8000”, “Special Flash register (FD8000)”, “Extension’s input register (ID)”, “Extensmon’s output register (QD)”.

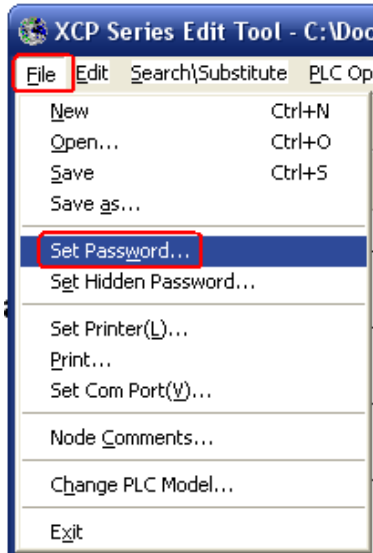
Also in the window, we offer mode shift, including “Dec.”, “BCD/HEX”, “Unsigned” and “ASCII”.



## Part 7: Encrypt of the program

You could input your password to protect your program. Please refer to the following steps:

### I Set Password:



Step 1:



Step 2:

Then you will finish setting the password successfully!

After cut PLC power and give PLC power again, if you want to upload the program in PLC, you will be required to enter your password.

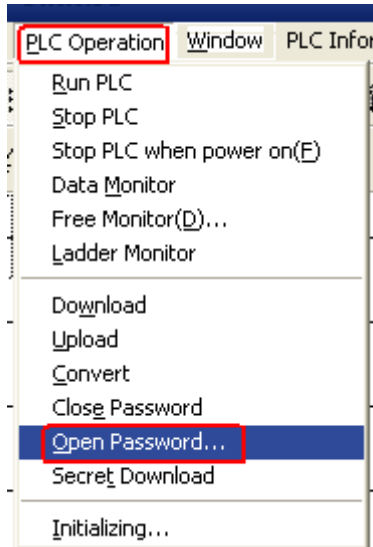
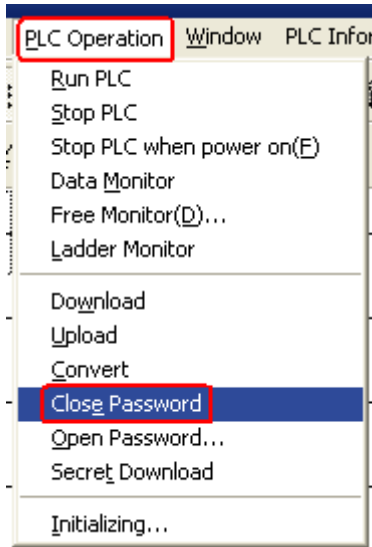


If you enter wrong password, you will fail to upload the program.





#### I Open/Close the Password:



Note:  
After PLC set the password, only when cut the power and then give it power again, the password will be effective. Then if you want to read PLC program, you should open the password first! When download PLC program, password is not necessary. If your password is lost, download the program again!

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