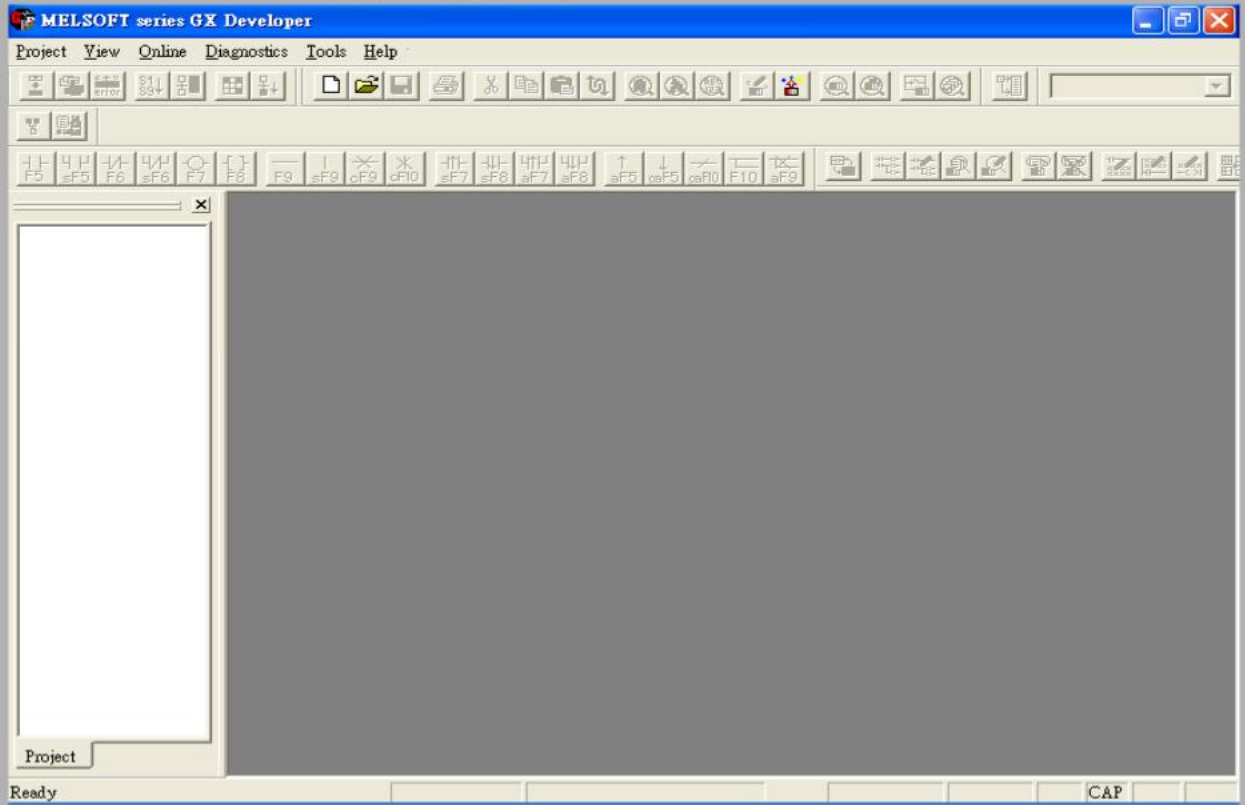


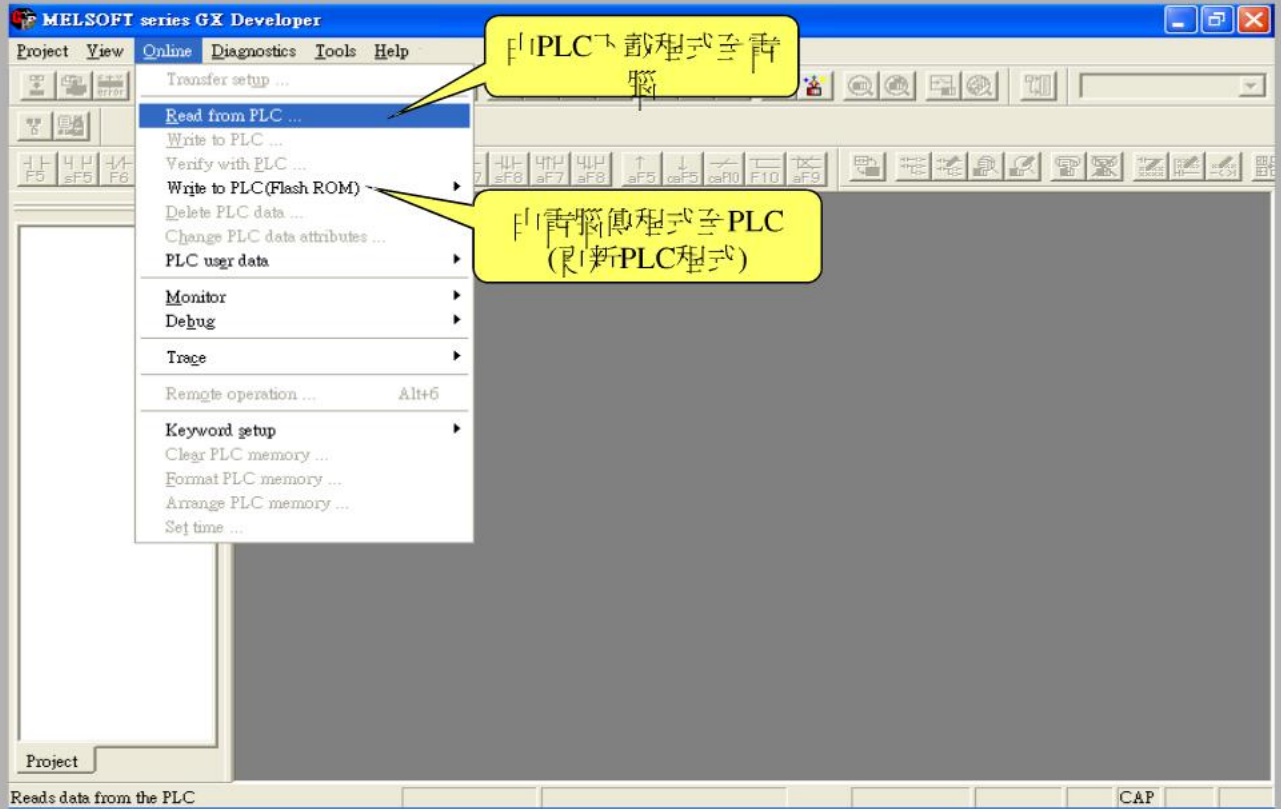


主編： 卫伟
製作： 卫伟
日期： 2010年12月15日

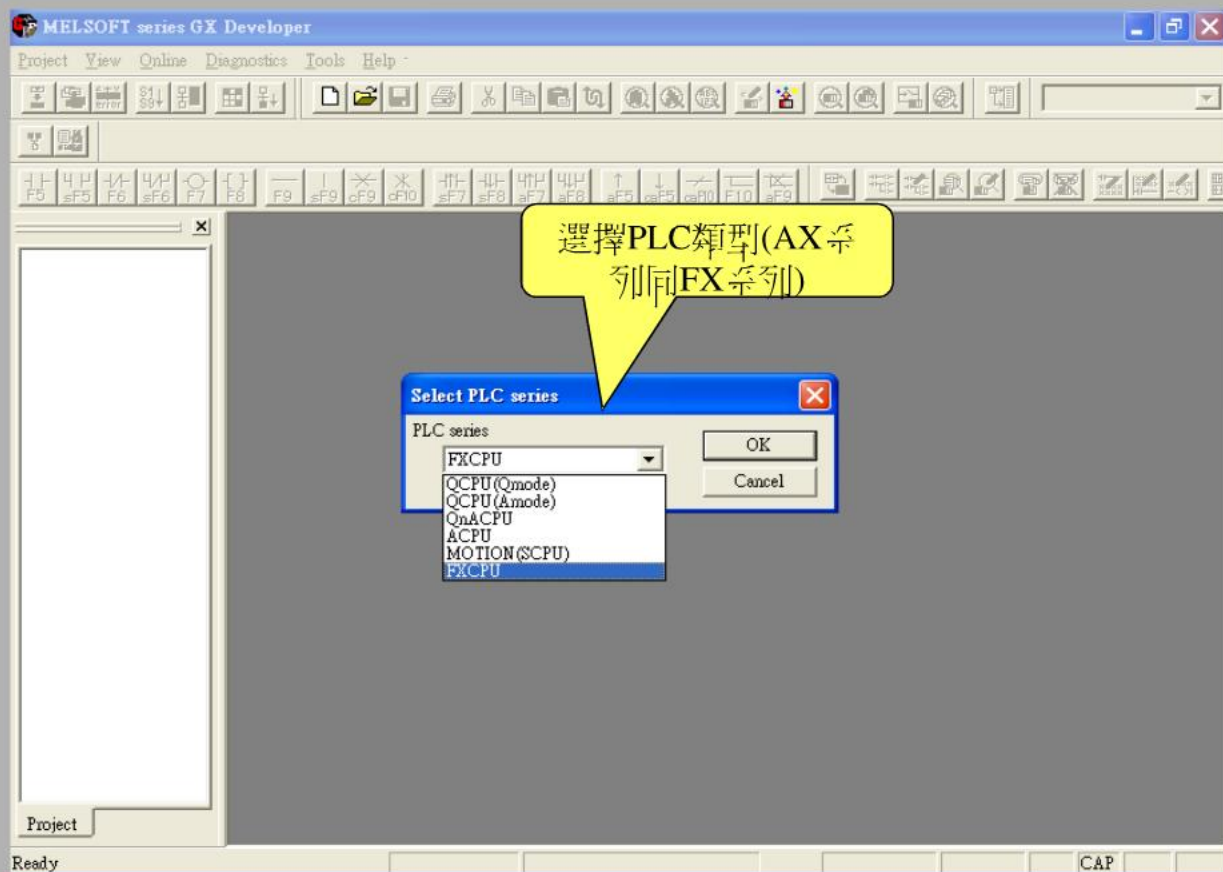
1. 三菱PLC編輯畫面



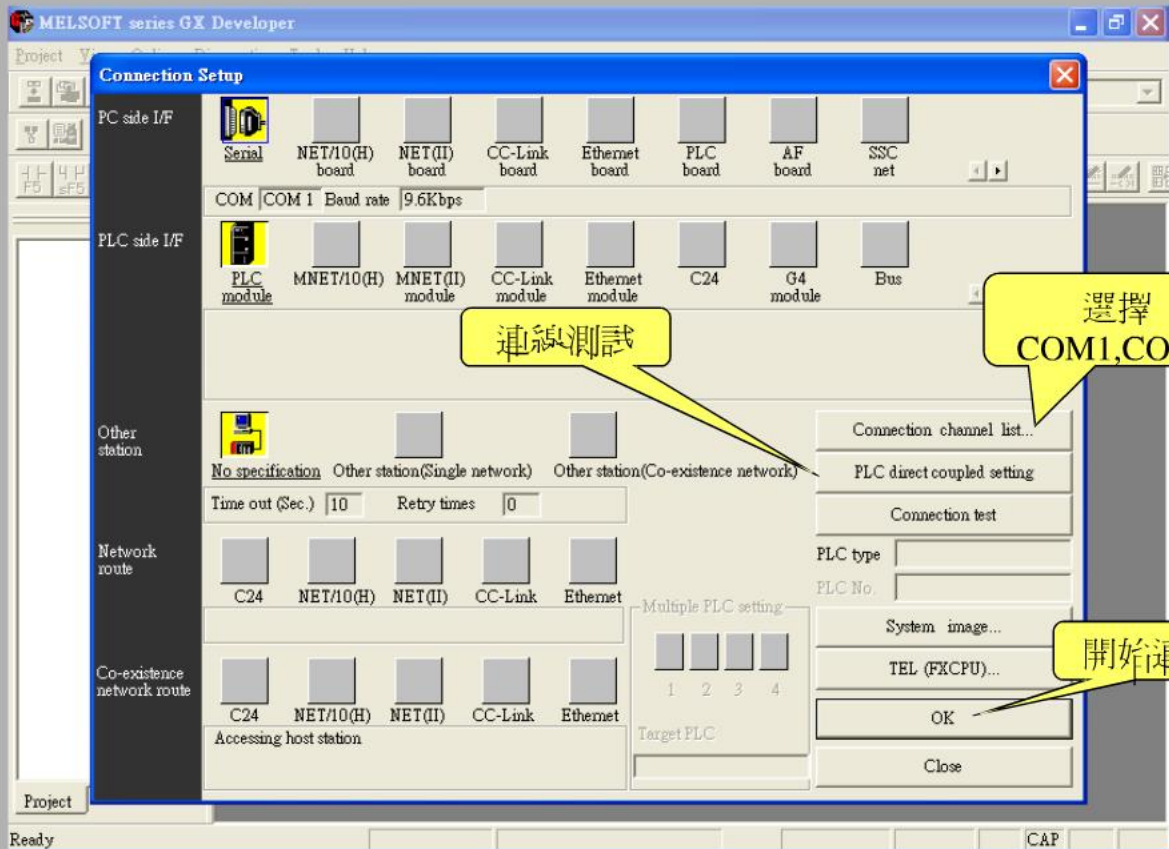
2. PLC程式下載(畫面一)



3. PLC程式下載(畫面二)



4. PLC程式下載(畫面三)



5. PLC程式下載(畫面四)

The screenshot shows the 'Read from PLC' dialog box in MELSOFT GX Developer. The dialog is titled 'Read from PLC' and has a blue header. It contains several sections: 'Connecting interface' (COM1), 'PLC Connection' (Network No., Station No., Host, PLC type: FX2N(C)), 'Target memory' (dropdown), and 'File selection' (Device data, Program, Common). The 'Program' section is expanded, showing a tree view with 'Param+Prog' selected. Under 'Param+Prog', there are sub-items: 'Program' (checked), 'MAIN' (checked), 'Parameter' (checked), 'PLC parameter' (checked), 'Device memory' (checked), and 'Device data' (unchecked). The 'Execute' button is highlighted. To the right, there is a 'Related functions' section with buttons for 'Transfer setup...', 'Keyword setup...', 'Remote operation...', 'Clear PLC memory...', 'Format PLC memory...', 'Arrange PLC memory...', and 'Create title...'. At the bottom, there are fields for 'Free space volume', 'Largest contiguous volume', and 'Total free space volume', all in Bytes. The background shows the main GX Developer interface with a status bar at the bottom indicating 'Ready' and 'FX2N(C)'. Several yellow callout boxes with Chinese text point to specific elements in the dialog:

- 傳輸模式選擇 (Transfer mode selection) - points to the 'COM1' field.
- PLC程式名稱 (PLC program name) - points to the 'MAIN' checkbox.
- PLC程式內容 (PLC program content) - points to the 'Program' checkbox.
- PLC接點使用範圍 (PLC terminal usage range) - points to the 'PLC type' field.
- 開始下載 (Start download) - points to the 'Execute' button.
- 傳輸設定 (Transfer settings) - points to the 'Transfer setup...' button.
- 清除PLC程式內容 (Clear PLC program content) - points to the 'Clear PLC memory...' button.
- PLC程式+內容 (PLC program + content) - points to the 'Program' checkbox.

6. PLC程式下載(畫面五)

The screenshot shows the 'Read from PLC' dialog box in MELSOFT GX Developer. The dialog is titled 'Read from PLC' and has a blue border. It contains the following fields and options:

- Connecting interface: COM1
- PLC module: FX2N(C)
- Network No.: (empty)
- Station No.: Host
- PLC type: FX2N(C)
- Target memory: (empty)
- Title: (empty)
- File selection: Device data
- Program: Common
- Buttons: Execute, Close
- Related functions: Transfer setup..., Keyword setup..., Remote operation..., Clear PLC memory..., Format PLC memory..., Arrange PLC memory..., Create title...
- Free space volume: Largest contiguous volume, Bytes, Total free space volume, Bytes

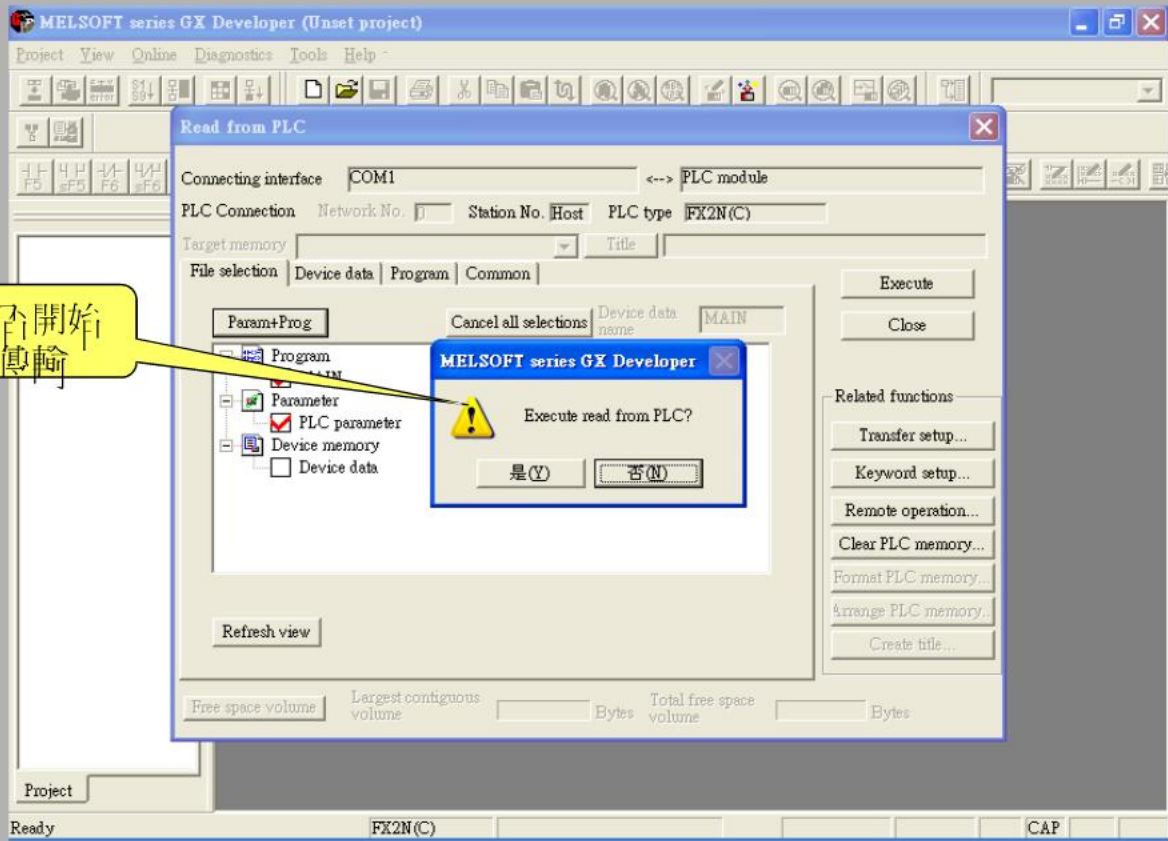
Annotations in yellow callouts point to specific parts of the dialog:

- 輸入接點 (Input terminal) points to the 'Input relay' row in the table.
- 輸出接點 (Output terminal) points to the 'Output relay' row in the table.
- 內部接點 (Internal terminal) points to the 'Internal relay' row in the table.
- 步進指令 (Step instruction) points to the 'Step relay' row in the table.
- 計時器 (Timer) points to the 'Timer' row in the table.
- 指令名稱 (Instruction name) points to the 'Device' column header.
- 代號 (Symbol) points to the 'Sym' column header.
- 進制 (Digit) points to the 'Digit' column header.
- 總數 (Total number) points to the 'No. of point' column header.
- 起始編號 (Start number) points to the 'Start' column header.
- 結束編號 (End number) points to the 'End' column header.

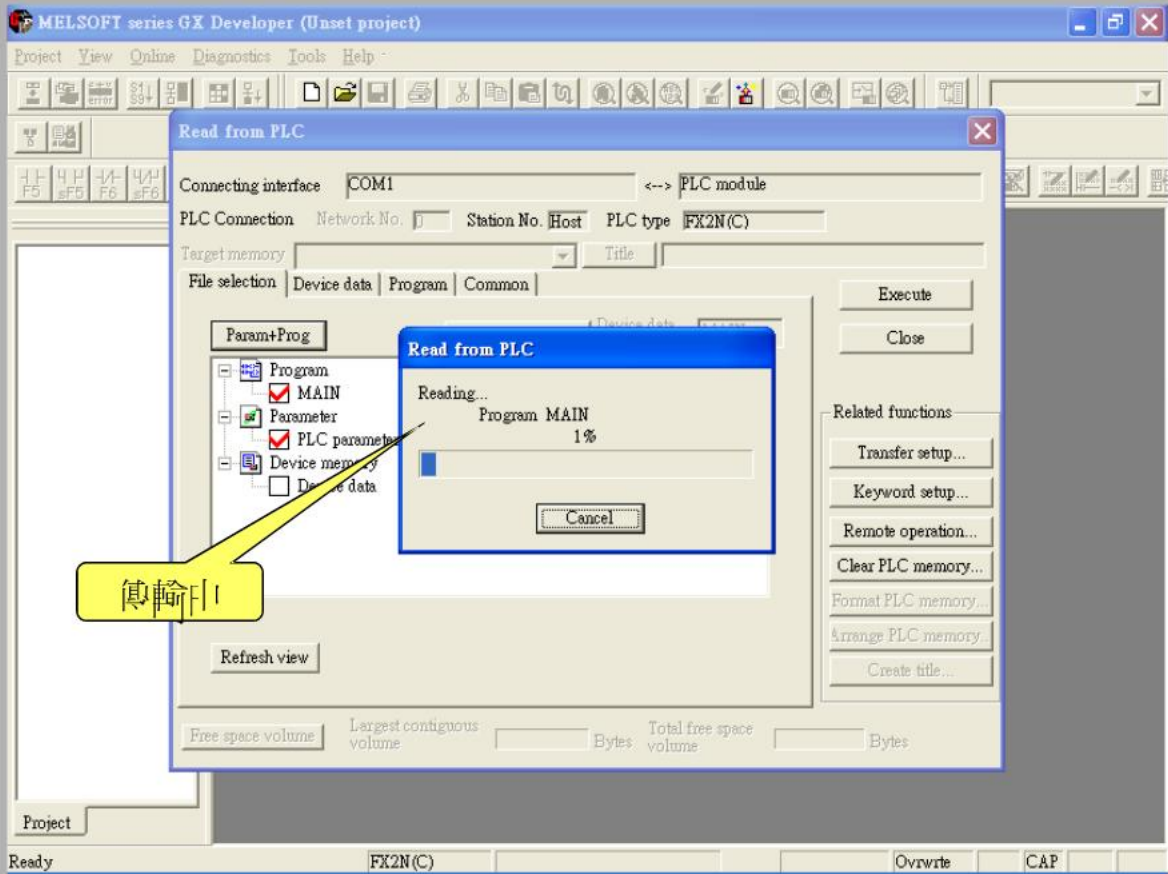
Device	Sym	Digit	No. of point	Start	End
Input relay	X	8	256	000	377
Output relay	Y	8	256	000	377
Internal relay	M	10	3072	0	3071
Step relay	S	10	1000	0	999
Timer	T	10	200	0	199

Project: Ready FX2N(C) CAP

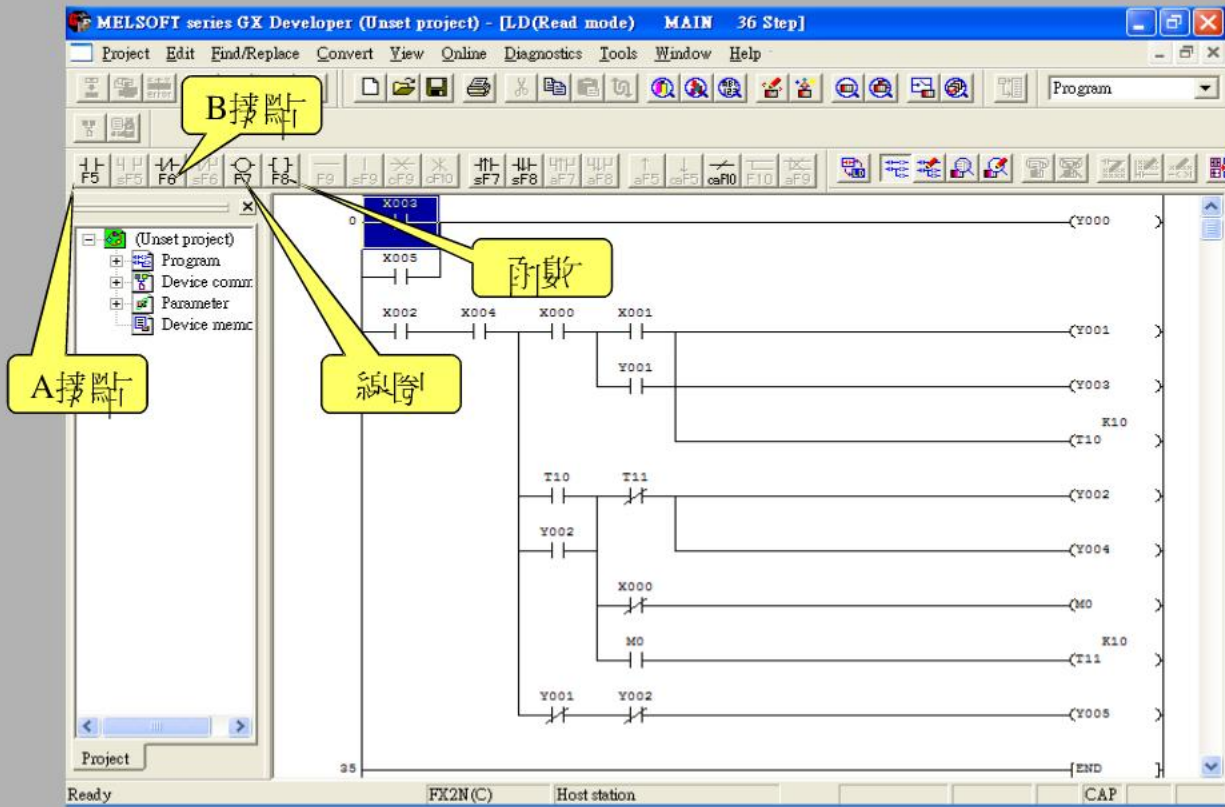
7. PLC程式下載(畫面六)



8. PLC程式下載(畫面七)



8. PLC程式編輯(畫面一)



10. PLC程式編輯(畫面二)

連線模式

The screenshot shows the MELSOFT GX Developer software interface. The 'Online' menu is open, displaying various options for connecting to and monitoring the PLC. The 'Monitor' option is selected, and a sub-menu is visible showing different monitoring modes and their keyboard shortcuts.

Mode	Shortcut
Monitor mode	F3
Monitor (Write mode)	Shift+F3
Start monitor (All windows)	Ctrl+F3
Stop monitor (All windows)	Ctrl+Alt+F3
Start monitor	F3
Stop monitor	Alt+F3

Additional menu items include: Transfer setup..., Read from PLC..., Write to PLC..., Verify with PLC..., Write to PLC(Flash ROM), Delete PLC data..., Change PLC data attributes..., PLC user data, Debug, Trace, Remote operation... (Alt+6), Keyword setup, Clear PLC memory..., Format PLC memory..., Arrange PLC memory..., Set time..., Change current value monitor (Decimal), Change current value monitor (Hexadecimal), Local device monitor, Device batch..., Entry data monitor..., Buffer memory batch..., Monitor condition setup..., Monitor stop condition setup..., Program monitor list..., Interrupt program monitor list..., Scan time measurement..., Entry ladder monitor..., and Delete all entry ladder.

監視顯示

連線
監視

Sets the monitor mode

FX2N(C)

Host station

11. PLC程式編輯(畫面三)

編輯
模式

MELSOFT series GX Developer (Project) - [LD(Monitor mode Monitoring) MAIN 36 Step]

Project Edit Find/Replace Convert View Online Diagnostics Tools Window Help

Monitor status
2ms RUN RAM

Undo Ctrl+Z
Restore after ladder conversion
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Insert line Shift+Ins
Delete line Shift+Del
Insert row Ctrl+Ins
Delete row Ctrl+Del
Insert NOP batch ...
Delete NOP batch
Draw line F10
Delete line Alt+F9
Change IC setting ...
Read mode Shift+F2
Write mode F2
Ladder symbol
Documentation

Project 35

Sets the write mode FX2N(C) Host station CAP

讀取
模式

撰寫
模式

12. PLC程式編輯(畫面四)

The screenshot displays the MELSOFT series GX Developer software interface. The main window shows a ladder logic diagram with inputs X000, X001, X002, X003, X004, X005 and outputs Y001, Y002. A 'Monitor status' window is open in the top right, showing '2ms RUN' and 'RAM'. A 'Monitor' menu is open, listing various options such as 'Read from PLC...', 'Write to PLC...', and 'Monitor (Write mode)'. A yellow callout bubble with the text '連線修改' (Connect and modify) points to the 'Monitor (Write mode)' option. The status bar at the bottom indicates 'Sets the write mode during monitoring', 'FX2N(C)', and 'Host station'.

Monitor status

2ms	RUN	RAM
-----	-----	-----

Monitor

- Read from PLC ...
- Write to PLC ...
- Verify with PLC ...
- Write to PLC (Flash ROM)
- Delete PLC data ...
- Change PLC data attributes ...
- PLC user data
- Monitor**
- Debug
- Trace
- Remote operation ... Alt+6
- Keyword setup
- Clear PLC memory ...
- Format PLC memory ...
- Arrange PLC memory ...
- Set time ...

Monitor mode

Monitor mode	F3
Monitor (Write mode)	Shift+F3

Start/Stop monitor (All windows)

Start monitor (All windows)	Ctrl+F3
Stop monitor (All windows)	Ctrl+Alt+F3

Start/Stop monitor

Start monitor	Shift+F3
Stop monitor	Alt+F3

Change current value monitor

- Change current value monitor (Decimal)
- Change current value monitor (Hexadecimal)
- Local device monitor

Device batch ...

- Entry data monitor ...
- Buffer memory batch ...

Monitor condition setup ...

- Monitor stop condition setup ...

Program monitor list ...

- Interrupt program monitor list ...
- Scan time measurement ...

Entry ladder monitor ...

- Delete all entry ladder

Project: (Unset project)
Program
Device comm.
Parameter
Device memc

Project: Sets the write mode during monitoring | FX2N(C) | Host station

14. PLC程式編輯(畫面六)

MELSOFT series GX Developer (Unset project) - [LD(Edit mode) MAIN 36 Step]

Project Edit Find/Replace Convert View Online Diagnostics Tools Window Help

Project Tree:
- (Unset project)
+ Program
+ Device comm.
+ Parameter
+ Device memc

Callout text: 編輯完,但未轉換格式,且反白的

Rungs:
0: X003 (NO) → Y000
3: X002 (NO), X004 (NC), X000 (NO), X001 (NO) → Y002, Y003, T10, T11, Y002, X000, M0, Y001, Y002
35: [END]

Status bar: FX2N(C) Host station Ovrwrte CAP

13. PLC程式編輯(畫面五)

The screenshot displays the MELSOFT GX Developer software interface. The title bar reads "MELSOFT series GX Developer (Unset project) - [LD(Edit mode) MAIN 36 Step]". The menu bar includes "Project", "Edit", "Find/Replace", "Convert", "View", "Online", "Diagnostics", "Tools", "Window", and "Help". The toolbar contains various icons for file operations and editing. The project tree on the left shows a hierarchy: "(Unset project)", "Program", "Device comr.", "Parameter", and "Device memc".

The main workspace shows a ladder logic diagram with the following components:

- Inputs: X003, X005, X002, X004, X000, X001
- Outputs: Y000, Y001, Y002, Y004, Y005
- Timers: T10, T11
- Relays: R10
- Other: M0

An "Enter symbol" dialog box is open, showing a dropdown menu with "Y001" selected. A yellow callout box labeled "元件名稱" (Component Name) points to the dropdown. Another yellow callout box labeled "元件樣式" (Component Style) points to the "Y001" text in the dialog. The status bar at the bottom shows "FX2N(C)", "Host station", "Ovrwrite", and "CAP".

15. PLC程式編輯(畫面七)

The screenshot displays the MELSOFT GX Developer interface in LD(Edit mode). The 'Convert' menu is open, showing three options:

- Convert** (F4): Labeled as '格式轉換' (Format conversion).
- Convert (All programs being edited)** (Alt+Ctrl+F4): Labeled as '格式轉換(全部程式)' (Format conversion of all programs).
- Convert (Online change)** (Shift+F4): Labeled as '格式轉換(連線轉換)' (Format conversion of connected programs).

The background shows a ladder logic diagram with various components like X000, X001, Y001, T10, and T11. A status bar at the bottom indicates 'Converts program', 'FX2N(C)', 'Host station', 'Ovwrite', and 'CAP'.

16. PLC程式編輯(畫面八)

編輯模式

The screenshot displays the MELSOFT GX Developer interface in Edit mode. The 'Edit' menu is open, showing various options for editing the ladder logic. The main window shows a ladder logic diagram with several rungs. A rung at address 386 is highlighted with a blue box. The diagram includes inputs X046, X066, and X098, and outputs K40, K40, K40, K40, and K40. The rungs are labeled with timer and coil symbols: (T86), (T87), (T88), (T89), and (T90). The text on the rungs includes '3-3水洗槽浮球開關' and '3-2水洗槽浮球開關'. The status bar at the bottom indicates 'Inserts a line at the cursor position', 'FX2N(C)', 'Host station', 'Ovrwrite', and 'NUM SCRL'. The Windows taskbar at the bottom shows the system tray with the time '上午 04:13'.

Menu Item	Shortcut
Undo	Ctrl+Z
Restore after ladder conversion	
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Insert line	Shift+Ins
Delete line	Shift+Del
Insert row	Ctrl+Ins
Delete row	Ctrl+Del
Insert NOP batch ...	
Delete NOP batch	
Draw line	F10
Delete line	Alt+F9
Change TC setting ...	
Read mode	Shift+F2
Write mode	F2
Ladder symbol	
Documentation	

增加一接點

刪除一接點

增加一行線路

刪除一行線路

17. PLC程式編輯(畫面九)

尋找/接替模式

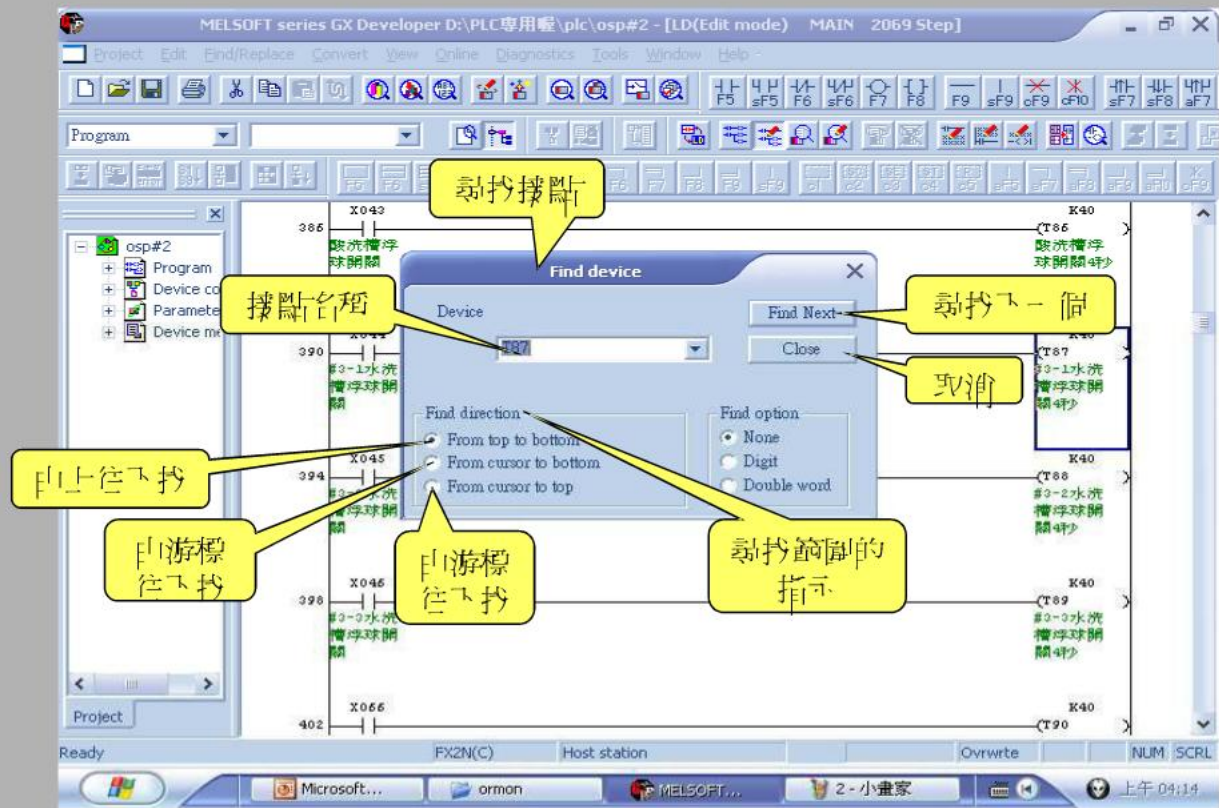
尋找說明

尋找步驟

尋找接點

The screenshot displays the MELSOFT GX Developer interface in Edit mode. The 'Find/Replace' menu is open, showing options such as 'Find device...', 'Find instruction...', 'Find step no.', 'Find character string...', and 'Find contact or coil'. A yellow callout box labeled '尋找/接替模式' points to the menu. Another yellow callout box labeled '尋找說明' points to the 'Find device...' option, and a third labeled '尋找步驟' points to the 'Find step no.' option. A fourth yellow callout box labeled '尋找接點' points to the 'Find contact or coil' option. The main workspace shows a ladder logic diagram with rungs 394, 398, and 402. Rung 394 contains a normally open contact X045 (labeled '#0-2水洗槽浮球開關') connected to a coil T86 (labeled '洗槽浮球開關4秒'). Rung 398 contains a normally open contact X046 (labeled '#0-0水洗槽浮球開關') connected to a coil T89 (labeled '#0-0水洗槽浮球開關4秒'). Rung 402 contains a normally open contact X066 connected to a coil T90 (labeled 'K40'). The right side of the diagram shows a list of coils: K40, T86, K40, T88, K40, T89, and K40. A yellow callout box labeled '尋找接點' points to the 'Find contact or coil' option in the menu. The bottom status bar shows 'Finds device', 'FX2N(C)', 'Host station', 'Ovrwrite', and 'NUM SCRL'. The Windows taskbar at the bottom shows the system clock as '上午 04:13'.

18. PLC程式編輯(畫面十)



19. PLC程式編輯(畫面十一)

The screenshot displays the MELSOFT GX Developer interface in edit mode. The main workspace shows a ladder logic diagram with several rungs. A blue selection box is drawn around a portion of the diagram, and a context menu is open over it. A yellow callout box with the text "直接於畫面按滑鼠右鍵" (Click the right mouse button directly on the screen) points to the menu. The menu items include: Undo (Ctrl+Z), Cut (Ctrl+X), Copy (Ctrl+C), Paste (Ctrl+V), Insert line (Shift+Ins), Delete line (Shift+Del), Insert row (Ctrl+Ins), Delete row (Ctrl+Del), Draw line (F10), Delete line (Alt+F9), Find device..., Find instruction..., Find step no..., Find character string..., Find contact or coil (Alt+Ctrl+F7), Cross reference list..., and List of used devices... The bottom status bar shows "Returns the previous operation to the origin", "FX2N(C)", "Host station", "Ovrwrite", and "NUM SCRL". The Windows taskbar at the bottom shows the time as 上午 04:15.

MenuItem	Shortcut
Undo	Ctrl+Z
Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Insert line	Shift+Ins
Delete line	Shift+Del
Insert row	Ctrl+Ins
Delete row	Ctrl+Del
Draw line	F10
Delete line	Alt+F9
Find device ...	
Find instruction ...	
Find step no. ...	
Find character string ...	
Find contact or coil	Alt+Ctrl+F7
Cross reference list ...	
List of used devices ...	
Convert	F11

20. PLC程式上傳(畫面一)

連線
模式

The screenshot displays the MELSOFT GX Developer software interface. The main window shows a ladder logic program with the following components:

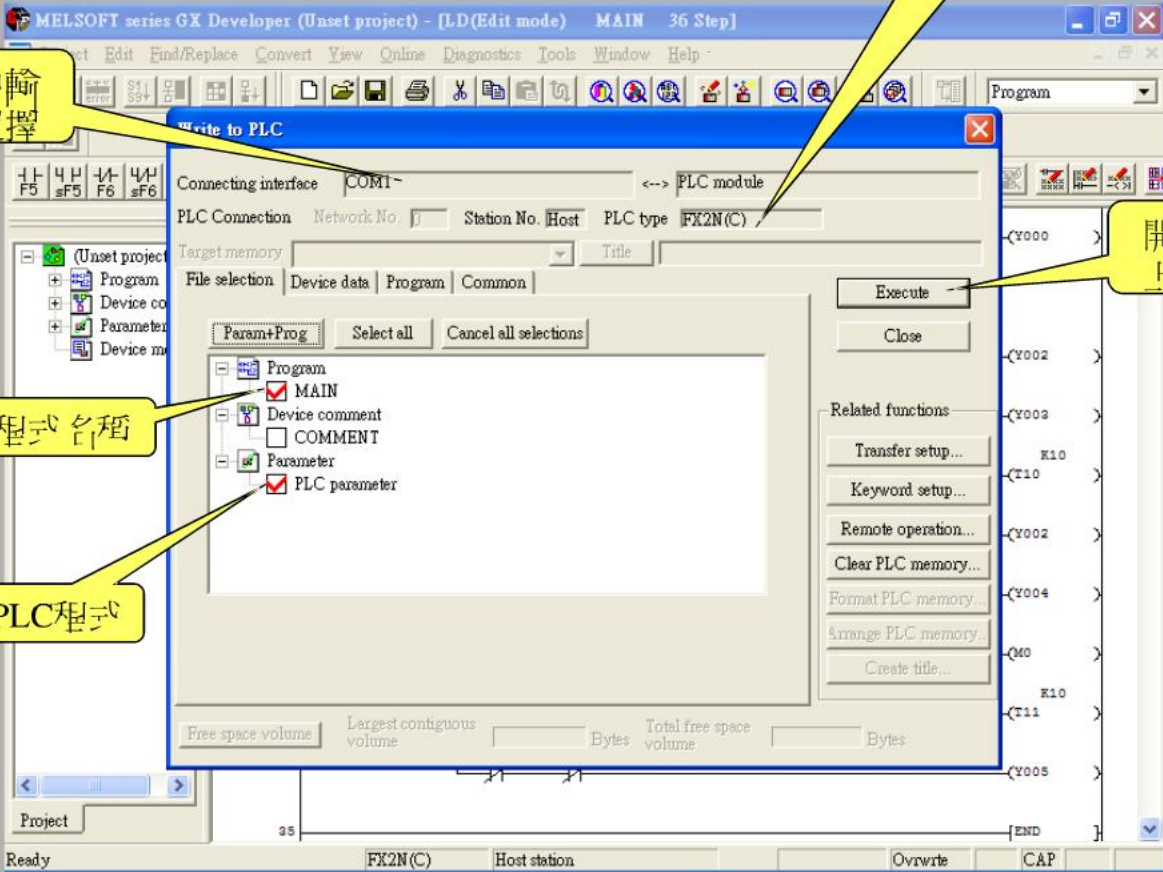
- Project Tree (Left):** Shows a tree structure with folders for "(Unset project)", "Program", "Device comm", "Parameter", and "Device memc". A yellow callout box labeled "PLC 程式" (PLC Program) points to the "Program" folder.
- Main Window:** Displays a ladder logic diagram. The top rail is connected to X003. The first rung contains X005 in series with X002. The second rung contains X002 in series with X000. The third rung contains X000 in series with M0. The fourth rung contains M0 in series with T10. The fifth rung contains Y001 in series with Y002. The output Y000 is connected to the top rail. The diagram ends with an [END] instruction.
- Online Menu (Top):** The "Online" menu is open, and the "Write to PLC ..." option is highlighted. Other options include "Transfer setup ...", "Read from PLC ...", "Verify with PLC ...", "Write to PLC(Flash ROM)", "Delete PLC data ...", "Change PLC data attributes ...", "PLC user data", "Monitor", "Debug", "Trace", "Remote operation ...", "Keyword setup", "Clear PLC memory ...", "Format PLC memory ...", "Arrange PLC memory ...", and "Set time ...".
- Status Bar (Bottom):** Shows "Writes data to the PLC", "FX2N(C)", "Host station", "Ovrwrte", and "CAP".

PLC
程式

21. PLC程式上傳(畫面二)

傳輸
選擇

PLC程式

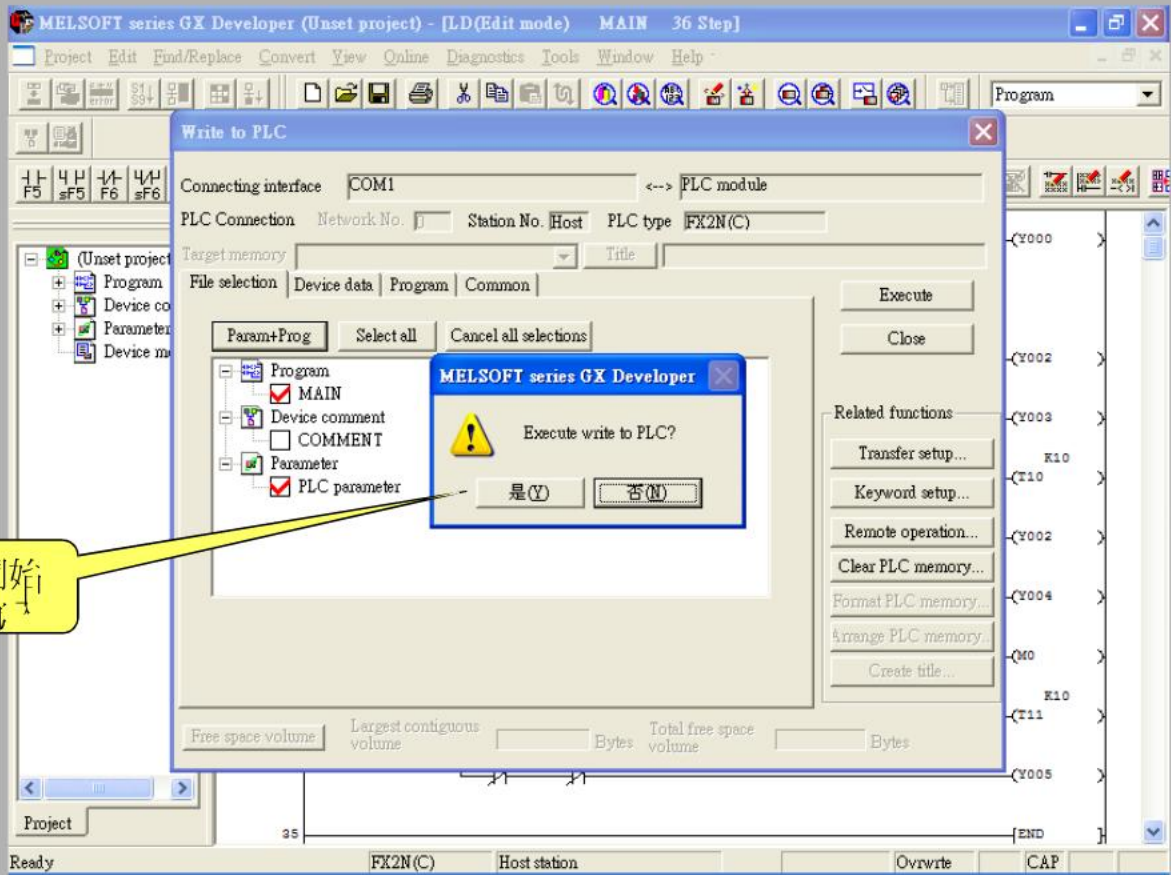


開始
上傳

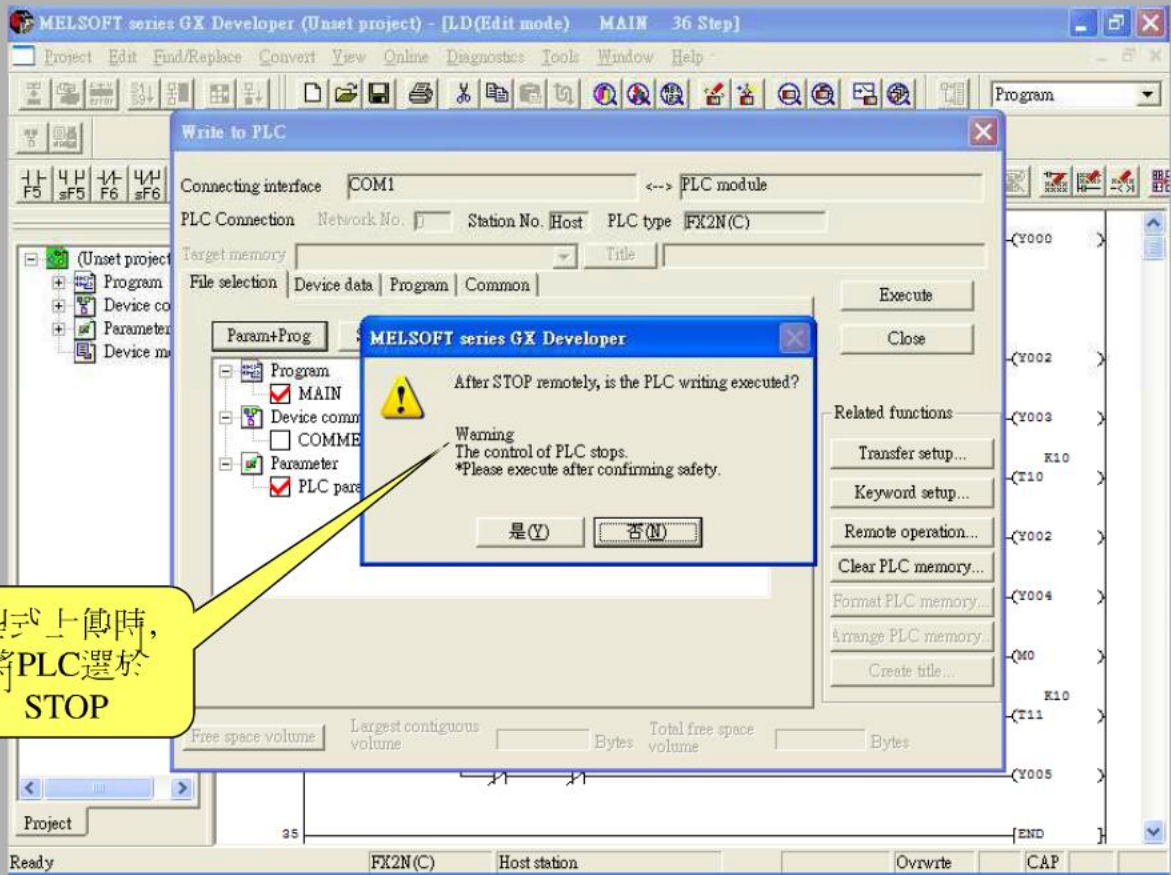
程式名稱

PLC程式

22. PLC程式上傳(畫面三)

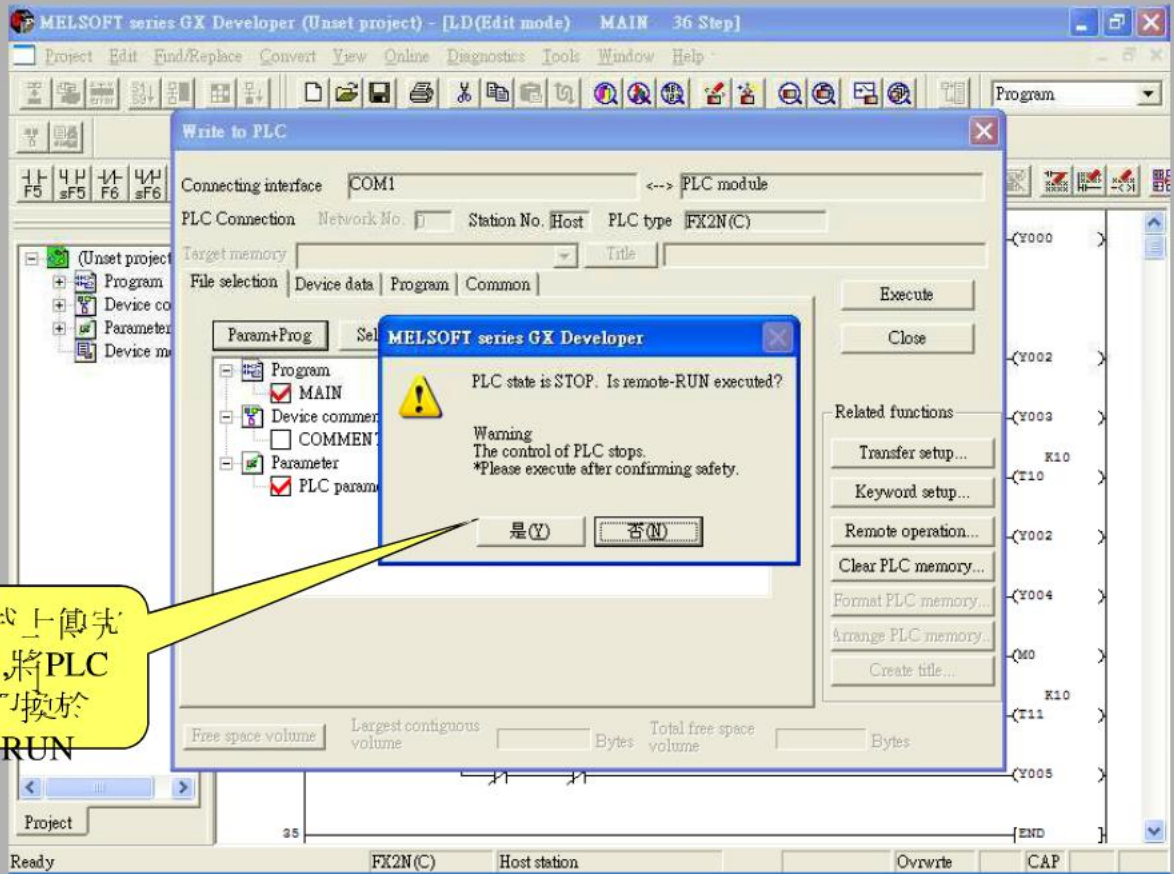


23. PLC程式上傳(畫面四)



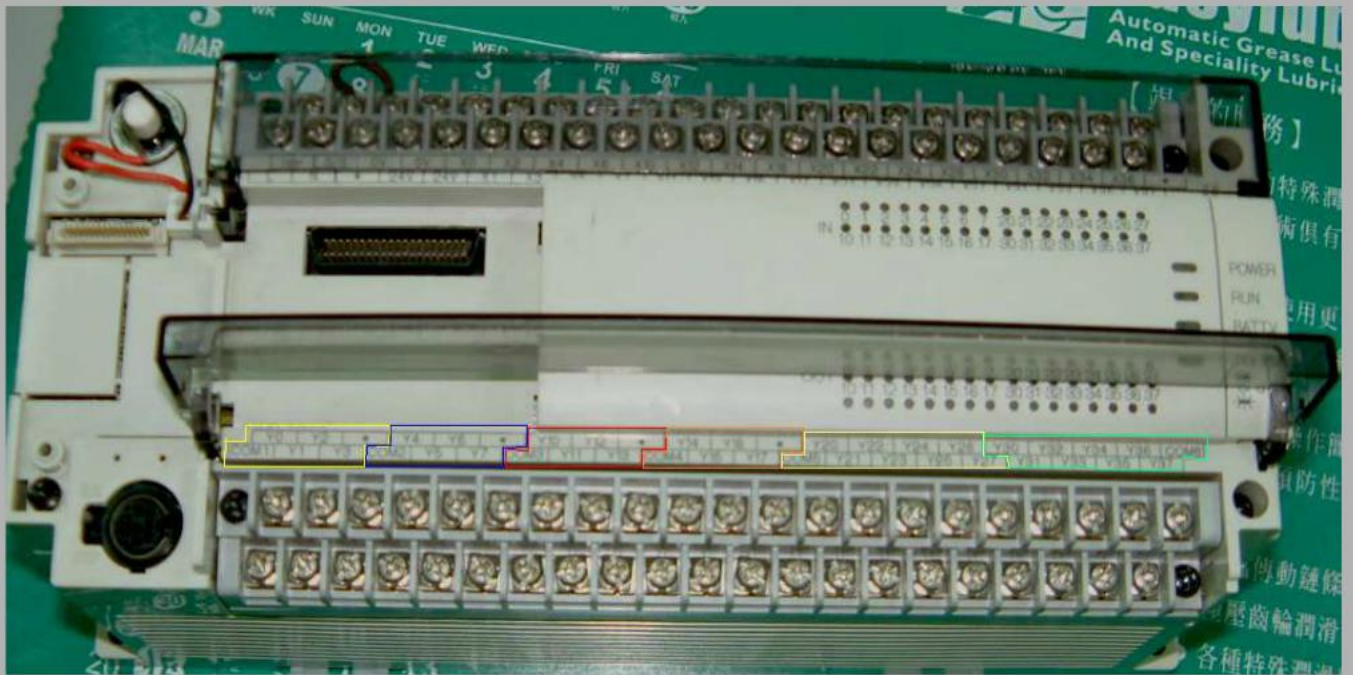
程式上傳時,
將PLC選於
STOP

24. PLC程式上傳(畫面五)



程式上傳先
將PLC
切換於
RUN

25. PLC注意事項



注意輸入, 輸出的com點電壓大小與極性

三菱PLC傳輸方式，大
綱已講解結束。
相信大家對上傳，下載
已自相解的解.....

