

# Store PLC Program to EEPROM

## 1. Go ONLINE with SLC 500 PLC

The screenshot shows the RSLogix 500 software interface. The 'Comms' menu is open, and the 'EEPROM...' option is selected, which has opened a sub-menu with 'Store to EEPROM' highlighted. The main workspace displays a ladder logic diagram for 'MAIN PLC' with several subroutines:

- ROUTINE 3:** A 'SUBROUTINE ENABLE' instruction with 'WORD = 1'. It is triggered by a normally open contact labeled 'N7:0' with a value of '0'. It contains a 'JSR' instruction to 'Jump To Subroutine SBR File Number U:3'.
- ROUTINE 4:** A 'SUBROUTINE ENABLE' instruction with 'WORD = 2'. It is triggered by a normally open contact labeled 'N7:0' with a value of '1'. It contains a 'JSR' instruction to 'Jump To Subroutine SBR File Number U:4'.
- ROUTINE 5:** A 'SUBROUTINE ENABLE' instruction with 'WORD = 4'. It is triggered by a normally open contact labeled 'N7:0' with a value of '2'. It contains a 'JSR' instruction to 'Jump To Subroutine SBR File Number U:5'.
- ROUTINE 6:** A 'SUBROUTINE ENABLE' instruction with 'WORD = 8'. It is triggered by a normally open contact labeled 'N7:0' with a value of '3'. It contains a 'JSR' instruction to 'Jump To Subroutine SBR File Number U:6'.

Each routine is preceded by a 'SET N7:0 = [value] TO ENABLE SUBROUTINE [number]' instruction. The status bar at the bottom indicates 'Copy program in Processor to its EEPROM' and shows the time '0:0000' and 'APP READ'.

# Store PLC Program to EEPROM

The screenshot displays the RSLogix 500 software interface. The main window shows a ladder logic program for 'LAD 2 - MAIN PLC'. The program includes several subroutines and jump instructions:

- Network 0001:** A normally open contact labeled 'N7:0' is connected to a 'JSR' (Jump to Subroutine) instruction. The instruction is labeled 'Jump To Subroutine SBR File Number U:3'.
- Network 0002:** A normally open contact labeled 'N7:0' is connected to a 'JSR' instruction labeled 'Jump To Subroutine SBR File Number U:5'.
- Network 0003:** A normally open contact labeled 'N7:0' is connected to a 'JSR' instruction labeled 'Jump To Subroutine SBR File Number U:6'.

Overlaid on the software is a dialog box titled 'RSLogix 500' with the following text:

SLC is in remote RUN MODE.  
Processor must be switched to remote PROG mode. Continue?

The dialog box has 'Yes' and 'No' buttons. A yellow callout box with the text 'Press Yes' points to the 'Yes' button.

The software interface also shows a project tree on the left with folders for 'Controller', 'Program Files', and 'Data Files'. The status bar at the bottom indicates '0:0000 APP READ' and the system tray shows the time as 7:57 AM.

# Store PLC Program to EEPROM

The screenshot shows the RSLogix 500 software interface. The main window displays a Ladder Logic (LAD) program for 'MAIN PLC'. The program consists of several rungs, each starting with a 'SET N7.0 = X TO ENABLE SUBROUTINE Y' instruction, followed by a 'SUBROUTINE ENABLE WORD = X' instruction. The rungs are:
 

- Rung 0000: SET N7.0 = 1 TO ENABLE SUBROUTINE 3
- Rung 0001: SET N7.0 = 2 TO ENABLE SUBROUTINE 4
- Rung 0002: SET N7.0 = 4 TO ENABLE SUBROUTINE 5
- Rung 0003: SET N7.0 = 8 TO ENABLE SUBROUTINE 5

 Each rung also includes a 'SUBROUTINE ENABLE WORD = X' instruction. The program is connected to a 'MAIN PLC' hardware rack. A 'Memory Module Protection' dialog box is open in the center of the screen. It has two radio button options:
 

- Normal Protection - Allows reuse of device
- WRITE ONLY Protection - DOES NOT allow reuse of device

 A red callout box with the text 'Do Not Select Write Only' points to the 'WRITE ONLY' option. A yellow callout box with the text 'Press OK' points to the 'OK' button. The dialog box also has 'Cancel' and 'Help' buttons. The software interface includes a menu bar (File, Edit, View, Search, Comms, Tools, Window, Help), a toolbar, and a project tree on the left side showing the hierarchy of the project files.

# Store PLC Program to EEPROM

The screenshot shows the RSLogix 500 software interface. The main window displays a Ladder Logic (LAD) program for 'MAIN PLC'. The program consists of several rungs, each with a 'SUBROUTINE ENABLE' instruction and a 'JUMP TO SUBROUTINE' instruction. The rungs are:

- Rung 0000: SET N7:0 = 1 TO ENABLE SUBROUTINE 3. Subroutine 3 is 'Basic Instructions Subroutine'.
- Rung 0001: SET N7:0 = 2 TO ENABLE SUBROUTINE 4. Subroutine 4 is 'Timers Counters Subroutine'.
- Rung 0002: SET N7:0 = 3 TO ENABLE SUBROUTINE 5. Subroutine 5 is 'Comparison Instructions Subroutine'.
- Rung 0003: SET N7:0 = 8 TO ENABLE SUBROUTINE 5. Subroutine 5 is 'Math Instructions Subroutine'.

A warning dialog box titled 'RSLogix 500' is displayed in the center of the screen. The dialog box contains a yellow warning triangle icon and the text 'Change Back to Run Mode?'. Below the text are two buttons: 'Yes' and 'No'. A yellow callout box with a white background and black border points to the 'Yes' button, containing the text 'Press Yes to go back in Run mode'.

The software interface includes a menu bar (File, Edit, View, Search, Comms, Tools, Window, Help), a toolbar, and a project tree on the left side. The project tree shows the following structure:

- Project
  - Help
  - Controller
    - Controller Properties
    - Processor Status
    - IO Configuration
    - Channel Configuration
    - Multipoint Monitor
  - Program Files
    - SYS 0 -
    - SYS 1 -
    - LAD 2 - MAIN PLC
    - LAD 3 - BASIC INST
    - LAD 4 - TMR\_CTR
    - LAD 5 - COMPARE
    - LAD 6 - MATH INST
    - LAD 8 - RECIPE\_40
    - LAD 9 - DRUM
    - LAD 10 - WATER\_AVR
  - Data Files
    - Cross Reference
    - O0 - OUTPUT
    - I1 - INPUT
    - S2 - STATUS
    - B3 - BINARY
    - T4 - TIMER
    - C5 - COUNTER
    - R6 - CONTROL
    - N7 - INTEGER
    - F8 - FLOAT

The status bar at the bottom of the window shows 'For Help, press F1', '0:0000', '2:00', and 'READ'. The Windows taskbar at the bottom shows the Start button and several open applications: 'RSLogix Gateway - [RSWh...', 'RSLogix 500 - AB\_T...', and 'Microsoft PowerPoint - [Pr...'. The system clock shows '7:59 AM'.

# Load PLC Program from EEPROM

The screenshot shows the RSLogix 500 software interface. The 'EEPROM...' menu is open, and 'Load from EEPROM' is selected. The main window displays a Ladder Logic (LAD) program with the following subroutines and jump instructions:

- ROUTINE 3:** SUBROUTINE ENABLE WORD = 1. JSR Jump To Subroutine SBR File Number U:3.
- ROUTINE 4:** SET N7:0 = 2 TO ENABLE SUBROUTINE 4. SUBROUTINE ENABLE WORD = 2. JSR Jump To Subroutine SBR File Number U:4.
- ROUTINE 5:** SET N7:0 = 4 TO ENABLE SUBROUTINE 5. SUBROUTINE ENABLE WORD = 4. JSR Jump To Subroutine SBR File Number U:5.
- ROUTINE 6:** SET N7:0 = 8 TO ENABLE SUBROUTINE 6. SUBROUTINE ENABLE WORD = 8. JSR Jump To Subroutine SBR File Number U:6.

The status bar at the bottom indicates 'Copy contents of EEPROM in Processor to its' active program' and '0:0000 APP READ'. The taskbar shows the Start button, RSLogix Gateway, RSLogix 500 - AB\_T..., and Microsoft PowerPoint.

# Load PLC Program from EEPROM

The screenshot displays the RSLogix 500 software interface. The main window shows a ladder logic program for 'MAIN PLC' with the following instructions:

- SET N7:0 = 1 TO ENABLE SUBROUTINE 3
- SUBROUTINE ENABLE WORD = 1
- JSR Jump To Subroutine SBR File Number U:3
- SET N7:0
- SUBROUTINE ENABLE WORD = 4
- JSR Jump To Subroutine SBR File Number U:4
- SET N7:0
- SUBROUTINE ENABLE WORD = 8
- JSR Jump To Subroutine SBR File Number U:6

A dialog box titled 'RSLogix 500' is overlaid on the screen with the following text:

SLC is in remote RUN MODE.  
Processor must be switched to remote PROG mode. Continue?

The dialog box has 'Yes' and 'No' buttons. A yellow callout box with the text 'Press Yes' points to the 'Yes' button.

The software interface includes a menu bar (File, Edit, View, Search, Comms, Tools, Window, Help), a toolbar, and a project tree on the left side showing the hierarchy of files and folders.

# Load PLC Program from EEPROM

The screenshot displays the RSLogix 500 software interface. The main window shows a Ladder Logic (LAD) program for 'MAIN PLC'. The program consists of several subroutines, each starting with a 'SET N7:0 = [number] TO ENABLE SUBROUTINE [number]' instruction. The subroutines are:

- Subroutine 3: Enabled by N7:0 = 1. Contains a 'Jump To Subroutine' instruction (SER File Number U:3).
- Subroutine 2: Enabled by N7:0 = 2. Contains a 'Jump To Subroutine' instruction (SER File Number U:4).
- Subroutine 4: Enabled by N7:0 = 4. Contains a 'Jump To Subroutine' instruction (SER File Number U:5).
- Subroutine 5: Enabled by N7:0 = 8. Contains a 'Jump To Subroutine' instruction (SER File Number U:6).

A warning dialog box titled 'RSLogix 500' is displayed in the center of the screen. The dialog contains the following text:

**Warning:** Loading from Memory Module will overwrite Channel Configuration and may result in loss of communication.

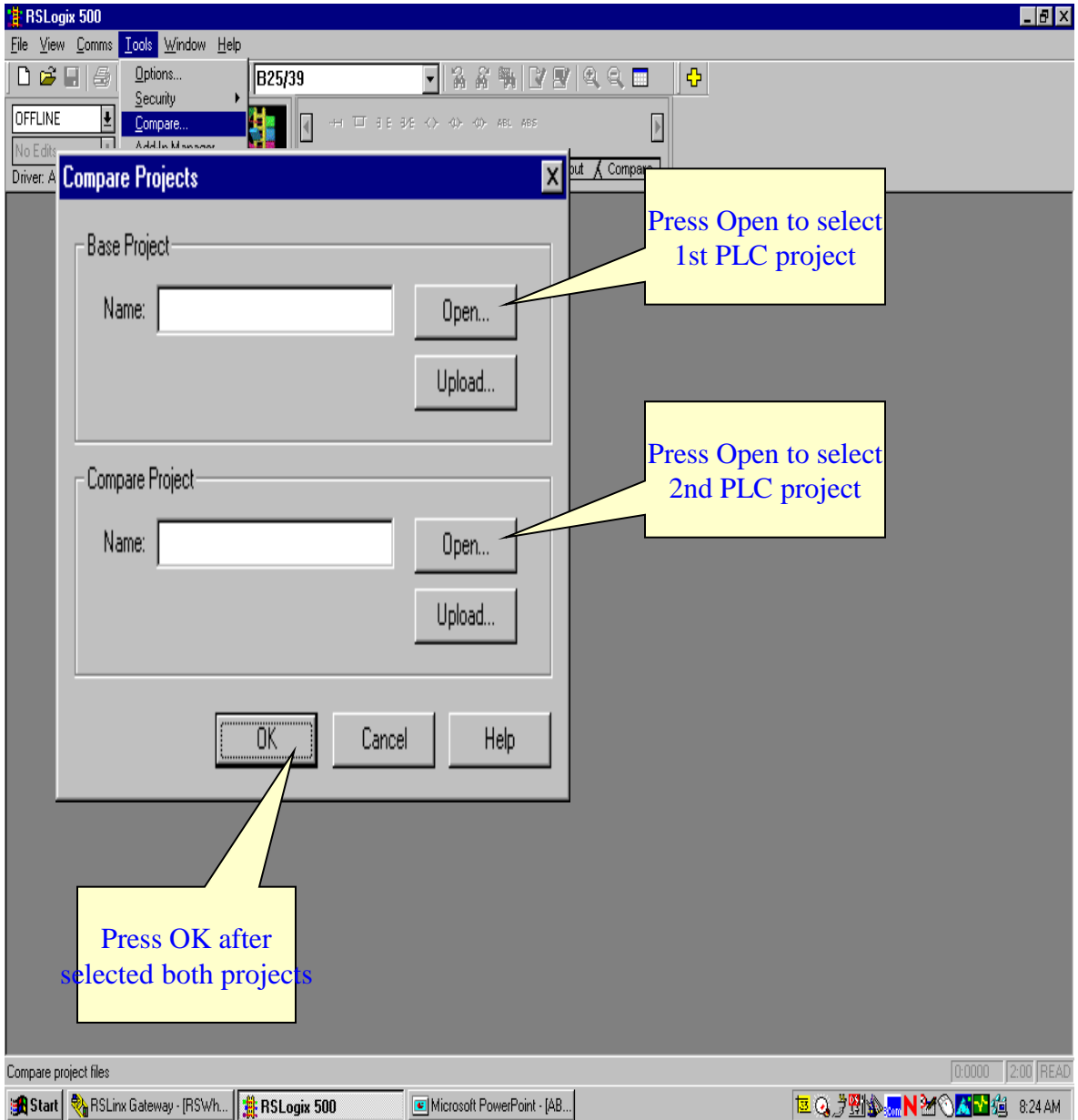
Continue?

Buttons: OK, Cancel

A callout box with the text 'Press OK' points to the 'OK' button in the dialog.

The software interface also shows a project tree on the left with folders for 'Controller', 'Program Files', and 'Data Files'. The status bar at the bottom indicates '0:0000 2:00 READ' and the system tray shows the time as 8:15 AM.

# Compare two (2) PLC Programs - selection





## Compare two (2) PLC Programs - Options

**Compare Options**

Compare Processor Information

Ladder Files

Common Files:

- LAD 2 - MAIN PLC
- LAD 3 - BASIC INST
- LAD 4 - TMR\_CTR
- LAD 5 - COMPARE
- LAD 6 - MATH INST
- LAD 8 - RECIPE\_40
- LAD 9 - DRUM

Show Other Files:

- Found in base only
- Found in compare only
- Type mismatches

Select All

Clear All

Data Files

Common Files:

- O0 - OUTPUT
- I1 - INPUT
- B3 - BINARY
- T4 - TIMER
- C5 - COUNTER
- R6 - CONTROL
- N7 - INTEGER

Show Other Files:

- Found in base only
- Found in compare only
- Type mismatches

Select All

Clear All

Show Only Differences In Project Tree

OK Cancel Help

# Compare two (2) PLC Programs - Results

RSLogix 500 - Compare Results

File View Window Help

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Compare Results

- Project
  - Controller
    - Controller Properties
  - Program Files
    - LAD 2 - MAIN PLC
    - LAD 3 - BASIC INST
    - LAD 4 - TMR\_CTR
    - LAD 5 - COMPARE
    - LAD 6 - MATH INST
    - LAD 8 - RECIPE\_40
    - LAD 9 - DRUM
    - LAD 10 - WATER\_AVR
  - Data Files
    - O0 - OUTPUT
    - I1 - INPUT
    - B3 - BINARY
    - T4 - TIMER
    - C5 - COUNTER
    - R6 - CONTROL
    - N7 - INTEGER
    - F8 - FLOAT
    - B10 - ONE SHOT
    - B12 - RECIPE
    - N15 - DRUM
    - N19 - REC SETUP
    - N21 - REC 1-10
    - N22 - REC 11-20
    - N23 - REC 21-30
    - N24 - REC 31-40

LAD 2 -- MAIN PLC

All rungs    Inserted (i)    Deleted (d)    Modified (md)    Moved (mv)

C:\PROGRAM FILES\ROCKWELL SOFTWARE\RSLOGIX 500 ENGLISH\VP    C:\PROGRAM FILES\ROCKWELL SOFTWARE\RSLOGIX 500 ENGLISH\VP

0004

SET N7:0 = 16 TO ENABLE SUBROUTINE 8

SUBROUTINE ENABLE WORD = 16

Recipe Example Subroutine

JSR

Jump To Subroutine SER File Number U:8

0005

SET N7:0 = 32 TO ENABLE SUBROUTINE 9

SUBROUTINE ENABLE WORD = 32

EDRUM Instruction Example Subroutine

JSR

Jump To Subroutine SER File Number U:9

0006

SET N7:0 = 64 TO ENABLE SUBROUTINE 9

SUBROUTINE ENABLE WORD = 64

Water Average Example Subroutine

JSR

Jump To Subroutine SER File Number U:10

Overflow Trap S:5 U:0

0007

0008

END

MAIN PLC BASIC INST

2:0000 APP READ

Start RSLinx Gateway - [RSWh... RSLogix 500 - Compa... Microsoft PowerPoint - [AB... 8:27 AM