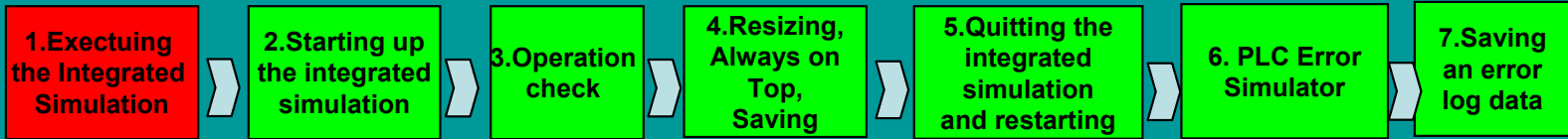


Integrated Simulation Introduction Guide



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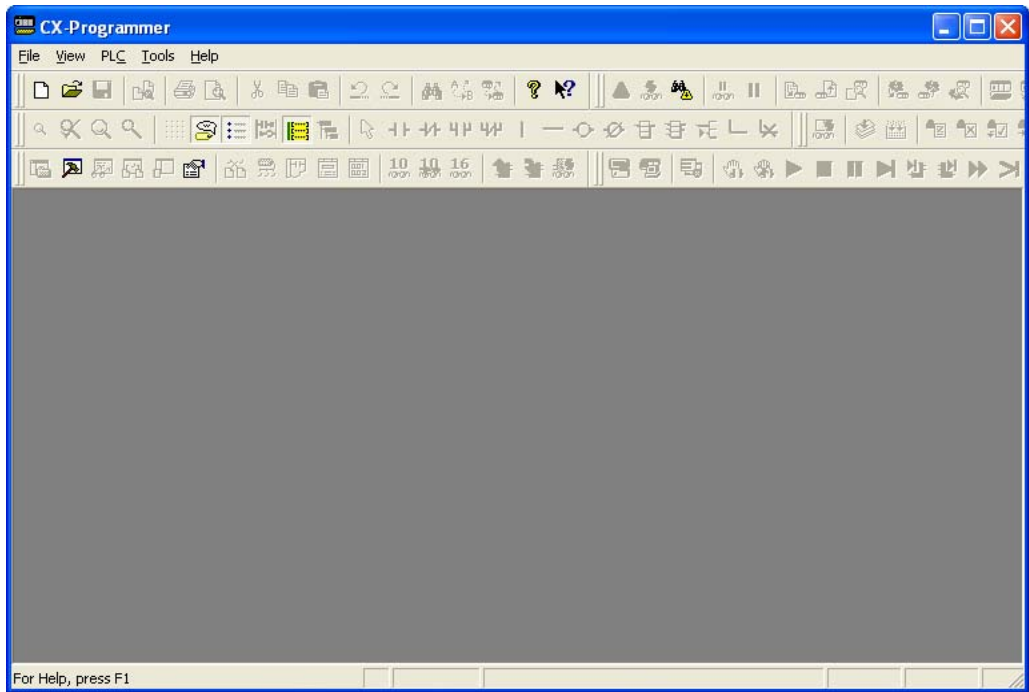
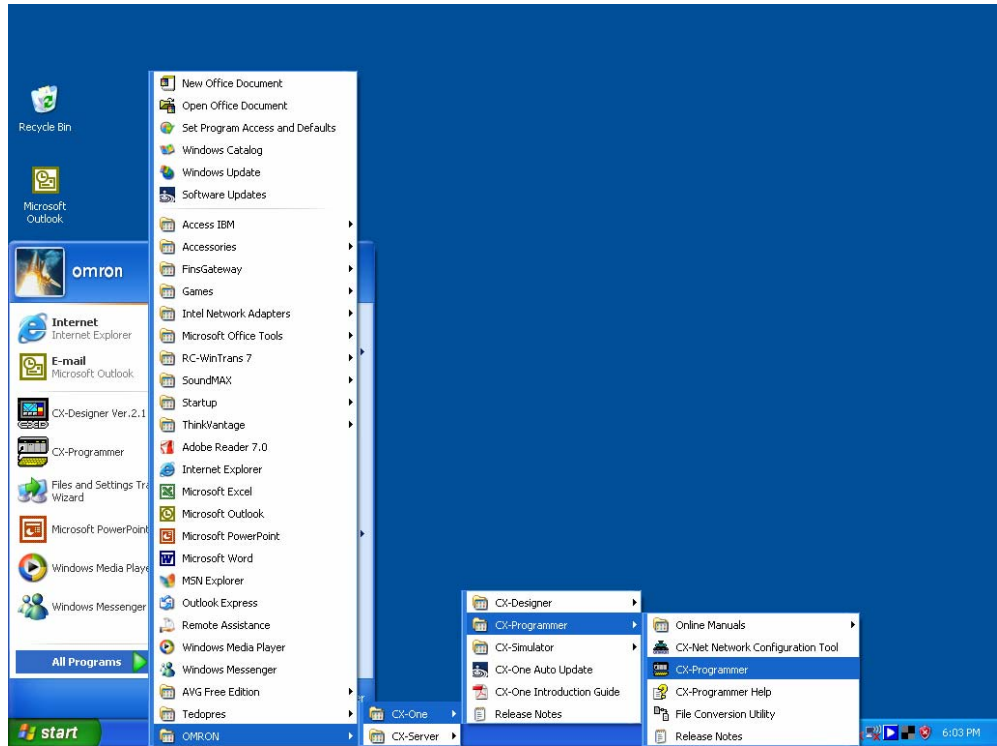
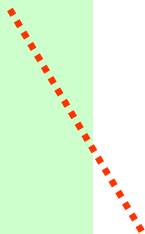
1. Easy-to-use the Integrated Simulation (Starting up the CX-Programmer)



Starting up the integrated simulation:

- CX-OneV2.0 : Only from the CX-Designer
- CX-OneV2.1 : Not only from the CX-Designer but the CX-Programmer

Select [Start]-[Program]
 -[OMRON]-[CX-One]
 -[CX-Programmer]
 -[CX-Programmer]

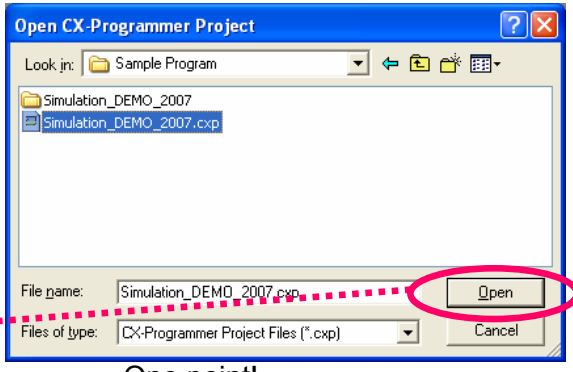
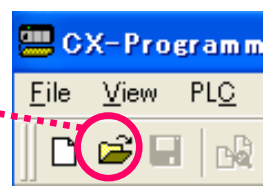





2. Opening a project and starting up the integrated simulation.

Executing the "Integrated Simulation" that is easier to use.

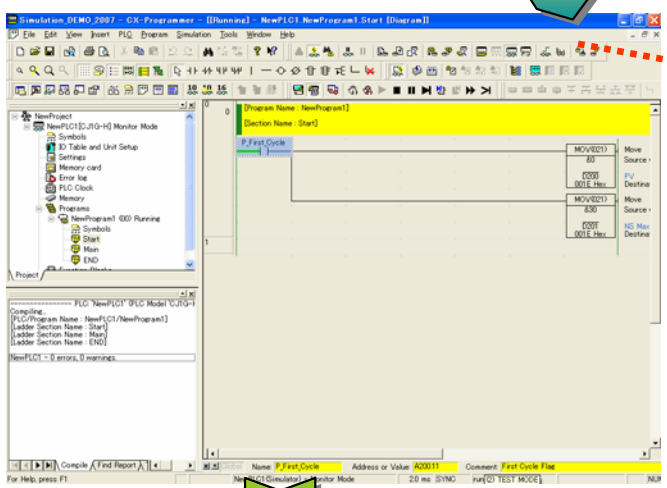
Left-click an icon with the mouse to open the project.



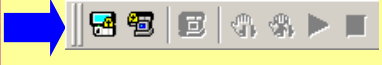
Open the ladder program data.
C:\Program Files\OMRON\CX-One\Sample Program\Simulation_DEMO_2007.cxp

Click 

Confirm the program.

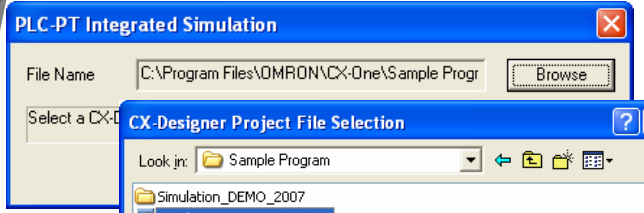
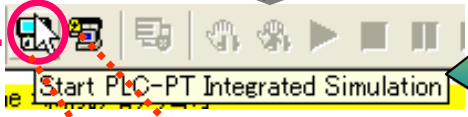


One point!
Cannot find an icon! Then...
Select [View]-[Toolbars] on the menu.



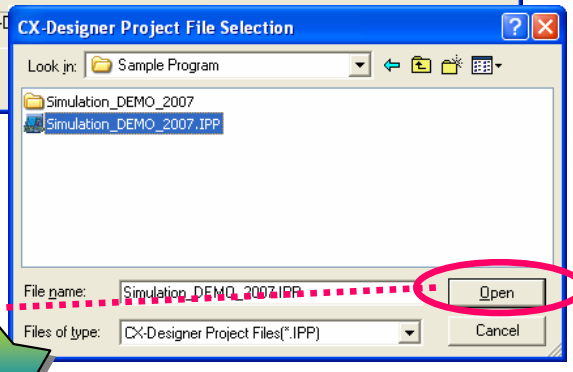
Enable to switch all tool bars and display /nondisplay of window.

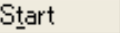
Left-click an icon with mouse to start up the integration simulation.



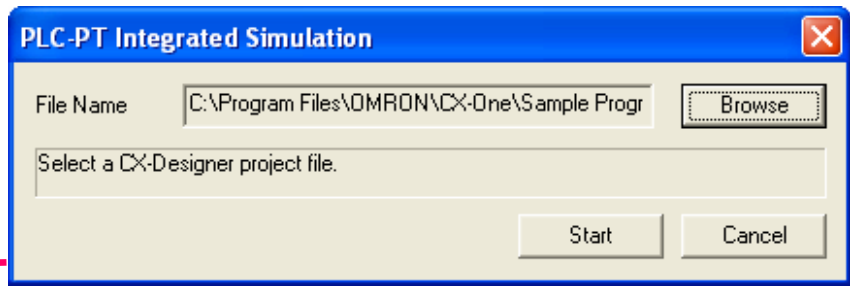
Select the CX-Designer which interact with.
C:\Program Files\OMRON\CX-One\Sample Program\Simulation_DEMO_2007.IPP

Click 



Click 

to start up the integrated simulation

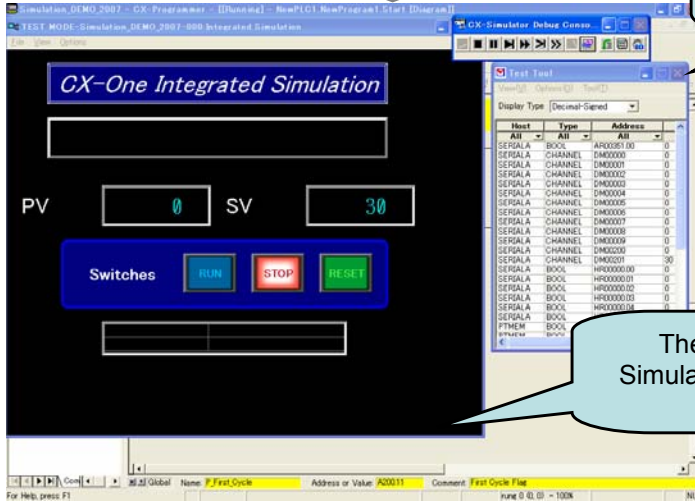
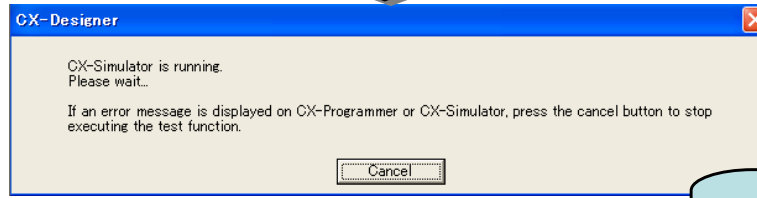


3. Operation Check

Ladder program is operated simultaneous with a screen.

No operation required.
Wait for about 30 second..

The following operations are automatically executed.
Starting up the CX-Simulator ,Connection, Ladder transfer, Starting up the CX-Designer, Test screen (TEST MODE screen)



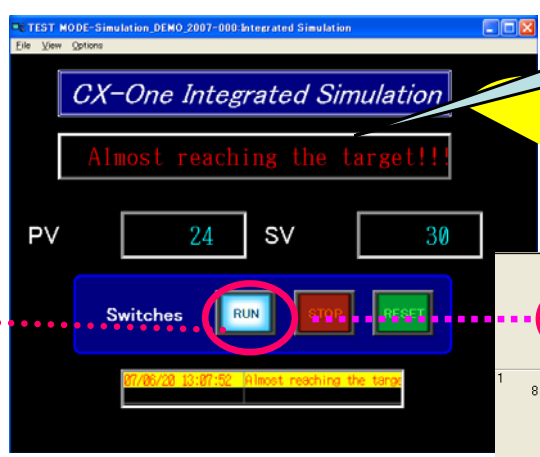
【 Test tool 】
The address used on the screen is displayed

The CX-Programmer (CX-Simulator) of the back is [Monitor mode].

PV on the screen is added automatically by pressing the "RUN" button.
The "STOP" button lights up when PV reaches SP



Click the "RUN" button

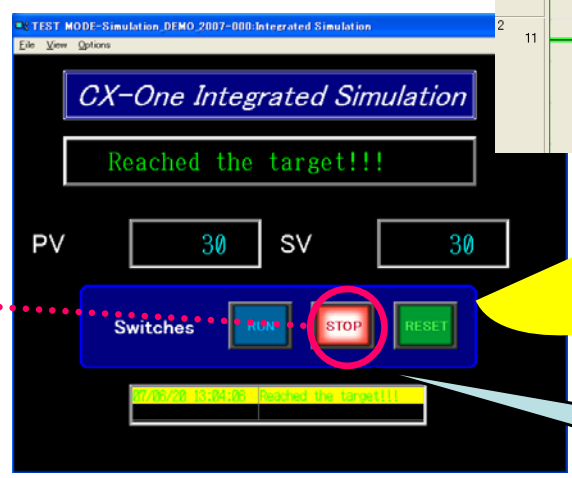


The message is displayed when PV exceeds 20, or PV reaches SP.

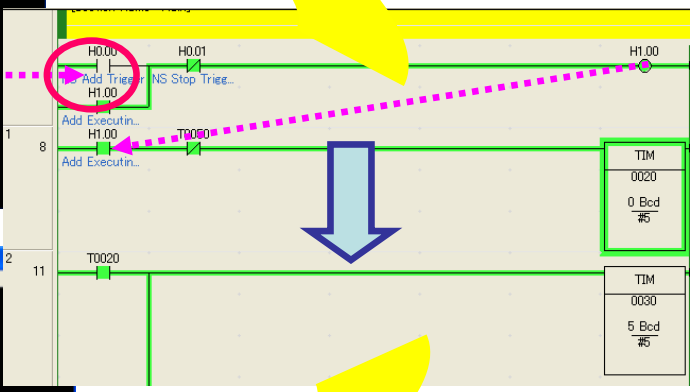
PV returns to 0 by pressing the "RESET" button.



Click the "RESET" button



The "Stop" button lights up when PV reaches SV



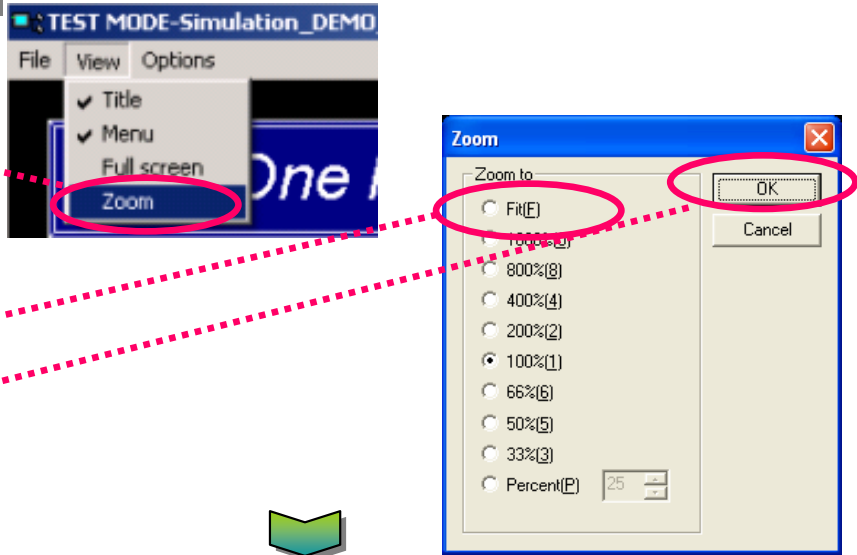


4. Resizing/Always on Top /Saving a location

New! The following contents are available on the TEST MODE screen (test screen) of the CX-Designer.
 1) Resizing 2) Always on Top 3) Saving a location

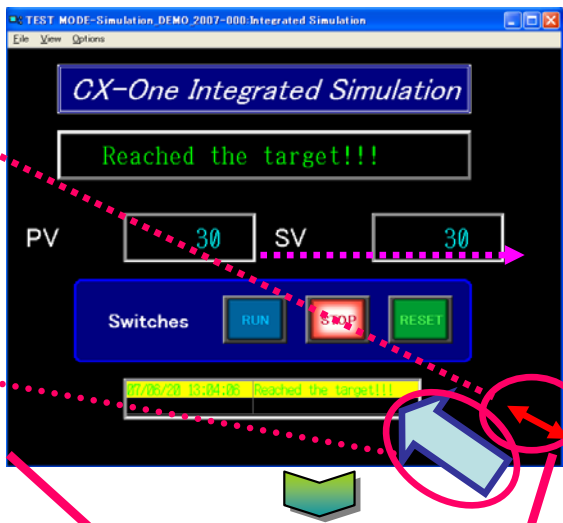
4.1. Resizing a screen

Click [View]-[Zoom] on the menu of "TEST MODE".



Select [Fit] on the [Zoom] dialog and press the [OK] button.

Point the cursor to the lower right of "TEST MODE". The shape of a mouse icon is changed to a right and left arrow.



Drag to the upper left corner with the left mouse button clicked.

The size can be changed when releasing the left mouse button.

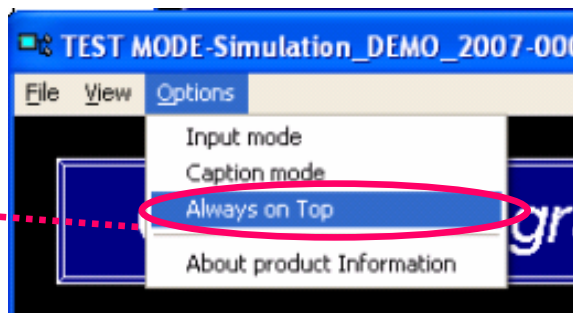


Can scale it to a desired size.

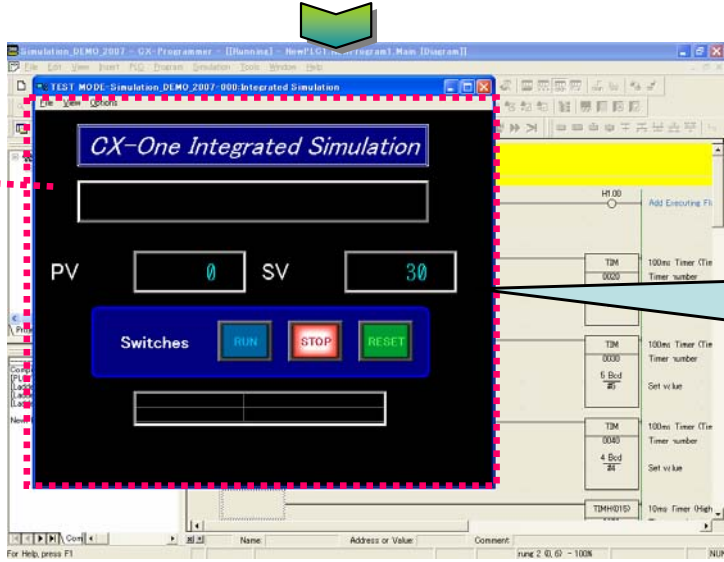


4.2. Always on Top

Select [Option]-[Always on Top] on the menu of the "TEST MODE".



The test screen is always displayed to the front even if pressing the window of the CX-Programmer.

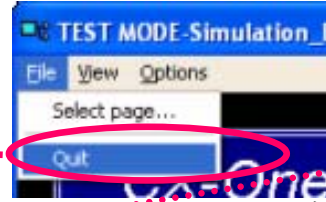


The test screen is always displayed to the front and isn't hidden by other windows.

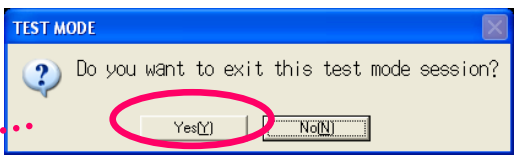
4.3. Saving a location and restarting the Integrated Simulation on the CX-Programmer

Move "TEST MODE".

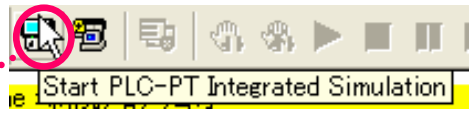
Select [File]-[Quit] on the menu of "TEST MODE".



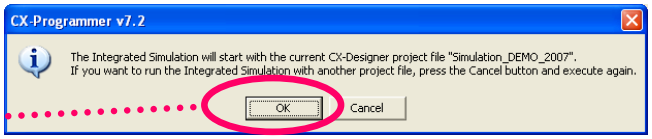
Click [Yes] to close the test screen.



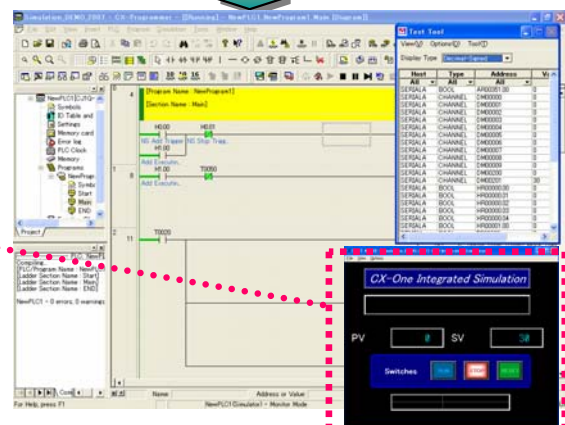
Click an icon [PLC-PT Integrated Simulation] on the CX-Programmer.

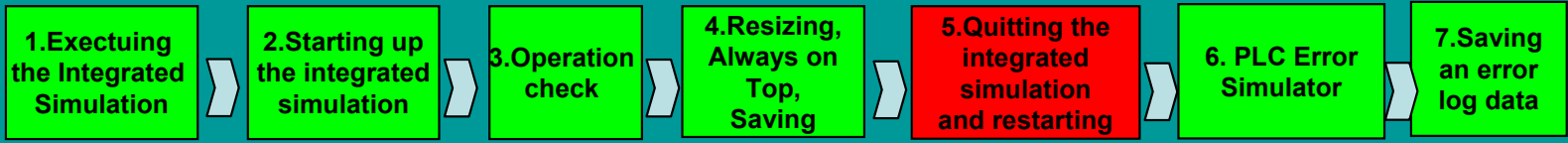


Click [OK] on the message.



The integrated simulation is restarted. The test screen is displayed its location and screen size in status when quitting.





5. Quitting the integrated simulation and restarting it with CX-Designer

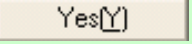
[Quitting the integrated simulation]-[Editing a screen]-[Restarting the integrated simulation with CX-Designer]

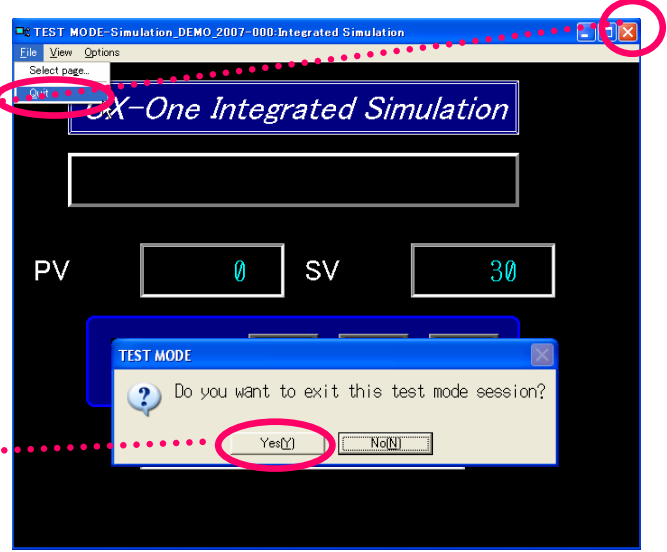
Use this when the edition of the screen data is occurred. In this manual, you'll exit the screen and restart the integrated simulation.

5.1 Quitting the CX-Designer and restarting

Click [x] on the upper-right corner of "TEST MODE" or select [File]-[Quit] on the test screen to exit "TEST MODE".

The message is displayed.

Click 



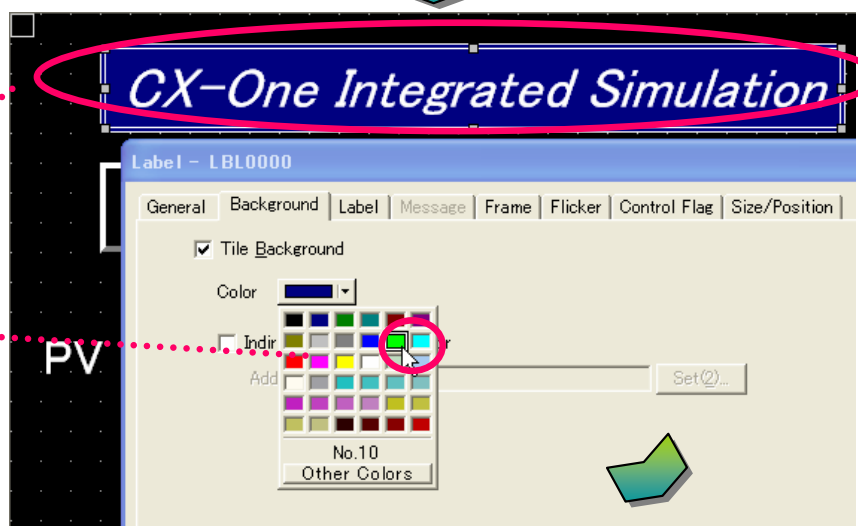
5.2 Editing a screen on the CX-Designer

"CX-Select the label background of "CX-One Integrated Simulation" with the CX-Designer.

Select a object and double-click with the mouse

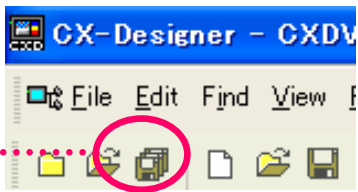
Select "green"

Click 



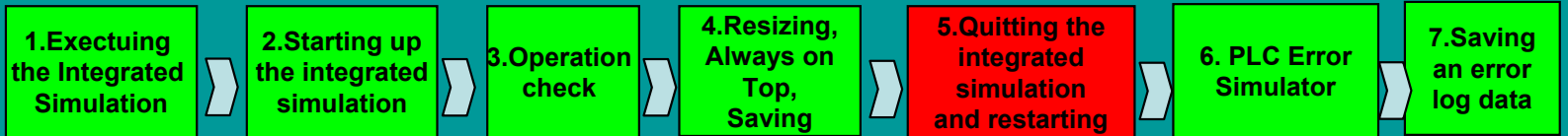
5.3 Saving

Click an icon with the mouse with CX-Designer.



A background color of label will be changed to green.

The screen edition has been completed.



5.4 Restarting up the integrated simulation

Execute the [Integrated Simulation] again.

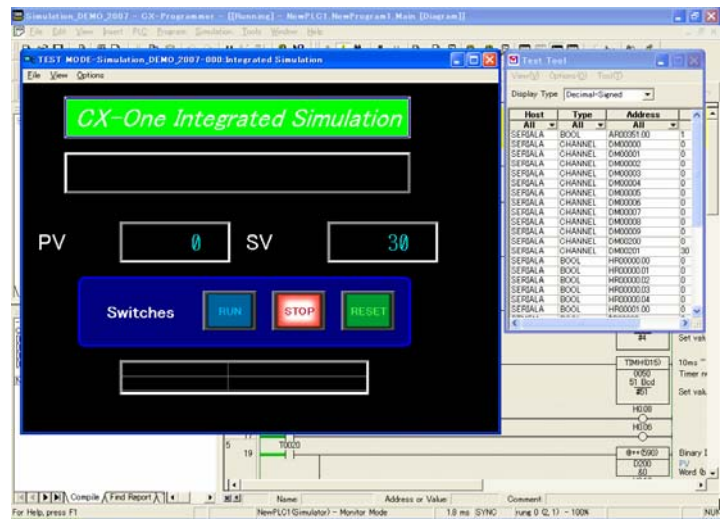
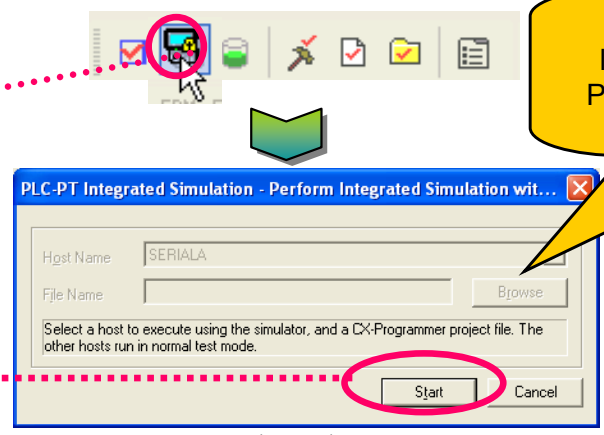
Restart up the integrated simulation

Left-click an icon with the mouse on the CX-Designer

Start up the integrated simulation.

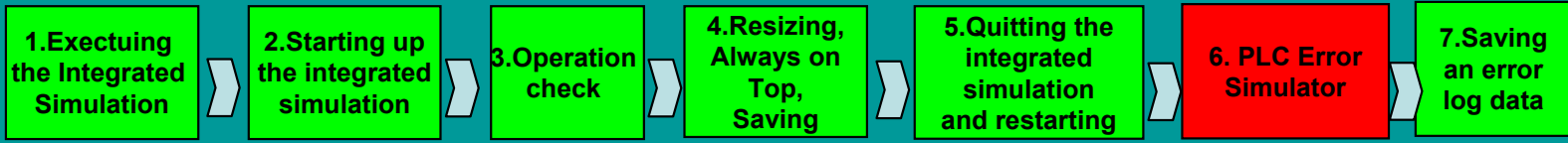
It's unnecessary to specify the ladder program because the CX-Programmer and the CX-Simulator have been already operating.

Start



The screen edition is reflected and the [Integrated Simulation] can be easily restarted.

[Note]
 The [Integrated Simulation] can be easily restarted from either the CX-Programmer or the CX-Designer.



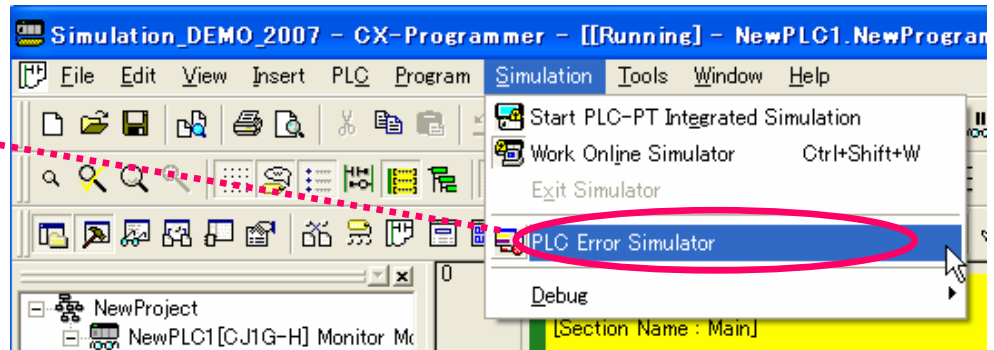
6. PLC Error Simulation

The simulator can easily have PLC error occur and you will be able to confirm the operation of an error monitoring program on the computer.



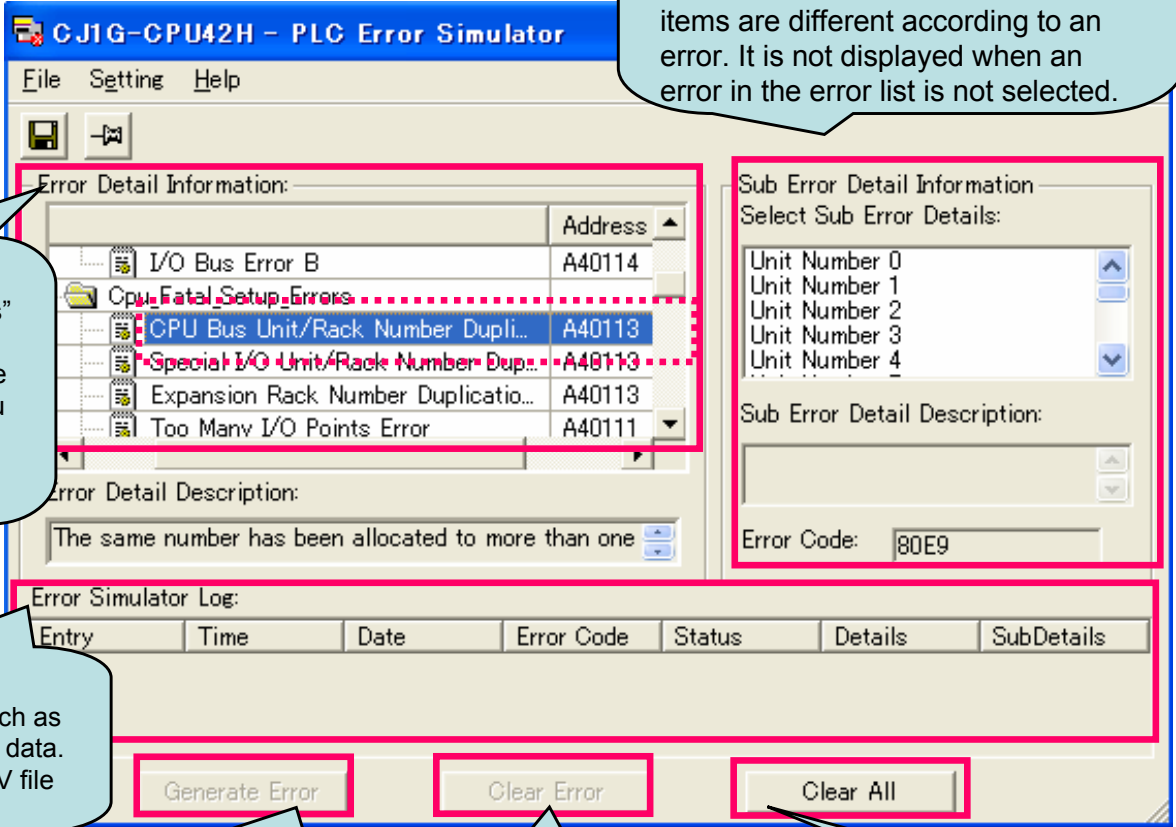
6.1. Starting up the PLC Error Simulation

Select [Simulation]-[PLC Error Simulator] on the menu of the CX-Programmer.



After starting up, select a flag in the error list. In this manual, select "CPU Bus Unit/Rack Number Duplication Error".

Start up the [PLC Error Simulator]



Error List
Classify "Cpu Fatal Errors" "Non Fatal Errors" in categories and display the list. Click an error that you want to occur.

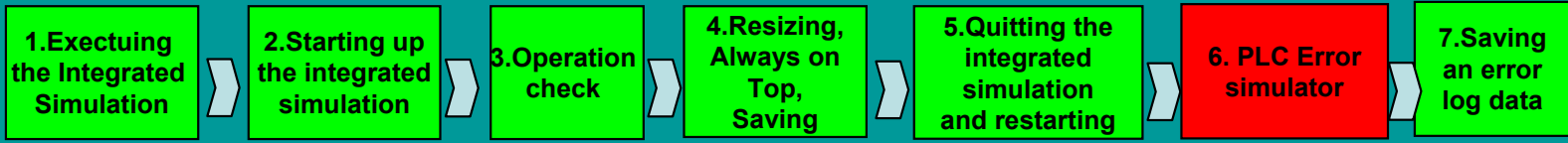
Sub Error Detail Information
Set the required details of an error that was selected in the error list, such as a unit number. The selected items are different according to an error. It is not displayed when an error in the error list is not selected.

Error Simulator Log
Display the information, such as the generated error and its data. Able to save it with the CSV file to write the test report.

[Generate Error] button
Display the information, such as the error that was occurred after selecting in the error list and its data. Able to save it with the CSV file to write the test report.

[Clear Error] button
Clear an error selected in the error list.

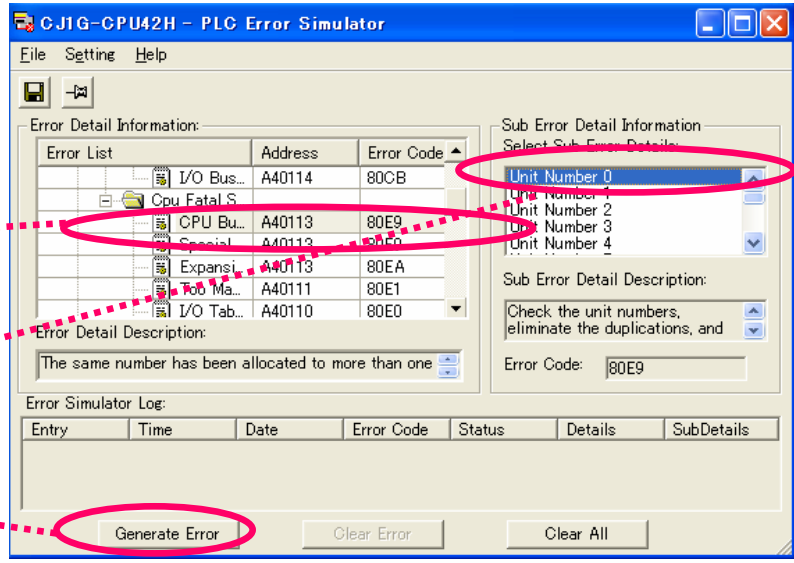
[Clear All] button
Clear an error selected in the error list.



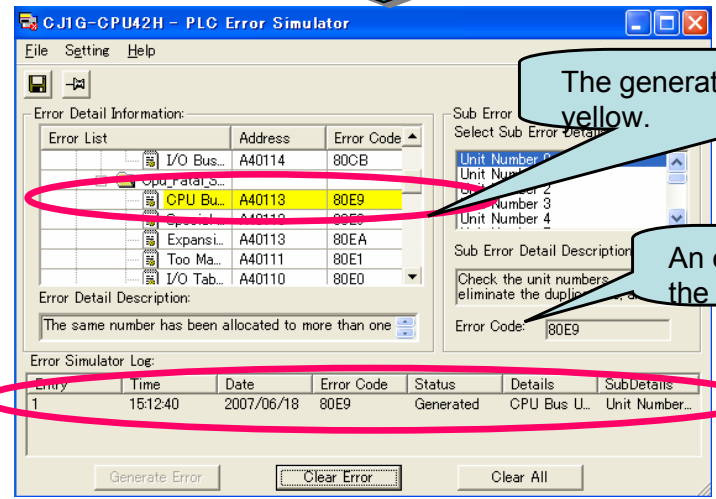
6.2. Generate Error (CPU Fatal Error)

Occur the [CPU Fatal Error] on the simulation, and confirm the status for the CX-Programmer and CX-Designer (TEST MODE).

Set as follow on the PLC Error Simulator.
 · Error List:
 Category:
 Cpu_Fatal_Setup_Errors
 Error: CPU Bus Unit/Rack Number Duplication Error
 · Sub Error Detail Information: Unit Number 0
 Press the [Generate Error] button.



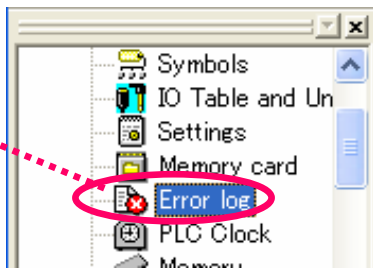
The [PLC Error] is occurred on the simulation.



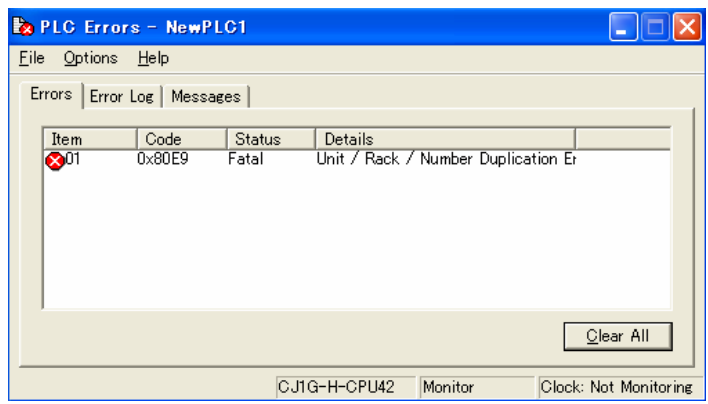
The error message will blink in the lower left-hand corner of the CX-Programmer.

Error on NewPLC1. Check Error log.

Double-click [Error log] on the project work space of the CX-Programmer.



The generated error message is displayed.

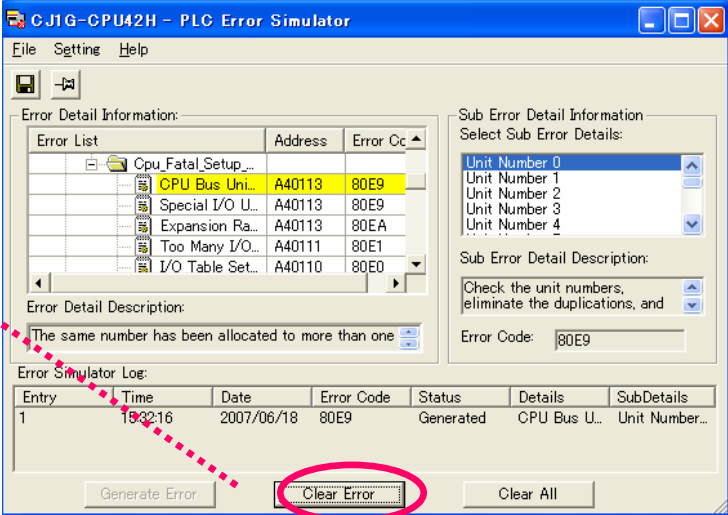




6.3.Clear Error

Clear the generated error after checking its simulation.

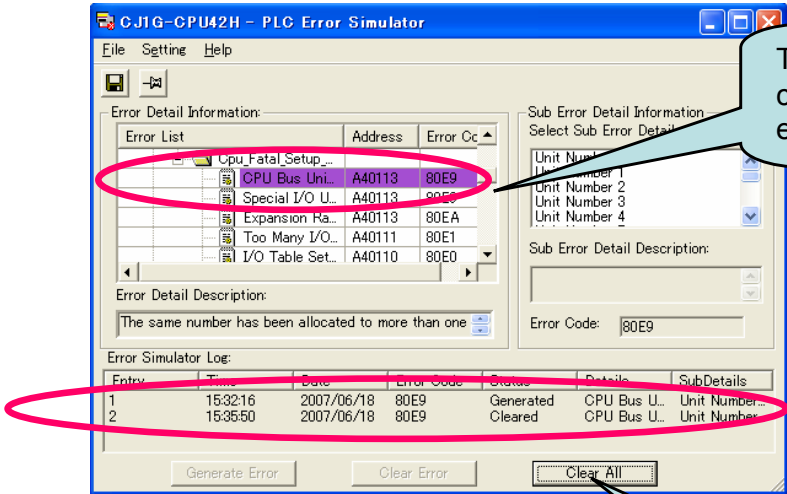
Press the [Clear Error] button on the [PLC Error Simulator]



An error is cleared and the screen will be changed to the following display.

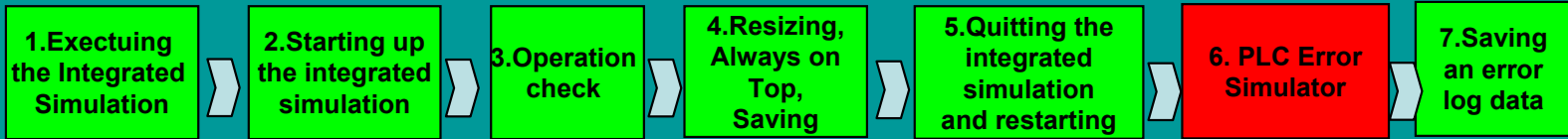


Press [Return] to return the previous screen.



Turn to purple and you can recognize that an error was cleared.

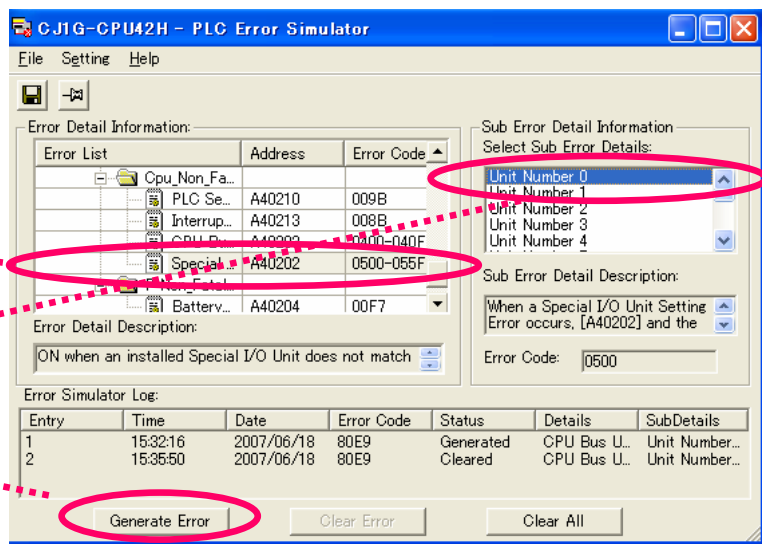
The [Clear Error] is registered in the log.



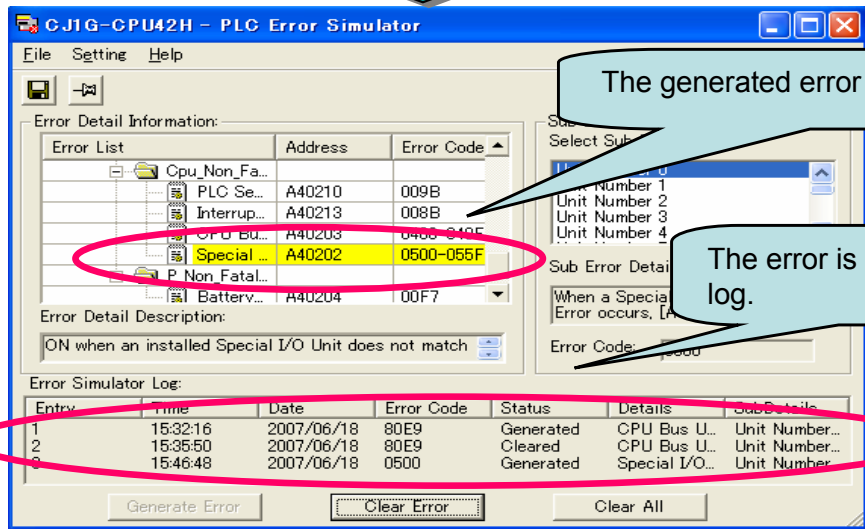
6.4.Generate Error (Non Fatal Error)

Occur the [Non Fatal Error] on the simulation, and confirm the status for the CX-Programmer, and CX-Designer (TEST MODE)

Set as follow on PLC Error Simulator.
 · Error list:
 Category:
 Cpu_Non_Fatal_Setup_Errors
 Error: Special I/O Unit Setting Flag
 Sub Error Detail Information: Unit Number 0
 Press the [Generate Error] button.



The [PLC error] is occurred on the simulation



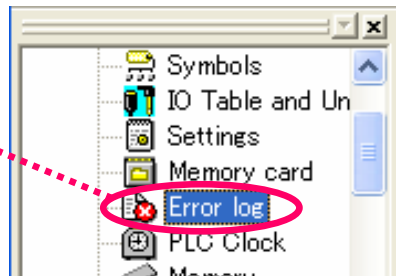
The generated error is turned to yellow.

The error is added to the log.

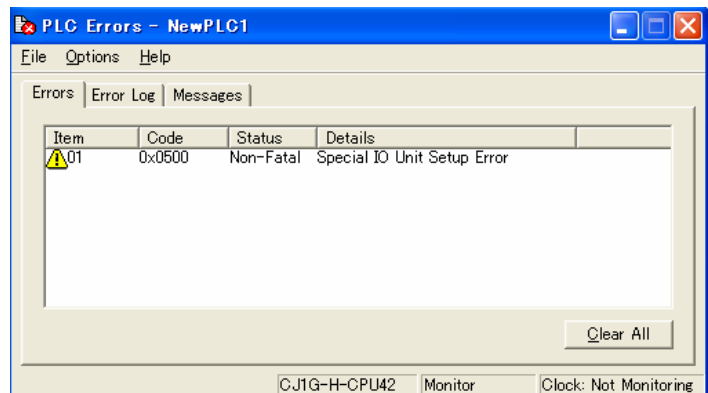
The error message will blink in the lower left-hand corner of the CX-Programmer.

Error on NewPLC1. Check Error log.

Double-click [Error log] on the project work space of the CX-Programmer.



The generated error message is displayed.

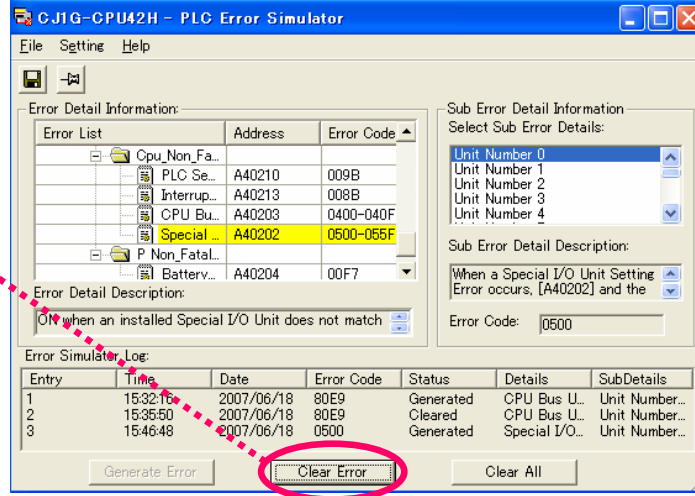




6.5.Clear Error

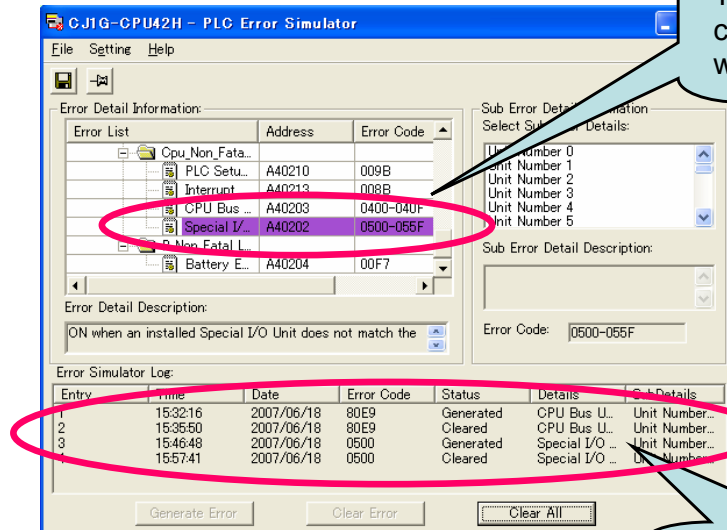
Clear the generated error after checking its simulation.

Press the [Clear Error] button on the [PLC Error Simulator].



An error is cleared and the screen will be changed to the following display.

Press [Return] to return the previous screen.



Turn to purple and you can recognize that error was cleared.

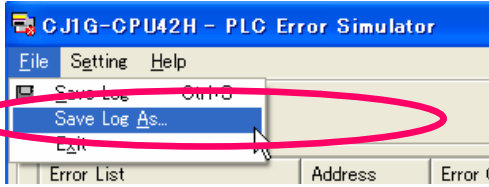
The [Clear Error] is registered.



7. Saving an error log data in the file.

Save the error information occurred in the past in CSV file for the validation result of error procedure. (This helps to prepare the text report.)

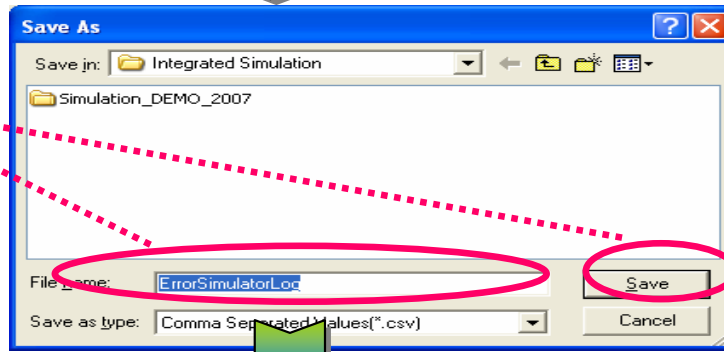
Select [File]-[Save Log As...] on PLC Error Simulator.



[Note]

Though the file name can be entered the first time, and after the second time it will be overwritten and saved.

Enter [ErrorSimulatorLog] on the "Save as" dialog and press the "Save" button.



Save as [ErrorSimulatorLog.csv]



Open the [ErrorSimulatorLog.csv] file on Microsoft Excel.

It's possible to check the error information (log list) occurred in the past on Excel.

Entry	Time	Date	Error Code	Status	Details	SubDetails
1	2:39:01 PM	6/19/2007	0x80E9	Generated	CPU Bus Unit/Rack Number Duplication Error	Unit Number 0
2	2:39:01 PM	6/19/2007	0x80E9	Cleared	CPU Bus Unit/Rack Number Duplication Error	Unit Number 0
3	2:40:17 PM	6/19/2007	0x0500	Generated	Special I/O Unit Setting Error Flag	Unit Number 0
4	2:40:18 PM	6/19/2007	0x0500	Cleared	Special I/O Unit Setting Error Flag	Unit Number 0

[Note]

You can also save the generated error logs in the following timing.

- When selecting [File]-[Exit] on the menu.
- When pressing the [Clear All] button.

That's All! Thanks you.

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